CONSTRUCTING A BETTER FUTURE:

A blueprint for overcoming inequality

Volume II

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Review

THE

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REVIEW

CONSTRUCTING A BETTER FUTURE:
A BLUEPRINT FOR OVERCOMING INEQUALITY

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An Introduction to the Graduate Inequality Review

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Editors-in-Chief, Graduate Inequality Review 2022/23

The Graduate Inequality Review (GIR) was founded to facilitate interdisciplinary dialogue on one of the most urgent issues in contemporary research among students and early career academics: inequality. The GIR acts as a forum for diverse authors to share their perspectives and research on issues related to inequality so that graduate students, both in Oxford and beyond, can develop a more comprehensive understanding of the phenomenon. In doing so, we hope to play a part in creating a more interactive and interdisciplinary community of researchers during a critical time when inequality is impacting people's lives in significant ways. Despite the relevance of inequality and the impacts it has in our lives, research on the topic is often siloed by discipline and explained in complex ways. Editors have worked to make submissions accessible to a wide range of readers, including those who are just beginning to engage with the issue of inequality. At the core of our mission is empowering early-stage researchers through the dissemination and publication of their work. As we believe research in inequality should be multidisciplinary and cross-national, we included a diverse range of views in this edition. This issue includes researchers representing seven countries, and in the disciplines of sociology, philosophy, gender studies, engineering, and history. This has been a tremendous effort, and we hope it shapes new avenues of cross-disciplinary dialogue.

This review has two different sections composed of academic and opinion pieces. On the one hand, academic submissions are meant to constitute formal scholarly research on issues related to inequality. They are longer, original contributions, held to a higher citation standard and meant to cater to those already engaged in the field of interdisciplinary inequality research. On the other hand, the opinion section is meant to provide a more informal space for those with opinions on inequality to share their views. By including a section for shorter and more opinion-based research, we hope to allow voices that might not usually be heard in research journals to have a chance to share their perspectives. The GIR also structures each yearly edition around a theme. This year's theme is "***Constructing a better future: A blueprint for overcoming inequality.***" We live in a world divided. Our societies are increasingly polarised by geopolitical conflict, threatened by the climate crisis, ruptured by technological change, and shaped by deep economic disparities – all the while reeling, still, from the lasting effects of the COVID-19 pandemic. At the same time, communities across the globe – from social movements and political reform efforts to cultural organisations and scientific networks – offer glimmers of more just and equitable futures. At this moment of unpredictability and possibility, this year's edition of the Graduate Inequality Review seeks to help construct a blueprint for the path forward. Future is broadly defined, to allow authors to explore the social, political and philosophical ramifications of the concept. We are incredibly proud of the diversity of perspectives and approaches this second volume of the Inequality Review presents. A huge thanks to the published authors and to the team of editors who worked tirelessly over this past year to make this publication a reality.

OPINION PIECES

Margins of Marginalisation: The Nuance of Intersectional Equity

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Our social structures appear to be crumbling at the hands of those trying to maintain them. From Black Lives Matter to #MeToo modern social movements are catalysing critical conversations about inequalities in our societies, and the silent realities of many are being pushed into the light. Yet, are we truly progressing towards a better, more equal world?

It can be argued that the social pressure to combat inequality has, unfortunately, itself created inequalities. With the #MeToo movement, for example, while it empowered women to share their experiences with and reaffirm the commonplace of sexual assault and harassment, men who concurrently shared their own experiences were often met with responses rooted in homophobia and toxic masculinity. Importantly, to say that the #MeToo Movement was ill-conceived or poorly executed would grossly underappreciate the impact it has had on women sharing their stories. However, while sexual violence itself is deeply rooted in patriarchal social fabrics, when the foreground of the movement is predominantly white, cis-gendered women, it is difficult to decipher what resources are truly *for all*. When actor Terry Crews spoke up about his sexual violence experience on social media, the attention he received did not centre or celebrate his bravery (Vanity Fair, 2018). Instead, he was questioned: "Why didn't you fight back?", "You're bigger than he is, don't men just roughhouse?" They silenced him: "This isn't sexual assault."Social media is not the sole perpetrator of this phenomenon either. Academia, research, and support resources have defaulted to gendered pronouns to address sexual assault and have flooded the literature with female-only documentation, describing perpetrators as male and creating pamphlets directed towards "women of any background."

In describing experiences as exclusively gendered, society invalidates the reality of those on the margins of marginalisation. Research indicates one in 33 men will experience sexual violence (RAINN, 2021). While this proportion exists at a different scale to that of women's one in four—a ratio which justifies female-only spaces and movements that uplift their voices—it is an incomplete statistic, as it does not account for the men whose perception of sexual assault is skewed by the "female-only" narrative written by the #MeToo movement. Although Tarana Burke, the founder of #MeToo, has been outspoken about the platform being an inclusive movement free from gendered language, it is clear, through discourse surrounding male survivors, that for some individuals, adversity must wait for its turn to speak.

This disparity is not uncommon, from bisexuality being marginalised in LGBTQ+ discourses to mixed-race people feeling displaced in conversations on racism, our society silently ranks adversity to parse through whose voice *actually* matters. I argue that such a system disallows those caught in the cracks of well-intentioned movements from feeling validated, counterintuitively perpetuating inequalities we're actively working against.

This is not to say that these spaces and experiences are not important. Organizations like Black Lives Matter and #MeToo have amplified stories to an international scale and forced us to reconcile the still-existing inequalities that plague every aspect of our communities. Further, it is both normal and necessary for those in the majority to receive attention and care first. Similar to the triaging of a hospital waiting room, those with the most serious injuries should always

be deemed most urgent. This piece is not arguing for an abolishment of such a "social triaging" rather a more holistic approach to the process, one that includes all patients in the figurative waiting room rather than only those most urgent.

Our next steps as a society must be ones grounded in empathy and intersectional awareness. In our efforts to create a more equitable world, we must remain conscious of those across the full spectrum of adversity. In practice, this would manifest in holding space for men in conversations about sexual violence or biracial people in panels on racism. It can look like acknowledgement of male rape while holding seminars exclusively for female-identifying survivors. More importantly, these movements must be accompanied by those in the minority of the marginalized, interviewing male survivors or biracial activists. In expanding the representation of such a platform, you expand the definition of how adversity presents itself. Conclusively, the societal step presents two dichotomous realities existing in an "*and*" rather than an "*or*". Men *and* women experience sexual assault, gay *and* bisexual people experience homophobia, black *and* biracial people experience racism. These realities are not mutually exclusive. While the severity of adversity may differ, the adversity itself still remains.

In our advancements towards equality, we have seen fissures of inequality spread, cracks unacknowledged and slowly growing. Our social triaging has only provided us with dialogue across the majority. Yet, the marginalisation of the margins has disallowed equality to truly exist. It is only when we combine well-intentioned movements with the awareness of those on the margins that we can truly catalyse the betterment of everyone.

CONFLICT OF INTEREST STATEMENT

No conflict of interest declared.

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Governing More than Blue Water: A Challenge for Global Justice

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Water constitutes one of the most important resources for humanity, serving a range of purposes including drinking, agriculture, and commerce. For this reason, water is essential for human survival. However, water access is not always granted equally to everyone around the globe. This poses significant challenges, especially for countries in the Global South, impeding their social and economic development.

In the past, unequal access to water caused many conflicts over the resource. According to Angelakis et al. (2021), ever since prehistoric times, water conflicts resulted in a wide range of violence and tensions, causing political, economic, and social confrontations. As the Intergovernmental Panel on Climate Change (IPCC) notes, "water-related risks are projected to increase with every degree of global warming, and more vulnerable and exposed regions and peoples are projected to face greater risks" (IPCC, 2022). Following these predictions, natural disasters will be expected to increase on a global scale, and there is a fear they will change our water ecosystems in the upcoming future (Angelakis et al., 2021).

In the past, water governance systems have been used to tackle water conflicts, dating back nearly 5,000 years (Della Penna & Gupta, 2009). Water governance, as understood here, refers to the definition provided by Pahl-Wostl (2015b, p.26):

> *Water governance is the social function that regulates development and management of water resources and provisions of water services at different levels of society and guiding the resource towards a desirable state and away from an undesirable state. A water governance system is the interconnected ensemble of political, social, economic and administrative elements that performs the function of water governance. These elements embrace institutions as well as actors and their interactions.*

However, water governance has not always been carried out using a sustainable and inclusive approach. Power inequalities and environmental challenges make resource access difficult for many populations. Misgovernance of water perpetuates power inequalities and leads to inequitable access to water for some populations. As stated previously, because water is a resource needed for human survival, it must be governed in a sustainable and inclusive way, ensuring everyone can access quality water.

According to Liu et al. (2017), "water scarcity has become a major constraint to socio-economic development and a threat to livelihood in increasing parts of the world" (p.545). Scholarly literature on water scarcity has attracted much political and public attention since the late 1980s, focusing primarily on issues such as water availability and water access. This objective has also been reflected in some of the most important collective data and strategy efforts, such as the IPCC report or the 6th Sustainable Development Goal (SDG). The latter focuses primarily on ensuring the availability and sustainable management of water and sanitation for all. However, other issues such as water quality, green water, globalization, water scarcity assessment, virtual water or environmental flow requirements (Liu et al., 2017) have not received the necessary

attention. The authors claim that there is an urgent need for integrated approaches that can capture the "multi-faceted nature of water scarcity" (Liu et al., 2017) and include other perspectives in the comprehension of the way water alterations shape human realities.

We can see that water scarcity is presented as a global and natural phenomenon. Water scarcity that limits access to safe water for drinking has been and is the issue that receives the most attention in the development field. Based on alarming estimations such as the fact that "roughly half of the world's 8 billion people are estimated to experience severe water scarcity for at least some part of the year due to climatic and non-climatic factors" (IPCC, 2022), a lot of international effort has been put on tackling the problem of water precarity. However, despite being presented as a global and natural phenomenon that that poses a threat to humanity, not everyone faces the same threats (Zwarteveen and Boelens, 2014).

Water security is pointed out as a critical aspect for reaching the Sustainable Development Goals by 2030. The IPCC report stresses that if we limit warming to 1.5ºC, we will reduce water-related risks. Hence, achieving the Paris Agreement objectives would not only improve our climate resilience, but also address current and future water conflicts. But in order to accomplish these aims, we cannot be content with merely addressing the issue of drinking water access. Instead, we must comprehend the complexity of water as a vital resource for life to provide solutions that are suitable for it.

WATER AS AN UNJUST HUMAN-DISTRIBUTED RESOURCE

Despite considering water as a crucial resource for human survival, the process of globalization and the implementation of the neoliberal economic paradigm has helped some powerful actors accumulate water resources and benefits at the expense of less powerful groups (Zwarteveen and Boelens, 2014). This unequal distribution is not only the cause of open water conflicts, but also drives high-stress situations for vulnerable communities who suffer in silence the consequences of climate-related struggles (Zwarteveen and Boelens, 2014).

Not everyone has the same access to decision-making processes on water around the world and, in most countries, the allocation of water rights is highly unsymmetrical, influenced by discrimination based on gender, race, age or abilities, which increase the vulnerability of affected communities (Joy et al., 2014). Therefore, water governance becomes a useful tool for the analysis of political, economic, social and ecological structures that interact in water-related problems. Thus, it is not only the technical efforts that must be reviewed to guarantee a better and fairer provision of water, but also the political, economic and social structures that are involved in the process of how water reaches citizens, promoting a new way of understanding while transforming society (Perreault, 2014). Because of this, I support the view of scholars like Joy et al. (2014), who contend that in order to recognize water issues as social justice issues, we must re-politicize water itself and change the way we think about water resources, governance, and law.

WATER AS A MISUNDERSTOOD AND MISMANAGED RESOURCE

We usually assume water is seen as a resource that enables life, but for some cultures, it is more than that. As stated by Hossain (2015), water is considered a purifier in most religions and faiths. Water has been understood in different stages of human history as heritage, a sacred

commodity, a political good, a human right, a hydrological entity or even as a security issue (Gupta and Pahl-Wostl, 2013). In recent years, Indigenous communities have declared some bodies of water legal entities with rights (Bieluk, 2020).

A few decades ago, Integrated Water Resources Management (IWRM) was established as the best process to enhance and coordinate the development and management of water. It was claimed that it would promote social welfare and equity without compromising vital ecosystems and their sustainability (Biswas, 2008). However, although being a novel approach to thinking about water, this reading still had significant flaws. For this reason, scholars like Sneddon and Fox (2007) defended solutions for water crises that rely on the combination of three issues: the tendencies of economic markets, processes or deliberation and public participation and engineering solutions. This was one of the first times in academia where an approach went that further than the technical solutions was proposed. Far from the conception of water infrastructure as objective and rational, these authors pointed out the necessity to comprehend them as deeply connected to cultural realities and political confections (Roth, Boelens, and Zwarteveen, 2005).

Despite the popularity of IWRM in water governance (Biswas, 2008) and the focus it puts on democracy and sustainability, a growing body of political ecology and water justice studies have shown that it is usually used to hide or sanction processes of dispossession and accumulation of water resources (Zwarteveen and Boelens, 2014). Its track record of implementing water policies and managing initiatives has been dismal, showing that conceptual attraction is not enough to transform water governance (Biswas, 2008). What is then needed to acknowledge is that a broader understanding of water is needed beyond the conception of water as an asset for human survival. The well-being of the environment can guide a conception of water as an intrinsically connected resource to our planet.

WATER AS A MULTICOLOUR RESOURCE

Traditionally, water has been divided into different colours (blue, green, grey) according to its origin and use. Blue water stands for surface water, including streams, rivers, lakes, ponds and ditches, as well as groundwater captured in aquifers underneath the earth's surface (te Wierik et al., 2020). This type of water is becoming increasingly scarce because of its fundamental role in human activities. This includes agriculture (about 70% of blue water is extracted for agricultural purposes), household use, or use in industries (Foley et al., 2011 and te Wierik et al., 2020). A less-known water typology is green water, which refers to the water available to plants in unsaturated soil. This typology of water is increasingly appropriated for agricultural production at the cost of green water-dependent natural ecosystems (Schyns et al., 2019). According to te Wierik et al. (2020), green water remains absent from the water governance agenda, usually governed in an indirect way through agricultural or nature and biodiversity policy. The main difference we can find between blue water and green water is that the former can be extracted and transported for domestic, agricultural, and industrial activities, while the second is indissolubly attached to the land (Dell'Angelo, 2017). For this reason, every land grab is, at the same time, a green water grab, and becomes a 'blue water grab' when land is irrigated (te Wierik et al., 2020).

Another water typology that is often overlooked is atmospheric water. This refers to the water that condenses in the atmosphere and falls to the Earth's surface as precipitation, after which it can be available for use (te Wierik et al., 2020). Some authors also refer to this type of water as

rainbow water (Van Noordwijk et al., 2014 at te Wierik et al., 2020). Despite this last resource not being governed *per se*, some literature insists on its capacity to be governed and develop water technologies that can affect both spatial and temporal precipitation patterns (te Wierik et al., 2020). Apart from these three categories, there are also other even more marginal colour categories such as grey water, and black water or sewage water (Liu et al., 2017), which receive even less attentionbut show how only focusing on blue water misses the holistic governance of the resource.

Despite a lack of consensus, there have been multiple concepts put forward in the last few decades on how to govern blue water and its related problems, mainly focusing on water scarcity related to drinking. However, according to te Wierik et al. (2020), a more robust literature on how to govern green and atmospheric water is lacking. According to the authors, "neglecting the need for explicit governance of green and atmospheric water could create new forms of 'water grabbing' that would impact water availability beyond the basin scale" (te Wierik et al., 2020). One of their motives is that the governance of these water resources could lead to new innovative solutions for governing water-related issues, as well as promoting innovative initiatives to achieve goals such as global access to drinking water. Moreover, the consequences of such a change would extend beyond water, reshaping our entire connection with the natural resources we rely on for survival.

WATER AS A CONNECTED RESOURCE

As stated by Vargas (2006), the crisis of water is the crisis of life. Water is a crucial resource for life, livelihoods, the environment, and development (Joy et al., 2014). Its fluid shape makes it different from other resources (Sneddon et al., 2002). Its use, control, and management are a complex inquiry that calls for technological, social, and political management and governance (Mosse 2003; Roth and Vincent, 2012). So, it is safe to say that power dynamics and socio-political processes have a significant impact on water control.

The universality of problems related to water emphasises the need for global water governance schemes (Gupta and Pahl-Wostl, 2013). However, there are some important dysfunctionalities in the current global governance structures, such as the lack of leadership, the compartmentalisation of issues, and the deficiency of interdepartmental dialogue, as well as the divergent interests of different actors of the inexistence of biding common norms in a global perspective (Gupta and Pahl-Wostl, 2013). If it is true that water needs to be understood from a broader perspective, a practical approach is still needed to ensure the supply and fair allocation of water resources (Lebel, Garden and Imamura, 2005).

The case of water grabbing is a perfect illustration of this need for a more holistic governing of water. Water grabbing is defined by Franco et al. (2014) as those situations where powerful actors reallocate or take control of water resources for their own benefit at the expense of local users or the ecosystems where their livelihoods are based. Water grabbing is not an isolated conflict but has strong and deep connections with other forms of resource injustices. Land grabbing, for instance, is the most correlated case with water grabbing, as water acts both as a driver and a target in the first practice (Franco et al., 2014). Due to their negative effects on local communities, vulnerable Indigenous peoples, and the environment, water and land grabbing are seen as threats to sustainable development. These practices' multilevel affections lead to the recognition of these issues as both a global and local challenge (Dell'Angelo, 2017).

There are some theories of economic development, such as neoliberalism, that invoke the construction of hydraulic infrastructure such as dams, canals, or water reservoirs as a means for better access to the use of water in sectors such as agriculture. The environmental impacts of these interventions can be huge and irreversible in some cases, becoming impediments to sustainable development (Dell'Angelo, 2018). This case exposes the fact that the shocks between the contrasting visions of development (those supportive of capitalist restructuring of global agriculture versus those who stand for small-scale farming, subsistence and the need for land redistribution) in the water field need to converge and expand their understanding of water in order to find solutions for its biggest challenges.

Sustainable development is key for organizing global governance. According to Dell'Angelo et al. (2017), the Sustainable Development Goals (SDGs) "project an outline for a globally shared trajectory and vision for society" as the harmonisation of the economic, social and environmental aspects of the development agenda. Despite their limitations, SDGs are therefore a useful framework for considering the dimensions in which such problems could be evaluated. For this reason, authors such as Dell'Angelo et al. (2017) and Franco et al. (2014) support the idea that land and water grabbing need to be mainstreamed into the global sustainability agenda.

An alternative framework for water governance is needed. Water governance needs to acknowledge the "dangers of large-scale land-based investments for inclusive development, and to protect all water users and informal systems of water management" (Franco et al., 2014). The emerging 'right to water' and 'water as a human right' approaches can provide an alternative framework from which to explore a new conception and relationship with water.

GOVERNING MORE THAN BLUE WATER: A CHALLENGE FOR GLOBAL JUSTICE

In recent years, climate change issues have received an unprecedented level of attention in the global political agenda. However, even when progress is made, it often lacks a holistic perspective to tackle problems such as water scarcity. Moreover, measures promoted by institutions and global governing bodies disavow effective political action. Acknowledging that development must include ecological and social considerations (Pouw and Gupta, 2017), a holistic approach that involves all typologies of water governance is best suited to address water scarcity and its associated problems.

The goals of water-secure, sustainable, and inclusive development can be achieved if accompanied by strong political and institutional support. To ensure that water issues are tackled comprehensively, there is a need to understand both the implications of water as a global resource and its social and political aspects. Water scarcity is not only an environmental problem caused by human action but a challenge that needs to be addressed holistically if we want to solve its impacts on the development agenda.

The neoliberal and engineering notion of water has given way to an understanding of water as a global issue that demands attention from a political standpoint. In recent years, the emergence of a 'global human right to water' (Gleik, 2007 in Joy et al., 2014) pluralises the previous conceptions of water rights and has the potential to influence water policies and politics. However, this should not be conceived as a final point, but rather as a starting one. Despite its promising results, Sultana and Loftus (2015) already exposed a relevant matter: the right to water has a shifting

meaning that can be interpreted differently by various stakeholders, ranging from multinational water companies to Global South activists. This lack of consensus can be debilitating for transformational action. For this reason, the right to water needs to ensure genuine political activity. As Sultana and Loftus (2015) stress, the concept of the right to water must be filled with real political objectives and strategies. We need to overcome the current stage of technocrats seeking to write their own script on the problem to a broader understanding of water conflicts from its cultural, political, and material dimensions (Joy et al., 2014).

Despite the unavoidable challenge that water scarcity poses to the availability and accessibility of drinking water around the globe, this is not the only issue at hand. Water injustices also find their origin in political, economic, and social causes. In the context of the climate crisis, water governance should move beyond drinking water and include all colours and stages of water. The urgency for a broader systemic understanding of the water cycle will be key not only for governing water scarcity but also for tackling the problems it raises in the field of development.

CONFLICT OF INTEREST

The author declares no conflict of interest.

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Accelerating AI in an Unequal World – What Should We Do?

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The development of and pervasiveness of artificial intelligence (AI) is accelerating. AI is improving our lives. Medical diagnoses are becoming faster (Marr, 2020) and reach people in previously inaccessible areas, and self-driving cars promise a future without accidents and more independence for those living with disabilities (Mervis, 2017). Image and text generation can happen at the push of a button, facial recognition secures the secrets on our devices and AI-driven productivity tools are constantly being marketed. ChatGPT , a chatbot released at the end of 2022, shattered the user-uptake records of Instagram and Netflix (Hu, 2023) and has set new expectations for the potential of AI. With all these improvements we should surely be optimistic or is caution warranted?

I will argue in favour of the latter. Despite overwhelmingly positive applications even beyond those listed above, we need to stop and think: Who is reaping the benefits? In which contexts are these technologies being used and why ? For example, it was shown that a standard COVID triaging protocol in the US was leading to Black patients being disproportionately denied care, despite presenting similar clinical outcomes to white patients (Roy et al., 2021). Black people are more likely to be incorrectly flagged in automated crowd surveillance (Nadeem et al., 2022), as well as predicted to be more likely to re-offend compared to white offenders (Mulligan et al., 2019; Kantayya, 2020). Women are at a disadvantage with automated recruitment pipelines used in the hiring process (Dastin, 2018), and this disadvantage increases when we consider intersectionality (Buolamwini and Gebru, 2018). When we stop and consider that these technologies are not treating everyone in the same way (Berg et al., 2022; Weidinger et al., 2021; Manzini et al., 2019; Burns et al., 2018), and that this has tangible impacts on people's lives, we see that there is reason for caution.

WHAT IS AI AND WHERE MIGHT UNFAIRNESS BE INTRODUCED?

Artificial intelligence (a term that can be used somewhat interchangeably with machine learning and learning algorithms) is neither an all-knowing, one-size-fits-all entity nor a solution. It is a collection of mathematical models, systems and algorithms deployed differently and individually to address a wide array of tasks in different environments. The systems learn from massive, static datasets that are essentially a moment frozen in time – capturing one moment in history, with all its ingrained injustices and proxy variables for diverse forms of discrimination (Birhane et al., 2021; Jia et al., 2021; Weidinger et al., 2021) AI largely operates as a black box, making interpretability an open challenge. Static datasets and the black-box nature of AI are likely responsible for unfair outcomes for marginalised groups.

