

# Emergence



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# SAIS Europe Journal of Global Affairs

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## **Acknowledgments**

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Finally, we would like to give thanks to the SAIS Europe community, including students and alumni, who have provided an endless flow of encouragement and inspiration.

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*The SAIS Europe Journal would like to recognize contributions by the following individuals: Ece Duygu Alsancaak, Miranda Bain, George Goodfriend, Grant Marcinko, Tianlang Gao and Shiyu Wang.*

## Letter from the Editor

Dear Readers,

On behalf of the 2018-2019 staff, I am delighted to present the 22nd edition of the *SAIS Europe Journal of Global Affairs*. A reflection of the inquisitive minds that form the Johns Hopkins University School of Advanced International Studies campus here in Bologna, Italy, and other graduate schools around the world, this publication aims to stimulate thoughtful discussions among students who will become future policymakers, academics and practitioners in the world of international affairs.

The common thread that weaves through the 2018-2019 edition of the *SAIS Europe Journal* is “Emergence.” Inspired by and concerned with today’s rapidly changing world, which demands its citizens seek the latest information and newest technology, this publication takes a closer look at novel and resurgent actors, threats, means, and opportunities across themes of politics, economics, security, energy, and technology.

Four distinct and timely topics constitute this year’s publication; the Journal opens with “Challenges in Developing Countries”—a critical assessment of the evolving infrastructural, religious, health, and political landscapes throughout the Global South. It is followed by “The Periphery,” a section that challenges us to look beyond our usual horizons and to uncover opportunities and threats in outer space and the Arctic. “Applications of Technology” considers the inclusion of technological advancements, such

as biometrics and big data, to solve traditional challenges, before closing with “Global Ethics,” which features two articles that contemplates how to advance and improve our daily lives as well as those of future citizens and the planet at large.

All of these thoughtful critiques and imaginative solutions originate from students, who form the heart and soul of the *SAIS Europe Journal of Global Affairs*. Without the effort, enthusiasm and support of our editors and managers, the publication of the 22nd edition would not have been possible. Beyond their extraordinary contributions, we would like to extend our thanks to our peers, professors, and the SAIS administration, who encourage us on a daily basis to move forwards, not backwards.

With this sense of gratitude and optimism, we proudly present the 22nd edition of the *SAIS Europe Journal of Global Affairs*. We hope the following pages will further the discussions and debates emerging in today’s changing world, thus advancing SAIS Europe’s mission to encourage and cultivate “thought-provoking scholarship.”

**Midori Tanaka**  
*Editor-in-Chief*

## Letter from the Director

I am always amazed at the energy, thoughtful ambition and productivity of SAIS students. They are challenged daily in the classroom, tackling a wide variety of prominent, multi-disciplinary policy issues; yet, they still find time to balance the classroom experience with varied and worthwhile extra-curricular contributions to our community, from engaging locally with charities to research that pushes the frontier. The *SAIS Europe Journal of Global Affairs* is exemplary of this tradition.

The theme of this year's issue, "Emergence," is quite apt in the contemporary context. The world is changing rapidly in so many different ways. Global institutions that governed the liberal world order in the post-war period are under considerable stress. As the climate change time-bomb continues to tick, international cooperation lags. The gravity of the global economy is shifting from developed countries to emerging markets, with Asia leading the way. Strategic relationships are changing rapidly; new arrangements are being formed while others are under strain. Populism in North America, South America, Europe and Asia is changing not only domestic political landscapes but also international relations. Regional economic institutions are changing, too. The EU expanded to 28 members, but is now dealing with Brexit; at the same time, cooperation in the Asia-Pacific is expanding (unfortunately without the United States).

The four working themes of this issue endeavor to cover important dimensions of the emerging new world: Challenges

in Developing Countries, The Periphery, Applications of Technology, and Global Ethics. The contributions are impressive in terms of their breadth and depth, covering important topics ranging from the new arms race in space to plant-based diets. The papers were chosen from a large number of submissions; they make for interesting reading. I'd like to congratulate all the authors for their impressive contributions.

On behalf of the Administration, I'd like to extend our thanks and appreciation to the staff of the *SAIS Journal of Global Affairs*, who went above and beyond the call of duty to ensure that the issue would be the best that it could be. Producing a high-quality journal takes a great deal of time and effort, and the staff certainly did the necessary. While many participated, I would like to especially thank: Midori Tanaka, Editor-in-Chief; Peter Boal, Managing Editor; Silje Martine Olsson, Executive Editor for Submissions; Elif Nisa Polat, Executive Editor for Content; Erik Trautman, Business Manager; Lauren Gilbert, Fundraising and Events Manager; Robin Dickey, Layout and Design Manager; and Amber Murakami-Fester, Social Media Manager. In addition, thanks are due to the Editors: Nicholas Cohn-Martin, Mariah Franklin, Johannes Gaechter, and André Harris, as well as Robin Dickey, Amber Murakami-Fester, Lauren Gilbert and Erik Trautman (who did double-duty).

**Michael G. Plummer**

*Director, SAIS Europe and Eni Professor of International Economics*





## The Rise of Chinese Infrastructure Financing in Africa: Developmental Impact and Geopolitical Implications

*Patrick Curran*

As China continues to increase financing to developing nations via its Belt and Road Initiative (BRI), onlookers have increasingly voiced concern about China's intentions and the possible implications. Western media and politicians express apprehension that China is shackling developing countries with large and unsustainable debt burdens in the

pursuit of “white elephant” projects, expensive infrastructure projects that offer few positive economic spillovers for local recipients.

Nonetheless, it is hard to argue against the need for infrastructure investment. The African Development Bank estimates Africa's annual infrastructure funding gap at \$130 to \$170 billion,<sup>1</sup> following in part

1. Barclay Ballard, “Bridging Africa's Infrastructure Gap,” *World Finance* (2018), <https://www.worldfinance.com/infrastructure-investment/project-finance/bridging-africas-infrastruc->

from the shift in Western financing from the hard infrastructure to social sectors.<sup>2</sup> Chinese development assistance, however, prioritizes long-term political objectives as well as profit. This is why China is willing to fund projects that investors in the Organisation for Economic Co-operation and Development's Development Assistance Committee (OECD-DAC) deem too risky or unprofitable. With China stepping up to fill the gap left by the West, the US risks losing economic and strategic partnerships in developing regions to China. However, while China offers an attractive alternative to traditional Western financing, it has faced mounting criticism regarding its motives and the associated potential for financial instability. If China hopes to continue expanding its funding model overseas, it must address some of the common criticisms and strive to make it more sustainable. The emergence of Chinese financing represents a growing challenge to Western dominance of the

international financial order, and if China can successfully adapt its model it will prove a powerful geopolitical tool for decades to come.

### China's Motives

Between 2000 and 2014, the Chinese government committed more than \$350 billion in official finance to 140 countries and territories across the world.<sup>3</sup> This compares to \$395 billion for the US and \$1.75 trillion for all OECD-DAC countries.<sup>4</sup> Further, from 2000 to 2017 China has extended \$143 billion of loans to African governments and state-owned enterprises (SOEs).<sup>5</sup> The extension of Chinese financing in Africa is motivated by the need to extract natural resources, access new markets for Chinese products, and cultivate long-term strategic ties.<sup>6</sup> However, another major motivation is to promote the expansion of China's export-driven growth model, with overcapacity and over indebtedness in key sectors prompting the export of capital abroad in search of profitable

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ture-gap.

2. David Dollar, "Supply meets demand: Chinese infrastructure financing in Africa," *World Bank* (2008), <http://blogs.worldbank.org/eastasiapacific/supply-meets-demand-chinese-infrastructure-financing-in-africa>.

3. Alex Dreher et al., *China, and Growth: Evidence from a New Global Development Finance Dataset*, AidData Working Paper, no. 46 (2017): 2, <https://www.aiddata.org/publications/aid-china-and-growth-evidence-from-a-new-global-development-finance-dataset>.

4. *Ibid.*, 14.

5. *Ibid.*

6. Thompson Ayodele and Olusegun Sotola, *China in Africa: An Evaluation of Chinese Investment*, Initiative for Public Policy Analysis Working Paper (2014), [http://www.ippanigeria.org/articles/China%20-Africa%20relation\\_Workingpaper\\_final.pdf](http://www.ippanigeria.org/articles/China%20-Africa%20relation_Workingpaper_final.pdf).

investment.<sup>7</sup> By financing major infrastructure projects built by Chinese contractors in developing countries, Chinese firms gain access to new markets and develop competencies abroad. Although detractors of Chinese financing attempt to raise suspicions by calling the motives nefarious, there is a rational economic motive that clearly underlies many of its investment decisions.

### Efficiency versus Quality

An advantage of Chinese financing is that China is more efficient than traditional donors and lenders in implementing infrastructure projects. While China is able to mobilize resources for a project almost immediately, it takes an estimated 14 months between the project preparation and commitment stage for projects funded by the World Bank.<sup>8</sup> Likewise, recent data finds an average completion time for Chinese transport projects in Africa of 2.1 years once funds have been committed.<sup>9</sup> While there is no comparable data for World

Bank projects, anecdotal evidence suggests that major infrastructure projects are likely to take much longer. Unlike multilateral financing, Chinese funding generally comes with limited oversight and concessions aimed at ensuring value for money and limiting negative spillovers, and this can lead to questionable craftsmanship. Project financing by Western MDBs, although slower and more bureaucratic due to the many stakeholders involved, has the advantage of increased project oversight. Despite this, ratings on the success of Chinese- and World Bank-funded projects show comparable results. A recent study by Washington-based consultancy RWR Advisory Group shows that 14% of BRI projects have yielded “unsatisfactory” results over the five years since BRI was announced.<sup>10</sup> The World Bank’s internal analysis for fiscal-year 2017 shows that 84% of projects by volume were rated as “moderately satisfactory” or higher, implying a similar occurrence of unsatisfactory results.<sup>11</sup> The appropriate balance

7. Ho-fung Hung, “The Tapestry of Chinese capital in the Global South,” *Palgrave Communications*, article no. 65 (2018), <https://www.nature.com/articles/s41599-018-0123-7>.

8. Chris Humphrey and Katharina Michaelowa, *China in Africa: Competition for Traditional Development Finance Institutions?* AidData Working Paper, no. 61 (2017): 14, <https://www.aiddata.org/publications/china-in-africa-competition-for-traditional-development-finance-institutions>.

9. *Ibid.*

10. Raffaello Pantucci, “China’s Belt and Road hits problems but is still popular,” *Financial Times* (2018), <https://www.ft.com/content/814b39ea-e8cd-11e8-a34c-663b3f553b35?desktop=true&segmentId=7c8f09b9-9b61-4fbb-9430-9208a9e233c8#myft:notification:daily-email:content>.

11. Independent Evaluation Group, “Results and Performance of the World Bank Group 2017: An Independent Evaluation,” *World Bank* (2018): xiv, <https://openknowledge.worldbank.org/handle/document/45404>.

must be struck to ensure that projects are completed in a timely and cost-effective manner without undermining value for money, but it is not clear that increased oversight contributes to satisfactory outcomes.

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*The emergence of Chinese financing represents a growing challenge to Western dominance of the international financial order, and if China can successfully adapt its model it will prove a powerful geopolitical tool for decades to come.*

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### **Tied Funding**

In 2001, the 23 DAC members agreed in principle to untie financial aid for the Least Developed Countries, referring to the practice of requiring aid proceeds to be spent in the donor country. Chinese financing, on the other hand, comes with the expectation that proceeds will be used to hire Chinese contractors, and 89% of BRI contractors are Chinese SOEs.<sup>12</sup> Without a transparent and competitive bidding process, there is a risk that the country will not get value

for money on infrastructure projects and that the project selection process might be based on political patronage rather than need.<sup>13</sup> While untying aid would improve the value for money received by African nations, it would also undermine the economic rationale for China extending the financing. As such, African governments should exercise caution when evaluating project proposals to ensure cost-effectiveness.

### **Skills and Technology Transfer**

Many analyses disapprove of the relationship between Chinese contractors and local laborers due to the perception that contractors import Chinese labor for skilled positions and subject locals to poor working conditions. Furthermore, many criticize the lack of emphasis on technology and skills transfer, preventing recipient nations from developing the capacity to build, operate, and maintain their own infrastructure. A recent study of Ethiopia's Eastern Industrial Zone (EIZ) shows a workforce localization rate of 80 to 99% across the 16 resident Chinese companies, but confirms that most managerial positions are filled by Chinese expatriates.<sup>14</sup> Likewise,

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bank.org/handle/10986/29765.

12. Ibid.

13. Deborah Brautigam, *China, Africa and the International Aid Architecture*, African Development Bank Working Paper, no. 107 (2010): 24, <https://www.afdb.org/en/documents/document/working-paper-107-china-africa-and-the-international-aid-architecture-20268/>.

14. Ding Fei, *Work, Employment, and Training Through Africa-China Cooperation Zones: Evidence from the Eastern Industrial Zone in Ethiopia*, China Africa Research Initiative,

while 60% of the surveyed local workers received training, they were generally not satisfied with the training provided.<sup>15</sup> A separate World Bank case study points to localization rates of 78% for full-time and 95% for part-time workers for Chinese projects in Kenya, but concludes that Chinese firms offer relatively few technology transfer or supplier opportunities for local firms and academia.<sup>16</sup> While plugging Africa's infrastructure gap is key to setting Africa on the road to development, without transfer of skills and technology Africa will remain dependent on outside forces and growth will ultimately fall flat. As such, African governments need to design deals with stipulations on skills and technology transfer. From the Chinese perspective, increasing skills and technology transfers would assist in managing reputational damage and cultivating more constructive long-term ties.

### Development Outcomes

While the exact modalities of Chinese financing leave room for

improvement, the development outcomes of Chinese-funded infrastructure projects appear to be largely positive. A recent study shows that Chinese, US, and OECD-DAC overseas development assistance (ODA) has positive effects on economic growth,<sup>17</sup> but finds no robust evidence that World Bank aid promotes growth. However, irrespective of the funding source, more commercially-oriented types of official finance do not boost growth.<sup>18</sup> This is an important distinction, as an estimated 62 to 77% of financing provided by China from 2000 to 2014 was on commercial or semi-commercial terms.<sup>19</sup> This compares to 64% for the World Bank, but only 7% for the US and 19.4% for the OECD-DAC.<sup>20</sup> A separate study shows that Chinese investments in “connective infrastructure” produce positive economic spillovers that lead to a more equal distribution of economic activity.<sup>21</sup> Like the previous study, this conclusion does not hold for World Bank-funded projects. Despite these seemingly

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School of Advanced International Studies, Johns Hopkins University, Washington, DC, Policy Brief no. 27 (2018): 2.

15. Ibid.

16. Apurva Sanghi and Dylan Johnson, *Deal or No Deal: Strictly Business for China in Kenya?* World Bank Policy Research Working Paper no. 7614 (2016): 27, <http://documents.worldbank.org/curated/en/801581468195561492/Deal-or-no-deal-strictly-business-for-China-in-Kenya>.

17. Dreher, *China, and Growth*, abstract.

18. Ibid.

19. Ibid., 14.

20. Ibid.

21. Ibid., abstract.

positive results, some skepticism is warranted. While large infrastructure investments should be expected to create a short-term boost to economic growth during the construction phase, the true economic return must be assessed over a longer time horizon. Further analysis is therefore required to determine whether Chinese financing contributes to long-term growth and inequality reduction, and in any case these results argue for a more concessional approach.

### Debt Sustainability

In October 2018, the International Monetary Fund (IMF) warned that more than 45% of low-income countries were at high risk of, or already in, debt distress, up from one quarter in 2014.<sup>22</sup> Analyzing the impact of Chinese financing on debt sustainability is a complex and multi-faceted issue, and is closely tied to the efficacy of the project. If China finances infrastructure projects that deliver weak economic returns, then host governments may find it difficult to service their debts.<sup>23</sup> However, the economic returns of a public good like infrastructure are inherently hard to measure. The opacity of Chinese

financing adds a layer of complexity, making it nearly impossible to determine the cost of a project and the terms of financing.

The lack of transparency of Chinese financing provides opportunities for governments to manage their debt statistics by keeping lending off the books. Between April and October 2017, for example, the IMF was forced to revise its 2016 debt estimate for the Republic of the Congo upward from 77% to 110% of GDP due to opaque oil-backed lending from China which the government had not disclosed.<sup>24</sup> The lack of transparency can be a disservice to recipient countries as well. If institutional investors cannot confidently verify the amount of debt, they will demand a higher interest rate on future financing arrangements and in some cases could defer foreign investment altogether.

In countries that do suffer from debt distress, the Chinese government has provided relief in an ad hoc manner. This contrasts with other major official creditors, all of whom participate actively in multilateral mechanisms dealing with sovereign defaults, particularly the Paris Club group of creditors that spearheaded

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22. Delphine Strauss, "IMF faces China debt dilemma as low income nations seek help," *Financial Times* (2018), <https://www.ft.com/content/6a0002ba-ecd9-11e8-89c8-d36339d835c0?desktop=true&segmentId=7c8f09b9-9b61-4fbb-9430-9208a9e233c8#myft.notification:-daily-email:content>.