WHAT FAIRNESS FRAMEWORKS EXIST?

Fairness is not a straightforward term and is context-dependent. What might be considered fair in one context (e.g., 50 % representation of one gender), might not apply in another context, e.g. for another protected attribute, or another setting (Mehrabi et al., 2019). This issue is confounded further when we consider the static and hardcoded nature of AI. Common ethical frameworks, such as virtue ethics, deontology or consequentialism provide baselines against which we can compare our behaviour and that of others. For example, consequentialism tells us that the net good for one action must be greater than the net good for another and may provide a baseline for technological fairness (Mulligan et al., 2019). However, these frameworks alone are insufficient when it comes to the acceleration of AI in our world. The framework outlines what happens when things go well in a human-based world. It was not theorised to account for the introduction of AI. This qualification is important when we consider that interaction between AI and humans and impacts on their lives are contingent upon the model's training material, which is a frozen reflection of society with all attendant historical and contemporary injustices baked into the data. AI does not demonstrate the same flexibility as does human judgment and this means that the same groups are discriminated against repeatedly. Current AI systems are neither able to reflect nor explain their actions. This makes accountability difficult to enforce. Further, comparing AI systems to each other and determining how "fair" they are is non-trivial (Berg et al., 2022). Creating a unified testing system or standard that all models need to pass is challenging. It requires inventorying protected attributes and trying to set up experiments to test manifestations of bias stemming from AI model outputs, testing one protected attribute in isolation to avoid confounding factors. These experiments are set up to provide a solution to a pre-defined, rigid measurement of bias that may not reflect all the influences of other attributes and world context. This measure is often not tested out in real-world scenarios (Weidinger et al., 2021). In a paper aptly named "Lipstick on a Pig", the authors (Gonen and Goldberg, 2019) show that in satisfying one metric, for example blinding the model to certain embeddings of protected attributes, so that it no longer associates a protected class with a context (such as 'he' and 'she' not being associated with occupation), a method is deemed successful. However, by slightly adjusting the method of analysis, and trying to access the protected attribute in a different way, the authors uncovered proxy variables still containing sensitive information, even when a model is made blind to the embeddings. This provides support for the notion that our current methods can only provide patchwork fixes on societal unfairness, which is deeply embedded into the data.

When we consider AI recommender systems favouring certain races and genders, and how this might impact stereotypical thinking, as well as downstream tasks such as resource allocation and job opportunities, it is clear that AI systems are widening gaps of inclusion and access for already disadvantaged groups. If we consider the consequentialist approach, there may arguably be a "net good" or a balance of more "good" outcomes than "bad", but we need to ask ourselves: who is reaping the benefit and why? Are these the people who happen to match the default parameters and settings—and thus AI is *technically* right a lot of the time? We must acknowledge that AI systems do not sufficiently account for the reality that most people do not match the encoded default that matches communities that are more represented, by virtue of their privilege. This means that already-marginalised groups continue to be marginalised and by virtue of being under-represented cannot counterbalance the number of times they are discriminated against.

Going forward in working towards a more equal future where AI benefits everyone, there needs to be a greater push for accountability or at least a better understanding of who should be

liable when circumstances devolve disproportionately and consistently negative impacts to certain groups. Marginalised voices need a say, and many of us need to listen and then unflinchingly grapple with complexity in building frameworks of fairness and ultimately fairer models. There may not always be a neat, publishable solution. We need to lean into the messiness of science and resist many standardised measurements, while working together towards fixing underlying deficiencies in society – deficiencies which are reflected in AI systems. In this way, perhaps, we can achieve the utopia where AI benefits all of us, not just the encoded default.

CONFLICT OF INTEREST STATEMENT

No conflict of interest declared.

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ACADEMIC ARTICLES

The Gendered Impact of Short-Time Work Arrangements: An Analysis of Germany and France during the Global Financial Crisis

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ABSTRACT

When the Global Financial Crisis struck, Germany expanded its long-established short-time work programme (Kurzarbeit) to safeguard employment and allow firms to retain skilled workers through the economic downturn. This measure was lauded throughout Europe for its economic effectiveness, but short-time work arrangements have rarely been explored from a gender perspective. This is surprising, given that the existing literature on women's employment during crises bears ambiguous predictions regarding such job protection and work-sharing policies. This paper examines the gendered impact that the Kurzarbeit, in congruence with the crisis, had on employment in Germany, as opposed to France where no such internal adjustments were conducted. It uses data collected by the Luxembourg Income Study (LIS) before and after the change to conduct higher-order difference-in-differences models comparing the evolution in weekly working hours between men and women in Germany and France. The research finds that the crisis and subsequent introduction of Kurzarbeit in Germany had an immediate adverse effect on the difference in working hours between men and women. When examining the economy at the sectoral level, this effect is found to reflect 'core'/'buffer' dynamics but does not seem to stem from job segregation between men and women. Motivated by the research lacuna, this study contributes to the understanding of the relationship between labour market policies and women's employment during recessions in a comparative perspective. It highlights that apparently-neutral labour market social policies are implemented in the context of a gendered labour market which leads to a differentiated application in practice.

INTRODUCTION

In times of crisis, many advocates focusing on the big picture argue that economically-efficient policies will, by extension, achieve welfare benefits and more equality for all. The *Kurzarbeit,* a short-time work arrangement (STWA) programme meant to maintain employment extensively deployed in Germany during the Global Financial crisis, is an example of such crisis measures. Seen as an economic success, it inspired a wave of reforms across the world. OECD countries developed similar STWA or expanded on their existing ones in 2009 (Arranz *et al.*, 2019; Boeri & Bruecker, 2014; Sacchi *et al.*, 2011) and again during the Covid-19 pandemic, with overall positive results (Seeman *et al.*, 2019). However, as is often the case with policies presented as increasing workers' security, the public and academic acclaim tends to ignore their potentially negative impact on non-*'core'* workers (Rueda, 2005; Siebert, 1997; Saint-Paul, 1996, 1997). At the very least, their potentially different utilisation by more precarious workers deserves to be examined.

This paper approaches this consideration from a gender equality perspective, on the grounds that public policy has a major role in shaping the development of women's employment

(Rubery & Rafferty, 2013). It asks: *Did the Kurzarbeit deployed in Germany as a response to the Global Financial crisis has a gendered impact on employment?* Calavrezo *et al.* (2021) highlight that STWA is a gender-neutral policy in that it is *a priori* not tailored towards men or women. However, this is not to say that its implementation could not have gendered consequences.

This article provides a study of the effects of STWA by comparing its use in two geographical areas, France and Germany. It uses difference-in-differences designs on the Luxembourg Income Study data to examine the impact of the German STWA on men's and women's working hours. It contends that STWA indeed had a gendered impact on the German labour market. Moreover, the underlying mechanisms are more likely due to the gender division of labour or to women's weaker attachment to paid employment than to horizontal segregation in the labour market.

BACKGROUND LITERATURE

The literature on STWA highlights three main benefits of such schemes in improving labour market conditions and welfare in times of economic crises. First, STWA protects firms on the verge of insolvency or illiquidity by allowing them to avoid dismissal costs and turnover costs in the context of high employment protection legislation (EPL) (Arpaia *et al.*, 2010). Second, STWA can be used to safeguard employment, thereby avoiding mass layoffs and the resulting rise in unemployment, losses in welfare, and social precarity. Third, by reducing unemployment, STWA avoids losses in human capital and resulting 'hysteresis' effects (Blanchard & Summers, 1986).

While the literature on STWA brings insightful perspectives on its use during crises, little work has been conducted on its impact on women's employment. At the time of writing, only three articles mention a potentially gendered effect of STWA but hold contradictory findings. On the one hand, Calavrezo and Lodin (2012) note that STWA is predominantly employed by men. According to a second study by Boeri and Bruecker (2011), women are less likely to be engaged in STWA in Germany due to job segregation. On the other hand, Calavrezo *et al.*'s (2021) paper on the gendered effects of STWA finds that women are more likely to participate in STWA but that the effect is small.

Aside from these publications, current approaches ignore the experience of women and the gender dynamics underlying STWA. Nonetheless, because women constitute a distinct subgroup in the labour market, STWA is likely to have had a differentiated impact on their employment. Indeed, it is acknowledged that recessions and labour market policies are expected to have a distinct impact on women (Rubery & Tarling, 1982). Two key mechanisms can be distinguished: the job segregation hypothesis and the 'buffer' hypothesis (Rubery, 1988).

THE JOB SEGREGATION HYPOTHESIS

Job segregation is the propensity of men and women to be employed in different sectors, industries, or occupations that conform to expectations of their respective social roles (Hartmann & Reskin, 1986; Charles & Grusky, 2005). The *job segregation hypothesis* states that, as a result, women's employment is hit differently during crises because they are differentially located along sectors and occupations more or less affected by economic downturns. This may paradoxically constitute an advantage in terms of women's participation rates (Bettio, 2002; Smith & Villa, 2013).

For instance, during the Global Financial crisis, women were less likely to be in sectors affected by the economic downturn: they were less subject to unemployment during the first phase of the crisis because the recession hit most severely male-dominated sectors, for instance construction and manufacturing (Périvier, 2014; Rubery & Rafferty, 2013).

Let us now turn to the potential applications of this hypothesis to STWA. In Europe, STWA was unsurprisingly mainly used in sectors most affected by the economic crisis, particularly in manufacturing (Eurofound, 2010; Boeri & Bruecker, 2011). If women were sheltered from the effects of the crisis due to job segregation, they should have been less likely to have participated in STWA, *ceteris paribus*, therefore reducing their working-time differential with men.

> *H1. At the aggregate level, STWA decreased the difference in means weekly hours worked between employed men and women through job segregation.*

However, the relationship of job segregation with STWA may be different to that with unemployment. For this reason, this paper allows for a broader formulation of the job segregation hypothesis: that the extent to which the crisis hit women depends more on sectoral-level performance than on economy-level systemic variations in the cycle (Smith & Villa, 2013).

> *H2. The impact of STWA on the difference in means weekly hours worked between men and women varies at the sectoral level, due to job segregation.*

THE 'BUFFER' HYPOTHESIS

The *'buffer hypothesis'* proposes that women's participation in the labour market is ultimately more affected by the availability of positions. This is first due to the gender division of labour, as women are expected to engage in domestic and care work first and paid employment second (Calavrezo *et al.*, 2021). Second, this is due to the characteristics of women's employment, which is concentrated in 'buffer jobs' subject to redundancy during recessions (Bettio, 1988). Women are indeed likely to be in precarious situations, such as temporary, part-time, low-skilled employment (Maruani, 1996) and often hold lower seniority (Smith & Villa, 2013; Bruegel, 1979, Jenness *et al.*, 1975). The buffer hypothesis then argues that women are marginal workers, less protected than men in the labour market (Calavrezo *et al.*, 2021, Smith & Villa, 2013), and therefore more vulnerable to dismissals during recessions.

Let us now derive hypotheses for the effect of STWA on women's employment. On the one hand, STWA constitutes a strategy for firms to retain their most valuable workers – i.e., *'insiders'* - instead of dismissing them (Arpaia *et al.*, 2010). The literature finds that non-standard workers are less likely to participate in such schemes, as they are less protected by EPL and are not the prime employees that firms wish to retain. Indeed, workers engaging in STWA often are highly-skilled (Crimmann & Wießner, 2009), have long job tenure (Calavrezo & Lodin, 2012; Arranz *et al.,* 2019), and are higher up the firm's hierarchy (Büchel & Pannenberg, 1992). Empirical studies show that this was the case during the Global Financial crisis (Arpaia *et al*., 2010). According to this perspective and the buffer hypothesis, women may be less likely to engage in STWA but to have been laid off instead.

H3. The introduction of STWA decreased the existing differential in men's and women's working hours, according to the 'buffer' hypothesis.

On the other hand, STWA can be used by firms with the primary aim of temporarily reducing costs while avoiding dismissal costs. As employers choose which workers are affected by the scheme, and as monetary compensation is rarely complete, they target the workers that would have otherwise been the first to be dismissed. Some evidence indeed shows that low-skilled workers were more likely to participate in STWA in the US (Fuchs & Jacobsen, 1991) and Russia (Koumakhov & Najman, 2001) during previous recessions and in Europe during the Global Financial crisis (Eurofound, 2010; Calavrezo & Lodin, 2012). According to this second perspective and the buffer hypothesis, women serve as an adjustment variable and are more likely to engage in STWA.

H4. The introduction of STWA increased the existing differential in men's and women's working hours, according to the 'buffer' hypothesis.

CASE SELECTION

France and Germany have been chosen as comparative units for several reasons. First and foremost, the trajectories of the difference in working hours between men and women is parallel in these countries before the Global Financial crisis, which allows the use of difference-in-differences. Moreover, France and Germany are both corporatist welfare states (Esping-Andersen, 1990) and coordinated labour market economies (Hall & Soskice, 2001).

Finally, while Germany expanded its *Kurzarbeit* in response to the labour market effects of the Global Financial Crisis, France only used *chômage partiel* at the margins, preferring external adjustment of the workforce mainly through economic layoffs. Indeed, the *Kurzarbeit* is well-established in Germany and has been utilised extensively within the German labour market policy mix to safeguard employment (Vroman & Brusentsev, 2009; Crimann *et al.*, 2010). In total, 1.4 million workers benefitted from the scheme (OECD, 2009), among 63,000 employers, for a total cost of €5.1 billion in 2009 (Neely, 2009). On the contrary, the literature highlights that STWA is chronically underutilised in France. STWA use increased during the Global Financial crisis, rising from 0.2% of employees in the fourth quarter of 2007 to 1.11% in 2009, but this take-up was still lower than in most post-industrial countries (Hijzen & Venn, 2011). Critics thus agree that the STWA complex was deployed but on a much smaller scale, France preferring its existing EPL (Clouet, 2016; Gilles & Nicolaï, 2013).

METHODOLOGY

This paper employs higher-order difference-in-differences (DiD) designs. DiD is a causal inference quasi-experimental design to examine the effect of a policy (a treatment) introduced in one unit but not in another comparable unit without the need for randomisation (Athey & Imbens, 2017).

MODEL 1: A TRIPLE DIFFERENCE DESIGN

The first model this paper examines is a triple difference (DDD) comparing two periods, two countries, and two subgroups (table 1) to examine whether STWA, in conjunction with the crisis, is gendered.

It is formulated as follows:

- A dummy for the treatment group, denoted by '*Treatment*', takes the value 0 if the respondent resides in France and 1 if the respondent resides in Germany.
- A dummy for the post-treatment period, denoted by '*Time*', takes the value 0 in 2008 and 1 in 2009.
- A dummy for the third difference, denoted by '*Gender*', takes the value 0 if the respondent is a woman and 1 if the respondent is a man.
- A dummy for the control variable, denoted by '*Part-time*', takes the value 0 if the respondent is a full-time worker and 1 if the respondent is a part-time worker.
- The outcome variable, denoted by '*Hourstot*', takes the value of the respondent's total weekly hours worked.

MODEL 2: INTRODUCING A FOURTH DIFFERENCE

Economic sector is then set up as a fourth difference. This second part of the analysis helps assess whether the effect of STWA on the difference in mean weekly hours worked between men and women varies on the sectoral-level. For reasons of scope, economic sectors were broadly delineated between agriculture, industry, and services. A categorical variable, denoted by '*Sector*', takes the value 0 if the respondent works in the agricultural sector, 1 if the respondent works in the industrial sector, and 2 if they work in services.

A NOTE ON THE TREATMENT: STWA AND THE GLOBAL FINANCIAL CRISIS

One difficulty lies in isolating the effect of *Kurzarbeit* from that of the recession. Indeed, the turning point in STWA usage occurs at the same moment as a large exogenous shock to labour markets – i.e., the Global Financial Crisis. As such, one could object to this design that the economic crisis constitutes a time-varying confounder that impacted Germany and France between 2008 and 2009 but which may not have played out similarly in both countries. However, this paper argues that this objection represents a methodological limitation in ascertaining causality but that two arguments justify this approach.

First, STWA as a policy tool is specifically intended to mediate the effects of economic downturns. As such, its use can only be assessed when confronted with a large-scale recession, precisely when the economic crisis acts as a catalyser immediately triggering the policy change. It is thus justified to be examined concomitantly.

Second, DiD designs allow for time-varying confounders if they are clearly identified and controlled for (Wing *et al.*, 2018).

- In both countries, high EPL prevents firms from unilaterally decreasing labour contract hours when faced with conjunctural difficulties outside of the very specific case of STWA (MTEFPDS, 2015). All effects of the crisis on relative working hours outside of STWA would therefore have to be through changes in employment. These are, then, of two forms: unemployment and part-time work.

- Unemployment generated by the economic crisis may have affected both genders differently in either country. To account for this possible time-varying confounder, the main variable of interest is computed for employed respondents only. This additionally allows separating the decrease in working hours by a respondent being laid off due to the economic crisis from that by a respondent being placed under an STW scheme.

- Due to the recession, workers may also have shifted between full-time and part-time employment in a gendered way. The literature indeed highlights the preference for part-time work of women living in Germany (Pfau-Effinger, 2002; Yerkes & Visser, 2006). Part-time work is therefore added as a control variable at the individual level to ascertain that the causal effect uncovered is due to the use of STWA and not to distributional effects in the labour force induced by the crisis (Frölich & Sperlich, 2019; Olden & Møen, 2022; Lechner, 2011).

Group		Time period	
		T = 2008	T = 2009
Germany (treatment)	Men (Subgroup A)	Untreated	Treated
	Women (Subgroup B)	Untreated	Treated
France (control)	Men (Subgroup A)	Untreated	Untreated
	Women (Subgroup B)	Untreated	Untreated

TABLE 1: Treatment and Control in Both Time Periods Considered

DATA

This paper uses individual repeated cross-sectional microdata from the Luxembourg Income Study (LIS) collected in France and Germany between 2004 and 2009. This dataset first contains a large representative sample in both countries across many years (814,916 observations). Such large sample sizes are essential for difference-in-differences design as they allow to assume little estimation errors and therefore to conduct inference (Imbens & Wooldridge, 2007). Second, it holds precise information on individual respondents' socio-economic characteristics and labour market situation over time. Finally, the LIS dataset is comparable cross-nationally, as it puts particular emphasis on avoiding measurement errors and ensuring standardisation of measurements across countries and time, making it highly relevant for this comparative study.

FINDINGS

MODEL 1

Assessing the Credibility of the CT Assumption

Any DiD method is subject to the *'common trends (CT) assumption'*, which presupposes that the two groups would have undergone the same change without the treatment. In practice, this means that France can be used to estimate Germany's counterfactual.

Pre-treatment information is examined to assess the CT assumption's plausibility. First, a graphical depiction of the treated and the untreated groups in the period before the treatment occurred (figure 1) clearly shows that the two lines moved parallel until 2008 when the treatment was introduced.

Second, placebo tests are conducted in the years preceding the treatment (2004 to 2008) to estimate the effect of a placebo intervention (Abadie & Cattaneo, 2018). All treatment effects are close to zero and statistically insignificant (p-value < 0.01), which provides further evidence in favour of the CT assumption (table 2).

Model Results

The estimated treatment effect – the interaction between *treatment, time*, and *gender* – is positive and equal to 0.81 and is statistically significant to the 1% level (table 3). The DDD model, therefore, conclusively shows that the difference working times between men and women has increased due to the introduction of STWA. It can be concluded that its impact on labour markets is indeed gendered.
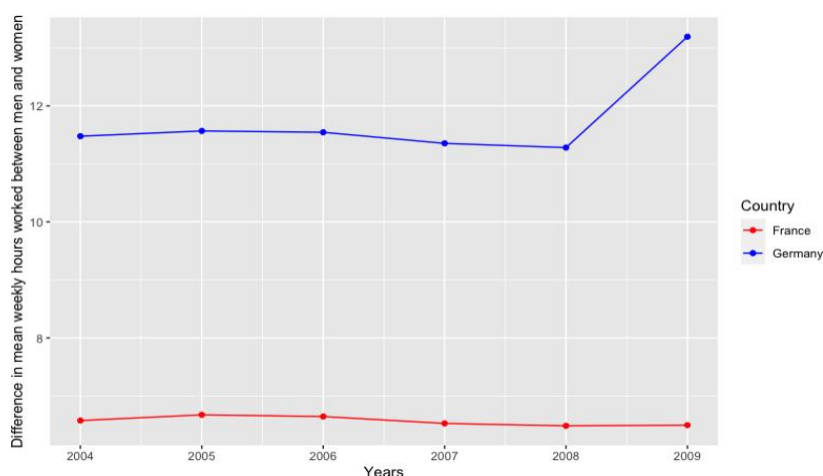
FIGURE 1: Trend in the Difference in Mean Hours Worked between Men and Women in France and Germany

Years	Estimated Treatment Effect	p-value
2004-2005	0.01	0.982
2005-2006	-0.21	0.566
2006-2007	0.27	0.453
2007-2008	0.03	0.932

Note: Complete results can be found in Appendix A

TABLE 2: Placebo Tests Assessing the Common Trends Assumption

	Estimate	99% Confidence Interval	p-value
Treatment	1.44	[1.13 , 1.75]	< 0.001 ***
Time	0.35	[0.15 , 0.55]	< 0.001 ***
Gender	2.23	[2.01 , 2.45]	< 0.001 ***
Part-time *(ref: full-time)*	-17.58	[-1.53 , -0.71.]	< 0.001 ***
Treatment*Time	-1.12	[-0.17 , 1.09.]	< 0.001 ***
Treatment*Gender	2.13	[1.70 , 2.56]	< 0.001 ***
Time*Gender	-0.12	[-0.39 , 0.15.]	0.380
Treatment*Time*Gender (i.e., causal effect)	**0.81**	**[0.24 , 1.38]**	**0.005 ****
Intercept	41.38	[41.18 , 41.58]	< 0.001 ***

TABLE 3: Triple Difference Model Results

MODEL 2

Assessing the Credibility of the CT Assumption

Graphical depictions (figures 2 to 4) and placebo tests (table 4) show that the CT assumption is not verified in the agricultural and industrial sectors: the untreated and the treated group diverged significantly prior to treatment. For this second model, the CT assumption is hence implausible. This signals that any result from the analysis cannot be relied upon causally.

Model Results

The estimated treatment effects are statistically insignificant (table 5). We therefore cannot conclude that the effect of STWA on the difference in means weekly hours worked between men and women varies at the sectoral level.

These results help qualify the mechanisms underlying the gendered effect of STWA. Indeed, the absence of a sectoral effect of STWA indicates that the gendered effect of the scheme is exercised somewhat homogeneously at the aggregate level. There is thus no evidence supporting either job segregation hypothesis (*H1* and *H2*). However, this is in line with both predictions derived from the 'buffer' hypothesis (*H3* and *H4*). Combined with the results from the triple difference (that STWA increased the difference in working hours at the aggregate level), this conclusion is in line with *H4*.

The results from the two models thus fail to reject the Null hypothesis for *H1*, *H2*, and *H3*. The Null hypothesis for *H4* can, however, be rejected.