23. Era Dabla-Norris et al., "Investing in Public Investment: An Index of Public Investment Efficiency," *Journal of Economic Growth* 17 (3): 3, <https://www.imf.org/external/pubs/ft/wp/2011/wp1137.pdf>.

24. Ibid.

nearly \$99 billion of debt relief in the 1990s and 2000s under the HIPC and MDRI initiatives.<sup>25</sup> However, China has been willing at times to defer payment or extend new loans when borrowers run into difficulties, with 86 debt relief arrangements identified between 2000 and 2017.<sup>26</sup> However, the lack of clear guidelines on debt relief makes it difficult for Western creditors to assess the situation and design their own debt relief programs. This raises the risk that if the Paris Club offers debt relief, savings will simply be used to compensate Chinese creditors. In addition, the lack of conditionality imposed by China during debt restructuring could undermine attempts to restore macroeconomic stability as part of IMF-sponsored bailout programs. Nonetheless, China's flexibility on debt repayments has sometimes served as a boon to institutional investors by helping to smooth over short-term shocks and prevent the need for a broader restructuring.

Finally, the extension of resource-

backed financing contributes to the question of debt sustainability. Angola is a prominent example, where the country's massive stock of Chinese credit lines is secured by oil. Harvard professor Carmen Reinhart notes that China's tendency to favor collateralized loans poses a challenge because their terms may affect the order of seniority among creditors.<sup>27</sup> Angola pledged nearly two-thirds of government revenue to China in the form of oil shipments to service debt.<sup>28</sup> This leaves only one-third of total revenue remaining to cover the costs of running the government and to pay obligations to non-Chinese creditors. However, recent data suggests that only 21% of Chinese loans to Africa are backed by natural resources, most of which are in Angola.<sup>29</sup> Nonetheless, the lack of transparency on collateralized loans makes it nearly impossible for other creditors to properly assess the risks, and contributes to the stereotype that resource-backed financing is nefarious in nature.

25. Trevor Hambayi, "African countries are having a risky affair with eurobond debt and it could end very badly," *Quartz* (2017), <https://qz.com/1115944/african-eurobond-debt-is-growing-to-risky-levels-in-mozambique-zambia-ghana-and-others-in-sub-saharan-africa/>.

26. Hurley, *Examining the Debt Implications of the Belt and Road Initiative from a Policy Perspective*, 29-32.

27. Emily Feng, "Chinese investment extends its influence in Nigeria," *Financial Times* (2018), <https://www.ft.com/content/14f5438e-c32b-11e8-84cd-9e601db069b8?deskto p=true&segmentId=7c8f09b9-9b61-4fbb-9430-9208a9e233c8#myft:notification:daily-email:content>.

28. Patrick Curran, personal meeting with Angolan delegation during Eurobond roadshow, May 2018.

29. Yunnan Chen, "Lions, Dragons and Aid (Oh My)" (presentation, the Johns Hopkins University School of Advanced International Studies, Bologna, Italy, November 20, 2018).

In an attempt to quantify the risks, one recent study found that out of the 68 countries with announced BRI projects, BRI appears to create the potential for debt distress for only eight of them.<sup>30</sup> However, this type of analysis depends largely on the pace at which the pipeline of projects is implemented, along with a slew of other macroeconomic factors that make concrete conclusions difficult to reach. A more holistic debt sustainability analysis shows that if fiscal stances remain unchanged and the IMF's macroeconomic forecasts prevail, two-thirds of African nations with publicly traded external debt will be at a high risk of debt distress within the next five years. As such, caution is warranted in countries with already-high debt burdens to prevent overextension.

### Governance

Many Westerners claim that Chinese finance fuels corruption through the provision of funds to poorly governed regimes, undermining the effectiveness of Western conditionality aimed at improving governance. Previous studies conclude that Chinese

financing is vulnerable to domestic political manipulation and has blunted the democratizing effects of DAC aid to Sub-Saharan Africa.<sup>31</sup> However, while both China and the traditional sources of development finance have rules that discourage corruption, no concrete framework exists for assessing appropriate occasions to restrict funding. As such, "Chinese practice is not as different in this arena as often believed."<sup>32</sup>

That said, many African nations have chosen to turn to China for financing in times of need rather than face drawn-out negotiations with the IMF and the associated austerity measures. Advocates of Chinese financing claim this allows governments to choose their own path to development without the imposition of "Washington Consensus" reforms, with one recent study showing that recipients of Chinese aid receive World Bank loans with fewer conditions.<sup>33</sup> China's respect for sovereignty also grants them moral high ground in the eyes of recipient countries, given extra weight by the fact that China was not a major colonial power. However, China does require recipients to recognize

30. Hurlley, *Examining the Debt Implications of the Belt and Road Initiative from a Policy Perspective*, 11.

31. Axel Dreher et al., *Aid on Demand: African Leaders and the Geography of China's Foreign Assistance*, AidData Working Paper no. 3 (2016): 8, [http://docs.aiddata.org/ad4/files/inline/wp3\\_-\\_revised\\_working\\_paper\\_series\\_dreher\\_et\\_al\\_2016\\_october.pdf](http://docs.aiddata.org/ad4/files/inline/wp3_-_revised_working_paper_series_dreher_et_al_2016_october.pdf).

32. Brautigam, *China, Africa and the International Aid Architecture*, 4.

33. Diego Hernandez, "Are 'New' Donors Challenging World Bank Conditionality?" *World Development* 96(C): 529–549 (2017): 529, [https://econpapers.repec.org/article/eeewdevel/v\\_3a96\\_3ay\\_3a2017\\_3ai\\_3ac\\_3ap\\_3a529-549.htm](https://econpapers.repec.org/article/eeewdevel/v_3a96_3ay_3a2017_3ai_3ac_3ap_3a529-549.htm).

Taiwan as a part of China rather than an independent nation.

Although the rise of alternative sources of financing represents a challenge to the Western-dominated global financial order, a recent study suggests that China does not desire to overhaul the contemporary global system but simply aims to make the system receptive to different voices and influences.<sup>34</sup> Nonetheless, the emergence of new financing sources offers developing nations a menu of options, and traditional sources of finance will be forced to adapt to maintain relevancy.

### US Response

The US has increasingly adopted a hands-off approach to development finance in regions considered less central to national interests, including Africa. However, increased Chinese lending has begun to alarm Washington. This manifested in the recent passing of the BUILD Act with strong bipartisan support, which

establishes a new \$60 billion fund called the United States International Development Finance Corporation (IDFC) to replace the Overseas Private Investment Corporation (OPIC).<sup>35</sup> Unlike OPIC, the IDFC will be allowed to take up to 20% equity stakes in the projects that it finances and aims to “provide countries a robust alternative to state-directed investments by authoritarian governments.”<sup>36</sup> This will open the door for investment in infrastructure projects previously deemed too risky, with the IDFC’s mandate “to complement and be guided by overall United States foreign policy, development, and national security objectives.”<sup>37</sup> Its mandate is thus meant to match the Chinese strategy of prioritizing politics over profit.

In the letter introducing the bill, senators expressed concern over China’s “debt trap diplomacy” and use of financing to exert strategic influence.<sup>38</sup> Specifically, it cites the granting of a 99-year lease on the

34. Mzukisi Qobo and Mills Soko, “The rise of emerging powers in the global development finance architecture: The case of the BRICS and the New Development Bank,” *South African Journal of International Affairs* 22(3): 1 (2015), [https://www.researchgate.net/publication/283664930\\_The\\_rise\\_of\\_emerging\\_powers\\_in\\_the\\_global\\_development\\_finance\\_architecture\\_The\\_case\\_of\\_the\\_BRICS\\_and\\_the\\_New\\_Development\\_Bank](https://www.researchgate.net/publication/283664930_The_rise_of_emerging_powers_in_the_global_development_finance_architecture_The_case_of_the_BRICS_and_the_New_Development_Bank).

35. Bob Corker, “Better Utilization of Investments Leading to Development Act of 2018 or the BUILD Act of 2018,” US Senate Committee on Foreign Relations, Washington, DC, February 27, 2018, <https://www.congress.gov/bill/115th-congress/senate-bill/2463?fbclid=IwAR3rSyJLMSfomCO6x3ITNhPmkj3OXUUIUnCXCpSjN0HU4m1iQXrxtj3UY3E>.

36. Seth Schindler and Juan Miguel Kanai, “US sparks new development race with China – but can it win?” *The Conversation* (2018), <https://theconversation.com/us-sparks-new-development-race-with-china-but-can-it-win-105203?fbclid=IwAR3g3UnQ9N1ZuWioZ5vScT-jGwPgXh9blpnbyPgTYWagH87ytYowRv7VrY8>.

37. Ibid.

38. David Perdue et al., “IMF China Belt and Road Initiative Letter,” US Senate, Washing-

Chinese-built Hambantota Port in Sri Lanka to a Chinese SOE after the government failed to pay over \$1 billion of Chinese debt.<sup>39</sup> Given Pakistan's growing debt to China, the letter expressed concern that the same thing could happen to the Gwadar Port, thus granting China a strategic foothold in the Indian Ocean.<sup>40</sup> The letter implores the US to prevent the IMF from providing funding to countries that have accepted predatory financing from China, claiming that it would simply serve as a bailout to Chinese creditors.<sup>41</sup> In fact, the IMF and Pakistan are currently embroiled in negotiations for a \$7 billion bailout, with the IMF refusing to move forward until there is full disclosure on terms of Chinese loans worth more than \$60 billion.<sup>42</sup> As the letter says, "It is imperative that the United States counters China's attempts to hold other countries financially hostage and force ransoms that further its geostrategic goals."<sup>43</sup> While the US response is undoubtedly alarmist, it highlights the importance of financing in influencing the development strategy of emerging economies and

cultivating geostrategic ties.

### Conclusion

Despite an increasingly negative narrative in the West surrounding Chinese infrastructure financing, the literature reveals a more balanced picture. While many of the popular criticisms hold true, much can be learned from both financing models. First, increased project oversight by the West has proven ineffective at preventing corruption and mismanagement. As such, greater effort to speed up implementation and reduce transaction costs would go a long way towards making Western finance a more attractive alternative. Conversely, the Chinese practice of tied financing has often undermined value for money. China should move towards a policy based on competitive bidding, and provide incentives that better align the interests of Chinese contractors and African governments in ensuring the long-term success of infrastructure projects. Further, both the West and China must commit in earnest to policies that promote technology and skills transfer, as this

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ton, DC, August 3, 2018: 1, <https://www.perdue.senate.gov/imo/media/doc/IMF%20China%20Belt%20and%20Road%20Initiative%20Letter.pdf?fbclid=IwAR2MOwRbQMec-jTSbCAJDuhybGRFZzV68S1nDzNHfGsA8JhmmCcC0pJLy12I>.

39. *Ibid.*, 1-2.

40. *Ibid.*

41. *Ibid.*, 2.

42. Farhan Bokhari, "Pakistan receives \$1bn forex boost from Saudi Arabia," *Financial Times* (2018), <https://www.ft.com/content/416be242-ece3-11e8-89c8-d36339d835c0?desktop=true&segmentId=7c8f09b9-9b61-4fbb-9430-9208a9e233c8#myft:notification:daily-email:content>.

43. Perdue, "IMF China Belt and Road Initiative Letter," 2.

is the only way to ensure sustainable long-term development. This would go a long way towards assuaging local criticism of foreign investment.

The opacity of Chinese financing is perhaps its most glaring weakness, and has negative implications for the management of ballooning debt stocks in Africa. China should address this by adopting OECD-DAC principles of full disclosure of debt obligations. This would benefit China by bolstering its reputation as a country committed to upholding international norms and preventing corruption, and would benefit recipient countries by granting them more ready access to international markets at lower interest rates. Likewise, more clearly delineating a framework for debt forgiveness would strengthen international cooperation on debt restructuring and ensure more sustainable outcomes. If China fails to assist recipient countries in the management of their debt burdens, then its ambitious drive for infrastructure investment will ultimately lead to another wave of African debt crises similar to those witnessed in the 1980s and 1990s.

Lastly, it is imperative that the US increases its willingness and ability to finance riskier infrastructure projects in developing nations. The creation of the IDFC is a step in the right direction, but it remains to be seen if action will follow the recent wave of rhetoric from Washington. With

a growing menu of infrastructure financing choices, developing nations will ultimately choose whichever best suits their needs. From both the Western and Chinese perspective, it is essential to make their models more competitive and thus more effective at cultivating geostrategic ties in the developing world. In the everchanging sphere of global power politics, this will prove an essential tool to ensure the longevity of the US atop the global financial food chain, or conversely to support the rise of China as a competing hegemon.

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## ***Deus acima de todos: The Rise of Brazil's Evangelical Right***

*Sarah Casson*

On July 31, 2014 Brazilian president Dilma Rousseff filed into the opening service of a new Pentecostal megachurch—a 10,000-seat replica of the ancient Temple of Solomon—planted in the center of São Paulo. She was accompanied by nearly every prominent Brazilian politician of that moment, including her successor Michel Temer and 2018 candidate Fernando Haddad, all ushered in with open arms by the billionaire pastor

Edir Macedo.<sup>1</sup> While some supporters criticized their attendance as a desperate attempt to make good with the evangelical community, they were implicitly acknowledging a seismic shift in the political landscape that would become all too clear four years later: the evangelical movement was a unifying force in Brazilian politics that would not be ignored.

Once the world's largest Catholic country, Brazil has seen social,

1. “Com a Presença De Dilma, Templo De Salomão é Inaugurado Em São Paulo,” *R7 Brasil*, July 31, 2014, [noticias.r7.com/brasil/com-a-presenca-de-dilma-templo-de-salomao-e-inaugurado-em-sao-paulo-13102016](http://noticias.r7.com/brasil/com-a-presenca-de-dilma-templo-de-salomao-e-inaugurado-em-sao-paulo-13102016).

cultural, and economic factors draw a growing number of congregants to evangelical Christianity. Most of the growth within these churches has been seen in neo-Pentecostal denominations that are characterized by a belief in baptism by the Holy Spirit, speaking in tongues, healing, and prophecy.<sup>2</sup> One such denomination, the *Igreja Universal do Reino de Deus* (IURD) or “Universal Church of the Kingdom of God” has amassed an estimated 7 million followers with its celebrity pastor amassing a fortune of \$1.1 billion.<sup>3</sup> Currently 29% of Brazilians identify as evangelical, a number that has exploded in the last 20 years, especially in poor communities and federal prisons.<sup>4</sup> As evangelicals make up a growing proportion of the electorate, churches have begun organizing for political power, and candidates—most notably the successful 2018 candidate Jair Bolsonaro—have courted their votes. The last decade has also seen Brazil rocked by political, economic, and moral crises, leaving Brazilians longing for non-corrupt

leadership. Consequently, evangelical Brazilians may be more inclined to trust politicians coming from their religious communities and see them as less corruptible than the disappointing political leaders of the recent past. As witnessed by the 2018 elections, these factors have given evangelical churches and their congregants power to reconfigure the political landscape.

The long-reigning Catholic Church arrived in Brazil as a consequence of the Portuguese conquest and was the official state religion of Brazil from 1500 to 1889, though Protestantism as well as traditional African religions like Candomblé and Umbanda were largely tolerated.<sup>5</sup> Brazil’s first protestants were Swedish and German farmers who established Lutheran churches in the Southern part of the country in the mid-19th century.<sup>6</sup> Starting in the 1850s, large numbers of American missionaries from the Presbyterian, Baptist, and Anglican churches came to evangelize in Brazil. In 1910 two Swedish workers who had converted to Pentecostal Christianity in the US immigrated

2. David Yamane, “The Charismatic Movement,” *Encyclopedia of Religion and Society*, 1998, [hrr.hartsem.edu/ency/cmovement.htm](http://hrr.hartsem.edu/ency/cmovement.htm).

3. Anderson Antunes, “God Has A New Home: A \$300 Million Mega Temple in Sao Paulo,” *Forbes*, July 30, 2014, [www.forbes.com/sites/andersonantunes/2014/07/30/god-has-a-new-home-a-300-million-mega-temple-in-sao-paulo/#40f2025b5a91](http://www.forbes.com/sites/andersonantunes/2014/07/30/god-has-a-new-home-a-300-million-mega-temple-in-sao-paulo/#40f2025b5a91).

4. R.T. Watson, David Biller and Samy Adghirni, “From Jails to Congress, Brazil’s Evangelicals Could Swing Election,” *Bloomberg*, October 4, 2018, [www.bloomberg.com/news/features/2018-10-04/from-jails-to-congress-brazil-evangelicals-could-swing-election](http://www.bloomberg.com/news/features/2018-10-04/from-jails-to-congress-brazil-evangelicals-could-swing-election).

5. “The Catholic Church in Brazil,” *Religious Literacy Project*, Harvard Divinity School, Accessed 2 December, 2018, [rlp.hds.harvard.edu/faq/catholic-church-brazil](http://rlp.hds.harvard.edu/faq/catholic-church-brazil).

6. Antonio Gouveia Mendonça, “A History of Christianity In Brazil,” *International Review of Mission*, vol. 85, no. 338, July 1996, p. 11.

to Brazil to found the country's first Pentecostal church: the *Assembleias de Deus* church, which is now the largest denomination in Brazil.<sup>7</sup> In the 1970s Brazilians began forming their own homegrown churches as part of the "neo-Pentecostal" movement with more than 100 separate denominations emerging in the country by 1974.<sup>8</sup> Among the churches formed at that time was the previously mentioned IURD denomination known for preaching the prosperity gospel, the belief that God rewards faith with material gain.<sup>9</sup> While these churches continued to grow rapidly, during Brazil's military dictatorship from 1964 to 1985 they adhered to the slogan "believers don't mess with politics."<sup>10</sup> This was in sharp contrast to the liberation theology of many Catholic priests during this period, which denounced violence against dissidents and organized the resistance against the military dictatorship, in accordance with their biblically-inspired mission of liberating the

oppressed.<sup>11</sup> During the Cold War, the US saw Marxist-influenced liberation theology as a threat and some have argued that American government and non-profit organizations intentionally bolstered Pentecostal Christianity as an alternative.<sup>12</sup>

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**The evangelical movement was a unifying force in Brazilian politics that would not be ignored.**

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Scholars and journalists have proposed several reasons for the growth of the evangelical movement, including the perception that Protestantism may offer "a more personal connection with God, a more active worshiping experience, and a church with a greater emphasis on morality" compared to Catholic faith.<sup>13</sup> Additionally, the "prosperity gospel" may offer Brazilians suffering from the economic recession, which

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7. John M. Medcraft, "The Roots and Fruits of Brazilian Pentecostalism," *Vox Evangelica* 17 (1987) p. 2.

8. *Ibid.*, 7.

9. Omar G. Encarnación, "Amid Crisis in Brazil, the Evangelical Bloc Emerges as a Political Power," *The Nation*, August 17, 2017, [www.thenation.com/article/amid-crisis-in-brazil-the-evangelical-bloc-emerges-as-a-political-power](http://www.thenation.com/article/amid-crisis-in-brazil-the-evangelical-bloc-emerges-as-a-political-power).

10. Chayenne Polimédio, "The Rise of the Brazilian Evangelicals," *The Atlantic*, January 24, 2018, [www.theatlantic.com/international/archive/2018/01/the-evangelical-takeover-of-brazilian-politics/551423/](http://www.theatlantic.com/international/archive/2018/01/the-evangelical-takeover-of-brazilian-politics/551423/).

11. Marcos Napolitano, "The Brazilian Military Regime, 1964–1985," *Oxford Research Encyclopedia of Latin American History*, 2018, doi:10.1093/acrefore/9780199366439.

12. "Thy Will Be Done: Brasil's Holy War," *Brasil Wire*, November 8 2018, [www.brasilwire.com/holy-war/](http://www.brasilwire.com/holy-war/).

13. Encarnación, "Amid Crisis in Brazil" p. 1.

has plagued the country since 2014, consolation that their situation will get better. Much of this growth in membership has been seen in Brazilian prisons, where many of the large denominations have active prison ministries.<sup>14</sup> The church also reaches impoverished *favela* communities, where the church often fills voids left by the government such as education, security, jobs, and gang rehabilitation.<sup>15</sup> Some say the church provides needed structure in these communities. Critics counter that promising congregants God will multiply their wealth if they contribute 10% of their salary to the church is manipulative and preys on these vulnerable groups.<sup>16</sup>

While evangelical churches and pastors have influenced politics for the last few decades, they were not always aligned with the far right as support was previously fragmented among several different candidates and parties. The left-wing Brazilian Workers' Party (*Partido dos*

*Trabalhadores*, or PT) had garnered support from poor evangelicals during the elections of Luiz Inácio Lula da Silva and Dilma Rousseff.<sup>17</sup> Some evangelical mega-church pastors formed alliances with PT politicians, causing discomfort among the more progressive, less religious part of the PT base. Much of this changed in 2014 when members of the PT were implicated in Operation Car Wash, one of the largest corruption scandals in Latin American history. This political and moral scandal gave pastors the chance to speak out against corruption from the pulpit and position themselves as a righteous alternative.<sup>18</sup> In 2014 Eduardo Cunha, speaker of the lower house and one of the most influential evangelical political leaders of the time, led the efforts to impeach President Dilma Rousseff. Ironically, he himself was later implicated in Operation Car Wash, expelled from public office, and sentenced to 15 years in prison for corruption, money laundering,

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14. Gabriel Brito, "Há Uma Clara Evangelização Da Política," *Correio Da Cidadania*, October 27, 2018, port.pravda.ru/news/busines/27-10-2018/46564-evangelizacao\_politica-0/.

15. Chris Arsenault, "Evangelicalism Grows in Brazil's Favelas amid Poverty and Violence," *Reuters*, April 10, 2017, www.reuters.com/article/us-brazil-religion-landrights/evangelicalism-grows-in-brazils-favelas-amid-poverty-and-violence-idUSKBN17C1H4.

16. Brito, "Há Uma Clara Evangelização Da Política," 2.

17. Peter David Arnould Wood, "Brazilian Evangelicals, Swinging Hard to the Right, Could Put a Trump-like Populist in the Presidency," *The Conversation*, September 17, 2018, the-conversation.com/brazilian-evangelicals-swinging-hard-to-the-right-could-put-a-trump-like-populist-in-the-presidency-96845.

18. Javier Lafuente, and Talita Bedinelli, "Os Evangélicos Vão Da Aliança Pragmática Com o PT à Conversão a Bolsonaro," *El País*, October 15, 2018, brasil.elpais.com/brasil/2018/10/07/politica/1538930780\_735803.html.

and tax evasion.<sup>19</sup> The 2014 economic crisis in Brazil only added to the list of factors causing a strong wave of anti-PT sentiment among voters.

In this context, Jair Bolsonaro announced his 2018 presidential run and began targeting evangelical voters in a way that had not been seen before in Brazil's history. While Bolsonaro identifies as Catholic, he has attended a Baptist church with his wife and children for 10 years and was baptized by the Baptist megachurch pastor and politician Everaldo Pereira in the Jordan River in 2016.<sup>20</sup> He adopted the campaign slogan "*Brasil acima de tudo. Deus acima de todos,*" roughly meaning "Brazil first, God above everyone."<sup>21</sup> He took conservative stances on social issues like abortion, gay marriage, and what he called "gender ideology." During his campaign, he frequently criticized a federal initiative designed to fight homophobia in public schools, claiming that schools were given "gay kits" to indoctrinate children into a "homosexual lifestyle."<sup>22</sup> In

his government-allotted five minutes of candidate speaking time on *Rede Globo*, Brazil's largest television station, he quoted Bible verses and claimed that he would protect "the innocence of children" in their classrooms.<sup>23</sup>

Everaldo Pereira, the pastor/politician who baptized Bolsonaro, was just one of the influential church leaders that supported Bolsonaro in his 2018 presidential candidacy. He also received an endorsement from Edir Macedo of the IURD, who had previously formed alliances with PT candidates such as Lula.<sup>24</sup> Macedo's nephew who has also served as an IURD bishop, Marcelo Crivella, was elected governor of Rio de Janeiro in 2016, a surprising result for one of the most gay-friendly cities in Latin America. Bolsonaro also garnered endorsements from pastors of younger, trendier churches like the "Snowball Church" (*Igreja Bola de Neve*) in São Paulo, who made Instagram posts with their hands in the shape of the number 17, representing Bolsonaro's

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19. Dom Phillips, "Eduardo Cunha, Who Led Impeachment Drive Against Rival in Brazil, Gets a 15-Year Jail Term," *The New York Times*, March 31, 2017, [www.nytimes.com/2017/03/30/world/americas/eduardo-cunha-brazil-sentenced-prison.html](http://www.nytimes.com/2017/03/30/world/americas/eduardo-cunha-brazil-sentenced-prison.html).

20. Polimédio, 1.

21. Bolsonaro Campaign Website: <https://www.bolsonaro.com.br/>

22. Walter Brandimarte, "Why Many of Brazil's Gay Voters Will Overlook Bolsonaro's Homophobic Rants," *Bloomberg*, October 29, 2018, [www.bloombergquint.com/politics/gays-for-bolsonaro-why-many-will-overlook-his-homophobic-rants](http://www.bloombergquint.com/politics/gays-for-bolsonaro-why-many-will-overlook-his-homophobic-rants).

23. "Jair Bolsonaro (PSL) Fala Ao Vivo No Jornal Nacional." *GloboPlay, Jornal Nacional*, October 9, 2018, [globoplay.globo.com/v/7074274/](http://globoplay.globo.com/v/7074274/).

24. Donizete Rodrigues, "Lula, a IURD e Bolsonaro: Como Se Ganha e Como Se Perde Uma Eleição No Brasil (Parte 1)," *Observador*, October 6, 2018, [observador.pt/opiniaolula-a-iurd-e-bolsonaro-como-se-ganha-e-como-se-perde-uma-eleicao-no-brasil-parte-1/](http://observador.pt/opiniaolula-a-iurd-e-bolsonaro-como-se-ganha-e-como-se-perde-uma-eleicao-no-brasil-parte-1/).

candidate number on the ballot.<sup>25</sup> In an interview, José Wellington, head of the General Convention of the Assemblies of God in Brazil with more than 3.5 million members, explained his support for Bolsonaro as the only candidate that could “speak the language of the evangelicals.”<sup>26</sup> A small minority of evangelicals spoke out against Bolsonaro during the campaign, claiming that his stances on torture, guns, and racism were not in line with the teachings of Jesus.<sup>27</sup> Even so, as the votes were counted for the 2018 election it became clear that Bolsonaro’s ability to engage with evangelical church leaders and congregants had paid off; on October 28, 2018 he handily beat his PT opponent Fernando Haddad with 55% of the vote.<sup>28</sup> The evangelical caucus in Congress, known as the *bancada evangélica*, also grew to 91 members.<sup>29</sup>

This shift has an economic element as well as the socially conservative

values typically associated with evangelical Christianity. Many influential pastors interviewed said that they favored Bolsonaro’s pro-business, fiscally conservative agenda and brought up the often-repeated line that they did not want Brazil to “become another Venezuela” if the democratic socialist PT party came into power again.<sup>30</sup> Others, such as pastor-turned-federal deputy Eurico da Silva, even praised the military dictatorship of previous decades, claiming that it “preserved the country’s morals” and spurred economic growth through free-market policies.<sup>31</sup> Pastors lining up behind Bolsonaro’s far-right agenda marked a distinct change from the past where evangelical Christians in Brazil fell across the political spectrum. A comparison can be made to Jerry Falwell’s “Moral Majority” of the 1980s in the United States, in which evangelical Protestants aligned themselves with the Republican Party to win three consecutive presidencies.<sup>32</sup>

25. Will R. Filho, “Maiores Líderes Evangélicos Do Brasil Falam Sobre Bolsonaro e Quem Deve Ser Presidente,” *Notícias Gospel*, October 16, 2018, [noticias.gospelmais.com.br/maiores-lideres-evangelicos-sobre-bolsonaro-103061.html](http://noticias.gospelmais.com.br/maiores-lideres-evangelicos-sobre-bolsonaro-103061.html).

26. *Ibid.*, 1.

27. Cristiane Sampaio, “‘Discurso De Bolsonaro é Anticristão’, Afirmam Evangélicos,” *Brasil De Fato*, October 3, 2018, [www.brasildefato.com.br/2018/10/03/discurso-de-bolsonaro-e-anticristao-afirmam-evangelicos-progressistas/](http://www.brasildefato.com.br/2018/10/03/discurso-de-bolsonaro-e-anticristao-afirmam-evangelicos-progressistas/).

28. “Brazil Elects Jair Bolsonaro as President,” *Vox Media*, October 30, 2018, [www.vox.com/world/2018/10/30/18038434/brazil-election-jair-bolsonaro-trump-far-right](http://www.vox.com/world/2018/10/30/18038434/brazil-election-jair-bolsonaro-trump-far-right).

29. Luiza Dame, “Em Crescimento, Bancada Evangélica Terá 91 Parlamentares No Congresso,” *Agência Brasil*, October 18, 2018, [agenciabrasil.ebc.com.br/politica/noticia/2018-10/em-crescimento-bancada-evangelica-tera-91-parlamentares-no-congresso](http://agenciabrasil.ebc.com.br/politica/noticia/2018-10/em-crescimento-bancada-evangelica-tera-91-parlamentares-no-congresso).

30. Filho, 1.

31. “Brazil’s Evangelical Far Right Could Elect the Country’s Next President (HBO).” *Vice News Youtube*, 5 Apr. 2018, [www.youtube.com/watch?v=Ddyf2iIYIVs](http://www.youtube.com/watch?v=Ddyf2iIYIVs), 08:22

32. Jon A. Shields, *Journal of Policy History*: JPH, suppl. *Perspectives on Conservatism*;

The American organization disbanded in 1989, but today evangelical Christianity in the US continues to be linked to the Republican party. In the 2016 election evangelicals voted for President Trump by a 4-1 margin, suggesting that Brazil's evangelical right may have an impact for decades to come.<sup>33</sup>

Though protestant churches in Brazil are for the most part no longer operated by foreign missionaries, the US continues to be the epicenter of evangelical Protestant thought and culture on a global level. Congregants in every time zone on a given Sunday morning sing translated praise songs written by American Christian bands while pastors like Billy Graham and John Piper have drawn crowds of thousands on global speaking tours. In contrast to liberation theology, which often seeks to dismantle unjust political and economic structures, American-exported evangelical Protestantism teaches followers that they should strive to succeed within the context of neoliberalism. In the words of the left-leaning web publication *Brasil Wire*, "American evangelicalism is a denial of structural inequality in favor of individual responsibility," teaching that "God blesses the righteous; the poor simply haven't believed/worked hard enough."<sup>34</sup> In the case of Brazil, support for these fiscally conservative

policies may be unexpected as the majority of Brazilian evangelicals come from poor areas that stand to gain from increased government services such as the social welfare program *Bolsa Familia*.

Knowing what was going through the mind of the nominally Catholic Dilma Rousseff as she sat watching worship that morning at the Brazilian Temple of Solomon would be hard to determine. She may have felt the rumblings, but perhaps not the tectonic shift that would soon upend Brazilian politics and her own administration. At a moment of moral turbulence, the fact that Brazilians are turning elsewhere for security and guidance is not surprising. Along with the potential benefits of this broad-based social movement, which offers needed social services for congregants in poor favelas, there are dangers. As pastors begin to yield increasing political influence and the evangelical congressional caucus grows, there is danger that evangelical voters will see their own leaders as incorruptible. This has already proved false as several members of the evangelical caucus and mega-church ministers have been implicated in corruption scandals. Others fear that the growing portion of evangelicals will create an environment of regressive cultural conservatism in a previously-open

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Cambridge Tomo 26, N.º 1, (Jan 2014): 103-120.

33. Ryan Bort, "Why Trump Will Never Lose Evangelical Support," *Rolling Stone*, August 29, 2018, [www.rollingstone.com/politics/politics-news/trump-evangelicals-716947/](http://www.rollingstone.com/politics/politics-news/trump-evangelicals-716947/).

34. "Thy Will Be Done," *Brasil Wire*.

society. Even so, with the Brazilian left in crisis and newly-inaugurated President Bolsonaro in office, this is Brazil's evangelical moment. Whether the new evangelical coalition can offer salvation from Brazil's current chaos remains to be seen.

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## How is Gender Ideology Impacting Political Agendas in Latin America?

*Miranda Bain*

The pushback on the institutionalization of progressive ideals has become globally widespread in recent years, including in Latin America. Despite the global trend towards women's and LGBT+ liberation, there has been strong resistance from conservative communities.<sup>1</sup> The concept of gender ideology is a constructed term deployed to promote the maintenance

of strict, heteronormative gender roles within the family, and has permeated political debates in Latin America. The impact of gender ideology is an emerging and ongoing issue, thus many of the sources invoked in this essay are from media accounts or civil society reports; as much as possible, these sources have been cross-referenced to attain greater reliability. This essay will first endeavor to define

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1. In this essay I will use LGBT+ and queer interchangeably; I will use heterosexual to denote a form of sexuality, and heteronormative to denote a worldview that prioritizes heterosexuality as "normal."

gender ideology, contextualized by the US's "culture wars" of the 1990s, which provided the ideological foundations for movements across Latin America and the world.