DISCUSSION

Our primary finding is that the deployment of *Kurzarbeit* had a gendered effect on the German labour market: women were more likely to be affected by STWA. In addition, the study

revealed that the mechanisms at play may have been substantively different from those predicted by the literature on women's employment during recessions. Indeed, most papers analysing the Great Recession argued that the crisis had a double effect on women's propensity to be unemployed via the job segregation hypothesis and the buffer hypothesis. In particular, the crisis's sectoral impact is often used to explain the differentiated effect of the recession on women (Périvier, 2014). This paper, however, found no evidence of job segregation effects affecting the take-up of *Kurzarbeit* but observed signs that the buffer mechanism was at play. This, in turn, points to the gender division of labour and characteristics of women's employment as contingent workers as possible reasons for the gendered effect of STWA (Bruegel, 1979).

This paper differs from similar studies in the field in several respects. First, it provides a comparative causal study on the effect of STWA, which has seldom been examined from a gender perspective. Second, most studies on the drivers of women's employment often fail to bridge the gap between political economy and social policy. On the one hand, the literature on the political economy of gender equality provides significant insights on formalising women's choices but remains weak on institutions affecting these choices. The literature on women's employment during crises, discussed here, focuses on the effect of behaviours and labour force composition but does not consider specific labour market institutions and policies. On the other hand, the social policy literature investigates the effect of particular policies on women's employment but only rarely considers labour market policies, instead focusing on the effect of poverty or family policies. This paper provides a point of entry into bridging these fields. Its results move in the direction towards determining whether labour market policies – here in the form of STWA – can help reach gender equality, understood here as the successful commodification of women. The observation that STWA schemes were gendered helps introduce some nuance in their analysis as economic successes by considering their potential to impact women's employment. The fact that this gendered character of STWA was found to stem primarily from the position of women as 'buffers' on employment highlights that, although women have claimed more independence, autonomy, and reflexions regarding the place of care, women's equal employment necessitates re-thinking how we approach these currently gendered tasks. Indeed, current theories of women's employment empowerment often push aside domestic and care work as subsidiary and obstacles to one's development, which ultimately participates in the devaluation of care work and more profoundly ignores issues of gender equality (Daly, 2011).
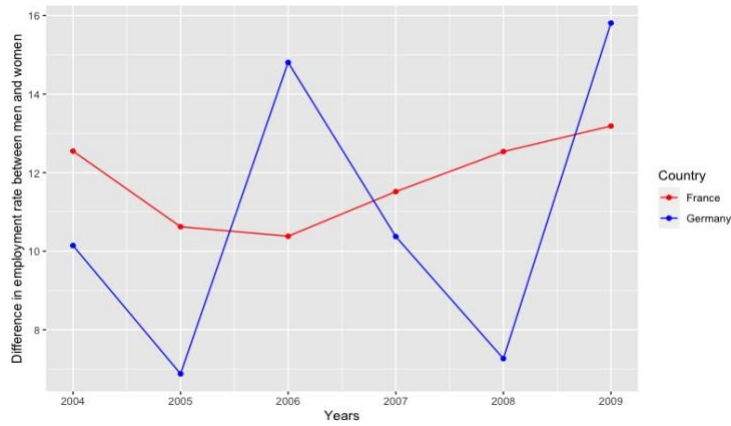
FIGURE 2: Trend in the difference in mean hours worked between men and women in France and Germany in Industry
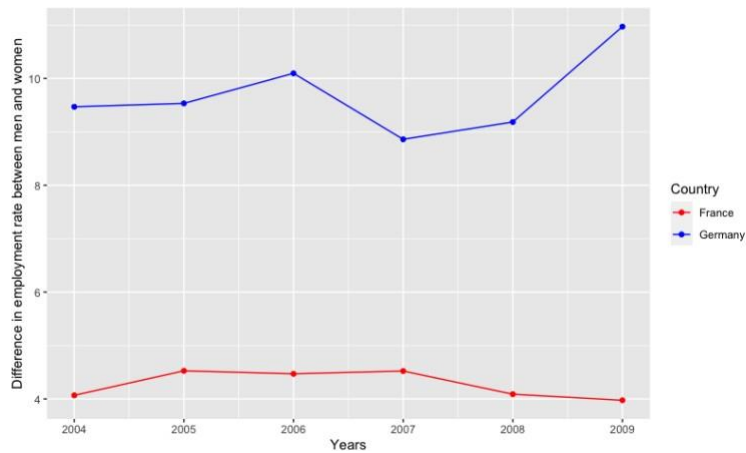

FIGURE 3: Trend in the Difference in Mean Hours Worked between Men and Women in France and Germany in Agriculture
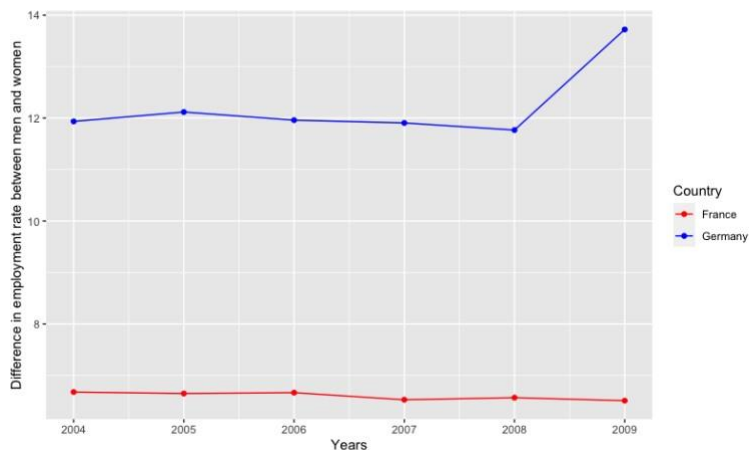

FIGURE 4: Trend in the Difference in Mean Hours Worked between Men and Women in France and Germany in Services

Years	Industry		Services	
	Estimated Treatment Effect	p-value	Estimated Treatment Effect	p-value
2004-2005	0.95	0.772	1.55	0.628
2005-2006	-7.55	0.022 *	-8.34	0.009 **
2006-2007	4.28	0.208	5.65	0.090
2007-2008	4.88	0.157	3.95	0.243

Note: Complete results can be found in Appendix A

TABLE 4: Placebo Tests Assessing the Common Trends Assumption

Moreover, these results question the relevance and usefulness of the 'business case' as an advocacy method for gender equality. Indeed, the "business case" for gender equality is a political discourse justifying much of gender equality policies by their usefulness in the context of ageing societies (Lewis & Campbell, 2007) and making use of a previously-unused labour resource and skills (Dickens, 2006). This argument, which has been greatly criticised by the literature (*ibid.*; Noon, 2007), implicitly considers that equality is only useful because it brings economic efficiency. However, this paper's results indicate that these two do not always go hand in hand. As shown here, these "business case" narratives are less convincing during recessions with high levels of unemployment. In times of economic crisis, the requirements for an efficient economy change from efficiency at the margin (which includes women) to efficiency for the masses (which often disregards the different impact of policies on women's employment). Due to this less convincing aspect of the "business case" in times of economic hardship, Rubery and Rafferty (2013) highlight the likelihood of policy reversal in recessions. Similarly, Smith and Villa (2013:225) highlight that governments lessened their commitment to gender equality and *'reverted to types'* in the urgency of their responses to the Global Financial crisis.

Several limitations of this paper should nevertheless be noted. The main one is the difficulty in isolating the effect of STWA from that of the broader Global Financial crisis. This limitation has been discussed at length in the methodology. This limitation can be tied back to a broader reflection on difference-in-differences designs, which is that parallel trends are not a perfect substitute for randomisation. Indeed, it is always difficult to state that the units considered can be used as perfect confounders and that there is no unobserved confounding without randomisation. A second limitation is that the CT assumption fails within economic sectors in the second model. As such, the results from this second part do not hold causal validity.

The answer to these limitations might be found in further research utilising new data sources or methodologies. Particularly, more precise quantitative sectoral data might allow dissecting economic sectors in more than three to better account for sectoral differences in the gendered effects of labour market programmes and crises. Moreover, additional research on the gendered effects of STWA is required insofar as the effect uncovered in this paper is likely to differ according to the structure of the labour market, the particular crisis, and the country studied. Furthermore, the characteristics of the gender division of labour and women's attachment to the labour market are expected to vary by country and time. Hence, the different

consequences of STW policies in different contexts should be researched in more depth. It would allow us to fully understand the gendered impact of the policy across different settings.

	Estimate	99% Confidence Interval	p-value
Treatment	1.50	[-1.77 , 4.77]	0.369
Time	0.85	[-0.68 , 2.38]	0.272
Gender	9.00	[7.61 , 10.39]	< 0.001 ***
Economic sector (ref: agriculture)			
Industry	-6.36	[-7.58 , -5.14]	< 0.001 ***
Services	-6.01	[-7.17 , -4.85]	< 0.001 ***
Part-time (ref: full-time)	-17.55	[-17.71, -17.39]	< 0.001 ***
Treatment*Time	-6.71	[-10.85 , -2.57]	0.001 ***
Treatment*Gender	-4.43	[-8.25 , -0.61]	0.023 *
Time*Gender	-0.01	[-1.83 , 1.81]	0.994
Treatment * Industry	-0.18	[-3.55 , 3.19]	0.916
Treatment * Services	-0.13	[-3.40 , 3.14]	0.937
Time * Industry	-0.72	[-2.37 , 0.93]	0.391
Time * Services	-0.48	[-2.01 , 1.05]	0.540
Gender * Industry	-7.79	[-9.26 , -6.32]	< 0.001 ***
Gender * Services	-6.79	[-8.20 , -5.38.]	< 0.001 ***
Treatment * Time * Gender	4.43	[-0.43 , 9.29]	0.073
Treatment * Time * Industry	6.35	[2.06 , 10.64]	0.004 **
Treatment * Time * Services	5.56	[1.39 , 9.73]	0.009 **
Treatment * Gender * Industry	6.55	[2.61 , 10.49.]	0.001 **
Treatment * Gender * Services	7.05	[3.19 , 10.91]	< 0.001 ***
Time * Gender * Industry	-0.14	[-2.10 , 1.82]	0.884
Time * Gender * Services	-0.06	[-1.92 , 1.80]	0.953
Treatment*Time*Gender * Industry (i.e., causal effect)	**-3.85**	[-8.87 , 1.17]	**0.133**
Treatment*Time*Gender * Services (i.e., causal effect)	**-3.77**	[-8.67 , 1.13]	**0.132**
Intercept	45.91	[44.77 , 47.05]	< 0.001 ***

Note: Complete results can be found in Appendix B

TABLE 5: Quadruple Difference Model Results

CONFLICT OF INTEREST STATEMENT

No conflict of interest declared.

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A South African Woman's Experience under Settler Colonialism: Re-reading Frantz Fanon's 'On Violence' through a Decolonial Feminist Lens.

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ABSTRACT

Though Frantz Fanon's influence on contemporary postcolonial thought is undeniable, his work on violence lacks what decolonial feminist Françoise Vergès calls in her book A Decolonial Feminism, *"multidimensionality" and "intersectionality." This paper provides a re-read of Fanon's 'On Violence' through a decolonial feminist lens and, with it, a critical examination of how postcolonial theories on violence write about gendered, racialized, and colonized bodies. Sindiwe Magona's* Mother to Mother *offers a powerful narrative truth about encountering colonial violence and the aftercare necessary to live with the trauma of such inflicted violence in the context of South Africa during and after Apartheid. Problematizing Fanon's insistence on writing the male body as the norm illustrates how colonized women are consistently written out of history. With the implementation of ideas from decolonial feminisms, it becomes clear how different bodies are treated differently under colonial violence. Interweaving the narrative of* Mother to Mother *through the theorized experiences of colonial and gendered violence offers detailed and heartfelt illustrations of a (semi-)personal experience with such inflicted cruelty. The integration of the three texts provides a current and crucial theorization on such issues as colonial violence, decolonial feminisms, racial capitalism, multidimensionality, and cleaning and care work. This paper attempts to provide, with care, perspectives of decolonial feminisms as starting points for re-writing histories, this time with the inclusion of colonized and racialized women.*

INTRODUCTION

When we consider today's live and practical configurations of inequality, it is important to acknowledge and take to heart the perspectives imbued by the multitude of systems of power that enable inequality and its corresponding hierarchical structures of race, gender, heteropatriarchy, and class. Frantz Fanon's influence on contemporary postcolonial thought is undeniable when considering the literature on these perspectives and the perspectives on the future of inequality. In particular, Fanon's writings on violence have left their mark on the vast array of literature on (post)colonialism and decolonization that are necessary to analyze the multitude of facets of inequality that persist in today's world. However, as influential as Fanon's writings may be, some of his theories seem to lack what decolonial feminist Françoise Vergès calls in *A Decolonial Feminism*, "multidimensionality" and "intersectionality" (Vergès, 2021, p. 20).

Decolonial feminism, as written by Vergès, is a feminism concerned with "the destruction of racism, capitalism, and imperialism" (Vergès, 2021, p. 5). It is a feminism that wishes to overthrow these dominant systems of oppression rather than work with or alongside them. Decolonial feminists are concerned with the way in which "the complex of racism/sexism/ethnocentrism pervades all relations of domination, even when the regimes associated with these phenomena have disappeared" (Vergès, 2021, p. 15). A constant awareness of different lived experiences under such relations of dominance is a crucial research focus for a theory of violence. My aim in this paper is to place a re-reading of Fanon's theory of violence through a decolonial feminist lens in conversation with Sindiwe Magona's *Mother to Mother* to fill

some of the gaps left by Fanon. This re-reading is, as such, an attempt at reparation that will hopefully provide building blocks for a conversation on inequality that has the potential to be restorative as we navigate toward the future.

In her frank and vulnerable book *Mother to Mother* (first published in 1998), Magona writes about the experience of a Black, South African mother named Mandisa and her growing up and living during and after the Apartheid regime in South Africa (Magona, 2020). The book is an open letter to the mother of Amy Biehl, an American student who was killed in Guguletu by a mob of students, one of whom was Mandisa's eldest son, Mxolisi. In an interview with David Attwell and Barbara Harlow, Magona explains how the book was written based on her own experiences growing up in Guguletu, as well as the experiences of women whom Magona knew in the township (Magona *et al.*, 2000, p. 285). For this reason, I find that this book offers a valuable narrative truth about the experiences of a Black woman under settler colonialism - an identity not included by Fanon but taken seriously by Vergès as a subject of analysis. The book can then be found to provide narratives that attest to the actuality of Vergès' work and to reveal where the conceptual omissions within Fanon's theory of violence are. Through this research, I aim to provide an account of the ways in which Frantz Fanon's theory of colonial violence can benefit from an inclusion of a decolonial feminist perspective.

In order to provide this account, I will work with Françoise Vergès' theory on decolonial feminisms, which introduces concepts such as multidimensionality and the question on cleaning and care work, which turn out to be incredibly useful in providing a re-reading of Fanon's workon violence (Vergès, 2021). I will first problematize Fanon's insistence on focusing on the male perspective while theorizing both the potentialities and negative aspects of colonial violence and how, with this insistence, Fanon is writing away how different bodies are inflicted in different ways by colonial violence. Then, I will argue for a multidimensional approach to violence and what it means to be racialized, colonized, and gendered. This experience is embodied in *Mother to Mother* when Mandisa falls pregnant with her first child. Finally, I will argue that a critical examination of cleaning and care work within the framework of decolonial feminism would substantially enhance Fanon's theory of violence, particularly as regards the aftermath of violent outbursts - a topic also addressed in *Mother to Mother*.

PROBLEMATIZING THE MALE AS THE NORM IN 'ON VIOLENCE'

In the first chapter of his *Wretched of the Earth* (originally published in France as *Les damnés de la terre* in 1961), Fanon theorizes about violence as a powerful and necessary tool for decolonization (Fanon, 1967, pp. 27-84). Equipped with a degree in psychiatry, Fanon was appointed to a hospital in Algeria during the country's War of Independence from France. In this role, he directly witnessed and experienced the harsh realities and lived experiences of settler colonialism. Among his most influential work on decolonization was his analysis of the violence problem, including its negative and positive aspects. According to Fanon, a simultaneous occurrence of violence and counter-violence exists, where the colonizers inflict violence upon the colonized peoples' lives, minds, and bodies (Fanon, 1967, pp. 27-84). He explains: "Colonialism is not a thinking machine, nor a body endowed with reasoning faculties. It is violence in its natural state, and will only yield when confronted with greater violence" (Fanon, 1967, p. 48). It becomes clear that Fanon understands violence in both psychical and psychological contexts as inescapable

and all-encompassing within colonial contexts. If violence is the currency of colonialism, I wish to ask: Who pays which price?

When inflicted by the colonizer, violence makes the colonized man – and I intentionally use the word 'man' here – an animal. It dehumanizes the native – here, the 'native' is used in the gender-neutral sense (Fanon, 1967, p. 32). Throughout his body of work, with a particular focus on his essay 'On Violence', Fanon often writes from a male-centric perspective or with "the male as the norm" (Bergner, 1995, p. 76). Indeed, Fanon writes almost exclusively with masculine connotated expressions: "his skin," "his people," "and the colonized man," to quote a few examples (Fanon, 1967, p. 44; Fanon, 1967, p. 36; Fanon, 1967, p. 40). However, his portrayal of the male colonized experience as the universal colonized experience is not only limited to the use of masculine language. Considering the time Fanon was writing, it is not strange for Fanon to use 'man' instead of 'human' (Wahl, 2021, p. 43). However, there are instances in 'On Violence' where it is vividly clear that Fanon is consciously writing away the experience of colonized women. As such, the excuse of reading a text within the context of its time falls short. Fanon writes, for instance, "When the native is tortured when his wife is killed or raped, he complains to no one" (Fanon, 1967, p. 73). This short fragment makes it very clear that the woman is deliberatively removed from the narrative as a colonial subject - or as a person with agency. The focus here lies solely on the male native, his torture, and his pain. 'His wife' is merely a pawn existing in relation to the violence inflicted upon the colonial man.

It is not enough to write away Fanon's insistence on using the male as the norm, as Bergner has argued, under the guise of historical temporality. It is vital for a decolonial endeavor to consider the erasure and the rendering invisible of the experiences of racialized and colonized women. Moreover, because of this, a decolonial feminist perspective, as theorized by Vergès, is necessary, for it picks up the threads where Fanon has left off.

TO BE RACIALIZED, COLONIZED, AND A WOMAN

Violence is the name of the game of colonialism, yet there is no universal experience of this inflicted violence on the native at the colonizer's hand. Fanon may write in a way that suggests otherwise, but he neglects the existence of sexual and gender-based violence as a "tool of colonial dominance" (Jordan, 2021, p. 271). Lorien Jordan (2021, p. 273) explains how "early colonialism nurtured sexual violence, rape culture, and the policing of women's bodies, where colonialists symbolically and physically took control over the land, bodies, and minds of those deemed inferior." It becomes clear, then, that different bodies are inflicted in different violent ways under colonialism. In order to understand these different encounters with colonial violence, a multidimensional approach, as implemented by Vergès (2021) for decolonial feminism, is necessary. When a multidimensional approach is applied to colonial violence, it becomes clear that merely looking at a single attribute of one's identity is insufficient to understand how different bodies get different treatments. "The challenge is to hold several threads at once," which is precisely the endeavor that a decolonial feminist perspective on violence is attempting to undertake (Vergès, 2021, p. 20). This endeavor entails "bringing the lives of 'anonymous' women back from silence" (Vergès, 2021, p. 17).

When Fanon writes about how colonial power is established, he writes about "deportations, massacres, forced labor, and slavery" (Fanon, 1967, p. 80). Though this is what

colonial power partly entails, Fanon here regrettably falls short on a multidimensional perspective on how colonial power can be embodied for different bodies. Consequently, he is then writing women into silence. In her analysis, Vergès describes a few more elements of colonial power in comparison to Fanon's account: "capture, deportation, sale, trafficking, torture, denial of social and family ties, rape, exhaustion, racism, sexism, and death" (2021, p. 28). These gender-specific forms of violence influence the mind and bodies of colonized and racialized women in a manner most probably similar to the colonized men Fanon writes about.

In *Mother to Mother*, the lived experience of Mandisa as a racialized, colonized woman and how this differs from the male townspeople she lives with becomes apparent the moment she falls pregnant with her first child, Mxolisi (Magona, 2020, pp. 77-138). When this happens, she is just a girl, about to enter the forming years of girlhood. Even though Mandisa does not have penetrative intercourse with her then-boyfriend China, she does become pregnant. This brings great shame to her family, for virginity is a sacred state for women in her village. Through this experience, it becomes clear that Mandisa's personhood, as someone with a body that can become pregnant, is constructed differently by others when compared, for example, to China. There is one instance in the story where the men from her and China's families come together to discuss what to do about the child created outside of marriage. Nevertheless, the matter is discussed without Mandisa's consolation (Magona, 2020, pp. 107-108). Instead, she is discussed as if she were not in the room: her personhood is denied by the men in her village. There are a few other instances where Mandisa is stripped from her selfhood and girlhood, a treatment similar to psychological violence. She recalls when she gave birth to Mxolisi and moved in with China's family. Now that she was a mother, she was "forced into being a wife, forever abandoning my dreams, hopes, aspirations. Forever" (Magona, 2020, p. 113). This description of how the people of Mandisa's family and village treated her because of her pregnancy is not to shame the culture of Guguletu. Instead, it is to show how men and women are treated differently, which should be considered in an analysis of racialized and colonized women.

As described in *Mother to Mother*, the subject of prenatal and postnatal care is essential for analyzing the experiences of racialized and colonized women concerning violence. It shows how these identities intersect and create an embodied experience of violence vastly different from a male experience of violence. As made clear by Vergès, "access to prenatal care and postnatal care is not equally distributed; racialized women are more easily deprived of access to care, and they are more often victims of medical neglect, if not abuse" (2021, p. 32). The fact that (cis-)women can have bodies with a capacity for pregnancy makes it so that they face a form of violence unique to their bodies. The control over women's bodies and their capability of pregnancy has been a powerful form of colonial violence, as described by Vergès: "in France, sterilization and abortion in the 'overseas' departments were encouraged by the government" (2021, p. 37). This form of violence is undoubtedly an element of colonial violence. One can argue that it may cause a similar form of bodily tension as Fanon described apparent in the bodies of colonized men (1967, p. 41-41), and it is necessary to examine who cares for this tension.

THE QUESTION OF CLEANING AND CARE WORK

Decolonial feminism, as written about by Vergès, focuses on who cleans the world and who has been imposed the position to clean and care (Vergès, 2021, p. 82). Vergès explains: "Black

women have long been assigned the role of domestic servants, caretakers, and cleaners of the white world" (2021, p. 73). In *Mother to Mother,* Mandisa has also been prescribed this role: every day, she gets up early for her workday for a white family, the Nelsons, where she cooks and cleans from early in the morning until late in the day (Magona, 2020, p. 21). When she returns home, she takes on the role of mother again, cooking and cleaning for her children and her household. It becomes clear that Mandisa is part of the "economy of wearing out and tiring out racialized bodies" (Vergès, 2021, p. 75). This economy is an economy of waste, as implemented by racial capitalism, and it views human beings as dispensable agents (Vergès, 2021, p. 82). The wearing out of racialized gendered bodies is thus directly embodied in *Mother to Mother,* with Mandisa being a cleaner. However, it is also subtly noticeable in how Mandisa cares for the men in her village.