Two key case studies are used: Colombia and Brazil. Both countries have faced political upheaval in recent years, with gender ideology playing a significant role in Colombia's peace agreement and Brazil's recent presidential election. This essay will argue that gender ideology is impacting political agendas in Latin America by, disrupting peace-building processes, giving evangelists greater political power and legitimacy, and marginalizing women and queer communities from public life at both policymaking and grassroots levels. Through analysis of these themes, this essay will explore how political opportunism can undermine serious societal issues; the consequences of such ideology are physically manifested in high rates of gender-based violence and murder. Specifically, it will analyze how gender ideology is the most recent manifestation of an abiding history in which women's and queer bodies are the battleground for defining moral codes in society.

Defining gender ideology is

challenging because it is a constructed term wielded by public elites in order to gain political traction. Annie Wilkinson summarizes, "'Gender ideology' is becoming the catch-all metonym of a growing global movement opposing gender equality, abortion, same-sex marriage and adoption, comprehensive sexuality education, and transgender rights."<sup>2</sup> She outlines how certain, generally conservative groups define themselves *against* a gender ideology that they believe seeks to institutionalize women's and LGBT+ rights, and threatens the foundational societal structures of the heteronormative, "natural" family. Those arguing that gender ideology pervades society, oppose the notion advanced by scholars such as Judith Butler that gender is socially constructed.<sup>3</sup> Instead, as assessed by Shannon Davis and Theodore Greenstein, they support "a division of paid work and family responsibilities that is based on the belief in gendered separate spheres."<sup>4</sup> Though the term has only been widely used this century, it has roots in the 1990s where gender and LGBT+ rights became more explicitly incorporated into policymaking.

The US's "culture wars" developed in response to such policymaking

2. Annie Wilkinson, "Latin America's Gender Ideology Explosion," *Sexuality Policy Watch*, March 28, 2017, <https://sxpolitics.org/latin-americas-gender-ideology-explosion/16724>.

3. Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity*, (New York: Routledge, 1990).

4. Shannon Davis and Theodore Greenstein, "Gender Ideology: Components, Predictors, and Consequences," *Annual Review of Sociology* 35 (2009), 87.

shifts and its themes would become heavily influential in contemporary, conservative branches of Latin American politics. The culture wars were defined when Republican advisor Patrick Buchanan questioned whether “the Judeo-Christian values and beliefs upon which this nation was built” would survive the shift towards liberal values.<sup>5</sup> Topics such as abortion, evolution, family values, feminism, sexual identity, multiculturalism, and sex education were debated.<sup>6</sup> Andrew Hartman offers a discerning critique of the culture wars, appositely defining them as a struggle between “liberal, progressive, and secular Americans” and “conservative, traditional, and religious counterparts.”<sup>7</sup> He further interrogates the challenges—to national pride and stability—presented by political and cultural change. The idea that broad attitudinal shifts produce cultural instability and undermine (arguably simplistic) forms of national pride is a potent one; as Hartman persuades, “permanent cultural revolution makes a common culture a very difficult proposition.”<sup>8</sup> The narratives created during the culture wars elucidate some key themes that

pervade Latin America’s struggle with gender ideology: connecting family values with heteronormativity, the presentation of one hegemonic culture as a fundamental source of national pride, and rooting society in strict religious frameworks.

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*Gender ideology is impacting political agendas in Latin America by: disrupting peace-building processes; giving evangelists greater political power and legitimacy; marginalizing women and queer communities from public life, at both policymaking and grassroots levels.*

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Colombia and Brazil follow the wider global trend of making progress around women’s and LGBT+ rights in recent years. In Colombia, abortion was made legal in limited circumstances in 2006. Since 2008, laws seeking to tackle violence against women have been introduced, and in April 2016 the Constitutional Court legalized same-sex marriage.<sup>9</sup> Beyond

5. Andrew Hartman, *A War for the Soul of America. A History of the Culture Wars*, (Chicago: The University of Chicago Press, 2015), 1.

6. *Ibid*, 1.

7. *Ibid*, 7.

8. *Ibid*, 290.

9. Law 1257, 2008 combating violence against women; 2012 Public Policy Guidelines for Women’s Gender Equality and the Comprehensive Plan, ensuring women live a life free of violence; Law 1719, 2014, instituting measures to ensure access to justice for sexual violence survivors.

laws explicitly addressing these issues, gender-focused provisions were included in legislation on other subjects, such as the 2011 Victims and Restitution of Land Law. Women have in fact travelled to Colombia from Brazil seeking abortions because Brazil's laws are even more restrictive; there is currently a case before the Supreme Court seeking to decriminalize abortion in the first three months of pregnancy.<sup>10</sup> Under the Citizens' Constitution of 1988, women were declared legally equal to men at the outset: "men and women have equal rights and duties under the terms of this Constitution."<sup>11</sup> In 2011 Brazil legalized same-sex marriage and São Paulo's Gay Pride Parade forms among the world's largest LGBT+ Pride celebrations.<sup>12</sup>

Debates on gender ideology have occurred across Latin America, including in the more left-wing or secular contexts of Ecuador and Uruguay. For example, Ecuador's former president, Rafael Correa, discussed how those espousing gender ideology "say there is no such thing as a man and a woman

in nature...a barbaric notion that threatens everything—the natural order—everything."<sup>13</sup> However, the focus of this essay is on Colombia and Brazil because debates around gender ideology have recently escalated around important, flashpoint issues. In Colombia, they became prominent around the peace talks between the government of President Juan Manuel Santos and FARC rebels to end the decades-long violent conflict. In Brazil, similar rhetoric was wielded in presidential debates for the advancement of Christian, far-right candidate Jair Bolsonaro. Thus, while the local conditions can differ substantially, gender ideology has been weaponized to discuss similar sets of issues in order to effectively strengthen campaigns.

Gender ideology played a significant role in disrupting Colombia's peace process. During negotiations, Winifred Tate claims that the greatest source of tension was in defining how to implement transitional justice and thus hold FARC members accountable for their crimes.<sup>14</sup> However, embedded

10. Human Rights Watch; Manuela Andreoni and Ernesto Londoño, "Brazil's Supreme Court Considers Decriminalizing Abortion" *The New York Times*, August 3, 2018, <https://www.nytimes.com/2018/08/03/world/americas/brazil-abortion-supreme-court.html>.

11. Constitution of Brazil: Title II – Fundamental Rights and Guarantees, Ch. 1 Art. 5. 1988.

12. Opheli Garia Lawler. "Brazil Holds World's Largest Pride Parade" *The Fader*, June 18 2017, <https://www.thefader.com/2017/06/18/brazil-holds-worlds-largest-pride-parade>.

13. Rafael Correo, "Ecuador: President Rafael Correa Says 'Gender Ideology' Threatens Traditional Families," *Youtube*, December 28, 2013, <https://www.youtube.com/watch?v=4J7QMXpUt00>.

14. Winifred Tate, "A Dark Day in Colombia," *North American Congress on Latin America*, October 4, 2016, <https://nacla.org/news/2016/10/04/dark-day-colombia-0.dark-day-colom->

throughout the Peace Accords was a gender component. Although Christine Bell and Catherine O'Rourke note, "waging wars and negotiating peace agreements are both predominantly male affairs,"<sup>15</sup> Colombia's peace negotiations better incorporated the voices of women due to campaigning by women's organizations.<sup>16</sup> There was an all-women gender sub-commission encompassing Government and FARC parties to ensure the political participation of women and the LGBT+ community in the peace transition. This sub-commission successfully secured a strong gender focus throughout the Peace Accord, not only stating that no amnesties would be granted for conflict-related sexual violence, but also referencing equality between genders in each chapter of the Accord.<sup>17</sup> Developing alongside the peace talks was a movement against the acceptance of the queer community into mainstream culture. Openly lesbian Minister of

Education Gina Parody pioneered a school manual focused on preventing the bullying of LGBT+ children, following the suicide of gay student Sergio Urrego. This was opposed by those also contesting the peace accords: former President Álvaro Uribe and then-Attorney General Alejandro Ordoñez. These political strongmen used the same rhetoric as those in the US during the culture wars, Uribe frequently referencing gender ideology while campaigning against "peace with impunity" and claiming "My compatriots march in defense of family values."<sup>18</sup>

There is widespread consensus that the No campaign, opposed to the peace agreement, effectively conflated the issue of impunity for the FARC with the disruption of conservative, Christian societal norms.<sup>19</sup> One campaign pamphlet read, "Colombia is in danger! Of falling under the control of a communist dictatorship and the imminent passage of a gender ideology."<sup>20</sup> Gimena Sanchez-Garzoli

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15. Referenced in Kimberly Theidon, "Reconstructing Masculinities: The Disarmament, Demobilization, and Reintegration of Former Combatants in Colombia," *Human Rights Quarterly* 31, no.1 (2009), 4.

16. Winstanley, Louise. "Women's Participation in the Colombian Peace Process." *Latin News*. May 2018. Accessed March 19, 2019. [https://www.latinnews.com/index.php?option=com\\_k2&view=item&id=76379&uid=60937&acc=1&Itemid=6&cat\\_id=812559](https://www.latinnews.com/index.php?option=com_k2&view=item&id=76379&uid=60937&acc=1&Itemid=6&cat_id=812559).

17. Ibid.

18. Nicholas Casey, "Colombian Opposition to Peace Deal Feeds Off Gay Rights Backlash," *The New York Times*, October 8, 2016, <https://www.nytimes.com/2016/10/09/world/americas/colombian-opposition-to-peace-deal-feeds-off-gay-rights-backlash.html>.

19. Tate, "A Dark Day in Colombia"; Wilkinson, "Latin America's Gender Ideology Explosion"; Casey, "Colombian Opposition to Peace Deal Feeds Off Gay Rights Backlash."

20. Referenced in Tate, "A Dark Day in Colombia."

and Cristina Camacho define and debunk the key gender ideology myths posited by the No campaign, which were broadly that women and LGBT+ communities were too influential in the peacemaking process. In actuality, as the authors note, the accord sought “to protect women’s and LGBTI communities’ human rights” which were disproportionately and specifically impacted by the conflict.<sup>21</sup> The abnegation of the Peace Accords thus risked leaving such communities without effective protection and vulnerable to further violence and exploitation. Although there were various complex factors at work, such as the divisions between city and rural areas, the rejection of the peace deal in the referendum was thus perceived as a combined rejection of the FARC as legitimate actors and of liberal conceptions of gender roles.

Embedding evangelism into public life is a further key way in which gender ideology has impacted Latin American political agendas. Although Brazil and Colombia are

predominantly Catholic countries, there has been a dramatic increase in the number of evangelical protestants in recent decades. Since 1970, the population of evangelicals in Brazil has risen from 5% to approximately 30%.<sup>22</sup> Commentators cite the importance of the *Bancada Evangélica* (“evangelical bloc”) to Jair Bolsonaro’s presidential election success.<sup>23</sup> This bloc has regularly attempted to curtail legislation on abortion and LGBT+ rights, and the Catholic Bolsonaro appealed to them through his Christian, conservative rhetoric: characterizing homosexuality as “an affront to the family structure” and the Bible as “the toolbox to fix men and women.”<sup>24</sup> Assis and Ogando suggest that, despite being Catholic himself, Bolsonaro’s election has made conservative evangelical ideas about gender more mainstream in Brazilian politics, enabling “the evangelical bloc to market itself as the defender of the traditional family and Christian values.”<sup>25</sup>

21. Gimena Sanchez-Garzoli and Christina Camacho, “Debunking the Myths about “Gender Ideology” in Colombia,” *Washington Office on Latin America*, October 25, 2016, <https://www.wola.org/analysis/debunking-myths-gender-ideology-colombia/>.

22. Omar G. Encarnación, “Amid Crisis in Brazil, the Evangelical Bloc Emerges as a Political Power,” *The Nation*, August 16, 2017, <https://www.thenation.com/article/amid-crisis-in-brazil-the-evangelical-bloc-emerges-as-a-political-power/>.

23. Encarnación, “Amid Crisis in Brazil, the Evangelical Bloc Emerges as a Political Power”; Mariana Prandini Assis and Ana Carolina Ogando, “Bolsonaro, ‘Gender Ideology’ and Hegemonic Masculinity in Brazil,” *Al Jazeera*, October 31, 2018, <https://www.aljazeera.com/indepth/opinion/bolsonaro-gender-ideology-hegemonic-masculinity-brazil-181031062523759.html>.

24. *Ibid.*

25. Assis and Ogando, “Bolsonaro, ‘Gender Ideology’ and Hegemonic Masculinity in Bra-

Colombia's political conversations have also developed an increasingly evangelical tone, in tandem with gender ideology.<sup>26</sup> As in Brazil, conservative segments among Catholics and evangelicals were united by their opposition to same-sex marriage.<sup>27</sup> Evangelical groups wielded significant political power in the peace referendum, for instance with the president of the Evangelical Confederation of Colombia, Edgar Castaño, arguing that "The agreement breaches Evangelical principles such as the family when it talks about balancing the values of women with these groups."<sup>28</sup> Following the rejection of a peace deal, Santos met with leaders of Colombia's evangelist churches. He stated that "we are going to remove everything from the accords that threatens the family, that threatens the church," signaling the power such groups had on redefining peace in a way more palatable to their conception of family, and thus gender roles. Indeed, Castaño stated that "[Santos] told us he believes in the family."<sup>29</sup> Cementing evangelical beliefs in important Brazilian and

Colombian political debates echoes how Christianity was used during the US's culture wars to reshape similar debates. In all cases, political elites effectively co-opted gender-based issues as a flashpoint around which they could institute conservative policies, leaving a policy void around the challenges that have serious consequences for the lives of vulnerable groups.

Thus, women and LGBT+ communities have been marginalized throughout public life as a result of gender ideology. Bolsonaro has used his political platform to invalidate women's experiences: during a Congressional debate he told MP Maria do Rosário that he would not rape her because she "was not worth it."<sup>30</sup> This symbolically defined the political arena as one hostile to women, however senior, and where their agency was not simply invalid, but worthy of disdain. Furthermore, Bolsonaro explicitly equated his election campaign to Donald Trump's, rejecting their labelling as homophobic, racist, and sexist: "The American people didn't swallow

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zil."

26. Andrew Chesnut, "How Ascendant Evangelicals Helped Defeat Colombia's Peace Accord," *Religion News*, October 11, 2016, <https://religionnews.com/2016/10/11/how-ascendant-evangelicals-helped-defeat-colombias-peace-accord/>.

27. *Ibid.*

28. Ana Marcos, "How Colombia's Evangelists Undermined the Peace Referendum," *El País*, October 13, 2016, [https://elpais.com/elpais/2016/10/13/inenglish/1476346491\\_896971.html](https://elpais.com/elpais/2016/10/13/inenglish/1476346491_896971.html).

29. *Ibid.*

30. Assis and Ogando, "Bolsonaro, 'Gender Ideology' and Hegemonic Masculinity in Brazil."

that, and he was elected...In Brazil something similar is happening.”<sup>31</sup> Women and queer groups have not just been symbolically marginalized by male political scorn, but physically too. When Judith Butler organized a conference in Brazil, anti-gender, far-right Christian protesters burned an effigy of her as a witch. Butler perceived this as an attack on her as the supposed “founder of ‘the ideology of gender’” and that they protested:

...to defend ‘Brazil’ as a place where LGBTQ people are not welcome, where the family remains heterosexual (so no gay marriage), where abortion is illegal and reproductive freedom does not exist. They want boys to be boys, and girls to be girls, and for there to be no complexity in questions such as these.<sup>32</sup>

This inability to deal with complexity alludes to the longing for moral stability found in the culture wars of the US; Brazilian protestors connected their sympathies to the US, telling Butler, “Trump will take care of

you!”<sup>33</sup> As a white academic based in California, Butler has a certain amount of political power, and was able to remove herself from potential danger in Brazil. Many communities do not have access to the same resources or choices and are forced to live in fragile, hostile environments. For example, in Colombia, rural communities were largely undermined by the peace referendum that demonstrated how cities had become disconnected from the realities of conflict. Fatima Muriel, president of the Women’s Association of Putumayo: Weavers of Life, argued that the success of the Yes vote in her area was “due to the hard work of the women” and that the result “demonstrates a difficult reality: our pain continues to be invisible to much of Colombian society.”<sup>34</sup> Thus, at a grassroots level women were instrumental in parts of Colombia to securing a Yes vote, but these gains were undermined by a largely male political elite. Indeed, while politicians use the rhetoric of gender ideology for opportunistic gain, there are consequences for vulnerable communities who fail to achieve justice or even to be valued

31. Sarah Pulliam Bailey, “A Trump-like Politician in Brazil Could Snag the Support of a Powerful Religious group: Evangelicals,” *The Washington Post*, November 28, 2017, [https://www.washingtonpost.com/news/acts-of-faith/wp/2017/11/28/a-trump-like-politician-in-brazil-could-s snag-the-support-of-a-powerful-religious-group-evangelicals/?utm\\_term=.431a6c-8727ba](https://www.washingtonpost.com/news/acts-of-faith/wp/2017/11/28/a-trump-like-politician-in-brazil-could-s snag-the-support-of-a-powerful-religious-group-evangelicals/?utm_term=.431a6c-8727ba).

32. Scott Jaschik, “Judith Butler on Being Attacked in Brazil,” *Inside Higher Ed*, November 13, 2017, <https://www.insidehighered.com/news/2017/11/13/judith-butler-discusses-being-burned-effigy-and-protsted-brazil>.

33. Ibid.

34. Tate, “A Dark Day in Colombia.”

as political agents in so-called democratic discourse.

Moreover, through co-opting political space, those insisting on the existence of gender ideology prevent serious issues impacting women and queer communities from being addressed. In 2017, the UN reported that sporadic violence still displaces Colombia's population, and 70% of the displaced are women and children.<sup>35</sup> Of that proportion, 73% were Afro-Colombian or indigenous. The report further highlights how women's rights advocates face threats, attacks and assaults, while LGBT+ communities face similar harassment—though rarely reporting sexual abuse.<sup>36</sup> Illegal economic activity detrimentally impacts women through operations such as trafficking, and official statistics suggest that 73% of rape survivors are girls.<sup>37</sup> Meanwhile, in a 2017 nationwide survey in Brazil, almost a third of women and girls

stated that in the past year they had suffered violence ranging from threats and beatings to attempted murder.<sup>38</sup> Only a quarter of women who suffered violence reported it.<sup>39</sup> Brazil is home to among the highest LGBT+ murder rates in the world, which rose by 30% from 2016 to 2017 according to queer watchdog group Grupo Gay de Bahia.<sup>40</sup>

Assis and Ogando argue that Bolsonaro's use of gender ideology has pushed "hostile rhetoric about political 'enemies'" to the point of encouraging "their annihilation in the public sphere."<sup>41</sup> Indeed, such rhetoric gives people a dangerous, even lethal permission to attack vulnerable bodies and dismiss their valid concerns. Bolsonaro once claimed that "Yes, I'm homophobic – and very proud of it" and that queer communities brainwash children who "become gays and lesbians to satisfy them sexually in the future."<sup>42</sup> Although gender-based

35. "Colombia," *UN Office of the Special Representative of the Secretary-General for Sexual Violence in Conflict*, April 16, 2018, Accessed November 30, 2018, <https://www.un.org/sexualviolenceinconflict/countries/colombia/>.

36. *Ibid.*

37. *Ibid.*

38. Maria Laura Canineu, "For Brazil's Women, Violence Begins at Home," *Human Rights Watch*, January 31, 2018, <https://www.hrw.org/news/2018/01/31/brazils-women-violence-begins-home>.

39. *Ibid.*

40. Sam Cowie, "Violent Deaths of LGBT People in Brazil Hit All-Time High," *The Guardian*, January 22, 2018, <https://www.theguardian.com/world/2018/jan/22/brazil-lgbt-violence-deaths-all-time-high-new-research>; Roberto Igual, "Brazil Has World's Highest LGBT Murder Rate, with 100s Killed in 2017," *MAMBA*, January 24 2018, <https://www.mambaonline.com/2018/01/24/worlds-highest-lgbt-murder-rate-100s-killed-brazil/>.

41. Assis and Ogando, "Bolsonaro, 'Gender Ideology' and Hegemonic Masculinity in Brazil."

42. Tom Philips, "Brazil's Fearful LGBT Community Prepares for a 'Proud Homophobe,'"

violence was a serious problem in Latin America prior to the rise in such rhetoric, the use of language to deny rights to the marginalized has resulted in a failure to effectively address – or even meaningfully acknowledge – the real violence that has been wrought on those communities.

The concept of gender ideology has resulted in the prevailing of heteronormative narratives in Brazil and Colombia, in which strict gender roles are presented as the norm from which it is morally objectionable to deviate. There are many problems confronting women and queer communities in Latin America but these are being successfully sidelined by a largely male, heterosexual elite who seek to maintain their historical political dominance. Their rhetoric, influencing their policymaking, has become more widely accepted throughout society. Norms are reproduced among populations to feature more conservative, religious foundations. As Butler asserts, language, repeated over time, “produces reality-effects that are eventually misperceived as ‘facts.’”<sup>43</sup> Although there is strong opposition to this regression of progressive values, the political shifts that occurred in the US from its culture wars to today signals that Angela Davis’ contention holds true: “freedom is

a constant struggle.”<sup>44</sup> Beyond the theoretical debates around gender ideology, the reality is that women and queer communities are still dying because of their identity. Without the effective dismantling of the political actors who wield gender ideology for their political advantage, and the power structures that enable this, violence will continue to derogate the marginalized and stall progress towards human rights-compliant societies.

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*The Guardian*, October 27, 2018, <https://www.theguardian.com/world/2018/oct/27/dispatch-sao-paulo-jair-bolsonaro-victory-lgbt-community-fear>.

43. Butler, *Gender Trouble*, 115.

44. Angela Y. Davis, *Freedom is a Constant Struggle*, (Chicago: Haymarket Books, 2016).



## Re-Evaluating “Modicare”: The Continuation of Neoliberal Health Care Policies?

*Paula Reppman*

India’s economic growth was projected to overtake China’s in 2018. With a GDP growth rate of 7.3% India will become the fastest growing economy in the world.<sup>1</sup> However, a high degree of inequality and poverty still characterizes the Indian economy. While India’s economic output is impressive, there are some major obstacles to

sustained economic development and an even distribution of the gains of growth among the population. One of the most significant is the poor performance in primary education and health care.<sup>2</sup> To tackle the issue of better health care, especially for poor people, the government announced a new health care program, named “Modicare,” in the beginning of 2018.

1. “India and the IMF,” *International Monetary Fund*, 2018, <https://www.imf.org/en/Countries/IND>.

2. Rahul Mukherji, “The State, Economic Growth, and Development in India,” *India Review* 8, no. 1 (February 10, 2009): 96, <https://doi.org/10.1080/14736480802665238>.

The national health protection scheme aims to provide health insurance for 100 million of the poorest families in India, covering half of the country's population, and making it the world's largest publicly funded health care program.<sup>3</sup> Nonetheless, doubts and criticism have arisen due to the fact that the government is providing the funds to private insurance companies instead of investing directly in building new and much-needed public health facilities for primary health care.<sup>4</sup> The Modicare program, therefore, continues what Kumar has called "Financialization in Healthcare Sector,"<sup>5</sup> referring to the provision of public funds to private insurance and health care companies that started after the liberalization of the Indian economy in the mid-1990s. Furthermore, Cammack criticizes social programs because of their incentive structure. Instead of reducing risk for the most vulnerable people, they are designed to introduce the poor into precarious labor markets with meager welfare benefits, which is called "positive risk," that

motivates to go to work.<sup>6</sup> This essay seeks to address the question: to what extent can Modicare be understood as the continuation of neoliberal health care policies in India? The paper will discuss the impacts of neoliberalism on health care in general, describe the development of health care in India, and eventually examine the problems ascribed to Modicare.

### Neoliberalism and Health Care Policies

In the period after World War II several countries applied Keynesian welfare economics, which promoted economic growth combined with employment and the provision of public services to guarantee the citizens' wellbeing.<sup>7</sup> Economies were heavily regulated by states in order to ensure the prosperity of a country's population. This compromise between capital and labor was called "embedded liberalism" according to Karl Polanyi since the economy, and more precisely markets, were integrated into societal relations.<sup>8</sup> However, after the oil price hikes

3. Patralekha Chatterjee, "National Health Protection Scheme Revealed in India," *The Lancet* vol. 391, no. 10120 (2018): 523, [https://doi.org/10.1016/S0140-6736\(18\)30241-1](https://doi.org/10.1016/S0140-6736(18)30241-1).

4. Chatterjee, 524.

5. Shailender Kumar Hooda, "Health in the Era of Neoliberalism: Journey from State Provisioning to Financialisation," Working Paper, ISID Working Paper (New Dehli: Institute for Studies in Industrial Development, December 2016), vol. 12, <http://isid.org.in/pdf/WP196.pdf>.

6. Paul Cammack, "Attacking the Poor," *New Left Rev.*, no. 13 (2002): 125–34.

7. Chik Collins, Gerry McCartney, and Lisa Garnham, *Neoliberalism and Health Inequalities* (Oxford University Press, 2015), 126, <http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780198703358.001.0001/acprof-9780198703358-chapter-9>.

8. John Ravenhill, "Introduction," in *Global Political Economy*, ed. John Ravenhill, 5th ed.

and resultant stagflation crisis of the 1970s, a number of countries, particularly the US and UK, started to abandon the welfare model. In what scholars labelled neoliberalism, they introduced liberalization, de-regulation, privatization, and marketization.<sup>9</sup> Privatization and de-regulation often lead to a new role for the state that is described as governance instead of government. Contrary to the conventional wisdom about a retreat of the state, the government is proactively engaged in the management of the economy to promote private business activities and international competitiveness of the national economy through favorable legislation.<sup>10</sup> Therefore, social welfare policies such as health care experienced steep funding cuts as taxation decreased to promote businesses. Austerity measures have also been forced upon many countries through structural adjustment programs (SAPs) by the World Bank and the IMF, including India in 1991.

(Oxford University Press, 2017); Robert Kuttner, "Karl Polanyi Explains It All," *The American Prospect*, 15 April 2014.

9. Collins, McCartney, and Garnham, *Neoliberalism and Health Inequalities*, 128.

10. Collins, McCartney, and Garnham, 128–29; Philip G. Cerny, "Paradoxes of the Competition State: The Dynamics of Political Globalization," *Government and Opposition* 32, no. 02 (April 1997): 251–74, <https://doi.org/10.1111/j.1477-7053.1997.tb00161.x>.

11. Sue McGregor, "Neoliberalism and Health Care," *International Journal of Consumer Studies* vol. 25, no. 2 (June 2001): 83, <https://doi.org/10.1111/j.1470-6431.2001.00183.x>.

12. 1.90 USD per day according to the World Bank "Global Poverty Line Update."

13. Poverty Headcount Ratio at National Poverty Lines for India in 2011 World Bank, "Poverty Headcount Ratio at National Poverty Lines 2011," 2018, <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=IN>.

14. K Srinath Reddy et al., "Towards Achievement of Universal Health Care in India by 2020: A Call to Action," *Lancet* vol. 377, no. 9767 (2011): 760, [https://doi.org/10.1016/S0140-6736\(10\)61960-5](https://doi.org/10.1016/S0140-6736(10)61960-5).

As a result, health care has become increasingly privatized, decentralized and provided via the market. Thus, the obligation shifts from society and the state to individuals, who must take care of themselves when health care is turned into a private good.<sup>11</sup> This is especially problematic for the poorest people, living below the poverty line, who cannot afford to buy health care and insure themselves.<sup>12</sup> This applies to 21.9% of India's population who suffers from economic hardship.<sup>13</sup> In fact, one of the main drivers of poverty in India is health care costs.<sup>14</sup> Out-of-pocket payments (OOP) and the lack of health facilities lead to rising private household debt and hard-to-access health services. Therefore it is important to look at how the Indian government addresses the needs of those people and how health care has developed in India since the beginning of economic liberalisation.

## The Development of Health Care in India Since 1991

Before the period of liberalization health care in India was focused on the tax-funded public provisioning of health services. Over time, it has increasingly shifted towards tax-funded insurance protection for people in need.<sup>15</sup> Thus, private initiatives are being promoted to cover the shortcomings of the public health sector and signal the shift from public investment in provision of services to investment in private insurance companies. The shortcomings mainly include the accessibility in rural and urban areas, lack of qualified personnel, and the low quality of treatment.<sup>16</sup> The first wave of privatization took place in 1986 when the health care sector opened up for private health insurance to cover unemployed workers or informal workers. Additionally, drug price controls were abolished in 1994 leading to an increase in costs. In 1999 FDI was introduced with a cap of 26% on foreign ownership of health insurance companies. This cap was raised to 49% in 2014 to allow international insurance businesses to invest in India.<sup>17</sup> The development reflects the general strategy of the

government to not fully privatize national industries but introduce competition from the private sector to avoid inefficiencies.<sup>18</sup> However, this comes with devastating consequences for the poor who cannot afford private insurance and have to make out-of-pocket payments in cash and take on loans to pay for health services.

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*Health care has become increasingly privatised, decentralised and provided via the market. Thus, the obligation shifts from society and the state to individuals, who must take care of themselves when health care is turned into a private good.*

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To deal with the aforementioned problems, the Indian government introduced a national health insurance program, Rashtriya Swasthya Bima Yojane (RSBY), in 2008, that covers health insurance for public and private treatment for families living below the poverty line and informal workers. Nonetheless, problems persisted because private health care facilities have still not reached rural

15. Hooda, "Health in the Era of Neoliberalism: Journey from State Provisioning to Financialisation," 1.

16. Shailender Kumar Hooda, "Health Insurance, Health Access and Financial Risk Protection," *Economic and Political Weekly* vol. 50, no. Issue No. 50 (December 2015): 66f.

17. Hooda, 64.

18. Gurcharan Das, "The India Model," *Foreign Affairs* 85, no. 4 (2006): 12, <https://doi.org/10.2307/20032037>

areas. Furthermore, many private providers inflated bills for treatments or recommended unnecessary treatments, resulting in higher reimbursements from the government and a rise in OOP expenditure.<sup>19</sup> The RSBY was not able to shift the disproportionate burden of health care costs away from the poor who spend most of their income on health care. Partially due to these issues, the government has decided to improve the RSBY with Modicare.

### **Modicare—Continuation of Neoliberal Health Care Policies?**

Modicare is expected to cover health insurance for 500 million of the poorest people in India for secondary and tertiary treatment in hospitals. Furthermore, the government agreed to upgrade existing public health centers to improve their quality. These policies will be financed by a 1% increase in the combined health and education tax, which is a part of the personal income tax.<sup>20</sup> That means only employees in the formal sector will pay for the program through their taxes. But does this end the unfair burden of health care costs for poor families? Much criticism

has arisen since the announcement of the program. First, Modicare neglects the improvement of primary care and the accessibility of health facilities in the rural area. It is not sufficient to just upgrade existing health centers given India's supply-side shortage of health facilities.<sup>21</sup> Therefore, the financialization of health care continues to benefit private companies and not the population in need. Secondly, in this sense the increase in taxes can be seen as a redistribution of resources from middle class and upper class workers to private businesses while the state neglects its role as an active provider of health services for the poorest people.<sup>22</sup> Finally, this program continues to transfer responsibility for health to the individual. Critics point out that the new "social movement for health" which accompanies Modicare places an emphasis on a healthy diet and quitting smoking in order to be less dependent on hospital care.<sup>23</sup> Prime Minister Modi himself gave yoga lessons promoting self-care. This can be seen as a strategy to make individuals rely on themselves rather than the state.

19. Hooda, "Health in the Era of Neoliberalism: Journey from State Provisioning to Financialisation," 23–25.

20. Chatterjee, "National Health Protection Scheme Revealed in India," 523.

21. Ritesh Kumar Singh, "Modicare - Devil Lies in the Detail," *Nikkei Asian Review*, 16 February 2018.

22. Hooda, "Health in the Era of Neoliberalism: Journey from State Provisioning to Financialisation," 12.

23. Jo Land, "The Trouble with Modicare," *New Internationalist*, 10 November 2018, <https://newint.org/features/2018/10/11/trouble-modicare>.

## Conclusion

Having discussed the development of public health care policies in India after the beginning of economic liberalization in 1991, this paper concludes that Modicare is simply a continuation and extension of the unsuccessful RSBY program that promoted the private insurance sector instead providing public health services and facilities. Responsibility is placed on individuals to take care of themselves while suffering under meager welfare policies. This leads to the impression that public health care in India contributes to what Cammack has called “attacking the poor” instead of tackling poverty.<sup>24</sup> Basic health care provision does not aim at protecting the poor from risks and economic hardship. Rather, it brings the poor into a labor market that builds on precarious work situations, which employers can exploit. Health and safety legislation by the Indian state do not aim to protect people in need, but is governed by market principles serving pure economic growth.<sup>25</sup> But to make this growth lasting, more attention should be paid to poverty reduction through the provision of public health care. Following this, a record of fighting poverty is possible similar to the one of China.