Given the fact that Fanon describes the outcomes of the muscular tension felt by colonized men "in tribal warfare, in feuds between septs and in quarrels between individuals" (Fanon, 1967, p. 42), he disregards the inclusion of theorizing on who is responsible for the after-care, or even what happens after one of these "bloodthirsty explosions" (Fanon, 1967, p. 42). Maggie FitzGerald, who has put Fanon in conversation with care ethics, explains how care "demands that we do more than critique and disrupt; we must actively respond and repair" (2022, p. 13). To care, then, requires labor and time.

In *Mother to Mother*, the aftermath of the killing of Amy Biehl is described in great detail, and it is a heartfelt description of the traumatic incident. The way in which Mxolisi and the other townsmen become this homogenous group of the embodiment of counter-violence, chanting "*Hayi, ilishwa! Amabhulu, azizinja!* One settler, one bullet! By the match stick, we shall free our nation!*" (Magona, 2020, p. 155), is very much the outburst of an accumulation of muscular tension as described by Fanon. Through the story, it becomes clear that in the aftermath of this outburst, the mother is the one who provides care; it is Mandisa who feels and cleans and makes sure themen are taken care of. Mandisa, as a mother and a cleaner, two identities that often go togetherfor racialized, gendered, and colonized bodies, does what is expected of her. However, she is not an inexhaustible source of care, even though racial capitalism treats her as such. When theorizing the violence inflicted upon racialized bodies, the inclusion of an "economy of exhaustion, of fatigue of wearing out gendered and racialized bodies," (Vergès, 2021, p. 76) is necessary for a more multidimensional theory of colonial violence.

CONCLUSION

The intertwinement of Fanon's theory of colonial violence and Vergès' decolonial feminism is intriguing because so much is at stake, and so many factors are at play. Fanon dropped a few threads concerning the intersection of colonization, racialization, and being gendered, which need to be picked up within a decolonial feminist perspective. Colonized women have been written out of history consistently, and we must critically place them back and rewrite the stories they have been let out of. I have attempted to weave Sindiwe Magona's story through the theories of Fanon and Vergès, not to place her story within but to actively try to write a new story where Mandisa's life takes a central role. The task is complex and painful, but it is essential to move within the contemporary world and the institutions and ideologies it is built on.

The answer to the research question posed at this paper's start is not as simple as merely re-reading Fanon through a decolonial feminist lens or enriching his theory with multi-dimensionality. This is an essential critical starting point and one I have tried to provide with care.

However, the necessary work has not yet been completed. Decolonial feminism does not make do with one approach or one answer. It is about picking up several interwoven threads and trying to untangle them in various ways. It is about understanding that Fanon is highly influential for postcolonial thought, yet realizing that there are specific gaps in his work, considering particular identities and thinking about how we can fill these.

Throughout this paper, the focus has been on racialized women from settler colonies, as written by Fanon and narrated by Magona. As a result, this discussion has raised certain questions that exceed the scope of this paper. The racialization of women and its consequences happens outside of settler colonies; it has bled through to the cracks of the earth, spreading and filling up the psyche of racialized and colonized women. If the task at hand is to think with and against inequality as an unignorable facet of the world's organization, then it is of crucial importance to recognize neglected dimensions of inequality, the treatment of women of color. This paper was an attempt at reparation, an attempt to pick up threads and weave new stories, stories where inequality is not inevitable but something to fight against with many stories and perspectives that will make the future more just.

CONFLICT OF INTEREST STATEMENT

No conflict of interest declared.

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The Symbiosis of Prejudice: A Tripartite Analysis of Responses to Feminicide as a Human Rights Violation in Mexico

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ABSTRACT

Since the early 1990s, incidents of feminicide across Mexico have increased exponentially. According to an official report published in 2022, an average of 10 women are killed per day by perpetrators of this most egregious form of gender violence, with an additional 24,000 victims still missing and unaccounted for. In response to the murders, the Mexican government has publicly recognized and condemned the crime of feminicide; however, despite the measures pledged by each incoming president, the death toll and number of disappearances continue to rise. Considering these legislative failures, the following article will analyze the quality of Mexico's recognition of feminicide as a human rights violation, beginning with the role of the state and its policies to combat gender violence, as well as the nuanced impact of neoliberal free trade agreements. Secondly, it will discuss the way in which the press perpetuates negative stereotypes about certain 'undesirable' female bodies, defaming the characters of murdered women and feeding the popular narrative that such victims 'deserved' their fate. Finally, it will review the efficacy of Mexico's ostensibly trailblazing femicide legislation, positing that despite the superficial legislative progress made for victims and their families, the ineptitude and corruption of the Mexican judicial system have rendered this landmark legislation impotent, and indeed, ignorant. For the sake of concision, I elected to focus my argument on the case of Mexico, but the conclusions drawn here remain relevant to countries such as Honduras, El Salvador, and Guatemala, which are similaryly beleaguered by a rising tide of feminicide.

INTRODUCTION

In *"Frames of War,"* Judith Butler (2009) proposes that "a life must be intelligible as a life, conforming to certain conceptions of what life is, in order to be recognized" (p. 7). Drawing on Hegel's theory of "the struggle of individuals for the recognition of their person by others," Butler outlines a framework to demonstrate how hegemonic norms influence the unequal valuation of human life (Sembou, 2003, p. 262). One outcome of this unequal recognition is the similarly uneven distribution of human rights, which depend on the subject first being meaningfully recognized as human. For those existing outside the relative safety of norms that imply a desirable existence, the right to life – and the recognition of violations against that life – is undermined by the widespread yet unspoken belief that while some lives are "deemed worth living, protecting, and grieving … others [are] not" (Butler, 2009, p. 163). For those who exist beyond the relative safety of the "norms" which imply a desirable existence, the right to life and the right for violations against that life to be recognised in a political, social and legal sense is weakened by the tacit and yet universal notion that while some lives are "deemed worth living, protecting, and grieving … others [are] not" (Butler 2009, p. 163).

When considering this ontological imbalance in relation to feminicide, we must first clarify what it practically means to recognize or overlook a human rights violation, and who is responsible for this recognition or its absence. Given that Latin America has the highest incidence of feminicide in the world, it is clear that the issue is recognized, as the state, the public, and the judiciary are well aware of the pervasive violence (Yagoub, 2016). However, the quality of this recognition in terms of policy, narrative, and punitive consequences across the political, social, and judicial spheres will be assessed, ultimately concluding that any

recognition lacking meaningful efforts to address the feminicide crisis amounts to ignorance at best, and state-sanctioned complicity at worst. This sentiment will prove particulary pertinent concerning the courts, since far more pernicious than simply ignoring feminicide, the judiciary and their legislation have actively recognised the crime as a human rights violation, only to contribute to its perpetuation.

Despite the commonality of gender violence across Latin America, I have chosen to focus on Mexico as a particularly illustrative case of how feminicide is often publicly acknowledged yet negated, rearticulated, and perpetuated by the state, the press, and the judiciary. Before delving deeper into this culture of impunity and apathy, I will provide a brief semiotic mapping of the crime discussed in this paper.

The term 'femicide' first appeared in England in 1801 to denote "the killing of a woman" (Corry as cited in Russell, 2008, p. 27). It entered official UK legal discourse about fifty years later with the same definition. However, it was not until the 1970s, with the rise of second-wave feminism, that Diana E. H. Russell (2008) redefined femicide as "the killing of females by males because they are female" (p. 27), marking a significant semantic shift in terms of the perpetrator and the motive behind the crime. In 2006, Russell's term was adapted in Latin America by Mexican feminist scholar and politician Marcela Lagarde as *feminicidio*, to distinguish it from *femicidio*, "precisely so that it would not be confused … with female homicide" (p. 221; author's translation). This distinction is crucial because 'feminicide,' unlike 'female homicide' or 'femicide,' implicates not only the perpetrator but also the political and judicial structures that have normalized misogyny and failed to protect female citizens. Thus, feminicide is a political term that holds both the assailant and the state accountable.

Despite Mexico's ostensibly pioneering gender violence legislation, such as the 2007 General Law of Access for Women to a Life Free of Violence (GLAWLFV), and its participation in the 1995 Convention of Belém do Pará, the 'Magna Carta of women's rights' (Zuloaga, 2007, p. 57), incidents of feminicide continue to grow to grow exponentially, with an average of ten women now murdered daily (Morland & Pulice, 2022). Consequently, I will argue that although feminicide has been officially and legally recognized as a human rights violation in Mexico since 2007, the combined counterforces of neoliberal economic policy, pervasive social imaginaries of 'good' and 'bad' victims, and the ineptitude of the Mexican judicial system to prosecute perpetrators have rendered this progressive legislation ineffective. I will disentangle these factors, beginning with an examination of the now-defunct North American Free Trade Agreement (NAFTA) and its implications of "multisided violence" for women in the maquiladora industry (Menjívar & Walsh, 2017, p. 223). I will also consider the impact of the culture of victim-blaming in Mexico, supported by notions of female corporeal "disposability" (Fuentes, 2020, p. 1674), and the belief that women must have "done something" (Ansolabehere & Martos, 2022, p. 88) or been "involved in something" to deserve such fates (Moon & Treviño-Rangel, 2020, p. 725). Finally, I will examine how inept or corrupt judicial officials and processes foster a culture of "impunity rather than accountability" when dealing with perpetrators of feminicide (Joseph, 2017, p. 13).

This framework will allow me to clearly outline the symbiotic and mutually reinforcing ways in which the state, the public, and the judiciary collectively fail to adequately address feminicide as a human rights violation. Moreover, following Butler's (2009) assertion that the "epistemological capacity to apprehend a life is partially dependent on that life being produced according to norms that qualify it as a life," I contend that until all victims of gender violence

are equally regarded as human by the press, the people, the government, and the courts, feminicide will not be meaningfully recognized as a human rights violation in Mexico, or in Latin America at large (p. 3).

ECONOMIC AND STATE IGNORANCE

On 1st January 1994, Mexico—a country historically known for its ardently anti-interventionist approach to foreign policy—opened its borders to the laissez-faire tune of NAFTA. One of the most significant and immediate implications of the controversial free trade agreement was the expansion of US businesses onto Mexican soil in the form of maquiladoras; exploitative mega-factories sustained by cheap and predominantly female labor. In search of employment and economic stability, "a new phenomenon of mobile, independent—and vulnerable—working women" began to migrate to Mexico's northern border towns, where the bulk of the maquilas are concentrated (Livingston, 2004, p. 61). At the same time, the newly porous membrane of the US/Mexico border under NAFTA escalated rivalries between warring drug cartels, evidenced by an unprecedented surge in violent crime.

Writing on the period between 1994 and 2001, Melissa W. Wright (2006) notes that "the homicide rate for men increased by 300 percent, while for women it increased by 600 percent" (p. 685). Though the lack of conclusive data makes it difficult to ascertain exactly how many of the female deaths would be classified as feminicides, the brutal, sexualized, and seemingly indiscriminate nature of the killings evidences the misogynistic intent and "aggressive or machismo masculinity" which comprise the defining characteristics of femicidal violence (Prieto-Carrón, 2007, p. 26). Moreover, the profile of the victims—poor, dark-skinned, and unaccustomed to the dangers of urban life—situates the murdered maquiladora workers in what Menjívar and Walsh (2017) term "a context of multisided violence," which they define as the gory intersection of "structural, political, symbolic, and everyday violence" that exposes vulnerable women to "extreme risk for repeated victimization" and impedes them from "exercising their citizenship rights" (pp. 223-224).

Though the authors use Honduras as their primary case study, their findings are nonetheless applicable in the Mexican context, which is similarly beset by the "normalization of persistent impunity and violence in the lives of women," especially those whose bodies can be used (up) for capitalist gain (2017, p. 223). In Mexico's "necropolitical" system—Achille Mbembe's (2003) counter to Foucault's biopolitics, which emphasizes the state's (de)regulation of death rather than life—the exercise of the right to kill is no longer the sole monopoly of states; instead, a patchwork of overlapping and incomplete rights to rule emerges, as drug cartels and criminal organizations compete with beleaguered state forces to exert control over the deaths of particular bodies (p. 31).

Yet, despite the evident necropolitical connection between NAFTA, maquiladoras, and feminicide, there has been no meaningful legislative intervention on behalf of the state to combat the myriad human rights violations being committed against its female citizens; if anything, recent policy changes have made matters worse. Prior to the renegotiation of NAFTA in 2018 in lieu of the United States–Mexico–Canada Agreement (USMCA)—often referred to as 'NAFTA 2.0' owing to its uncanny resemblance to the agreement which preceded it— former president Enrique Peña Nieto (EPN) vowed to "create conditions for the girls and women of Mexico to gain access to a life free of violence … through the joint commitment of each branch, the various levels of government and society as a whole" (Gobierno de México,

2015). However, these elaborate promises rapidly came unstuck; in the twelve-month period following the implementation of the 'New NAFTA', the Mexican Secretaría de Seguridad estimates that feminicides across the country rose by 46% from the previous year, many of which were concentrated in border *maquila* towns, such as Juárez (Secretaría de Seguridad y Protección Ciudadana, 2021, p. 14).

Notwithstanding current President Andrés Manuel López Obrador's (AMLO) populist recognition of the generalised social inequality and violence facing the country as the "poisoned fruit of the materialistic and inhuman economic model that was imposed during the neoliberal economic period" (Beck 2021, p.97), he has consistently ignored the voices of women's movements rallying against feminicide by claiming the extent of human rights violation has been exaggerated and "manipulated a lot in the media" (Vargas, 2020). Beyond this whitewashing and contradictory discourse that "systematically denies the exasperating social realities experienced by the population" (Olivera, 2006, p. 107), AMLO has neither ended "the nightmare" of neoliberalism, nor "impregnated all public actions and policies … [with] human rights" as he promised—especially those which involve women (teleSUR English, 2019). Like many presidents who preceded him, such as Vicente Fox, whose much-anticipated feminicide commission was rendered "virtually inoperative" due to a lack of funding (Bissonnette, 2018), or the aforementioned EPN, whose grandiose promises to eradicate violence towards women and girls were wholly invalidated by the fact that his final two years of tenure were "the most violent in recent history" (Amnesty International, 2018), AMLO has likewise failed to legislatively recognize the feminicide crisis which comprises a sanguinary hallmark of his country's necropolitical system.

According to Menjívar and Walsh (2017), the "inaction" of Mexico's former and current presidents to meaningfully redress the economic and political agenda in response to its evident correspondence with gendered human rights violations accounts for the first side of a binary they term "acts of omission" and "commission" (p. 223). Omission refers to tacit (in)actions on behalf of the state, such as failing to implement genuine policy changes which might ameliorate violence, whereas commission—which I will explore in greater depth in the final section—is defined by the direct and deliberate persecution of women through either judicially mandated impunity or "sexual violence, threats … and police harassment" (p. 222). Viewed collectively, these dual processes of omission and commission ratify my thesis that not only does the Mexican state ignore feminicides, but moreover, it is often intimately involved in their proliferation. Indeed, the reckless austerity measures implemented by AMLO during the pandemic, which mandated a 75% reduction in funding to women's shelters, coupled with his spurious claims that 90% of calls reporting domestic abuse were "false," lucidly demonstrate the way in which state ignorance or omission through economic and social policy have the capacity to actively perpetuate human rights violations (Agren, 2020).

As will henceforth be shown, acts of omission in particular are further exacerbated by narratives of "disposability" surrounding certain bodies which are seen to be incongruous to the imaginary of a 'good' Mexican woman (Fuentes, 2020).

SOCIETAL DEHUMANISATION & 'MUJER[ES] MALAS'

In 1983, Chicanx feminist scholar Gloria Anzaldúa postulated that, within the collective Mexican consciousness, there exists an archetype of a "mujer mala" (p. 17). This archetype is primarily defined by an unwillingness to be "subservient to males", and may also include

condemnation for seeking employment, engaging in sexual activity out of wedlock, or refusing to bear children (p. 16). Though some forty years have passed since Anzaldúa published the canonical *Borderlands/La Frontera,* her indictment of patriarchal oppression in Latin America and the narratives it weaves about 'bad women' have become more pertinent than ever in the femicidal climate of the present day, especially regarding how the press—and consequently, the public—recognize or ignore feminicide as a human rights violation.

As we saw in the previous section, female maquiladora workers are among the most disproportionately impacted groups by the "multisided violence" underpinning Mexico's necropolitical system (Menjívar and Walsh, 2017). Beyond the practical implications of their marginal socioeconomic status, maquila workers are also targeted for their presumed promiscuity and resistance towards gender-prescribed maternal and domestic 'obligations.' Alicia Gaspar de Alba (2010), an eminent voice on the Juárez murders, offers insight into the attitudes behind Anzaldúa's "bad woman" imaginary: "[t]he targets of the Juárez crimes are … women who think they're independent because they work in a maquila when all they really are is so far from God, so close to the United States" (p. 80). Alba's citing of the well-known Mexican idiom in this context draws attention to yet another prejudice facing the maquila-worker (and indeed, any woman who dares to challenge gender norms); that she "tries to behave like an American", and in the process, "loses her good Mexican morality, and therefore, her value as a woman" (ibid.; emphasis added). Already under threat from the wrath of their unemployed and thus emasculated male counterparts amid a "devastating [economic] depression" (Blecker, 1996, p. 3) in the post-NAFTA period, the lives and social value of such women are further endangered by the necessity to live "la vida loca … coded language for prostitution" to make ends meet (Alba, 2020, p. 3). Colloquially branded 'maqui-locas', these women would be constituents of what Lorena Fuentes (2020) calls "the garbage of society" – undesirable individuals whose grim sexualization further contributes to their perceived corporeal disposability.

Writing on Guatemala—a country with even higher rates of feminicides than Mexico—Fuentes postulates that there are two distinct narratives surrounding this most serious type of gender-based violence: "public" and "private" (p. 1667). This invidious distinction between 'good' and 'bad' women dictates how and to what extent the state, the public, and the press ignore or recognize the crime. For Fuentes, the socio-spatial duality of public and private feminicide crystallizes most pertinently in the sensationalistic news coverage that unspools the crime for public consumption; for the former, "[d]iscursive references to where [her] body was found and to who was alleged to have murdered her" imply an inherent disposability, whereas the stories of private victims are narrativized as tragedies against a sympathetic backdrop of domestic maternity and "safe families" (pp. 1669-1670). Moreover, the public dimension of Fuentes' dichotomy shifts the blame from abuser to abused in the collective imaginary, inculpating the victim within an unsavory "domain of criminality and disposability" (p. 1678).

Echoing Judith Butler's (1999) sentiment that the body is nothing more than "a passive medium onto which cultural meanings are inscribed" (p. 12), Fuentes proposes that "the production of disposability works not through an inherent 'readability' of the disposable nature of feminicide victims, but rather, that there are relational logics that write 'public' and 'disposable' onto their bodies" (Fuentes, 2020, p. 1674). These reductive relational logics of class, ethnicity, and social status, which discern 'good' women from 'bad,' contribute to a culture of victim-blaming which proves far more pernicious than the public or the press simply

ignoring the crimes. Instead, certain feminicide victims become charged with a didactic morality, their mutilated bodies a portent to their peers lest they, too, stray from their prescriptive gender roles.

By way of illustration, let us turn our attention to Mexico's *nota roja*—a genre of journalism native to the country which is dedicated to violence, scandal, and crime. The following excerpts were extracted by Marisol Perulo from an infamous local tabloid, *El Sol de Acapulco*, following two "public" feminicides in 2006:

> "Rosa did not work or study … and was presumably addicted to alcohol [and] drugs … her killers seduced her and invited her to a party, where it is assumed that they sexually abused her once she was drunk" (p. 107).[1]

> "... It is difficult to conclusively determine if she was raped due to the advanced state of decomposition in which her body was found. However, there is no doubt that she was strangled, since a bra—presumably her own—was found tied around her neck" (p. 108).[2]

The first article engages in baseless character assassination to convince the reader that the deceased was a 'bad woman' who, owing to her presumed drug and alcohol addiction, allowed herself to be sexually abused, and ultimately, murdered. The second *nota roja* takes a more graphic angle, making unnecessary reference to the state of decomposition in which the body was found and capitalizing on the sexual connotation of her strangulation using a bra as a ligature. The way in which nameless public victims such as these are divested of their identities and reduced to a sum of their mutilated parts and presumed misdemeanors by the press signifies that the feminicides do not necessarily even register in the public imagination as human rights violations, since the object of the violence itself has not first been portrayed or recognized as human. This systemic dehumanization of particular women results in the sensationalistic apprehension of a body without recognizing the life that once possessed it; after all, as we have already noted, "a life has to be intelligible as a life, has to conform to certain conceptions of what life is, in order to become recognizable" (Butler, 2009, p. 7).

Another nefarious way in which feminicide is negated as a human rights violation by the public and the press is through the popular discourse that such "victims were not really victims because they were 'involved in something'" (Moon and Treviño-Rangel, 2020, p. 725). Drawing on Freudian notions of repression, Moon and Treviño-Rangel offer several explanations for the public's unwillingness to recognize certain forms of violent crime as human rights violations. In tandem with the discriminatory dissociation which enables individuals to psychically distance themselves from the scene of the crime and the "fear of 'being next,'" the notion that victims are "'[g]etting what they deserve'" facilitates the desirable illusion of justice in an otherwise unjust system (pp. 731-734). In other words, the symbolic segregation of particular individuals as criminals or 'bad women' sustains the "belief—or more likely hope—that some kind of social order is being maintained," with condign retributions disseminated only among those who deserve them (p. 731). Turning once more to the Mexican media, we can see this victim-blaming dynamic in action. The following excerpt was extracted by Perulero from another article published by *El Sol* in 2006:

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[1] Author's translation.
[2] Author's translation.

"…due to her old age, this veteran prostitute no longer had as many clients as she once did ... she took them to an abandoned house filled with garbage … Several of the men were of bad character, and as such they remain the principal suspects [in her murder]" (p. 106).[3]

Herein we glimpse the literal incarnation of Fuentes' "garbage of society"—a licentious and degenerate woman whose well-worn body is all but elided by the author with the squalor that surrounds her. Rather than apportioning blame to the institutions and systems which failed to protect an evidently vulnerable member of society, the article instead ridicules the victim for her lifestyle choices, rearticulating the tragedy of her death as an impassive inevitability. In this way, the reductive binaries of good and bad—and, indeed, human and not-quite-human— are reinforced, ratifying again Butler's hypothesis that "there are 'lives' that are not quite—or, indeed, are never—recognized as lives," owing to the socioeconomic, geographic, and political contexts in which they are produced (2009, p. 4). As we will see in the following section, the regnant narrative that certain feminicide victims "'must have done something'" to earn the violence committed against them, which in turn diminishes their social worth and status as human, is—worryingly—just as pervasive in the judicial system as it is in the public imagination (Ansolabehere and Martos, 2022, p. 88).

COMPLICITY IN THE COURTS

In 2007, alongside Costa Rica, Mexico became one of the first two countries in Latin America to formally criminalize the offense of feminicide. The law—General Law of Access for Women to a Life Free of Violence (GLAWLFV)—was conceived under significant pressure following the infamous Ciudad Juárez murders, where more than 500 women were tortured, raped, and killed between 1993 and 2010, with thousands more still reported missing (Alba, 2010). The initial legislation decreed that perpetrators would be subject to incarceration for 40 to 60 years, a $2,000 fine, and be stripped of their inheritance rights if found guilty (Joseph, 2017). Subsequent laws passed in 2014 in Mexico, Chile, and El Salvador also mandated that the victims and their families be financially compensated by the state, complementing the preventative measures and initiatives implemented by local and national human rights organizations (UNDP, 2017, p. 26). In the immediate aftermath of the legislation, it was hoped that GLAWLFV might truly make good on its promises to indict the physical, psychological, patrimonial, economic, and sexual violence that so often anticipates the act of feminicide (Secretaría de la Gobernación de México, 2007). However, its implementation was critically hindered by a number of factors, not least the fact that Mexican authorities do not recognize the majority of female homicides as feminicides, thereby preventing GLAWLFV's severe penalties from being imposed. As a case in point, a staggering 50,000 women were killed in Mexico between 2015 and 2022, but only 12% were officially recognized as feminicides (Morland and Pulice, 2022). Moreover, of the 3,892 female murders reported in Mexico between 2012 and 2013, just 24% were investigated by the authorities, of which only 1.6% led to sentencing (Bautista, 2017).

One explanation for this chasm between judicial theory and practice in Mexico is the "deep enmeshment of the state with organized crime," which proliferates similarly across much of Latin America (Moon and Treviño-Rangel, 2020, p. 736). It is well-documented that judicial

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[3] Author's translation.

officials are targeted by criminal organizations and drug cartels seeking to exculpate themselves from sentencing, resulting in rampant "negligence in investigations and misuse of evidence" across the purview of Mexico's criminal justice system (Pantaleo, 2010, p. 350). Considering that drug cartels are often the culprits in cases of public feminicides, as we have already seen, Olivera's assertion that "Mexico has become like Colombia in the sense that the narcos have practically become a parallel power" is rendered all the more troubling with respect to augmenting trends of gender violence (2006, p. 111). This returns us to Menjívar and Walsh's (2017) theory that the state tacitly and explicitly condones femicidal violence through acts of omission and commission respectively. Where the pursuit of detrimental neoliberal economic policies was shown to constitute willful ignorance in the case of the former, the corruption which dominates the courts and enables perpetrators to walk free demonstrates a clear and deliberate act of commission.

Far worse than ignoring the feminicides altogether, the courts have legislatively recognized the crime as a human rights violation, only to enable its proliferation. This fact can be most patently observed in Mexico's prosecution rates, which are some of the lowest in the region. Ansolabehere and Martos (2022) assert that 95% of all registered crimes do not result in sentences, to which Pruchniak (2021) adds that 98% of murder cases specifically—including both homicide and femicide—remain unsolved. Thus, as the authors of the omission/commission duality affirm, the judiciary and "the government [do] not merely turn the other way in the face of gender violence through inaction but become an active participant in harming women" (Menjívar and Walsh, 2017, p. 234).

Another important point for consideration in this culture of "impunity rather than accountability," which prevails within the Mexican legal system, is the way in which the profiling of 'bad' women perverts the outcome of judicial proceedings (Joseph, 2017, p. 13). This is to say that, far from being confined to the public imagination and the *notas rojas* which feed it, the aforementioned denigration of certain feminicide victims can be observed verbatim in the discourse of judicial officials and institutions. As Menjívar and Walsh propound, discriminatory attitudes "seep through from the social context to the justice system and shape the cognitive frames through which violence against women is viewed," further diminishing conviction rates and legitimizing the misogynistic behaviors of offenders (p. 231).

By way of illustration, let us briefly consider the response of the Mexico City Attorney General's office (PGJ) to the feminicide of Lesvy Osorio, a young college student who was strangled with a telephone cord on the National Autonomous University of Mexico campus in 2017. Before official judicial proceedings had even begun, the PGJ tweeted a statement which uncannily echoes the substance abuse-based character defamation that we saw earlier in *El Sol*; namely, that Osorio was "an alcoholic and a drug user who was no longer studying at UNAM and had been living out of wedlock with her boyfriend" (Rodriguez-Dominguez, 2017, p. 1). The tweet, which prompted thousands of women to respond with the polemic hashtag #SiMeMatan, was later deleted, but the Public Prosecutor did not offer an apology; instead, it ruled that Osorio had committed suicide, despite acknowledging that her boyfriend—with whom she had argued on the night she died—was present at the scene (Bautista, 2017).

Such flagrant acts of commission on behalf of the Mexican judiciary as they fail to prosecute feminicide as a human rights violation have become so epidemic that, in 2009, the Inter-American Court of Human Rights (IACHR) was forced to intervene, following the torture and murder of a woman and two girls in a cotton field in Ciudad Juárez. Among the list of

charges for which the Mexican State was declared internationally responsible by the IACHR were a lack of due diligence in their investigations; "the denial of justice" to the victims and their families, and "the lack of prevention of these crimes, despite full awareness"—and recognition—"of the existence of a pattern of gender-related violence" (Acosta, 2012, p. 23). Moreover, the Court also made trailblazing provisions for "the hostile stereotypes of state authorities toward the victims" (Bettinger-Lopez, 2011, p. 320), even going as far as to suggest that the aspersions cast upon a victim for her sexuality or state of inebriation—the like of which we saw in the case of Lesvy Osorio—comprised "one of the causes and consequences" of feminicide perpetrated against women in the Mexican context (IACHR, 2009, p. 41).

Like Mexico's ostensibly progressive domestic legislation on gender violence, the IACHR's landmark ruling may seem, in a vacuum, to be the "historic victory" that it has been hailed (Bejarano, 2021, p. 40). However, the ongoing prevalence of judicial corruption, structural gender discrimination, and the state's denial of the magnitude of the feminicide crisis that we have seen throughout this paper would indicate that the IACHR's intervention has not ameliorated the climate of gender violence as much as their advocates may have hoped. Indeed, it was not until three years after the Cotton Field Case that Mexican authorities even began to count feminicide data, at which time the country recorded the sixteenth-highest feminicide rate in the world (Sandin, 2020). Having now climbed to eleventh place, it is evident that legislation alone will not suffice for Mexico to demonstrate meaningful recognition of its feminicide crisis, nor to oust the judicial corruption and impunity which enable the perpetuation of its seemingly indefatigable flow (World Population Review, 2023).

CONCLUSION: THE SYMBIOSIS OF PREJUDICE

From a purely legislative perspective, one might be inclined to argue that Mexico has effectively recognized feminicide as a human rights violation. However, this article has attempted to demonstrate that beyond the quixotic ideals inscribed within its legal framework, Mexico has not only ignored the epidemic of gender violence occurring within its borders but has also actively contributed to its continuation. This hypothesis has been elucidated through a tripartite analysis of the three main groups responsible for recognizing or ignoring feminicide: namely, the state and its indifference to the suffering wrought by neoliberal governance; the endemic culture of victim blaming at the social level and the marginalization of expendable female bodies; and finally, the ineptitude of Mexico's "non-functional justice system" to prosecute perpetrators as a result of persistent corruption, impunity, and discrimination (Olivera, 2006, p. 112).

Though I elected for the sake of concision to focus my argument on the case of Mexico, the conclusions drawn here remain relevant to countries such as Honduras, El Salvador, and Guatemala, which are similarly beleaguered by a rising tide of feminicide. Underpinning the prolific gender violence in these Central American countries are the very same dehumanizing narratives that swirl around the figures of Mexican maquiladora workers, prostitutes, and other women who are perceived as "disposable" within the patriarchal typology of idealized femininity (Fuentes, 2020). With this in mind, I would like to reiterate the postulation with which this paper began: in order for feminicide to be meaningfully recognized as a human rights violation—in Mexico, Latin America, and beyond—we must first reconfigure the hegemonic global discourse that some lives are intrinsically worth more than others.

For future research on this topic, consideration of the factors influencing the failure of

civil society organizations to adequately engage with and rally against the epidemic of feminicides occurring in Latin America could prove a useful supplement to the findings presented here. Moreover, a comparison between this region and others beset by femicidal violence, such as Jamaica (10.9 feminicides per 100,000 inhabitants), the Central African Republic (10.6 feminicides per 100,000 inhabitants), or South Africa (9.1 feminicides per 100,000 inhabitants) might enable future scholars to identify potential correlations between socio-economic, cultural, religious, or political factors which contribute to elevated instances of gender-based violence in particular countries (World Population Review, 2022).

CONFLICT OF INTEREST

No conflict of interest declared.

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Was COVID-19 Good for Big Pharma? How the US and Canadian Pharmaceutical Lobbies Fought, Won, and Lost Their Political Battles During the COVID-19 Pandemic

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ABSTRACT

While the US and Canadian health care systems differ starkly, their prescription drug systems closely align. With prescription drugs, the countries share two important characteristics: a lack of universal prescription drug coverage and high prescription drug prices. Additionally, both countries have pharmaceutical industries whose political influence has discouraged policymakers from acting on price and coverage. However, starting in 2020, the adverse economic and public health impact of COVID-19 created new political pressure to enact reforms. This fervour for reform led to a clash between government and industry. In both countries, the industry relied on their lobbying arms, the Pharmaceutical Research and Manufacturers of America (PhRMA) and Innovative Medicines Canada (IMC), to act as their advocates. The rhetorical element of the pharmaceutical lobbies' campaign against prescription drug reform had three defining features. First, the pharmaceutical lobbies lionized their industry's work producing the COVID-19 vaccine. Second, they claimed the moral high ground in the prescription drug debate. Third, they offered alternative policy measures friendlier to industry interests and vaguer in substance than the measures policymakers considered. In the same year (2022), the Canadian pharmaceutical lobby succeeded where the US pharmaceutical lobby failed: blocking proposed prescription drug reforms. These differing outcomes can be attributed to three factors: the element of surprise, political capital, and operational leverage. These diverging paths indicate a shift in the political influence of the US and Canadian pharmaceutical industries. This shift in influence has altered the two countries' respective prospects for enacting further reform measures in a post-pandemic world.

INTRODUCTION

Overall, the Canadian health care system is more equitable and works more efficiently than the US system (Barr, 2001; Barr, 2007). However, neither country provides universal coverage for prescription drugs. Additionally, among OECD countries, the US and Canada rank first and second in highest out-of-pocket spending for prescription drugs and first and third for highest prescription drug list prices (Kuranti et al., 2022; PMPRB, 2021). These problems of coverage and pricing exacerbate social and economic inequalities in both countries.

The political influence of the US and Canadian biopharmaceutical industry helps explain the persistence of coverage and pricing problems. In both countries, the pharmaceutical lobbies have track records of successfully persuading policymakers to curb or shelve prescription drug regulatory proposals. However, some scholars suggested that COVID-19 might serve as a "window of opportunity" for social policy reforms in the US and Canada (Amri & Logan, 2021). This potential for reform raised several questions: How would US and Canadian policymakers attempt to advance prescription drug reform? How would the US and Canadian pharmaceutical lobbies respond to these pushes? How would the rhetorical and legislative contests between government and the pharmaceutical lobby unfold?

Using the interpretive method, I examined the US and Canadian pharmaceutical lobbies' framing of prescription drug reform during COVID-19. I then used historical institutionalism (HI) to study the differing outcome of prescription drug reform efforts in my two selected case studies: its success in the US, and its failure in Canada. These diverging paths provide important lessons about power: who has it, how it can be wielded effectively, and its limits. The differing outcomes also suggest a consequential shift in the relative political influence of the pharmaceutical industry in each country.

THEORETICAL FRAMEWORK

A theoretical framework composed of four theories - regulatory capture theory (RCT), corporate bias theory (CBT), veto player theory (VPT), and path dependency theory (PDT) - help explain the US and Canadian pharmaceutical industries' political influence exerted through their lobbying arms. According to RCT, government regulatory agencies can become "captured" by private industry interest groups and habitually prioritize industry interests (Davis & Abraham, 2011; Tuohy & Gilead, 2011). CBT posits that the habitual collaboration between industry and government may spill over to legislative bodies (Calnan & Douglass, 2017). Immergut (1990) characterizes interests with enough power to impede reform efforts as veto groups. According to VPT, veto groups use institutional veto points within a political system to block or alter policy proposals. The Canadian political system has two institutional veto points; the US has four (see Table 1). The higher number of institutional points in the US political systems means US interest groups have more opportunities to influence policymaking than Canadian interest groups (Stepan & Linz, 2011).

	Canada	US
Legislative	Bicameral Legislature composed of the House of Commons (first veto point) and the Senate (minimal political power, not a veto point)	Bicameral Legislative composed of a House of Representatives (first veto point) and the Senate (second veto point)
Executive	None – Prime Minister is part of the House of Commons	President of the United States with the power to veto bills passed by Congress (third veto point)
Sub-national jurisdictions	10 provincial governments (second veto point)	50 state governments (fourth veto point)

TABLE 1: Veto Points in US and Canadian Political Institutions

PDT (Pierson, 1994) explains why regulatory capture and corporate bias persist in policymaking. Policymakers often favour continuity over change. If policymakers attempt to make changes opposed by entrenched interests, they face the threat of interest group backlash. This backlash can have adverse political consequences. The fear of backlash fosters an aversion to

pursuing change and normalizes capitulation rather than resistance as policymakers' default response to interest group opposition. Weaver (1986) characterizes this phenomenon as policymakers' preference for blame avoidance over credit claiming. Figure 1 displays visually how the proposed theoretical framework can help explain the persistence and expansion of interest group power over time.

Step 6
An entrenchment of regulatory capture (RCT, PDT, VPT)

Step 1 -
Policymakers introduce reform

Step 2
Interest groups mobilize against reform and signal their willingess to impose political consequences if reform is pursued or enacted

Step 5
A deepening of corporate bias in policymaking (CBT)

Step 4
The reform passes in a watered-down form according to interest groups' wishes or the reform effort is abandoned

Step 3
Policymakers develop an aversion to change (blame avoidance) and reformers fail to gain sufficient support for their reform
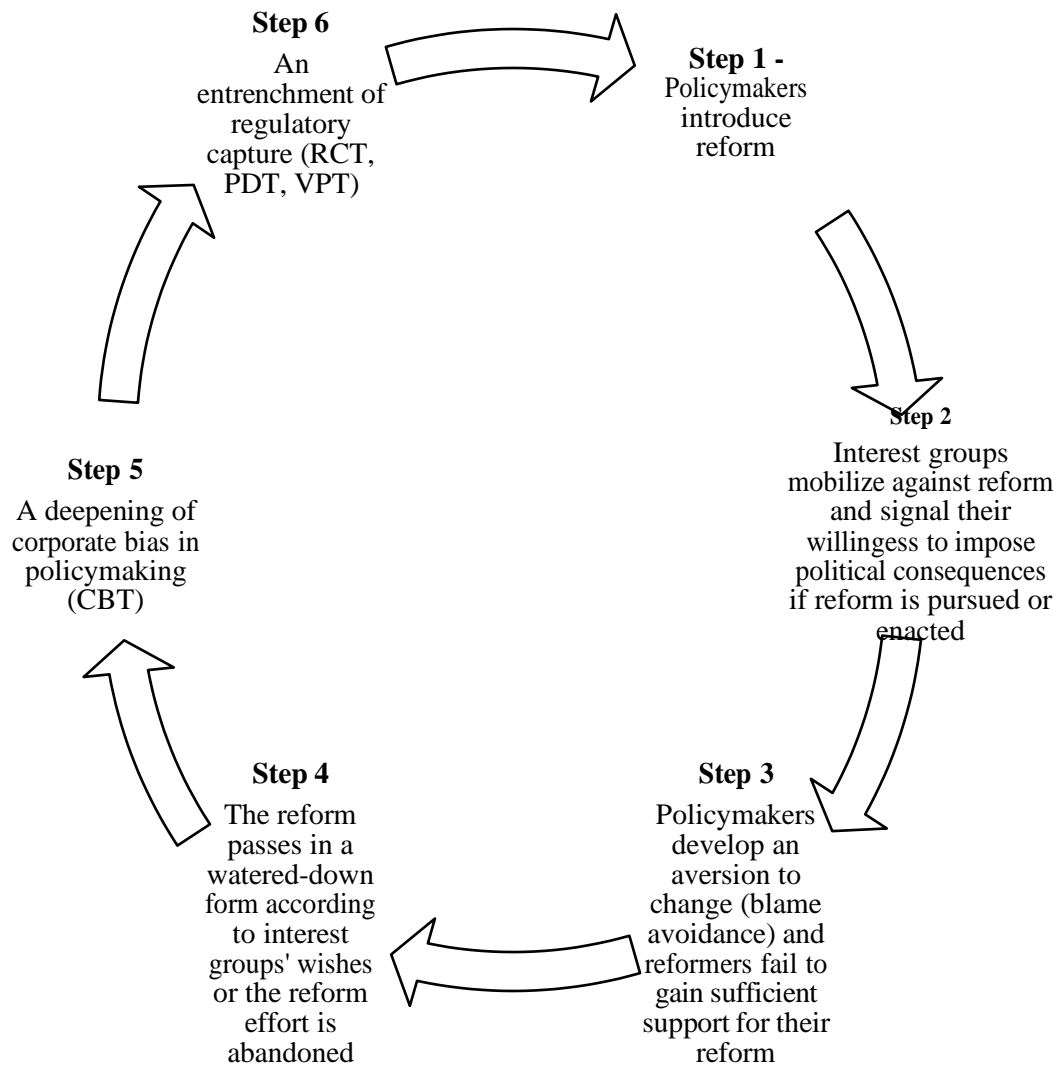
FIGURE 1: The Regulatory Capture-Corporate Bias Cycle

US and Canadian policymakers have traditionally complied with the pharmaceutical industry's wishes. Thus, the American and Canadian pharmaceutical lobbies have often succeeded in derailing or watering down legislative attempts to reform prescription drug pricing and distribution and in influencing regulatory processes for approving new drugs (Carpenter et al., 2008; Darrow et al., 2014; Fain et al., 2013; Hacker, 2010; Kesselheim et al., 2015; Law, 2014; Lexchin, 2012; Lexchin, 2017; Oliver et al., 2004; Olson, 2002). As powerful veto groups, the US and Canadian pharmaceutical industries have captured the regulatory process and infused corporate bias into policymaking.

COVID-19 AS A WINDOW OF OPPORTUNITY FOR REFORM

Crises can act as focusing events for particular issues, causing policymakers to focus on the factors that have exacerbated that crisis. They ask themselves what they or their predecessors could have done to prevent the current crisis or blunt its' severity (Hemerijck, 2013; Kingdon, 1995). COVID-19 underscored the consequences of Canada and the US's high prescription drug prices and lack of universal prescription drug coverage for those who faced pandemic-induced economic hardships (Lexchin, 2022a; Nguyen, 2021). Thus, the pandemic seemed like an opportune moment for policymakers to prioritize reducing prescription drug costs. However, even with the pandemic acting as a focusing event for prescription drug prices, the lingering presence of the pharmaceutical industry made reform seem daunting. Success was uncertain. The wrath of the industry was guaranteed. Pursing reform meant resisting the temptation to secure political safety through inaction.

METHODOLOGICAL APPROACH

This paper employs the interpretive method to analyse the rhetorical strategy used by the US and Canadian pharmaceutical lobbies to frame their opposition to prescription drug reform. It then utilizes historical institutionalism to shed light on the different US and Canadian reform paths. To interpret the frames put forward by the pharmaceutical lobbies, I coded a set of documents collected from the first eighteen months of the COVID-19 pandemic using systematic relevance sampling (see Krippendorff, 2013; Lynch & Perera, 2017; Schreier, 2014). I triangulated my findings by supplementing my systematic sample with a purposive sample (Lincoln & Guba, 1985; Lynch, 2013; Nowell et al., 2017). My purposive sample included an interview with a Canadian pharmaceutical lobby executive and two additional pieces of content. In this study, Canada and the US act as "most similar systems" (see Hacker, 1998; Przeworski & Tuene, 1970), as they share the common characteristics of lacking universal coverage for prescription drugs and having some of the highest drug prices in the world, yet took different paths on prescription drug reform during the COVID-19 pandemic. Appendix A lists my systematic and purposive document samples.

A RHETORICAL APPROACH TO OPPOSING PRESCRIPTION DRUG REFORM DURING COVID-19

During the first 18 months of COVID-19, my analysis of PhRMA and IMC's media releases and executive public statements showed that prescription drug reform was the organisations' most frequently discussed issue. PhRMA argued against congressional proposals to repeal Medicare Part D's non-interference clause. Repealing this clause would allow Medicare to negotiate for lower drug prices on behalf of American consumers with pharmaceutical manufacturers and distributors.

IMC, meanwhile, opposed the implementation of Canada's Patented Medicine Prices Review Board's (PMPRB) three amendments to prescription drug regulations. The first amendment eliminated the US and Switzerland as comparator countries in determining Canadian drug prices. The second amendment introduced a health technology assessment to help determine drug prices. The third amendment required the pharmaceutical industry to provide the government with more information about its price negotiations with insurance companies (Rawson, 2021).

In their public advocacy campaigns against prescription drug reforms, the US and Canadian pharmaceutical lobbies relied primarily on three rhetorical tactics: evoking in-group valorisation, engaging in value contestation, and promoting friendly and illusive alternatives.

EVOKE IN-GROUP VALORISATION

PhRMA and IMC valorised the biopharmaceutical industry during the pandemic by highlighting the industry's work on the COVID-19 vaccine. In both countries, the pharmaceutical lobbies framed policymakers' actions to regulate drug prices as a threat to the industry's effort to respond to COVID-19 and prevent future diseases. Both PhRMA and IMC called for reciprocal generosity for the pharmaceutical industry. Their message to policymakers, distilled to essentials, was: *we gave your country life-saving vaccines—now it is time for you to stop trying to impede our revenue stream.* PhRMA and IMC asserted that the work of the biopharmaceutical industry made them authorities on pandemic recovery and future pandemic preparation. Thus, policymakers' actions needed to align with industry priorities (IMC, 2020b, 2020e; PhRMA, 2021b, 2021c).

ENGAGE IN VALUE CONTESTATION

The pharmaceutical industry's opponents often accuse the industry of opposing prescription drug reform purely because of greed. Consequently, the industry's opponents claim the moral high ground in reform debates. During COVID-19, the key element of the US and Canadian pharmaceutical lobbies' rhetorical strategy was to contest this claim. Neither PhRMA nor IMC denied that the measures they opposed would lower prescription drug costs. Rather, they sought to regain the moral high ground by reframing the debate. PhRMA and IMC argued that the achievement of one normative value, affordability, must not come at the expense of another value, access. If governments excessively reduced the pharmaceutical industry's revenue, the industry would have insufficient resources to manufacture new medicines. Thus, patients deprived of those new medicines would unnecessarily suffer. This confluence of adverse phenomena would impede recovery from COVID-19 (IMC, 2020b; PhRMA 2021b, 2021c).

PROMOTE FRIENDLY AND ILLUSIVE ALTERNATIVES

During COVID-19, residents of the U.S. and Canada became increasingly attuned to the health inequalities the pandemic brought to light, including prescription drug coverage and affordability. Baumgartner (2012) writes that when the status quo on a political issue such as health care has been discredited, interest groups often seek to avoid being associated with this status quo by embracing limited reforms.