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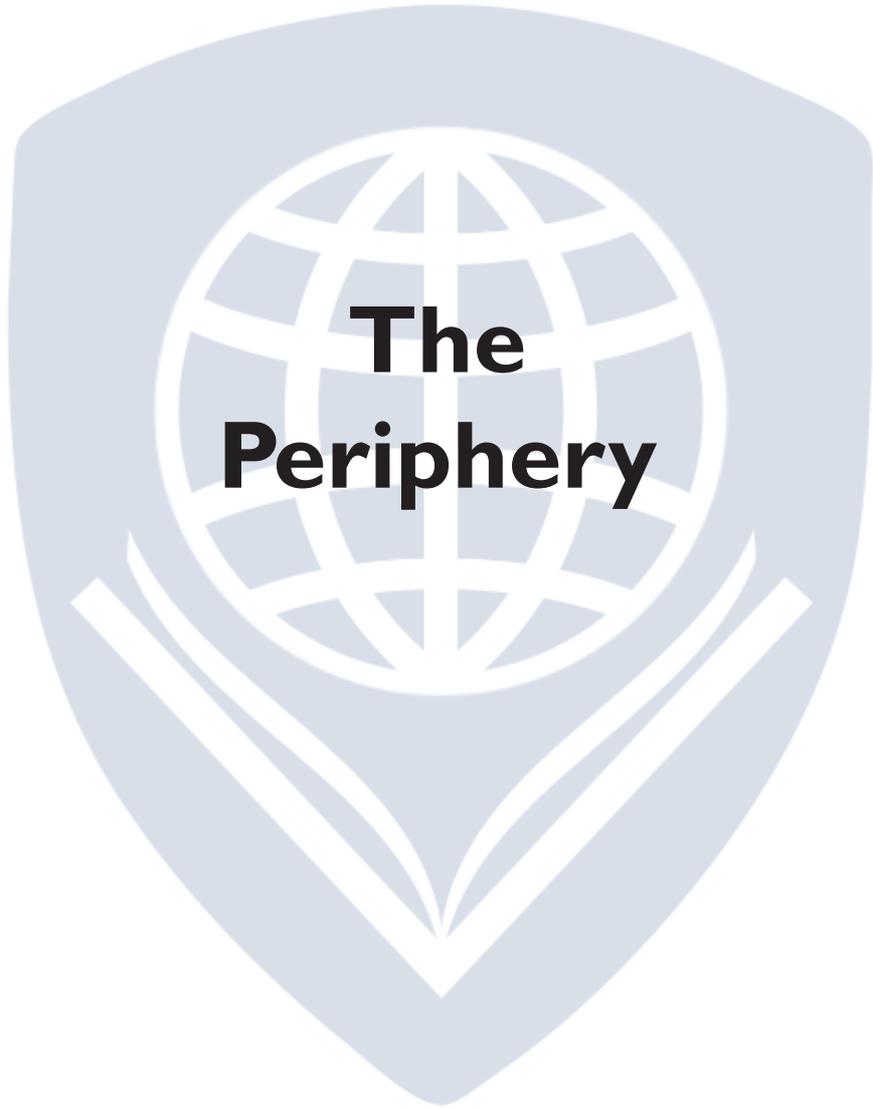
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24. Cammack, “Attacking the Poor.”

25. Cammack, 127.





## A New Arms Race in Space? Viewing International Debates on the Space Force Proposal Through the Rhetoric on the Strategic Defense Initiative

*Robin Dickey*

As shown by the timeless words of Star Trek's Captain Kirk, outer space has long held a position in the popular imagination as "the final frontier" for exploration and human progress.<sup>1</sup> However, it has also been for decades the final frontier for both hopes and fears of the future of warfare. Since the Cold War and the rise of Intercontinental Ballistic Missiles (ICBMs) and satellites of all kinds, space has stood at the

forefront of modern war. Today, satellites in space provide essential support to both military and civilian activities around the world, and fears that an aggressive actor could cripple militaries, economies, or societies drive governments to develop new ways to better secure vital space systems from attack.

One such proposal has stirred up intense controversy: President Trump's announcement in June 2018

1. Gene Rodenberry, *Star Trek: The Original Series*, (Hollywood, CA: 1969).

that he will create a “Space Force” as the sixth branch of the US’s military. Many critics claim that creating a Space Force would unnecessarily militarize space and provoke an arms race with rivals such as Russia and China. These arguments, and the conditions from which they came, closely parallel the debates surrounding another controversial program. The Strategic Defense Initiative (SDI) proposed by President Reagan in 1983 also caused talk of arms races, and an analysis of the history of the SDI and the rhetoric surrounding it can help to understand how the Space Force is perceived by Americans, potential rivals such as Russia, and particularly skeptical allies in Europe.

This investigation will show that although proponents of each program claimed to be correcting a pre-existing insecurity or instability, opponents in the US and across the Atlantic feared that the SDI, and now the Space Force, will provoke rivals to act more aggressively in outer space, weaken security ties with European allies, and undermine the delicate global system of nuclear deterrence that relies so heavily on space functions. Whether or not a Space Force could actually trigger an arms race is not the point, but fears that it will be a trigger can provide insight into arguments on the role of space in the military and

international relations.

### **The Battle for SDI: International Rhetoric on Stability, Deterrence, and Arms Races**

President Reagan first introduced the Strategic Defense Initiative in a national address on March 23, 1983. He started the speech framing the central argument that “We maintain the peace through our strength; weakness only invites aggression.”<sup>2</sup> Reagan formed this peace-through-strength argument through a description of all the ways in which the Soviet Union was already exploiting weaknesses and acting with aggression. He claimed that, while the US had developed no new ICBMs since 1969, the USSR had built five new classes of ICBMs and instigated seven rounds of upgrades that “exceeded all requirements of a legitimate defensive capability.”<sup>3</sup> The concept of developing advanced missile defense technologies that formed the foundation of the SDI did not feature in the speech until the very end, only after Reagan made his case for the danger of the current situation. Reagan also attempted to reassure allies that the US would honor its deterrence commitments. As such, Reagan introduced the SDI as a program to stabilize an international system thrown out of balance by the USSR.

2. Ronald Reagan, “Address to the Nation on Defense and National Security,” *Ronald Reagan Presidential Library and Museum*, (March 23, 1983), <https://www.reaganlibrary.gov/research/speeches/32383d>.

3. *Ibid.*

Despite attempts by Reagan to frame SDI as a necessary response to a deadly threat, initial reactions to the announcement leaned more towards disbelief and mockery. So widespread was the ridicule that both SDI and the proposal speech became known by the pejorative nickname “Star Wars.”<sup>4</sup> The name caught on quickly and became so popular that even serious scholarly articles referred to SDI as Star Wars. Europeans who did take SDI seriously generally turned to skepticism and “widespread dismay.”<sup>5</sup> Part of this consternation came from the perception that Reagan had chosen to announce the program without consulting European allies or considering how it would affect the transatlantic relationship. In apparent agreement, the State Department’s Hugh DiSantis claimed that “We didn’t care about the Europeans at all,” during the announcement of SDI.<sup>6</sup> Since most European heads of state—

except for Margaret Thatcher—first learned about SDI by reading the text of Reagan’s speech, many saw SDI as an America-first initiative that would leave the Europeans completely out of the decision-making process.<sup>78</sup>

The common facet of European opposition to SDI centered on rhetoric that the new programs would spark an arms race with the Soviet Union. Commentators argued that a defensive arms race would trigger an offensive bipolar arms race; construction of more offensive missiles would follow defensive improvements in order to ensure that some missiles make it through.<sup>9</sup> Critics also claimed that American research and development (R&D) successes could always be matched by Soviets in the long run, guaranteeing deployment of comparable systems by the Soviet Union.<sup>10</sup> The arms race rhetoric ultimately resonated with populations in several European states: 84% of

4. David S. Yost, “Western Europe and the U.S. Strategic Defense Initiative,” *Journal of International Affairs* vol. 41, no. 2 (Summer 1988): 269, <http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&db=bsu&AN=5299139&site=ehost-live&scope=site>.

5. M. Schapiro, “The Selling of Star Wars to Europe,” *Nation* vol. 246, no. 2 (1988): 1, <http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=8800005300&site=ehost-live&scope=site>.

6. *Ibid.*, 54.

7. Yost, “Western Europe and the U.S. Strategic Defense Initiative,” 272.

8. Arnold Kanter, “Thinking about the Strategic Defence Initiative: An Alliance Perspective,” *International Affairs* vol. 61, no. 3 (1985): 449-464. <http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&db=bsu&AN=4698912&site=ehost-live&scope=site>.

9. Albert Han, “No Defense for Strategic Defense,” *Harvard International Review* vol. 16, no. 1 (1985): 54, <http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&db=f5h&AN=9701144281&site=ehost-live&scope=site>.

10. George Rathjens, “The Strategic Defense Initiative: The Imperfections of ‘Perfect Defense,’” *Environment* vol. 26, no. 5 (1984): 37, <http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&db=f5h&AN=5210540&site=ehost-live&scope=site>.37.

the British electorate believed that the USSR would develop its own “Star Wars” program in response to SDI.<sup>11</sup>

These arguments factored into a larger, more complex debate on how to effectively conduct deterrence in the age of ballistic missiles and missile defense. The primary European deterrence fear was that a nuclear-shielded US would be reluctant to use force, nuclear or conventional, to defend a marginalized Europe. France, Denmark, Norway, and Greece all voiced opposition to SDI on these grounds.<sup>12</sup> French President François Mitterrand claimed that the stability of mutual vulnerability that had prevented war from breaking out on the continent could not withstand the strategic effects of missile defense.<sup>13</sup> This came from a perception of a potential “decoupling” of American and European security as the US felt less urgency to respond to security challenges across the Atlantic.<sup>14</sup> Despite the potential alternative prediction that SDI would actually increase US security guarantees to Europe when Americans no longer feared a strike on the homeland, perceptions of strategic drift and

weakening linkages dominated.<sup>15</sup> Europeans also had reason to believe that the USSR would capitalize on a transatlantic strategic drift. Kennet argued that the Soviet Union would “increase its ability to browbeat and blackmail Europe” in order to compensate for the decreased ability to threaten the US directly.<sup>16</sup> The rhetoric against SDI demonstrates the widespread fears that Europe would be left out in the cold and vulnerable to Soviet aggression.

To Europeans, SDI featured as one example of a larger trend of perceived aggressive foreign policy undertaken by the Reagan Administration. Adverse reactions to SDI came in the context of a general decline in European confidence in the US as a defender against Soviet aggression.<sup>17</sup> Since European participation in SDI appeared as such an afterthought, the context of Reagan’s tough stances on both the Soviet Union and nuclear weapons generated the perception that US policy would continue on a wider strategic path regardless of the objections of its European allies.<sup>18</sup> As much as European leaders acknowledged the Soviet role in

11. Wayland Kennet, “Star Wars: Europe’s Polite Waffle,” *Bulletin of the Atomic Scientists* vol. 41, no. 8 (September 1985): 9, <http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=11019284&site=ehost-live&scope=site>.

12. Schapiro, “The Selling of Star Wars to Europe,” 54.

13. Yost, “Western Europe and the U.S. Strategic Defense Initiative,” 282.

14. Rathjens, “The Strategic Defense Initiative,” 280-1.

15. Kanter, “Thinking about the Strategic Defence Initiative,” 454.

16. Kennet, “Star Wars: Europe’s Polite Waffle,” 10.

17. Yost, “Western Europe and the U.S. Strategic Defense Initiative,” 277.

18. Schapiro, “The Selling of Star Wars to Europe,” 54.

tensions and conflicts between the two superpowers, the rhetoric around SDI aimed at pressuring Reagan to reconsider the effects of his program on the global security balance.

Reagan gradually managed to convince many European governments to nominally support SDI research by toning down confrontational rhetoric and framing SDI as a research program for military and civilian technologies.<sup>19</sup> The defense technology contracts offered to European firms as a financial incentive to back SDI built an uneasy truce on the matter but came at the cost of strengthening Europe's right-wing elites in military and industry.<sup>20</sup> The measures also failed to address the underlying concerns of the transatlantic relations. Therefore, the US failed to fulfill hopes regarding the opening of technology transfer and flow of information by preventing benefits of SDI research from reaching the European firms that participated.<sup>21</sup> This failure, combined with the lessening international fears of US-Soviet nuclear confrontation due to the signing of the Intermediate-Range Nuclear Forces Treaty, indicated

that SDI was doomed to fade out of the spotlight and out of US policy. President Clinton dramatically scaled back SDI in 1993, dampening debates on missile defense and the militarization of outer space until the George W. Bush Administration pursued its own missile defense projects in the 21st century.<sup>22</sup>

### **The Space Force and New Rhetoric**

Since 2018, a new program involving weapons, strategy, and outer space has gained notoriety and sparked controversy. The debate around the Space Force and its potential impacts remains in its early stages. European powers in particular have yet to present a significant response to the proposal. This may be due to the fact that, similar to reactions to President Reagan's initial proposal for SDI, many did not take President Trump seriously when he first mentioned the "Space Force" idea in March of 2018.<sup>23</sup> Given the requirement for Congressional action and the slew of other proposals made by the Trump Administration that have yet to come to fruition, it would be easy to write the Space Force off as a distant

19. Michael Lucas, "SDI and Europe," *World Policy Journal* vol. 3, no. 2 (1986): 219, <http://www.jstor.org/stable/40209013>.

20. Ibid. 220.

21. B.W. Kubbig, "Star Wars Fizzles for European Contractors," *Bulletin of the Atomic Scientists* vol. 44, no. 9 (November 1988): 17, doi:10.1080/00963402.1988.11456228.17.

22. Baker Spring and James H. Anderson, "America Needs Missile Defense," *World & I* vol. 14, no. 1 (1999): 86, <http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&db=f5h&AN=1460682&site=ehost-live&scope=site>.

23. Kaitlyn Johnson, "Why a Space Force Can Wait," *Center for Strategic and International Studies*, October 3, 2018, <https://aerospace.csis.org/why-a-space-force-can-wait/>.

possibility. The November 2018 election of a Democratic majority in the House of Representatives could pose a further obstacle to gaining the funding for an independent branch of the US military. However, as Trump and congressional Space Force proponents continue to push the subject through the development of a combatant command and other reorganizations, we can expect to see responses from Europe.

The rhetoric surrounding SDI, therefore, provides a useful comparison in predicting how the Space Force proposal will be treated in political, academic, and journalistic circles across the Atlantic. As with the derisive “Star Wars” nickname given to SDI, ridicule of the Space Force proposal abounds. So widespread is the humor that publications by *Bloomberg*, *The Guardian*, and *Defense News* have used titles such as “Trump’s ‘Space Force’ Is No Joke,”<sup>24</sup> “Space force: your logos mock Trump’s new frontier,”<sup>25</sup> and “Think Space Force is a joke?”<sup>26</sup> The common emphasis of the jokes, however, is less on the Space Force

as a concept than on President Trump himself and his presentation of the idea. This parallels the personal critiques of Reagan that accompanied talk of “Star Wars,” framing him as a reckless cowboy.<sup>27</sup> These ad hominem critiques did not form the primary foundation of the SDI debate, but as with the Space Force arguments, they helped to color popular perceptions of the proposal.

A number of political leaders, scholars, and journalists involved in the Space Force debate, however, take the proposal very seriously. The August 9, 2018, speech by Vice President Mike Pence, the closest the Trump Administration has come to its own “Star Wars” speech, doubles down on the peace-through-strength rhetoric used by Reagan and frames China and Russia as aggressors that a Space Force must counter. Pence referenced China’s 2007 test of an anti-satellite (ASAT) weapon that took down one of its own weather satellites along with descriptions of Chinese and Russian development of heightened on-orbit satellite maneuver capabilities, hypersonic

24. “Trump’s ‘Space Force’ Is No Joke. It Might Even Work,” *Bloomberg Editorial Board*, June 21, 2018, <https://www.bloomberg.com/opinion/articles/2018-06-21/trump-s-space-force-is-no-joke>.

25. “Space force: your logos mock Trump’s new frontier,” *The Guardian*, August 14, 2018, <https://www.theguardian.com/us-news/gallery/2018/aug/14/space-force-your-logos-mock-trumps-new-frontier>.

26. Joe Gould, “Think Space Force is a joke? Here are four major space threats to take seriously,” *Defense News*, August 9, 2018, <https://www.defensenews.com/space/2018/08/09/think-space-force-is-a-joke-here-are-four-major-space-threats-to-take-seriously/>.

27. “Reagan ‘jokes’ about bombing Soviet Union, Aug. 11, 1984,” *Politico*, August 11, 2017, <https://www.politico.com/story/2017/08/11/this-day-in-politics-aug-11-1984-241413>.

missiles, and warfighting doctrines involving space.<sup>28</sup> Pence intended this list to demonstrate that “what was once peaceful and uncontested is now crowded and adversarial” due to the steps Russia and China, as well as North Korea and Iran, have taken to militarize the space domain and “challenge American supremacy in space.”<sup>29</sup>

The piece on American supremacy in particular stands out. Vice President Pence and President Trump both emphasize American dominance of the space domain and maintenance of a competitive edge. In this vein, presence or even leadership in space is not enough. While both SDI and Space Force arguments rely on the projection of strength, Reagan claimed in his initial speech that, “we seek neither military superiority or political advantage.”<sup>30</sup> Trump and his top officials appear to believe that strength comes from superiority and advantage. Considering how critical SDI opponents were of American aggression and unilateralism under Reagan’s relative restraint, responses

to Trump and Pence may be even harsher.