PhRMA and IMC adopted this strategy, embracing reform abstractly and advocating for reforms narrower in scope and friendlier to industry interests than those policymakers were considering. In their public statements, PhRMA and IMC linked to white papers with allegedly superior reforms that the industry supported (PhRMA, 2021a, 2021b; IMC, 2020d). However, nowhere in PhRMA's 22-page "Better Way" white paper was the word "Congress" or any congressional bill even mentioned (PhRMA, 2022a). IMC urged the government to work with industry on a better alternative to the PMPRB amendments, and its reform proposals were more specific than PhRMA's (IMC, 2020a). However, both PhRMA and IMC argued that the COVID-19 pandemic was the wrong time for prescription drug reform (PhRMA, 2021c, 2021d; IMC, 2020c, 2020d, 2021).

PhRMA and IMC's statements about change revealed a similar theme: *we favour change, just not this specific change at this moment.* By continually portraying change as an abstract future concept rather than an action ever appropriate for the present moment, the lobby rebutted allegations that it only wanted to preserve the status quo while simultaneously putting forward alternatives that did exactly that.

DIFFERING OUTCOMES

In March of 2022, the second anniversary of COVID-19 pandemic, it seemed that both PhRMA and IMC had triumphed. US policymakers abandoned legislation that would have lowered prescription drug prices, and Canadian policymakers had postponed the PMPRB amendments' implementation four times (Lexchin, 2022b). However, in the latter half of 2022, the two countries took opposite paths on prescription drug reform. In the United States, the pharmaceutical lobby suffered a rare defeat. In Canada, the pharmaceutical lobby remained triumphant.

These diverging outcomes can be explained by three factors that afflicted PhRMA that did not afflict the IMC: 1) The element of surprise, 2) Depleted political capital, and 3) A lack of operational leverage.

THE ELEMENT OF SURPRISE

In 2021, when the Build Back Better Act passed the House but failed to pass in the US Senate, prescription drug reform seemed doomed. But in July 2022, a surprise agreement revived prescription drug reform in a new bill: the Inflation Reduction Act (IRA). PhRMA mobilized against the bill, sending an army of lobbyists to Congress and spending millions in ad buys (Cohrs, 2022a). These lobbying efforts were unsuccessful; with the prescription drug reform provisions intact, President Joe Biden signed the IRA into law in August of 2022. The PMPRB amendments met a different fate. After the Quebec Court of Appeals ruling struck down two of the amendments, the government did not appeal the ruling to Canada's Supreme Court. In November of 2022, the remaining amendment was suspended indefinitely (Crowe, 2023).

These diverging outcomes unfolded contrary to what veto player theory would predict. Namely, it would predict that US interest groups would be better positioned to stifle reforms than Canadian interest groups since the US political system has more veto points (Stepan & Linz, 2011). However, the IRA's element of surprise helped offset the veto point advantage of the US pharmaceutical lobby. When Congress introduced the IRA, PhRMA was unprepared to wage an intense advocacy campaign across multiple veto points as it had done with Build Back Better (Cohrs, 2022a; Cohrs, 2022b).

Meanwhile, throughout the pandemic, IMC waged a lower-intensity but more consistent advocacy campaign against the PMPRB amendments. Unlike the IRA, the PMPRB amendment implementation process was an administrative rather than legislative responsibility. IMC could adopt a narrower focus on one agency (and its subset), Health Canada and the PMPRB, over a longer period. Consequently, IMC had critical institutional and political advantages not afforded to PhRMA.

DEPLETED POLITICAL CAPITAL

In 2021, the US pharmaceutical lobby spent a record-breaking amount of money on congressional lobbying (Owermohle, 2023). This spending, combined with the lobby's history of generous political contributions (OpenSecrets, 2022), yielded political dividends for the lobby. Several congressional Democrats whose campaigns were among lobby's top recipients demanded a weakening of Build Back Better's prescription drug pricing reforms (Diamond et al., 2021). This intense lobbying campaign meant the pharmaceutical lobby had exhausted much of its political capital by the time Congress introduced the IRA. One of the industry's top allies, Democratic Congressman Scott Peters, who had previously helped secure the limits to Build Back Better, argued that the industry "came out ok" on the IRA and ignored PhRMA's call to vote against the legislation (Aboulenein, 2022). Simultaneously, other Democrats who had previously sought to avoid angering the lobby had become exasperated with the lobby's antics and impervious to lobby threats (Rowland, 2022).

In contrast, the Canadian pharmaceutical lobby's political capital seemed to have grown, rather than shrunk, since the pandemic began. This will be discussed more in the next subsection.

A LACK OF OPERATIONAL LEVERAGE

During the late 1980s, privatization and austerity under Canada's Progressive Conservative government led to a significant decline in Canadian vaccine manufacturing capacity. When COVID-19 began, the US had the capacity to mass produce its own vaccines; Canada did not. This meant the Canadian government was more dependent than the US government on the cooperation of the pharmaceutical industry to vaccinate its citizens (Tasker, 2021b). However, years of a frosty relationship between Canada's Liberal government and the pharmaceutical industry made the industry reluctant to cooperate with the government's vaccination push (Wells, 2021). When the Canadian government attempted to recruit pharmaceutical companies like AstraZeneca to make COVID-19 vaccines domestically, these companies refused, citing the government's previous hostility towards the pharmaceutical industry. In April of 2021, only three percent of adult Canadians had been fully vaccinated, compared with 37 percent of adult Americans (Tasker, 2021b). Public anger simmered over the slow pace of vaccine distribution; Liberal policymakers feared the potential political fallout (Scherer, 2021; Tasker, 2021a).

Consequently, the Canadian pharmaceutical industry had a new source of leverage. As part of its effort to decrease tensions with the industry, the federal government gradually walked away from prescription drug reform. A pharmaceutical lobby executive who works closely with Innovative Medicines Canada interviewed for this project spoke to what they saw as a cause-and-effect relationship between the government's vaccination effort and the advancement of the Canadian pharmaceutical lobby's political agenda. According to this executive, as the Liberal government began to less aggressively pursue policy priorities at odds with those of the Canadian pharmaceutical lobby, pharmaceutical companies began to cooperate more readily with the government's vaccination efforts. Marc-André Gagnon, a Canadian political economist, expressed a similar view:

> I think Canada would have been able to go forward with [the PMPRB amendments] if we didn't have the pandemic. We're kind of grovelling in front of drug companies to have supply agreements on vaccines that are not produced here. Basically, Canada was in a very precarious position (quoted in Crowe, 2022).

The less adversarial relationship between the Canadian pharmaceutical lobby and the Liberal government was among the most significant ways the pandemic impacted Canadian politics.

DISCUSSION AND CONCLUSION

A series of high-profile resignations in the US and Canadian pharmaceutical sectors in late 2022 provide a salient illustration of the contrasting fates of prescription drug reform efforts in the two countries.

A few days after President Joe Biden signed the IRA into law, PhRMA announced that its public affairs chief, Debra DeShong, was "stepping down to pursue new opportunities" (PhRMA, 2022b). Harvard government professor Daniel Carpenter suggested that the US pharmaceutical lobby's vaccination efforts were "either not well-exploited by or just not able to be exploited by the pharmaceutical lobby's public relations" when advocating against the IRA (quoted in Cohrs, 2022b). The timing and abruptness of DeShong's departure suggested that PhRMA agreed with Carpenter's assessment. Moreover, deposing DeShong gave PhRMA a scapegoat to placate member companies furious at their lobbyist's failure to stop the IRA.

Meanwhile, in Canada, following the indefinite suspension of the PMPRB amendments, three PMPRB board members resigned. One of them, Matthew Herder, admonished the government for obstructing the PMPRB's independence, undermining its credibility, leaving the PMPRB in "an endless tunnel with no light," and justifying their actions with messaging that was "largely indistinguishable in form and substance from lobby talking points" (Herder, 2023). The last part of Herder's admonishment indirectly complemented the Canadian pharmaceutical lobby's public relations efforts. In communicating politically, an advocate's foremost objective is to persuade policymakers to adopt their framing of an issue. According to Herder, IMC and its member companies achieved this objective during COVID-19.

In the US, before policymakers abandoned the Build Back Better Act, the pharmaceutical lobby secured significant concessions in its prescription drug provisions. In response to lobby lobbying, policymakers amended the Build Back Better Act to limit the groups who could benefit from lowered drug prices, narrow the list of drugs whose prices would be eligible for reduction, and remove the international pricing formulary as a mechanism for capping costs. The IRA prescription drug provisions preserved these modifications (Sachs, 2022; Schott et al., 2022; Sullivan, 2021; United States Congress, 2022). These modified provisions testify to the significant political leverage the US pharmaceutical lobby continues to have. However, it is difficult to recall another instance in recent US history where Democrats, when in control of government, have been able to so blatantly defy the pharmaceutical lobby without this defiance derailing their reform proposal or resulting in heavy negative political consequences. In the 2022 midterm elections, the pharmaceutical lobby did not act on its implied threat to spend heavily to oust Democrats who voted for the IRA (Owermohle, 2023; Wilson, 2022). Additionally, Democrats lost fewer House seats than forecasts expected and gained an additional seat in the Senate (Silver, 2023).

Weaver (1986) suggests that policymakers often opt against action because they are inclined to embrace blame avoidance over credit claiming. However, in the 2022 US elections prove, US policymakers were able to both claim credit *and* avoid blame for enacting prescription drug reform. This is unwelcome news for the pharmaceutical lobby, as it hinders their ability to credibly wield the threat of political retribution to deter future reform efforts.

In Canada, the pharmaceutical lobby has emerged from the pandemic as an even more influential political player. In the US, the IRA signalled a visible shift away from regulatory capture and corporate bias; in Canada, the suspension of the PMPRB amendments after an extended regulatory battle indicated a deepening of corporate bias and regulatory capture in prescription drug policy. Whether these political terrains will continue shifting in a post-pandemic world is a story that has yet to be written.

CONFLICTS OF INTEREST

I have no conflicts of interest to declare.

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APPENDIX

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Stretching Filipino "resilience" amidst a Pandemic-induced Recession with Market and Government Failures: Insights from Community Pantries and Online Barter

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ABSTRACT

The Philippines has had its own historical highs and lows of economic and health indicators during the Covid-19 pandemic. The pandemic exposed various market failures, in which the government also had its own share of failure in addressing the problems created and mitigating the effects of the pandemic. A silver lining during the pandemic is the emergence of social and collective actions coming from individuals and groups. Led community efforts, community pantries and online barter trade are not new but the Philippine rendition provided it with a new brand and attention. However, authorities banking on the virtue of resilience and collaborative action may have caused underdelivery or neglect of its mandate and responsibility. Worse, it called these social actions, illegal and attributed unconfounded ideology beliefs. Finally, we acknowledge the tenets of these pandemic problems and social responses, and argue on some discussions on how to address inequality induced by the pandemic and socioeconomic agents.

INTRODUCTION

The Covid-19 pandemic is remarkably one of the global game-changers in terms of its complex and varied social influences in human society. While it is generally unanticipated, people across walks of life around the world struggled to cope with the risks and dangers of a fast-mutating virus with its history enveloped with conspiracy theories and threads of misinformation in this age of social media.

The Philippines has a share of its historic firsts during the last three years of the pandemic, The country recorded its lowest national product growth—dethroning the then-record lowest during the Marcos-era recession of 1983-1985. In this recession, the country experienced the highest unemployment rate and underemployment rates, unequally spread between genders, income classes and occupations (Epetia, 2020). A "silver lining" in this health crisis-induced recession is that inflation was benign in the initial months and years of the pandemic (Abueg, 2020). To aggravate the situation, the country had the highest economic contraction during the height of the pandemic's effect in the second quarter of 2020 (Punongbayan, 2020). The country was also one of the later ones to roll out its national vaccination program, only at the end of February 2021 (Amarila & Abueg, 2022).

Three years of navigating towards the path to the "post-pandemic new normal", we look at how the coronavirus has initially put everyone on the same page—at least in the Philippine setting—but social conditions and responses have induced and possibly have accelerated inequality.

DUO FAILURES

The initial months of the pandemic have revealed a significant amount of uncertainty, to the point that it reduced virtually all concerns of human life to survival. In the Philippines, having the "longest lockdown in the world" immediately after the Taal volcano eruption may considerably create a "great equalizer" across walks of life, and social and economic classes. It revealed the weakness of various market-based and public institutions that made the pandemic even more difficult to manage. Arguably, one silver lining to consider is that the pandemic hastened the planned transition of various economic and social activities to digital platforms. Additionally, even before the pandemic, legislation promoting work-from-home arrangements are put in place due mainly to the worsening traffic conditions in Metro Manila and highly urbanized cities. Thus, the pandemic also hastened such adoption of this new setup (Official Gazette of the Philippines, 2018).

However, a great revelation of this pandemic is the duo failures that the country faces: a bundle of market and government failures that have complicated the path to the "light at the end of the tunnel".

On the one hand, the pandemic has revealed the problem of market failure. This stems from the fact that economic theory teaches us that the market addresses issues of efficient production and distribution given self-interest motives (as in Smith, 1776). However, the survival tenets of the pandemic possibly made self-interest abound which left some sectors of society to have little access even to goods and services necessary for survival. Despite this perceived market failure, the pandemic also made new industries flourish: online-based activities, and more pronounced importance of the health sector and related industries (Abueg, 2021). It also encouraged businesses, the education sector, and the government to migrate to technology-based infrastructure amidst the country's record-breaking lowest internet connection speed in the world.

On the other hand, government failure is also an equally important facet of the pandemic. Given the elements of market failure, the government is expected to intervene (especially during economic hardships or crises) to mitigate and later alleviate the socioeconomic effects of such events. The interventions of the government during the pandemic also revealed the inadequacies of such interventions. It has also shown the inadequacy of information that the government has:to intervene correctly in the pandemic and formulate and implement sound policies and programs. For one, persistent confusion was presently given daily case reporting, community quarantine classifications, and even the promotion of face shields, which irked international experts on how the Philippine government views the pandemic. An example of this is an art competition painting by Jadie Pesaylo in 2021, which he described in his Facebook post, given in Figure 1 below.

On the ground, the implementation of health protocols even shows how confused and misguided authorities are in guiding the public (Arapoc & Savage, 2021). Even economic data and literature have indications of misleading interpretations, particularly on how the economy is faring given the months of the pandemic (Abueg, Macalintal, & Sy Su, 2022). Additionally, government action reflects misguided priorities: public spending reflects the prioritization of infrastructure spending on the promise of job creation and later reviving the economy out of the recession, but actual data shows otherwise (Suzara, 2020). This leads to shared and collective mistrust of public pronouncements, which is not only particular to the Philippines, but in countries across the world (Chan et al., 2020).

SOCIAL AND COLLECTIVE ACTIONS DURING THE PANDEMIC

Given the failures of both the market and the government, social action was immensely transformational in the "new normal". As we take the coronavirus in our midst as given and work our way to new opportunities and ways, we investigate the emergence of collective actions that defied the teachings of neoclassical economic theory: community pantries and online barter trade.

Community pantries are individual or group-led initiatives, where stalls of free goods are up for grabs, but with an appeal to moral suasion of exchange. The famous community pantry movement bears the phrase "from each according to his ability, to each according to his needs" (translation of the Filipino phrase: *magbigay ayon sa kakayanan, kumuha batay sa pangangailangan*)[1], in Figure 2. This means, people who look for goods may get but only according to what they need, but are also encouraged to share what they have and what they can share in the pantry. These initiatives are usually unmanned, which also resembles Japan's honesty stores, and are also common to the Batanes province in the Philippines. An example is a Facebook page that was created in early 2021 to push forward this initiative and advocacy, shown in Figure 3 below. The said page is still running and reaching economically and socially underprivileged individuals, especially in the latest surge of prices of agricultural commodities in the Philippines.

FIGURE 1: Art competition entry by Jadie Pesaylo in 2021. Photo and screenshot of his post from the artist's personal Facebook account.

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[1] This is often attributed to Karl Marx (1875) in his *Critique to Gotha Program.*

FIGURE 2: Enhanced signage of the Maginhawa community pantry in Maginhawa Street, Quezon City by Fine Arts students of the University of the Philippines Diliman. Photo from CNN Philippines (2021).
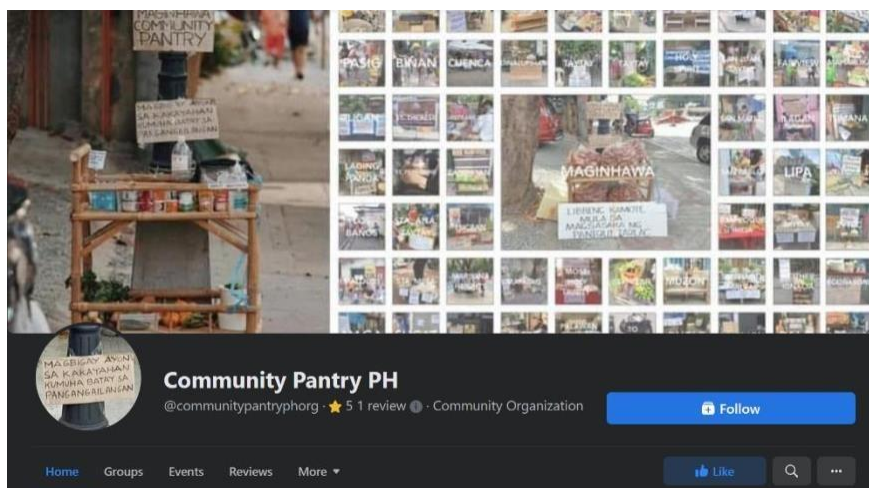

FIGURE 3: Community pantry Facebook page, created in April 2021. Screenshot from Facebook.

Community pantry initiatives are not new and are not only particular to the Philippines during the time of the pandemic. In fact, the world's dominant religions even teach community building and communal activities (e.g., Christianity, Islam, Buddhism). However, a problem given these initiatives is that community ideals may not be sustainable due to human nature and behavior (e.g., Aristotle in Rothbard, 2006(1995); Mill, 1861). This may even be prone to abuse and justification of neglect of the government's mandate and role in redistributive and alleviative efforts since income-earning citizens pay taxes for this primary role of the state. While the community pantry is a step-up socio-civic initiative to foster communal support, fraternity, and the famous virtue of "*bayanihan*", the community mission is falsely branded to be part of left-leaning ideologies (Lo, 2021), owing to the historical underpinnings of the Filipino phrase. The community pantry owning some "brand" of the Filipino spirit of "bayanihan" considering the

Philippines' experience under one of the "longest lockdown of the world", does not promise a sustainable or long-term solution to the current pandemic-induced problems in economy, health, and society—an action beyond charity (CNN Philippines, 2021). Apart from the economic aphorism of "there is no such thing as free lunch", mental exhaustion due to the pandemic adds to the stresses borne by those who are keeping the pandemic have the broadest reach possible, with some citizens having a certain degree of "dependence" and "entitlement"—subject to debate (e.g., DZRH News, 2021; Lasco, 2021).

Additionally, the community pantry movement became some "socio-civic wave" of awareness (Channel News Asia, 2021), which is not only particular to the Philippines[2] but also done in various parts of the world (e.g., India's version of the Philippines' former Vice President Robredo's "*E-konsulta*" program, maintained by civic groups to address the sudden surge of cases, see Economist, 2021). Another catalyst of this movement may be attributed to the gender roles during the pandemic (e.g., Badayos-Jover, 2021), where women leading these movements to send a more large-scale mother-based role, like what has been observed in the gender economics literature (Eswaran, 2014). This movement even supports prosocial behavior and teaching in business and economics curricula (Abueg et al., 2016), which is dissipated by the pandemic-induced digitization of economic and social affairs.

Business entities, non-government organizations, religious and other civic groups are putting up similar initiatives, but this objective of helping others is only through their own's valuation of "excess" and need to help—a problem resembling that of common property resources in economics.

While firms with corporate social responsibility (CSR) functions are encouraged to magnify the scale of the scope of community pantries, business models have relative difficulty in identifying long-term road maps (even before the pandemic)—a concept of "common goods" or advocacy goods (e.g., Abueg et al., 2014). A possible extension and complication would be when a particular firm from the private sector doing CSR is attributed with a bad reputation (e.g., Shim & Yang, 2016), which has implications as well to the public sector (e.g., the "*Barangayanihan*" initiative of the Philippine National Police, with claims of planted beneficiaries, in Luna, 2021).

Note that community pantries appeal to volunteerism and moral suasion. An equally important emerging social action is the emergence of online barter trade in the Philippines. These voluntary exchanges (on the non-online forms of barter) are in practice in the southern provinces of the Philippines with parts of Malaysia and Indonesia but were already put into light in 2018 given the rising prices of rice. The government even advocated this mode of exchange, believing it to be able to tame inflation (Rivas, 2018)—another indication of a government misguided on basic economic literacy and theory. This misconception is something common for those who do not have an adequate understanding in economics: that absence of money in transactions in a purely exchange economy does not imply the absence of inflation. Surprisingly, the parallel problem of low incomes perpetuated an online form of barter trade (Morales, 2020), which was another means of survival, and a form of social action.

In online barter, the same barter trade happens with the aid of technology. Online platforms and online communities arrest the problem of meeting the "double coincidence of

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[2] These community pantry waves are also reminiscent of political movements in the Philippines: the people's power revolutions in 1986 and 2001—the latter being dubbed the "text revolution" (Abueg et al. [2021]), and the experiences during the recent national elections in 2022.

wants", which is the main reason in economic theory for allowing money to exist. To some extent, some commodities are also behaving as commodity money if the double coincidence of wants is not met. Similar to the fate of community pantries, the proliferation of online barter irks government officials declaring it illegal. Later, clarifications were made, allowing only barter tradeon a personal basis (Cordero, 2020).

It is also important to highlight that online barter would necessarily require literacy in information communication and technology (i.e., at the minimum, to operate gadgets and work with computer software and gadget applications). However, to some extent, not all citizens have this level of literacy, which may contribute to inequality. This, we expound on in the next section.

FROM AN "EQUALIZER" TO INDUCED INEQUALITY: PANDEMIC AND DIGITALIZATION

Coming from a country that is notorious for its slow-speed internet not only in Southeast Asia but across the globe, the Philippines struggles with digitization. The pandemic, making this transition "urgent", has shown the pitfalls of this transition. The lack of digital infrastructure, the problem of access (biased to people with income means), and also marred with cybersecurity and threats of digital-based crimes are some of the few "baggages" of this so-called social metamorphosis. Notwithstanding, issues of online literacy also hound the general masses, which complicates the problems arising from hastened and intense digitization during the pandemic.

The developing country stature of the Philippines—always shying away from its dream of being an upper-income economy since 2016—shows that indeed the "digital divide" creeps into this transition. The education sector is witnessing students having no access to the internet, no means of buying gadgets, and to the extreme unaware of computers as "things of the modern century". Businesses also grapple with transitioning to digitization: small and medium-scale enterprises may not survive, given the relatively high costs of transitioning to online platforms.

The leveling off of the pandemic up to the mode of survival did not prevent the government from calling out these initiatives that they saw to be "unfitting" or "non-compliant". As we have discussed earlier, community pantries are attributed to be left-leaning (or "red-tagged"), while online barter is policed and declared illegal. These actions contribute to further inequality, a level higher than that induced by the digital divide. Agents with information on government action and motives can easily (to the extent, seamlessly) navigate to the "uncharted waters" of these "prohibited" collective actions. This information asymmetry works only with a small to minute fraction of the population. Looking forward today, the rising prices in agricultural commodities (from rice to sugar and eggs, to garlic, and to the record-breaking prices of onions) show indications of agents that can work on this information not available to the general public. Reports of the price movements of these basic agricultural commodities are possibly due to alleged cartels, which government agencies are also ramping up investigations (Cabuenas, 2023).

Three years into the pandemic, indications of shooting up inflation rates attributed to the rocketing agricultural commodity prices, the war between Ukraine and Russia (beginning 2022), and the record-level depreciation of the Philippine peso-US dollar exchange rate. These also contribute to the growing inequality already present during—and even before—the pandemic.

RESILIENCE AS A WAY FORWARD TO CURB INEQUALITY?

One important virtue celebrated in the Philippine culture apart from collective social action and camaraderie (embodied in the spirit of "*bayanihan*") is the virtue of resilience. These are enshrined in the actions of community pantries taking various forms (from food to medicines, to services, and other necessities), and to some extent, online barter trades. While it has always been enshrined in the culture of the Filipino, it evokes some resentment.

Resentment grew because the public was not satisfied with the government's delivery of its mandate and responsibility to the nation. They viewed the government has been taking advantage of the virtue of resilience. This virtue roots in the country having natural disasters as staples, but still sees the lack of adequate delivery of services and a comprehensive program of action from authorities (Mejia, 2020). A recent response from the government calls for an institution for a national department that will cater to disaster risk management. The controversy on onion prices faced a proposal to create a government-led research institute for the agricultural crop. These do not respond to the years-old problems that beset the country, but again anchoring and capitalizing on "resilience".

Not surprisingly, the Philippines trailed last among the resilience rankings of the pandemic (Abueg, Macalintal, & Sy Su, 2022). Government authorities even dismissed these as inconsistent (in terms of criteria), noncomprehensive (in terms of country coverage), and inconsiderate (claiming that these rankings do not look comprehensively at government policies and programs). These contribute to the perceived mistrust of people in their governments (e.g., Chan et al., 2020).

While we recognize social and collective actions from the ground, we should not bank on resilience per se, but collectively address the problems that beset persistent inequality. And to address these problems, the first thing is to recognize and acknowledge them. We do not resort to "romanticizing" (Lasco, 2018), but investigate this virtue to enhance solution-making and sustainability planning. Finally, we do not look at social actions and initiatives as competition. Government should lead in the promotion of collective action, which will enhance trust-building and cooperation. Prosocial behavior does not emanate from a vacuum, nor from the private sector alone. John Stuart Mill (1879) has also noted that even if there are difficulties in communal behavior via the various forms—socialism, communism, and his suggestion of a Fourierism—may be given some chance of success. We end with a quote in his *The Difficulties of Socialism and Communism*, in *Part X: The Critique of Socialism and Interventionism*:

> If the poorest and most wretched members of a so-called civilised society are in as bad a condition as every one would be in that worst form of barbarism produced by the dissolution of civilised life, it does not follow that the way to raise them would be to reduce all others to the same miserable state. On the contrary, it is by the aid of the first who have risen that so many others have escaped from the general lot, and it is only by better organization of the same process that it may be hoped in time to succeed in raising the remainder. (Mill, 1879)

CONFLICTS OF INTEREST

I have no conflicts of interest to declare.

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The Road to a More Accessible Web: Bridging the Inequality Gap with AI

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ABSTRACT

The United Nations hailed the Internet as a catalyst for the promotion of human rights and a necessary component for the attainment of the Sustainable Development Goals. However, the "digital divide" still remains, highlighting existing inequalities within the greater social sphere. A key factor that excludes certain populations from accessing the wealth of information available online is low web accessibility. Web accessibility refers to the ease of use of the Internet by persons with disabilities. This article proposes that this is an understudied dimension of inequality, both at the individual and societal level, potentially affecting 1.3 billion people in the world in varying degrees. It discusses how improving web accessibility can improve the lives not only of persons with disabilities, but also the general social welfare as well. In line with this, it explores a number of artificial intelligence use cases which can be implemented to mitigate this pressing challenge. Finally, the article concludes that governments, industries, and academia should devote increased initiatives in how AI can be used towards improving web accessibility in order to bridge the digital divide and contribute to alleviating the global inequality gap.

INTRODUCTION

The World Health Organization estimates that around 1.3 billion people worldwide live with disabilities, translating to 16% of the total global population (World Health Organization, 2023). Persons with disabilities (PWDs) often face stark inequality in various forms: from lower education levels, decreased employment rates, poorer health outcomes, and barriers to participation in daily life, among many others (Shandra, 2018). This affects their full enjoyment of human rights and hampers the global dream to meet the United Nations' Sustainable Development Goals (SDGs). With the recent impact and lasting effects of the COVID-19 pandemic, these inequalities have only increased (United Nations, 2018). The search for solutions continues.

One potential tool to mitigate this situation is the Internet. Ever since its early days, many have hailed the Internet as "the great equaliser," levelling the playing field for all (Coombs, 1998). More recently, it has been lauded as a catalyst for the full exercise of human rights (UN Human Rights Council, 2013). It has also been named a key component to meeting the SDGs (United Nations, 2018). The Internet ushered in the age of information, changing the economic, political, cultural, and even ecological systems of contemporary society (Fuchs, 2007).

However, wider access to the Internet still remains a global issue, a phenomenon known as the digital divide. It is defined as the gap between populations that can easily use and access technology and those that cannot (Sanders & Scanlon, 2021). Aside from structural barriers like lack of infrastructure, low income, and inadequate government support, a number of disabilities can also affect how millions of people use the Internet (Henry, 2007). In many instances, these

can serve as obstacles when interacting with the web via electronic devices (Abuaddous et al., 2016). These disabilities can be varied: from perception (such as auditory and visual) to cognition and understanding, to physical (including the impairment of fine motor skills). In addition to the digital divide, these disabilities can further serve as barriers to education, correct information, and opportunities. Already disadvantaged, these circumstances affecting their access to the Internet and related devices can widen the inequality gap for PWDs even more. Griffith, Wentz, and Lazar (2023) note how such barriers can be costly, both at the social and economic level, to PWDs, disenfranchising hundreds of millions of people around the world.

WEB ACCESSIBILITY

The concept of "web accessibility" seeks to assist users with disabilities with ease of access to the web, which means websites, tools, and technologies are designed with PWDs in mind (*Web Accessibility Initiative,* 1997). Web accessibility initiatives can lessen the societal costs of the digital divide and bridge this inequality gap. Allowing PWDs to acquire the same information, engage in the same interactions, and enjoy the same services as persons without disabilities can promote equal participation for PWDs in socio-economic and political activities through the Internet (Henry, 2007).

It is important to note that web accessibility does not only benefit PWDs. Known as the curb cut effect, solutions initially intended for PWDs people can also provide ease of web access for the general population (Stanford Social Innovation Review, 2017). One concrete example is increased font sizes and auditory support. Originally designed for people with low vision, they serve to benefit aging adults with changing visual acuity (Hou et al., 2022). Another is increased brightness for individuals facing situational limitations like outdoor sunlight. Addressing another aspect of social inequality, designs catering to low-bandwidth users (usually coming from remote areas and developing countries) also benefit those with (temporary) slow internet connections due to various situational causes (Aptivate, 2007). These are but many of the instances wherein tools and technologies originally designed for people living with disabilities and disadvantages have benefitted the greater community.

In fact, the International Standard Organisation (ISO) broadened the definition of web accessibility to "the usability of a product, service, environment or facility by people with the widest range of capabilities" (*ISO 9241-210:2019*, 2019). This definition characterises web accessibility as aiming to provide information services to as many people as possible (Kalbag, 2017). Its goal, therefore, is not to provide identical experiences, but rather to deliver comparable value and quality to all Internet users (Bigham, 2014).

Web accessibility also supports how we achieve the SDGs. Better access to the Internet and various information and communication technology (ICT) tools are essential to do this. As a means for better economic participation for all, web accessibility is a direct enabler of the intersection between Reduced Inequalities (SDG 10) and Industry, Innovation, and Infrastructure (SDG 9), potentially leading to No Poverty (SDG 1). The United Nations has noted how it impacts other SDGs as well, including Equal Education (SDG 4) and Gender Equality (SDG 5) (United Nations, 2018). As a tool for improved communication and giving voice to all stakeholders, including PWDs, web accessibility can also boost Peace, Justice, and Strong Institutions (SDG 16) and Partnerships for the Goals (SDG 17). It presents a potentially powerful mechanism that can

enable the socioeconomic participation, political engagement, and continuous empowerment of millions of traditionally disenfranchised people around the world.

TECHNICAL CHALLENGES IN WEB ACCESSIBILITY

Web accessibility is not a new concept. In fact, it has been discussed ever since the Internet's early development (Web Accessibility Initiative, 1997). Unfortunately, the current state of web accessibility is yet another gap to fill. Web Accessibility in Mind (WebAIM) analysed the top 1 million websites in 2022 and reported an average of 50.8 Web Content Accessibility Guidelines (WCAG) failures per page (WebAIM, 2022). It is clear that not much attention is being given to web accessibility.

To address this issue, it is important to first analyse the roles that build and maintain the Web. In the physical world, adherence to building-accessible constructions is the responsibility of professionals, such as architects, civil engineers, and contractors. In web accessibility, these roles would then translate to software engineers, product owners, designers, and developers (Horton & Laplante, 2022). They can be collectively referred to as tech professionals. Unfortunately, several studies reveal that the overall low compliance in web accessibility can be attributed to tech professionals lacking relevant skills in the field (Patel et al., 2020). The current market seems to favour other, potentially more profitable skills, with only 6% of those directly relevant to web accessibility, as revealed in a survey of online job posts for designer and software developer roles (Martin et al., 2022).

The root cause of this issue of expertise is multidimensional: foremost among them are the different business priorities for companies (Patel et al., 2020). Kelly (2007) noted that firms are generally cautious in investing in accessible design, as this might not translate to a sizeable return on investments, as the corresponding increase in the customer base is limited. On the implementation side, many developers lack awareness of web accessibility compliance. This may begin from the tertiary education level, where curricula can lack a methodical approach to teaching the topic or lag behind the needs of the fast-evolving industry (Patel et al., 2020). Even if the basics have been taught, many tech professionals also lack appropriate additional training to understand the complex compendium of accessibility guidelines to correctly implement them (Abuaddous et al., 2016).

In addition to this, a majority of companies also do not have the resources to implement rigorous WCAG testing, which can be a time-consuming and costly endeavour on its own (Abuaddous et al., 2016). Designers and developers, in turn, face several barriers to achieving WCAG compliance. For one, while some phases of testing can be automated using software evaluation programs, human testers are required for either part or all of the testing process. Further, the small sample size and diverse array of disabilities pose challenges in recruiting real human testers, whose feedback is essential for building accurate adaptive technologies.

WCAG is also considered complex and ambiguous in some of its passing criteria, which can result in misinterpretation even among expert testers and developers with web accessibility knowledge (Alonso et al., 2010). One study shows that even experts can be subject to the evaluator effect, with multiple evaluators evaluating the same interface with similar evaluation methods yet distinctly identifying different sets of issues (Hertzum and Jacobsen, 2010). This has resulted to only a 76% evaluation accuracy, with inexperienced testers and developers further evaluating false

positives (Brajnik et al., 2012). Many studies confirm that the guidelines themselves can be regarded as a barrier and must be improved (Abuaddous et al., 2016).

THE ROLE OF AI IN WEB ACCESSIBILITY

WCAG 2.0 was defined with two goals. First, that it be technology-independent, meaning that it can support both current and future web technologies, and second, that it is testable (Web Content Accessibility Guidelines (WCAG) 2.0, 2008). Testability in this case means that 80% of knowledgeable inspectors agree that the criteria have been met or not (Brajnik et al., 2010). This is where Artificial Intelligence (AI) can come in.

From processing and computing raw data to spearheading innovation and groundbreaking research, AI is becoming ubiquitous, as the technology gradually pervades every field. With its ability to process information hundreds of thousands of times faster than the conscious human mind, AI is proving to be the cornerstone of the knowledge economy, the primary economy of many developed nations (Corporate Finance Institute, 2022). In addition, it provides key support to various industries and government initiatives.

AI has a number of use cases that can be explored to improve web accessibility functions (Kwiek & Rygg, 2018). Automated testing for interactive content elements, text, and images is one of them (Pavlov, 2021). Indeed, involving machine learning can help solve up to an estimated 80% of issues related to WCAG (Deque Systems, 2022). AI-powered simulations can perform advanced accessibility checks, simulating human users and their responses to keyboard accessibility issues (Bureau of Internet Accessibility, 2022). It can also be used to check for misapplications of Accessible Rich Internet Applications, ensuring that these assistive technologies perform as intended (Web Accessibility Initiative, 1997). More than testability, AI can assist web accessibility initiatives in a number of other ways.

Natural Language Processing (NLP) can also help develop web accessibility and related assistive technologies further, whether they be related to visual, motor, speech, or cognitive disabilities (India AI, 2021). For example, NLP can fill in missing alternative texts in images, charts, and graphs. Automatic alt-text generation is useful especially for people with impaired vision (Wu et al., 2017), which can then be translated as auditory descriptions. AI-powered conversational crowdsourcing can also be useful to ensure that the alternative text is not only coherent but also accurate to the image (Salisbury et al., 2017). Another use of NLP is simplifying content and providing summaries for people with cognitive impairment (Gazzawe et al., 2022). Machine learning can also be used to personalise viewing experiences based on past preferences (Holzinger et al., 2022). In conjunction with other electronic subsystems like sensors, for example, features can adjust automatically based not only on situational limitations but also on the users of shared devices.

These enumerations are non-exhaustive. There are many different AI and ML use cases that can be applied to the problem of web accessibility. It only requires a heart to help and the human imagination. At the same time, it is important to remember that AI is also beset with a number of issues related to inequality (Rotman, 2022). This is another topic altogether and will not be discussed in this paper. But suffice it to say that it is therefore crucial that applications in the use of AI for web accessibility should be tempered by AI ethics and social guidelines.

CONCLUSION

There already exist a number of domestic policies and proposals regarding improved web accessibility. Under the European Accessibility Act (Directive 2019/882), for example, digital technology products and services must be made more accessible for PWDs (*European Accessibility Act*, 2019). The Americans with Disabilities Act requires all state and local governments as well as all businesses that are open to the public to ensure that their web content is accessible. Around the world, a number of countries have similar, legally binding policies which emphasize web accessibility (ADA.gov, 2023). These are significant improvements.

However, many of these initiatives come from developed countries. This could widen the inequality divide even more so, as PWDs from poor countries face compounded disadvantages.

And so, in this article, the authors recommend the following:

1. More government and industry funding and support for web accessibility. It is a grossly understudied area of development, with implications for the lives of hundreds of millions of people worldwide. More effort should be given to educating tech professionals and non-tech professionals alike on why web accessibility is important for the general welfare and the achievement of the SDGs.

2. More support should be provided for AI in this field. Use cases such as generative AI have recently taken the world by storm; this hype on AI can be directed towards its potential application to other pressing problems such as web accessibility.

3. AI initiatives on web accessibility should not be done in silos. International cooperation and the inclusion of PWDs must be forwarded so that existing inequalities between countries are not further compounded by existing privileges afforded to those living in developed countries.

4. AI technology itself can be a source of inequality. It is important to note that AI used for web accessibility initiatives should equally follow social guidelines and AI ethics so that it does not in turn widen the Digital Divide.

In sum, AI is a very powerful tool; governments, industries, and academia should devote increased initiatives in how it can be used towards improving web accessibility in order to bridge the Digital Divide and contribute to alleviating the global inequality gap for PWDs around the world.

CONFLICTS OF INTEREST

I have no conflicts of interest to declare.

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Trade Liberalisation and Wage Inequality in the Philippines

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ABSTRACT

The expansion of trade liberalisation during the past four decades has led to many economic implications. While past studies in the Philippines focusing on the earlier episodes of trade liberalisation report insignificant and contradictory results, there is still a lack of attention to the twenty-first century when the country continued its trade liberalisation reforms through participation in numerous free trade agreements. This paper explores the impact of the reduction of tariffs in the Philippines coming from the rise of bilateral and regional trade agreements on wage inequality between skilled and unskilled workers during the early twenty-first century. Using a unique dataset that combines pooled cross-sectional labour force data and panel data on industry-level characteristics, we provide new evidence on the impact of tariff reductions on wage inequality between skilled and unskilled workers in the Philippines. Our findings show three important pieces of evidence. First, tariffs, ceteris paribus, have an insignificant effect on wages. Second, tariff reductions have no impact on the industry skill premium. Lastly, import penetration and export exposure significantly affect industry skill premium. Overall, these results suggest that while trade liberalisation through tariff reduction has no impact on wage inequality between skilled and unskilled workers inthe Philippines, it may have an indirect effect through trade flows. Policy recommendations include studying the impact of specific trade agreements on labour markets, pushing for structural transformation in the manufacturing sector, and reforming education and skills training in the country.

INTRODUCTION

As the world adapts to the rapid pace of globalization in the twenty-first century, countries ease trade restrictions by gradually removing tariffs and non-tariff barriers to incentivise the free flow of goods across nations. This process, known as trade liberalisation, increases market competition, improves access to intermediate inputs, encourages innovation, incentivises technology adoption, and stimulates productivity (Fiorini et al., 2021). Shafaeddin (2005) notes that the policy was adopted by developing countries starting in the early 1980s and continued in the 1990s. She adds that the first set of developing countries that participated consisted of several East Asian countries that continued their dynamic industrial and trade policies starting in the 1960s, followed by Latin American and African countries.

The expansion of trade liberalisation during the past four decades has led to several inquiries on its effects to countries. One aspect of its effect that is examined by numerous studies is on its relationship with wage inequality between unskilled and skilled workers. Conversely, there is a growing body of literature showing it is closely linked with various measures of wage inequality, like the GINI coefficient, such as those seen in Argentina, Brazil, Colombia, Hong Kong, and China (Goldberg & Pavcnik, 2007; Khan et al., 2021; Mehta & Hasan, 2012). While past studies in the Philippines focusing on the earlier episodes of trade liberalisation report insignificant and

contradictory results, there is still a lack of attention to the twenty-first century when the country continued its trade liberalisation reforms through participation in numerous free trade agreements.

The Philippines serves as an interesting venue for discussing the impact of trade liberalisation on wage inequality, primarily because of the inconclusive relationship between the two throughout the years. Aldaba (2013) mentions how the country historically adopted a protectionist approach to favour the manufacturing sector and industrialise the country that was mainly recovering from the two World Wars. Heavy protectionism influenced trade in the country through the imposition of tariffs, quantitative restrictions, and strict regulations that controlled prices, supply, and entry of firms into the domestic market. Such restrictive measures were particularly evident in the 1950s to 1970s under the implementation of restrictive investment policies and import substitutions.

The government gradually liberalised in the early 1980s until the 1990s after the discovery that protectionist measures concentrated wealth among prominent family clans and industry owners, exacerbating wealth inequality (Briones, 2020). As a result, trade barriers significantly declined, transforming a highly protected economy into a more open economy in Asia (Briones, 2020). In the 2000s, the Philippines entered into multiple bilateral free trade agreements to improve the established trade reforms (Aldaba, 2013). It has entered into over 10 free trade agreements, with nine in force and one yet to be ratified by the Senate. The increase in openness and reduction of trade barriers boosted the values of its exports and imports throughout the past decades, particularly capitalising on its manufacturing sector. This is important because previous related studies have not covered the effect of the said free trade agreements on wage inequality (Hasan & Jandoc, 2010).

While the Philippines is known to have one of the highest income inequalities globally, recent evidence suggests that there have been significant reductions in inequality in the twenty-first century (Tuaño & Cruz, 2019). However, the upward socioeconomic mobility rate is low compared to its Southeast Asian neighbours because of premature deindustrialization and concentration of wealth among political dynasties and family-owned conglomerates (Tuaño & Cruz, 2019). The national reduction of inequalities within regions is also on the rise; however, the rate of decrease is disproportionately imbalanced against the poorer regions of Visayas and Mindanao due to the lack of equal opportunities and government policies (Philippine Statistics Authority, 2020). Lastly, multiple inequality measurements have all consistently pointed out the growing equality trend of the Philippines, namely: (1) increasing sectoral labour productivity from 1995 to 2015, (2) decreasing poverty and subsistence incidence and magnitude from 1991 to 2015, (3) decreasing consumption and income share ratios from 1997 to 2015, and (4) increasing proportion of middle class from 1980 to 2015 (Tuaño & Cruz, 2019). In terms of the effect of trade liberalisation on wage inequality, studies conducted by Aldaba (2013) and Hasan and Jandoc (2010) have tried to examine its perceived contributions to widening inequality.

We have established the occurrence of trade liberalisation throughout the world, especially in developing countries, for the past few decades. Results from previous related studies are either insignificant (Hasan & Jandoc, 2010) or contradictory, with Aldaba (2013) showing a positive relationship while Hasan and Chen (2004) show a negative relationship between trade and wage inequality. Hence, the paper seeks to resolve identified conflicts within the literature. Moreover,

existing studies about the Philippines only cover the 1980s until the 1990s; therefore, the paper aims to extend the analysis to the 2000s. We believe that this is an important extension of the literature given the decisions of developing countries such as the Philippines to join bilateral and regional free trade agreements that lead to a higher degree of trade liberalisation. Therefore, our paper tries to answer the question in this study: *What is the impact of trade liberalisation on wage inequality in the Philippines during the twenty-first century?*

In a time when the Philippines' foreign policies paint trade liberalisation as a way to lift millions of Filipinos out of the poverty line and eradicate the income gap between Filipinos, it is important to look back on whether such has really happened in the past so that we would know better for the future.

Given the current trend of globalisation and inequality across developing countries, the study is significant to key stakeholders, including researchers, policymakers, and labour force members. This study contributes to the growing literature on trade-labour linkages for developing countries. Based on a modern dataset and empirical strategy, we revisit the relationship between trade liberalisation and wage inequality to verify empirical findings covering earlier decades. Through the results and limitations of this study, academic researchers can explore other channels or mechanisms through which trade affects labour market outcomes. Meanwhile, the deepening of knowledge in trade-labour linkages in the research community allows knowledge to spill over to policymakers who can evaluate trade policies considering their possible effects on labour market outcomes. While workers do not directly benefit from the research, the proliferation of interest in their general welfare, including the issue of wage inequality, allows policymakers to assess possible ways to close such gaps.

Our study focuses on determining the effect of trade liberalisation on wage inequality in the Philippines using individual-level information from the third quarter Labour Force Survey and industry-level data from the databases of United Nations Conference on Trade and Development (UNCTAD) Trade Analysis Information System (TRAINS) and United Nations Industrial Development Organization. The data periods we cover are 2009, 2012, and 2015. For some industry-level characteristics, data of the preceding years are used as lagged variables. We restrict our sample to employed workers aged 15 to 65 years who belong to any manufacturing sub-sector, which results to 10,787 observations.