### International Response

Articles and opinion pieces published since Pence’s speech challenge his narrative and claim that the Space Force will trigger an arms race in space. In particular, critics target Trump and Pence’s talk of dominance in space. Writing for *The Hill*, Findelstein and Nevitt claim that the push for dominance in space risks weaponizing the domain and upsetting the “delicate balance” of restraint and cooperation.<sup>31</sup> In “How Trump’s ‘Space Force’ Could Set off a Dangerous Arms Race,” *Politico*’s Ramin Skibba argues that Trump talks of dominance much more directly than his predecessors, antagonizing China and Russia and prompting other countries to raise budgets and send weapons into space.<sup>32</sup> The editorial staff of *The New York Times* also referenced the Space Force and the transformation of space into a war-fighting domain as starting points for an arms race.<sup>33</sup>

28. Mike Pence, “Remarks by Vice President Pence on the Future of the U.S. Military in Space,” *The White House*, August 8, 2018, <https://www.whitehouse.gov/briefings-statements/remarks-vice-president-pence-future-u-s-military-space/>.

29. *Ibid.*

30. Reagan, “Address to the Nation on Defense and National Security.”

31. Claire Finkelstein and Mark Nevitt, “Trump risks leading the world into a space arms race,” *The Hill*, August 21, 2018, <https://thehill.com/opinion/national-security/402640-trump-risks-leading-the-world-into-a-space-arms-race>.

32. Ramin Skibba, “How Trump’s ‘Space Force’ Could Set Off a Dangerous Arms Race,” *Politico Magazine*, June 22, 2018, <https://www.politico.com/magazine/story/2018/06/22/how-trumps-space-force-could-set-off-a-dangerous-arms-race-218888>.

33. “Trump in Space,” *The New York Times*, July 27, 2018, <https://www.nytimes>.

Many of these shorter opinion pieces use the term “arms race” without much depth or analysis beyond the trope that aggression begets aggression. However, the Russian response to the announcement of the Space Force indicates that a new independent service could heighten tensions and increase the pace of space militarization. A statement by the Russian Foreign Ministry accused the Trump Administration of behaving recklessly and destabilizing the strategic situation.<sup>34</sup> Furthermore, Russian diplomats and politicians have promised repercussions if Trump follows through on creating a Space Force, framing it as a violation of the 1967 Outer Space Treaty regarding the peaceful use of space.<sup>35</sup>

Chinese experts and officials echoed Russian sentiments regarding the Space Force, particularly after President Trump announced the establishment of a US Space Command in December 2018, a key intermediary step in the development process. Bei Dongxu, a Chinese military expert, called the reasoning behind the Space Force “truly hilarious and nonsense,”

citing pre-existing US military capabilities in space and indicating that further developments would force an arms race.<sup>36</sup> This comes at a time in which the Russians and Chinese are jointly proposing a “Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects,” (PPWT) in order to appear as multilateral non-aggressors. United States State Department representatives contend that the draft treaty is riddled with flaws and often contradicted by its own drafters.<sup>37</sup> The Russians and Chinese clearly present the Space Force proposal as a threat to stability, but it remains to be seen whether the Space Force is an actual trigger for heightened tensions or, as Space Force proponents contend, merely a scapegoat for competition in space weapons that was already underway.

Critical responses to the Space Force proposal have come out of England, as well. Writing for the Royal United Services Institute, Dr. Bleddyn Bowen cautioned the British Royal Air Force (RAF)

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[com/2018/07/27/opinion/trump-space-force-military.html](http://www.mid.ru/en/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/3304414).

34. “Foreign Ministry statement on the US House of Representatives’ passing of the 2019 defence budget bill,” *Russian Ministry of Foreign Affairs*, July 27, 2018, [http://www.mid.ru/en/foreign\\_policy/news/-/asset\\_publisher/cKNonkJE02Bw/content/id/3304414](http://www.mid.ru/en/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/3304414)

35. Kyle Rempfer, “Russia warns of a ‘tough response’ to creation of US space force,” *Air Force Times*, June 21, 2018, <https://www.airforcetimes.com/flashpoints/2018/06/21/russia-warns-of-a-tough-response-to-creation-of-us-space-force/>.

36. Yang Sheng, “US making space arms race: expert,” *Global Times*, December 19, 2018, <http://www.globaltimes.cn/content/1132716.shtml>.

37. Yleem D.S. Poblete, “Remarks on Recent Russian Space Activities of Concern,” *U.S. Department of State*, August 14, 2018, <https://www.state.gov/t/avc/rls/285128.htm>.

against copying President Trump in creating an independent Space Force for Britain.<sup>38</sup> An article in *Express* titled, “Trump space race warning: RAF is ‘at the vanguard of British space power,’” echoed these sentiments alongside comments by Defense Secretary Gavin Williamson on preventing “disruption.”<sup>39</sup> These critiques compare well to the European fears of destabilization in the wake of SDI and show the balancing of fear of Russian aggression against concern that supporting or copying the Space Force could make the situation worse.

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*It remains to be seen whether the Space Force is an actual trigger for heightened tensions or, as Space Force proponents contend, merely a scapegoat for competition in space weapons that was already underway.*

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### **Complicating Factors: Contracts and Missile Defense**

Another set of conflicting interests carries over from the SDI debates: potential political and military instability versus lucrative defense contracts. Opposition to the Space Force among US allies could be

smoothed by opportunities to get involved in the new technologies, systems, and programs demanded by equipping and operating a Space Force, as it was for SDI. Of course, this would come with a number of costs, both financial and political. President Trump’s emphasis on economic protectionism and buying from American firms would conflict with an expansion of European contracting in the space security sector. Furthermore, negative public responses to similar European defense contracts attempted under SDI indicate that many across the Atlantic may not support “Space Force” contracts. The ultimate failure of SDI contracting agreements to bring the promised funds and technologies into European industry may make it more difficult to build confidence in defense industry partners that the US will follow through on agreements regarding an expansive buildup of military space capabilities under the Space Force.

A recent heightening of ballistic missile defense programs alongside the “Space Force” proposal aligns this organizational endeavor with the technological pursuits of SDI. The context of this pairing in particular concerns domestic and international

38. Bleddyn E. Bowen, “The RAF and Space Doctrine: A Second Century and a Second Space Age,” *RUSI Journal* (2018), <https://rusi.org/publication/rusi-journal/raf-and-space-doctrine-second-century-and-second-space-age>.

39. Ciaran McGrath, “Trump space race warning: RAF is ‘at the vanguard of British space power,’” *Express*, August 25, 2018, <https://www.express.co.uk/news/world/1008162/trump-space-force-military-space-service-britain-raf>.

observers. The fiscal year 2018 National Defense Authorization Act (NDAA) featured an increase of \$3.6 billion, or 46%, for the Missile Defense Agency (MDA).<sup>40</sup> It also directed the MDA to develop a space-based layer for the missile defense system, highly reminiscent of the space-based SDI missile defense programs.<sup>41</sup> The return of missile defense to prominence indicates a return to similar debates on the merits of deterrence versus defense. The article in *The New York Times* argues that Congress is spurring an arms race in space by including an order for a space-based missile interceptor in the 2019 defense bill that, “experts say is provocative, technically infeasible and prohibitively expensive.”<sup>42</sup> Other recent articles claim that missile defense, particularly space-based missile defense, undermines traditional norms for the use of outer space and makes the Space Force proposal look more aggressive and intent on weaponizing space under American military control. The arguments on why missile defense destabilizes

the international system and nuclear deterrence have not changed since the debates of the 1980s. Strong missile defense encourages strong offense and incentivizes first-strike policies, and weak missile defense (which is likely at least for the first several years of creating and deploying a program) combines political provocation with potential failure to achieve the goal of protecting American cities.

As with SDI, European responses to the “Space Force” will rely heavily on the context of other policies on space and international security created by the Trump Administration. Most of the articles and opinion pieces criticizing the Space Force proposal focused less on the proposal itself than the statements by Trump and Pence on pursuing dominance in space as a greater policy. Other concerns center on the potential for the US to place nuclear weapons in space, a concept that then-Defense Secretary James Mattis denied but Vice President Pence failed to rule out entirely.<sup>43,44</sup> This comes at the same time that Trump has announced

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40. Kingston Reif, “Congress Boosts Missile Defense Spending,” *Arms Control Today* 48, no. 4 (2018): 28, <http://search.ebscohost.com.proxy1.library.jhu.edu/login.aspx?direct=true&db=mth&AN=129414351&site=ehost-live&scope=site>.

41. Michael Martindale and David A. Deptula, “Organizing Spacepower: Conditions for Creating a US Space Force,” *Mitchell Institute Policy Papers* 16 (2018): 6, [http://docs.wixstatic.com/ugd/a2dd91\\_2ff8dfe95e694f80b4139d05650843ed.pdf](http://docs.wixstatic.com/ugd/a2dd91_2ff8dfe95e694f80b4139d05650843ed.pdf).

42. “Trump in Space,” *The New York Times*.

43. Robert Burns, “Mattis: US needs Space Force to counter Russia, China,” *Military Times*, August 14, 2018, <https://www.militarytimes.com/news/your-military/2018/08/14/mattis-us-needs-space-force-to-counter-russia-china/>.

44. Robert Costa, “Pence Leaves open the possibility of nuclear weapons in space: ‘Peace comes through strength,’” *The Washington Post*, October 23, 2018, <https://>

the departure of the US from the Intermediate-Range Nuclear Forces (INF) Treaty after accusing Russia of treaty violations.<sup>45</sup> Policy context also includes the American withdrawal from multilateral agreements such as the Paris Climate Accords and the Joint Comprehensive Plan of Action as well as an overall trend of harsh rhetoric against NATO and European Union allies. Taken in sum, the US appears to be moving towards more unilateralism and more confrontation, trends that could create or exacerbate an arms race even before a Space Force is taken into account.

It has yet to be seen whether the Space Force will face the same fate of cancellation or postponement into obscurity as SDI. The new Democratic majority in the House of Representatives certainly represents a challenge to achieving Trump's goal of a fully independent service within the military, though alternative proposals such as a Space Corps under control of the Air Force may come to pass instead. In fact, the recent December 2018 Pentagon proposal regarding the "Space Force" recommends following the model of the Marine Corps under Navy control.<sup>46</sup> Regardless of the

final shape of the Space Force, the more intently President Trump and his administration push their vision of reorganization to ensure American dominance in space, the more public and political debate on the matter can be expected.

## Conclusions

European reactions to the Space Force proposal will likely mirror the debates surrounding SDI, with some adjustments revolving around President Trump's uniquely confrontational diplomatic style. As claims that a "Space Force" could trigger an arms race in outer space develop further through scholarly articles and public statements by officials, critiques will likely focus on the provocation of rivals, American unilateralism, weakening linkages with transatlantic allies, and ideological undermining of deterrence theory. Additionally, the speed of the Russians and Chinese to criticize the Space Force compared to European allies teaches a difference in intent behind arms race rhetoric; while allies may challenge the "Space Force," hoping to influence what they see as a damaging policy, critiques from rivals

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[www.washingtonpost.com/politics/pence-leaves-open-the-possibility-of-nuclear-weapons-in-space-peace-comes-through-strength/2018/10/23/801a732a-d6d9-11e8-83a2-d1c3da28d6b6\\_story.html?utm\\_term=.8a89a853676d](http://www.washingtonpost.com/politics/pence-leaves-open-the-possibility-of-nuclear-weapons-in-space-peace-comes-through-strength/2018/10/23/801a732a-d6d9-11e8-83a2-d1c3da28d6b6_story.html?utm_term=.8a89a853676d).

45. Ibid.

46. Tobias Naegele, "Pentagon's Space Force Plan Nixes Separate Secretariat, Expands Joint Chiefs," *Air Force Magazine*, December 20, 2018, <http://www.airforcemag.com/Features/Pages/2018/December%202018/Pentagons-Space-Force-Plan-Nixes-Separate-Secretariat-expands-Joint-Chiefs.aspx>.

such as Russia and China focus more on placing the blame on the US for future conflict. We can expect Russia and China to watch developments in the “Space Force” closely and capitalize on any opportunities to present the US as an aggressor or justify their own military activities in space.

The discussions of the Space Force today take us back to the 1980s, with critics fearing that the US is acting with minimal regard for key security partners and risking bringing war to a domain that has thus far remained free of direct violent confrontation. As proponents of both programs argued, confrontation in outer space may be inevitable and the US should be prepared if violence breaks out. The policy challenge now, as it was with SDI, is to prepare for the worst while convincing allies and enemies that preparedness, not provocation, is the goal. Industrial exchange programs and contracts may help to quiet critics, but rivals and allies will see and speak about potential threats posed by American programs to promote their own security interests. This analysis shows that the debate against SDI intensified when European allies felt marginalized in both the particular program and the general arc of American policy. As shown by the shortcomings of defense contracts offered to Europeans under SDI, simply offering economic or technological carrots to allies can fail

to generate enthusiastic support for a program or even backfire. Therefore, making an effort to integrate allies and show respect for their stances from the beginning of a major proposal such as the Space Force appears to be the clearest path toward reassuring them of their role in American security and calming down the arms race cries.

Neither Reagan nor Trump have particularly cared to gain support from allies, caring much more about securing the program domestically. Yet, the gradual decline of SDI and the falling expectations for the independence of a “Space Force” indicates that a domestic-only approach might not work effectively. By making grand speeches on American dominance in space instead of reaching across the Atlantic for support, the Trump Administration has surrendered significant influence over the narrative. In order to preserve the transatlantic relationship while also pursuing peace-through-strength in outer space, the US needs to inform allies before publicly announcing dramatic changes, encourage direct dialogue while promoting the program, and follow through on promises to preserve political capital. If these measures are not taken, the “Space Force” and other US programs in the outer space domain may face increased criticism and resistance from allies and capitalization on weaknesses by enemies. The rise of new military

considerations in outer space must not mean the fall of transatlantic alliances and international stability here on the ground.

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# Towards Arctic Cooperation: An Analysis of China's Perception and Practice in Arctic Governance

Zhenhe Ma

Climate change is fundamentally reshaping the Arctic. Principally, the loss of Arctic ice brings an opportunity for new marine shipping routes between East Asia, Europe, and North America. Shipping through the Arctic would be faster than through the traditional routes of the Suez and Panama canals, shortening the distance between destinations by up to 4,000 nautical miles.<sup>1</sup> Besides saving fuel and time, expedited transport could stimulate economic growth by increasing international trade. However, before countries can capitalize on greater maritime possibilities, they must first navigate

several obstacles that could wreck their plans. Chief among these are the varying and vying policies and regulations of the governments of China and other nations with stakes in the Arctic. This paper aims to analyze China's real intentions in the region with a major focus on the Northern Sea Route (NSR), which has already experienced large commercial vessel transit in recent years. Given China's potential contributions to Arctic governance, this article also aims to guide Arctic countries on how to approach China's perceptions and intentions in order to promote economic and political cooperation in

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1. Vijay Sakhuja, *Asia and the Arctic Narratives, Perspectives and Policies* (Singapore: Springer Nature, 2016), 79.

the Arctic.

Presently, scholars are primarily analyzing trade and other policies to propose ways to mitigate potential disputes between China and countries with Arctic interests, such as Russia and Canada, related to the use of NSR and the Northwest Passage, respectively. Misinterpretations about China's intentions and its position regarding sovereignty disputes have caused significant issues for Arctic policymakers.<sup>2</sup> Research into China's true intentions in the Arctic could eliminate ambiguities, and help guide Arctic countries towards beneficial cooperation. Studying China's participation in the Arctic would also benefit regional players' political decision-making regarding collaborations with China over Arctic issues. Besides considering ideas that promote economic opportunity, this paper is careful to ensure that the proposals consider the needs of sustainable development. The environmental impact resulting from commercial activities in the Arctic should not be ignored because of the lure of economic gain. Effective communication between all parties involved and well-informed decisions can produce trade agreements that protect the way of life of Arctic natives and bring economic benefits

to nations involved.

### **Overview of the Arctic Shipping Industry**

There are a few primary influences on the Arctic shipping industry. The first is the need for accurate projections on the impacts of climate change in the region to enable policymakers to make suitable decisions on implementing policies. Geographers Scott R. Stephenson and Laurence C. Smith have provided a comprehensive projection on Arctic shipping futures, based on ten influential climate models.<sup>3</sup> Their findings, published in "Influence of Climate Model Variability on Projected Arctic Shipping Futures," give accurate seasonal and long-term forecasting of shipping potential for strategic planning and decision-making. Based on an intermodal projection, Stephenson and Smith suggest a significant increase of vessel accessibility by the mid-century and as it is today, the NSR will remain the most reliable and accessible routes.<sup>4</sup>

In addition to climate projections, cost analyses are also crucial in providing advice to decision-makers. According to Masahiko Furuichi and Natsuhiko Otsuka's cost analysis of the NSR and the Suez Canal Route (SCR), the transport time via the

2. Marc Lanteigne, "'Have You Entered the Storehouses of the Snow?' China as a Norm Entrepreneur in the Arctic," *Polar Record* vol. 53, no. 269 (2017): 117.