THEORETICAL FRAMEWORK

In this section, we come up with a summary of trade theories that provide predictions on how trade liberalisation might affect industry wages and skill premium. We find five theories that predict a positive or negative relationship between trade liberalisation and wage inequality (Figure 1). The conceptual framework is discussed after.
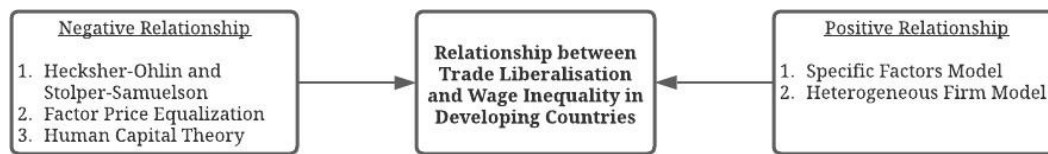
FIGURE 1: Theoretical Framework

There are three prominent theories that predict a negative relationship between trade liberalisation and wage inequality. In other words, an increase in trade liberalisation or a decrease in trade barriers cause a decrease in wage inequality. The Heckscher-Ohlin theorem explains that trade openness can increase job opportunities and relative wages for the abundant type of workers in supply (Hasan & Chen, 2004). The Stolper-Samuelson model argues that reducing trade barriers would increase the wages of unskilled workers in developing countries (AlAzzawi, 2014). Meanwhile, the factor price equalization theorem explains the equalization of the prices of factors of production worldwide due to trade, which leads to a decrease in wage inequality between skilled and unskilled labourers in developing countries. Finally, the human capital theory states that trade allows the increase in the human capital stock of a country with low levels of human capital (Owen, 1999). Consequently, higher human capital allows unskilled workers to gain skills to improve their wages.

On the other hand, there are two prominent theories that predict a positive relationship between trade liberalisation and wage inequality. The Specific Factors Model explains that trade liberalisation reduces tariffs, leading to a decline in industry wage premiums for immobile unskilled workers, which results in increased wage inequality (Suranovic, 2010). The Heterogeneous Firm Model suggests that trade liberalisation increases productivity in particular industries, leading to higher wages for skilled workers and increasing the industry skill premium, which also exacerbates wage inequality (Antoniades, 2015). Therefore, both models predict a positive relationship between trade liberalisation and wage inequality in the Philippines.

These are two sets of contrasting theories that aim to explore the relationship between wage inequality and trade liberalisation in developing countries like the Philippines, which will act as a guide in rationalizing our findings later in the sections below.

Using the conceptual framework below, the next discussions justify and explain the inclusion of the selected independent variables more clearly and how they affect the dependent variable, real wages. Figure 2 shows the conceptual framework, where there are two groups of independent variables: worker characteristics and industry level characteristics.
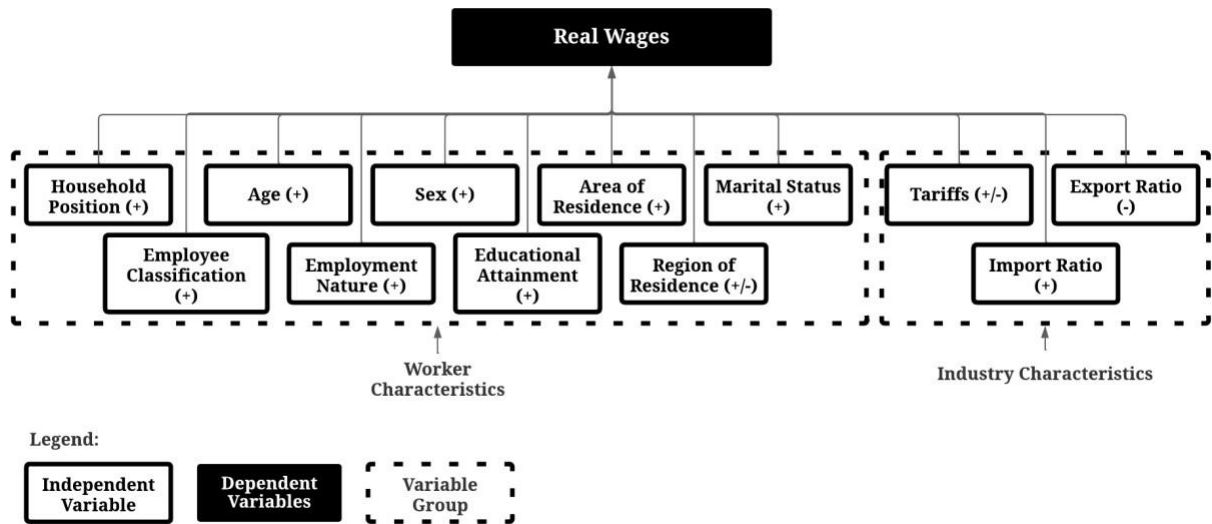
FIGURE 2: Conceptual Framework

ANALYSIS

EMPIRICAL METHODOLOGY

The empirical strategy we employ follows Murakami (2021), who based his strategy on the specifications proposed by Galiani and Porto (2010). Unlike the two-stage strategy commonly employed in the literature, given the differences in data availability, we directly regress in one stage the pooled cross-sectional data of individual wages over vectors of worker-level and industry-level characteristics. Appendix I provides a detailed explanation on the use of Ordinary Least Squares as the method of estimation.

In estimating the effect of tariff on real wages, which is log-transformed, we use the following empirical specification:

$$ln(w_{ijt}) = \mathcal{Q}_1 X'_{ijt} + \mathcal{Q}_2 S_{ijt} + \mathcal{Q}_3 tariff_{jt} + \mathcal{Q}_4 T'_{jt-1} + I_j + Y_T + e_{ijt} \quad (1)$$

i = individual

j = industry

t = time

w = real hourly wage in 2012 Philippine pesos

X = vector consisting of variables to control for individual characteristics

S = dummy variable for skilled workers

$tariff$ = effective tariff rate

T = vector consisting of import ratio and export ratio (shares in country's total imports and exports)

I = industry fixed effects

Y = year fixed effects

e = error term

Then, we estimate the effect of tariffs on industry skill premium using the following specification:

$$ln(w_{ijt}) = Q_1 X'_{ijt} + Q_2 S_{ijt} + Q_3 tariff_{jt} + Q_4(tariff_{jt} * S_{ijt}) + Q_5 T'_{jt-1} + T'_{jt-1}$$

$$* Q_6 S_{ijt} + I_j + Y_T + e_{ijt} \tag{2}$$

where the variables are the same as the first equation, with additional interactions between the industry variables and skill dummy. We are primarily interested in the coefficient of the interaction between tariff and the skill dummy, β_4, which is interpreted as the differential impact of tariffs on the wage of skilled workers, over and above the average effect of tariff (Galiani & Porto, 2010).

FINDINGS

Trade liberalisation indirectly impacts wage inequality through trade flows. While we find no evidence to suggest that tariff reductions directly impact wage inequality, we also establish that trade liberalisation has an indirect impact on wage inequality with trade flows as channels as reflected in the significant relationship between the trade variables and the industry skill premium.

Moreover, patterns show that the import penetration is high in the Philippines, which is associated with higher industry skill premium, implying widened wage inequality. The mechanism behind this is when imports are high, domestic producers would cut costs to remain competitive, and one of the costs often cut is labour cost, ergo lower wages for unskilled workers and higher wage inequality. On the other hand, higher export exposure is associated with lower industry skill premium, implying lower wage inequality. These suggest that industries with a higher share in exports require relatively less skilled labour while industries with a higher share in imports require relatively more skilled labour. This confirms the theoretical prediction of Heckscher-Ohlin for developing countries such as the Philippines where its exports in manufacturing are labour-intensive, requiring relatively less skilled workers, while its imports are relatively capital-intensive, requiring relatively highly skilled workers. In sum, this implies that the domestic market is filled with imported goods and there must be a structural transformation that would realign the resources of domestic producers.

From these, we have derived the recommendations of (1) conducting thorough and careful studies on the implications of each agreement on the labour market, and for the Philippines to undergo a structural transformation, and (2) for the Philippines to structurally transform, which means a stronger push towards increasing the exports of industries and lessening dependence on skilled-biased imports.

CONCLUSION

Despite the sustained strong economic growth observed and the reduction of trade barriers in the Philippines in recent years, the majority of the population does not enjoy the same advantages as the wealthier members of society. It is imperative for the national government to bridge the gap between skilled and unskilled workers by identifying the impacts of our increasing connectedness to the global markets, ensuring that everyone receives a piece of the growing economic pie.

In this paper, we conclude that trade liberalisation has no direct impact on wage inequality. However, we also establish that trade liberalisation has an indirect impact on wage inequality with trade flows as channels as reflected in the significant relationship between the trade variables and the industry skill premium. Higher import penetration is associated with higher industry skill premium, implying widened wage inequality. The mechanism behind this is when imports are high, domestic producers would cut costs to remain competitive, and one of the costs often cut is labour cost, ergo lower wages for unskilled workers and higher wage inequality. On the other hand, higher export exposure is associated with lower industry skill premium, implying lower wage inequality. These suggest that industries with a higher share in exports require relatively less skilled labour while industries with a higher share in imports require relatively more skilled labour.

This confirms the theoretical prediction of Heckscher-Ohlin for developing countries such as the Philippines where its exports in manufacturing are labour-intensive, requiring relatively less skilled workers, while its imports are relatively capital-intensive, requiring relatively highly skilled workers.

POLICY RECOMMENDATIONS

In line with the findings of our study, we provide the following policy recommendations: (1) to conduct thorough studies on the impact of trade agreements on labour markets, (2) to push for structural transformation in the manufacturing sector, and (3) to reform education and skills training in the country.

1. **Studies on Free Trade Agreements –** The government should conduct thorough and careful studies on the implications of each agreement on the labour market. This is amidst the increasing participation of the country in free trade agreements and other bilateral and multilateral agreements. Currently, the Philippines stands at a historic crossroads as it deliberates on the ratification of the Regional Comprehensive Economic Partnership, the largest free trade agreement in the world. With many partner countries already participating in the deal and with other stakeholders calling for its ratification, the Philippine government must carefully study the impact of the agreement amid concerns from different stakeholders. These studies must focus on the costs and benefits that the country will have if—and when—it decides to take part in these agreements.

2. **Structural Transformation in the Manufacturing Sector –** There needs to be a structural transformation which means a stronger push towards increasing the exports of industries and lessening dependence on skilled-biased imports. Related to the products that it is trading, deliberate measures should be taken for a structural transformation which would mean (1) improving exports in terms of volume and complexity, (2) being less

dependent on skill-biased imports, and (3) producing second-generation exports, i.e., high-value-added technology-intensive products. This all means moving to produce more high-value-added goods. Austria (2002) suggested that governments need to employ a comprehensive foreign direct investment policy and technology upgrading.

3. **Investment in Human Capital–** There should be higher premiums placed on education and skills training. First, the government should remove policies that disincentivize firms from investing in the training of their workers, such as contractualization laws (Villamil & Hernandez, 2009). In addition to this, the government could subsidise unemployed and underemployed workers to enrol in the programs brought by Technical Education And Skills Development Authority (TESDA), which is tasked with preparing workers for specific industries through rigorous training and skills tests, mainly unskilled workers. Second, long-term education reforms could gear the young populace toward jobs that produce high-value-added technology-intensive products (e.g., STEM-related jobs). The government could financially incentivize students through increasing financial grants and STEM-related scholarships. They can also expand the number of state-run Science High Schools as studies have also shown that students who come from such educational institutions are more likely to choose STEM-related courses in college (Daway-Ducanes, Pernia, & Ramos, 2022).

CONFLICT OF INTEREST

I have no conflicts of interest to declare.

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APPENDIX

Appendix I

A.1. DATA COLLECTION AND VARIABLE SELECTION
A.1.1. Individual-Level Data

Data on the demographic and socio-economic characteristics of individual workers for 2009, 2012, and 2015 are obtained from the Labour Force Survey (LFS), a household survey conducted quarterly by the Philippine Statistics Authority. The survey primarily focuses on the estimation of labour-related data, including levels of employment and unemployment, and it provides adequate characteristics of the population residing in each household including sex, age, highest grade completed, employment status, industry group, hours worked, and earnings. Specifically, we use the October round of the LFS and pool the individual cross-section data across years.

For our sample, we restrict our attention to workers aged 15 to 65 years old who were engaged in salaried work for at least 40 hours in the reference period. Using only information from the primary occupation of workers, we obtain hourly wage rates by dividing the basic pay per day by the normal working hours for the day for the past week. Finally, we divide the nominal hourly wage rate by the national CPI obtained from the Philippine Statistics Authority to get the real hourly wage rate in 2012 Philippine pesos.

Given that we are interested in the industry affiliation of individual workers, we use the reported industry codes of each worker to match the pooled cross-sectional data to the industry-level panel data on industry characteristics. Prior to the April 2012 round of LFS, the industry codes were based on the 1994 Philippine Standard Industrial Classification (PSIC), which was patterned after the UN Industrial Standard Industrial Classification (ISIC) Rev. 3. After this, the PSA adopted the 2009 PSIC patterned after the ISIC Rev. 4. Hence, to standardize the industry classification across years in line with our industry-level data, we convert the industry codes in the 2012 and 2015 LFS data from the 2009 PSIC (ISIC Rev. 4) to 1994 PSIC (ISIC Rev. 3) using a crude ISIC concordance code list taken from UNIDO (see Appendix). Furthermore, we aggregate all codes for industry affiliation at the two-digit level since the 2009 and 2015 LFS data only report up to the two-digit level. Originally, there were 24 manufacturing divisions at the two-digit level under the 1994 PSIC. Following UNIDO's concordance list, we aggregate three sub-sectors (30, 32, 33) into one (30) due to the limitations of converting 2009 PSIC to 1994 PSIC at the two-digit level. Then, since industry-level data is not available for two other divisions (recycling and manufacturing n.e.c.), we are left with 20 manufacturing divisions. Table 1 summarizes the variables utilized from the LFS, including the variable names and descriptions, and questions associated in the LFS questionnaire.

Variable Name	Label	Questionnaire Item
REG	Region	Region
URB	Urban Rural Classification	Urban Rural Classification
C03_REL	Relationship to Household Head	What is_____'s relationship to the household head?
C04_SEX	Sex	Is_____male or female?
C05_AGE	Age as of Last Birthday	How old is _____on his/her last birthday?
C06_MSTAT	Marital Status	What is_____'s marital status?
C07_GRADE	Highest Grade Completed	What is_____'s highest grade completed?
C16_PKB	Kind of Business (Primary Occupation)	Kind of Business or Industry
C17_NATEM	Nature of Employment (Primary Occupation)	What is _____'s nature of employment?
C18_PNWHRS	Normal Working Hours per Day	What is_'s normal workinghours worked during the past week?
C25_PBASIC	Basic Pay per Day (Primary Occupation)	Basic Pay per Day (in Cash)

TABLE A1: Variables utilized from the LFS

A.1.2. Industry-Level Data

To capture the effect of trade liberalisation on wage inequality, we use effective tariff rates as a measure of trade liberalisation. According to Rodriguez and Rodrik (2001, as cited in Murakami, 2021), tariff is the most direct measure of trade liberalisation. Specifically, we obtain our tariff data for the years 2009, 2012, and 2015 from the database of UNCTAD's Trade Analysis and Information System (TRAINS) through the World Integrated Trade Solution (WITS). In the database, effective tariff rates are weighted by the respective import values of products under each industry. The database is favourable for the study given that tariff data originally classified in the Harmonized System can be converted at different levels of ISIC Rev. 3. Since our individual-level data are aggregated at the two-digit level, we make use of the same aggregation for the tariff data. Table A2 presents the definition of the tariff variable obtained from WITS.

We obtain other industry-level data from the Industrial Demand-Supply Balance Database (IDSB) of the United Nations Industrial Development Organization (UNIDO). IDSB contains data on industry-level characteristics of manufacturing sub-sectors including trade-related characteristics such as imports and exports aggregated at the world level and broken down into trade with developing and industrialised economies. This dataset is advantageous for the study given that annual data for manufacturing sectors in the Philippines are available and reported at 2-, 3-, and 4-digit levels of ISIC Rev. 3. This allows us to construct and match the industry-level panel data to the cross-sectional individual-level data. Table A3 presents the variables and their definitions based on UNIDO.

Variable Name	Label	Definition
Weighted Average	AHS Weighted Average (%)	Effectively applied weighted average tariff: The average of tariffs weighted by their corresponding trade value.

TABLE A2. *Variable utilized from UNCTAD-TRAINS through WITS*

Variable Name	Label	Definition
Imports World	Total imports of industry (in current thousand US dollars)	Sum of imports from developing and emerging industrial economies and imports from industrial economies.
Exports World	Total exports of industry (in current thousand US dollars)	Sum of exports from developing and emerging industrial economies and imports from industrial economies.

TABLE A3.:Variables utilized from UNIDO's IDSB

We make use of import and export data from IDSB in conjunction with total trade values from the International Trade Statistics Database of the United Nations to arrive at variables such as import ratios and export ratios. Import ratio and export ratio, commonly referred to as import penetration and export exposure, are defined as the shares of the industry to the country's total imports and total export. While Hasan and Chen's (2004) methodology was able to construct a measure for capital-labour ratio using the same dataset, the more recent data on gross fixed capital formation are either missing (e.g., 2007 and 2011) or significantly negative for some industries

due to factors that we cannot control (e.g., reductions of investments in the tobacco industry because of the passage of sin tax bill). These data constraints made it impossible to estimate the capital stock for each industry. Hence, we are not able to include capital-labour ratio in our empirical model

A.2. EMPIRICAL SPECIFICATION

The empirical strategy that we employ follows Murakami (2021), who based his strategy on the specifications proposed by Galiani and Porto (2010). Unlike the two-stage strategy commonly employed in the literature (see Goldberg & Pavcnik, 2005; Hasan & Chen, 2004), we directly regress in one stage the pooled cross-sectional data of individual wages over vectors of worker-level and industry-level characteristics. The one-stage strategy is advantageous for this study given that our industry data is aggregated at the two-digit level. This helps us avoid having a minimal sample size with the two-stage strategy.

A.2.1. Tariffs and Industry Wages

In estimating the effect of tariff on industry wages, we use the empirical specification by Galiani and Porto (2010) and Murakami (2021) with some modifications.

$$ln(w_{ijt}) = X'_{ijt}Q_1 + S_{ijt}Q_2 + Q_3 tariff_{jt} + T'_{jt-1}Q_4 + I_j + Y_T + e_{ijt} \quad (1)$$

where $i, j,$ and t indexes individual, industry, and time; w is real hourly wage in 2012 pesos; vector X is a vector consisting of variables to control for individual characteristics, including $age,$ $agesq,$ which we include to account for the non-linear effect of age on wages, and dummy variables for $male, urban, head, primary, secondary, tertiary, permanent$ and regional dummies; S is a dummy variable for skilled workers who we define as those who arecollege-educated; $tariff$ is the effective tariff rate; T is a vector consisting of $importratio$ and $exportratio$ which are lagged by one period as a way of addressing possible heterogeneity; I represents industry effects which control for time-invariant industry characteristics; Y represents year fixed effects which control for macroeconomic shocks; and e is the error term. We are interested in β_3, which represents the impact of tariffs on workers' real wages within an industry.

A.2.2. Trade Liberalisation and Industry Skill Premium

In this section, we now focus on the objective of distinguishing the effect of industry tariffs on wages between skilled and unskilled workers, with a particular focus on how skill premium is affected at the industry level.

$$ln(w_{ijt}) = Q_1 X'_{ijt} + Q_2 S_{ijt} + Q_3 tariff_{jt} + Q_4(tariff_{jt} * S_{ijt}) + Q_5 T'_{jt-1} + T'_{jt-1}$$

$$* Q_6 S_{ijt} + I_j + Y_T + e_{ijt} \quad (2)$$

where the variables are the same as the first equation, with additional interactions between the industry variables and skill dummy. We are primarily interested in the coefficient of the interaction between industry tariff and skill dummy, β_4 which is interpreted as the differential impact of tariffs on the wage of skilled workers, over and above the average effect of tariff (Galiani & Porto, 2010).

A.3. A-PRIORI EXPECTATIONS

Given the empirical specifications, Table A4 presents the variables, their descriptions, and their respective a-priori expectations with the dependent variable based on the review of literature.

Variable Name	Description	A-priori Expectation	Basis
age	Age of worker i in industry j	+	Dougui (2012), van Ours and Stoeldraijer (2010)
agesq	Square of age of worker i in industry j	-	van Ours and Stoeldraijer (2010)
urban	Dummy for urban where $urban = 1$ if worker resides in an urban area, $= 0$ if otherwise	+	Bauer et al. (2018), Knowles and Robertson (1951)
male	Dummy for sex where $male = 1$ if worker is male, $= 0$ if otherwise	+	Schober and Ebmer (2011)
married	Dummy for marriage status where $married = 1$ if worker is married, $= 0$ if otherwise	+	Ahituv and Lerman (2005)
head	Dummy for relationship to head where $head = 1$ if worker is head, $= 0$ if otherwise	+	Hodges (2015)
permanent	Dummy for nature of employment where $permanent = 1$ if worker's employment had lasted or expected to last for one year or longer, $= 0$ if otherwise	+	Lass and Wooden (2017)

TABLE A4. A-priori expectations (dependent variable = log of real hourly wage)

Variable Name	Description	A-priori Expectation	Basis
primary	Dummy for education where $primary = 1$ if worker's highest grade completed is primary, $= 0$ if otherwise	+	Hu (2021), Mocan (2014)
secondary	Dummy for education where $secondary = 1$ if worker's highest grade completed is secondary, $= 0$ if otherwise	+	Hu (2021), Mocan (2014)
tertiary	Dummy for education where $tertiary = 1$ if worker's highest grade completed is tertiary, $= 0$ if otherwise	+	Hu (2021), Mocan (2014)
region	Set of region dummies (with NCR as dropped dummy)	-	Bauer et al. (2018), Knowles and Robertson (1951)
skilled	Dummy for skill where $skilled = 1$ if worker is college-educated, $= 0$ if otherwise	+	Hu (2021), Aldaba (2013), Suryahadi (1999)
tariff	Tariff of industry *j*	+/–	Aldaba (2013)
importratio	Lagged share of industry *j* on country's total imports	+	Bivens (2008), Aldaba (2013)
exportratio	Lagged share of industry *j* on country's total exports	-	Hasan and Chen (2004)
*tariff * skilled*	Interaction of tariff and skill dummy	+/–	Aldaba (2013)
*importratio * skilled*	Interaction of lagged import ratio and skill dummy	+/–	Bivens (2008), Aldaba (2013)
*export ratio * skilled*	Interaction of lagged export ratio and skill dummy	+/–	Hasan and Chen (2004)

TABLE A4 (CONTINUED): A-priori expectations (dependent variable = log of real hourly wage)

A.4. ROBUSTNESS MEASURES

As mentioned earlier, we undertake preliminary data cleaning procedures during the construction of the dataset. To further ensure the robustness of our estimates, we observe for unusual data by conducting descriptive statistics and other statistical means to drop any observations that unduly influence the reliability of the results. To account for possible industry-level autocorrelation, we provide estimates using cluster-robust standard errors. According to Cameron and Miller (2015), precision of estimates can be significantly overstated if default standard errors are used on data characterized by individuals with clustering on categories such as industry, which is the case for our study. Hence, to be able to make correct inferences from our estimates, our standard errors are clustered at the industry-level.

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