3. Scott R. Stephenson and Laurence C. Smith, "Influence of Climate Model Variability on Projected Arctic Shipping Futures," *Earth's Future* vol. 3, no.11 (2015): 331.

4. *Ibid*, 341.

NSR is estimated at 19.3 days, 35.4% faster than via the SCR (30.4 days) from Yokohama to Hamburg.<sup>5</sup> Their findings on NSR/SCR combined shipping unit cost were calculated at \$1,211 per Twenty-Foot Equivalent Unit (TEU) against SCR shipping unit cost \$1,355/TEU, \$1,320/TEU and \$1,211/TEU, respectively, to 4,000 TEU, 6,000 TEU and 800 TEU container ships. The conclusion is based on assuming the NSR service period of 105-days/year and fuel costs of \$650/ton.<sup>6</sup> The reduced distance and costs would be advantageous from both financial and environmental viewpoints.

Other crucial factors that could influence transarctic trade are the changing variables. Those variables include the geophysical monthly sea ice concentration and thickness, and the non-geophysical logistical factors, including icebreaking fees, political components, ice-class vessel requirements, port infrastructures, and commodity prices. Learning to assess how each variable could affect Arctic trade will underpin insightful decisions and solid policies.

Aside from the uncontrollable physical variables, non-physical

factors play an important role in the Arctic shipping industry. Indeed, Russia has seen a pattern of growing demand for NSR shipment. They are charging a high ice-breaking fee due to frozen ice on the route to make a profit and maintain safety and efficiency in the Arctic.<sup>7</sup> As a result, high tariffs have significantly increased the barriers to Arctic shipment and created obstacles for NSR operations and the commercial development of the NSR shipping market.

The table on the right includes data collected by the Center for High North Logistics (CHNL).<sup>8</sup> The table details the recent voyages of Chinese vessels via NSR through the end of 2016. Since the Chinese icebreaker “Xuelong” first transited the NSR in 2012, the NSR has experienced an increased number of voyages by Chinese vessels. Despite increasing Chinese and foreign transits, the Russian vessels are still the major users of the NSR; in 2013, 71 vessels transited through the NSR, but only 25 vessels under non-Russian flags.<sup>9</sup> The relatively high-level ice-breaking fee is a critical factor that influences the foreign shipping firm’s decisions regarding whether to choose more

5. Masahiko Furuichi, and Natsuhiko Otsuka, “Proposing a Common Platform of Shipping Cost Analysis of the Northern Sea Route and the Suez Canal Route,” *Maritime Economics & Logistics* vol. 1, no.17 (2015): 29.

6. *Ibid.*, 26.

7. Daria Gritsenko and Tuomas Kiiski, “A review of Russian ice-breaking tariff policy on the northern sea route 1991–2014,” *Polar Record* vol. 52, no.263 (2016): 144.

8. “Transit Statistics,” *CHNL Information Office*, accessed November 13, 2017. [http://www.arctic-liaison.com/nsr\\_transits](http://www.arctic-liaison.com/nsr_transits).

9. *Ibid.*

Table 1: Recent Voyages of Chinese Vessels Via NSR

	<b>Vessel</b>	<b>Ice Class</b>	<b>Type</b>	<b>Owner</b>	<b>Destination</b>	<b>Departure</b>	<b>Entry to NSR</b>	<b>Exit from NSR</b>
1	Xuelong	Arc 5	Ice-breaker	Polar Research Institute of China	Iceland	Shanghai, China	21/7/2012 17:00	31/7/2012 15:00
2	Yong Sheng (flag. Hong Kong)	Ice 1A (Arc 4)	General Cargo	COSCO Shipping Ltd	Rotterdam, Netherlands	Busan, Korea	26/8/2013 23:30	3/9/2013 09:30
3	Yong Sheng (flag. Hong Kong)	Ice 1A (Arc 4)	General Cargo	COSCO Shipping Ltd	Varberg, Sweden	Shanghai, China	2/8/2015 03:30	10/8/2015 15:20
4	Yong Sheng (flag. Hong Kong)	Ice 1A (Arc 4)	General Cargo	COSCO Shipping Ltd	Varberg, Sweden	Busan, Korea	12/9/2015 14:20	20/9/2015 04:45
5	Yong Sheng (flag. Hong Kong)	Ice 1A (Arc 4)	General Cargo	COSCO Shipping Ltd	Glasgow, UK	Shanghai, China	6/8/2016 13:26	28/7/2016 07:00
6	Tian xi (flag. Hong Kong)	Ice 1	General Cargo	COSCO Shipping Ltd	Kotka, Finland	Qingdao, China	16/8/2016 12:40	29/8/2016 14:15

attractive alternative routes.<sup>10</sup>

Besides the ice-breaking fees, poor infrastructure along the NSR has also affected Arctic shipments. There are 44 ports currently available among the NSR seasonally, while only a few ports are able to handle large cargo ships.<sup>11</sup> Even though the majority of ships implement full transits without planned stops, the ports are potentially useful to them in providing supplies and for emergencies. In the summer, ports often have a very limited capability to support vessels when the NSR is experiencing heavy traffic. This situation is extremely difficult, especially between Port Dikson and Pevek in Russia on the eastern part of the NSR.<sup>12</sup> Therefore, negotiating and collaborating with Russia to lower the barriers and to jointly develop infrastructure would be beneficial for Chinese firms in participating in the Arctic affairs in the short-run.

### **China's Perception of the Arctic**

It is important to understand China's real intentions in the Arctic in order to respond to the concerns raised by the Arctic countries. The Chinese government believes that there are three major benefits to its participation

in Arctic development. The first factor is economic. The Chinese economy is profoundly dependent on its performance on exports because the maritime shipping industry contributes to the majority of China's exports abroad. Transiting through the Arctic Straits would shorten the distance by approximately 50% from China to Europe and the East coast of North America, and would make shipment faster.<sup>13</sup> Therefore, Chinese participation in developing the Arctic straits would significantly increase the efficiency and capability of the global shipping industry.

The Arctic passages are safe and efficient in delivering goods for all actors.<sup>14</sup> Compared to the traditional "Belt and Road Initiative," the Arctic straits have the advantage of making transcontinental shipment more stable. The "Belt and Road Initiative" involves various countries that are politically unstable, while the Arctic states are made up of developed nations without significant political uncertainty. Economically, the majority of "Belt and Road" countries mainly export primary commodities. Even though the Arctic states are major exporters of natural resources,

10. Gritsenko and Kiiski, "A review of Russian ice-breaking tariff policy on the northern sea route 1991–2014," 154.

11. Tadeusz Pastusiak, *The Northern Sea Route as a Shipping Lane: Expectations and Reality* (Switzerland: Springer Nature, 2016), 120.

12. Ibid., 121.

13. Angang Hu, Xin Zhang and Wei Zhang, "The Strategic Connotation and Conception to Develop 'One Belt One Road One Passage (the Arctic Passage),'", *Journal of Tsinghua University (Philosophy and Social Sciences)* 3, no.32 (2017): 19.

14. Ibid., 21.

they also export medium and high-tech products. The opening of the Arctic straits would, therefore, have the potential to increase the trading volume between China and the Arctic states.

The second benefit of Chinese participation in the development of the Arctic Passages is security. The freedom and security of navigation are related closely to the Chinese economy. Including Chinese cargo ships, the global intercontinental shipping industry has often suffered from the activities of pirates. For example, the Gulf of Aden, leading to the Red Sea and the Suez Canal, and the waters surrounding the Horn of Africa have more than 1,200 Chinese ships and carry around 40% of all goods and natural resources bound for China each year.<sup>15</sup> Since late 2008, the Chinese government has made the decision to deploy warships on anti-piracy missions off the Somali coast. 27 convoy fleets, totaling 81 People's Liberation Army Navy (PLAN) warships, operated in the Gulf of Aden and secured 6,400 Chinese and foreign commercial ships by the end of 2017.<sup>16</sup> The deployment of Chinese warships to provide assistance and protection in the Gulf of Aden has increased the overall cost of commercial shipping to and from China. As a result, due to the general

stable geographical location of the region, the Arctic would provide ships with greater protection from the pirates that often strike Chinese vessels.

The third benefit of participating in Arctic affairs is China's potential gains from energy cooperation. China's long-term development strategy is sustainable development. The Arctic states are rich in natural resources, including both renewable and nonrenewable resources. Most of the available energy resources in the Arctic are fossil fuels, but there is potential for other energy sources such as hydroelectric, geothermal, wind, natural gas, and tidal energy. China is the largest CO<sup>2</sup> polluter in the world and has suffered for 30 years from the negative externalities brought by its economic growth. Currently, China is working to reform its energy structure away from coal, and the country's diversification of its energy supply suggests willingness to gain access to clean energy resources in the Arctic. In December 2017, the Silk Road Fund and the China National Petroleum Corporation (CNPC) jointly developed a liquefied natural gas plant with Russian companies on the Yamal LNG, to import liquefied natural gas from the Arctic. The project would produce 16.5 million tons of liquefied natural gas and 1

15. Erik Lin-Greenberg, "Dragon Boats: Assessing China's Anti-Piracy Operations in the Gulf of Aden," *Defense & Security Analysis* vol. 26, no.2 (2010): 216.

16. Guanghui Ni and Haiyan He, "PLAN's 27th Convoy Fleet Departs," *People's Daily* (Beijing, China), August 2, 2017.

million tons of natural gas condensate annually.<sup>17</sup> The collaboration with the Arctic states on energy would secure China's energy supply and push forward China's energy reform in the long run.

Aside from the benefits that China could gain from participating in Arctic affairs, so far no direct evidence indicates that China has the intention to challenge the sovereignty rights of the Arctic nations. Gaining support from Arctic states is essential for China's participation in the Arctic and would allow China to benefit from the Arctic without involving itself in sovereignty disputes. As an observer state on the Arctic Council, China does not have the right to vote. China could, however, still exercise its right to advocate by providing suggestions on particular issues in the Arctic Council. Therefore, ensuring the sovereign rights of the Arctic states, avoiding unnecessary conflicts, and maintaining the current Arctic order could benefit China's performance in the Arctic. The Arctic states are the regulators and operators of the Arctic straits, playing an alternative role to China, by regulating behaviors and necessary support (repairs, fuel and

rescue, etc.) for the users of the Arctic straits.

Evidence suggests that the Chinese government is preparing to collaborate with Canada over the usage of the Northwest Passage. The Canadian government claims some of the waters of the Northwest Passage, specifically stressing that those in the Canadian Arctic Archipelago are Canada's internal waters. Canada's claim is based partially on the historic title of the Canadian Inuit's traditional usage over the passage.<sup>18</sup> However, the UN Convention on the Law of the Sea (UNCLOS) does not apply in this case because dispute arose, and straight baselines were drawn before Canada ratified the convention.

Remarkably, the Chinese have not yet taken an official position on the dispute over Canada's claim on Northwest Passage.<sup>19</sup> In September 2017, the "Xuelong" required permission to conduct scientific research in the Northwest Passage; and this permission is required under international law regardless of whether the Passage is considered internal waters or an international strait. The Canadian government approved the Chinese request for

17. "Sino-Russian cooperation on "Yamal Project" officially put into operation, to help the building of the 'Ice Silk Road'," *CCTV*, December 9, 2017, accessed December 9, 2017. <http://m.news.cctv.com/2017/12/09/ARTIZqJ3xHCEZOI55TmkEJ66171209.shtml>.

18. Robert Fife and Steven Chase, "China used research mission to test trade route through Canada's Northwest Passage," *The Globe and Mail*, September 10, 2017, accessed November 13, 2017. <https://beta.theglobeandmail.com/news/politics/china-used-research-mission-to-test-trade-route-through-canadas-northwest-passage/article36223673/?ref=http://www.theglobeandmail.com&>.

19. *Ibid.*

their first transit over the Northwest Passage. Professor Michael Byers, a Canadian Research Chair in Global Politics and International Law from the University of British Columbia explained that the Chinese were not willing to challenge Canada's position on the Northwest Passage as they had a similar position on exercising the historic rights in Qiongzhou Strait.<sup>20</sup> Therefore, China's support for Canada's claim over the Northwest Passage would strengthen China's position in the Qiongzhou Strait.

### **China's Potential in Arctic Governance**

Russian President Vladimir Putin indicated his interests in connecting the "Belt and Road Initiative" with the development of NSR during his speech at the "Belt and Road Forum for International Cooperation" in Beijing. Subsequently, Chinese President Xi Jinping made his visit to Moscow in July and announced the new concept of "Silk Road on Ice," aiming to collaborate with Russia to develop the Arctic Passage.<sup>21</sup> Professor Hu Angang and his team from Tsinghua University provided a strategic plan for China's participation in Arctic affairs.<sup>22</sup> They suggested that the Chinese government should

participate in three steps: first of all, of cooperating with the Arctic nations on scientific research; secondly, of investing in Arctic infrastructure in order to create the necessary conditions for large scale Arctic shipping; lastly, of making the Arctic shipping routes a part of the "21st Century Maritime Silk Road".

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*Compared to the traditional "Belt and Road Initiative," the Arctic straits have the advantage of making transcontinental shipment more stable.*

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China's participation in Arctic governance would benefit the global community by providing public goods to the Arctic shipping industry. Global public goods can be defined as goods that are non-rival and non-excludable that would benefit all countries. Strengthening Hu's idea, China would provide public goods in the Arctic in three ways. Firstly, China could ensure regional stability and security. The Arctic region is involved in legal disputes and military activities, and often raises tensions among all actors. Presently, the Arctic

20. Michael Byers, *International Law and the Arctic*, (Cambridge: Cambridge University Press, 2014), 142.

21. "China, Russia agree to jointly build 'Ice Silk Road'," *Xinhua*, accessed November 13, 2017. [http://news.xinhuanet.com/english/2017-07/04/c\\_136417241.htm](http://news.xinhuanet.com/english/2017-07/04/c_136417241.htm).

22. Angang Hu and Zhang, "The Strategic Connotation and Conception to Develop 'One Belt One Road One Passage (the Arctic Passage)'," 20.

has a significant geopolitical strategic value for all Arctic states. To ensure the stability of the region, China as a non-Arctic but influential actor could play a unique role. China could be a “norm entrepreneur” in advocating guidelines for peaceful activities in avoiding the worst situation of the security dilemma. By contributing to cooperation and mutually beneficial economic development in the Arctic, China could raise the costs associated with crises and conflicts.

Second, China could play an active role in ensuring the sustainable development of the Arctic region. China is the largest polluter in the world, while the Arctic is one of the regions that has suffered most from climate change. China could seek to maintain low carbon dioxide and black carbon emissions resulting from China’s involvement in commercial activities in the Arctic, and thus help to establish new “best practices” in the region. Not limited to climate governance, China’s participation on rescue and oil-spill cooperation would also benefit the safety on the Arctic shipping industry.

Lastly, China’s participation could benefit all Arctic actors by investing and constructing infrastructure in the region. As the extension of the “Belt and Road Initiative,” China would invest in infrastructure by upgrading existing seaports and constructing new deep-water ports to increase the capability of the NSR. The Chinese

initiative on the development of Arctic shipping routes would allow all parties to use the routes with the consent and cooperation of the Arctic coastal states. Also, the cooperation on the telecommunications and energy industries between China and the Arctic states would increase accessibility of the region and create a huge economic opportunity for regional development. Better shipping facilities among the NSR would provide better services to all users. Furthermore, it is also crucial for China and other NSR users to negotiate with Russia to reach a better agreement on using the NSR without paying high regulation fees.

### **Conclusion**

Based on the current situation and China’s perception of the Arctic shipping industry, an important conclusion is that China has an interest in Arctic governance. The Arctic passages are relatively safe and efficient in delivering goods, and it will be more secure than traditional shipping routes. For example, due to its geography, the Arctic would provide transports with greater protection from the pirates that often strike Chinese vessels. In addition, energy cooperation between China and the Arctic states would secure China’s energy supply and push forward China’s energy structural reform.

In practice, China could participate

in Arctic affairs by providing public goods for the Arctic shipping industry, ensuring the sustainable development of the Arctic region, and investing in infrastructure in the region. Internationally, China's interests in providing public goods in the Arctic would increase China's global influence as well as benefit all actors. By contributing to the opening-up of the Arctic straits, China's involvement would increase mutual gains and reduce the risk of competition. As one of the most significant players in climate issues, China's participation in Arctic governance would increase China's responsibility on global sustainable development.

For the Arctic states, China has no intention of challenging the sovereignty rights of the Arctic nations, but rather of collaborating with the regional players in multiple fields including legal, energy, and infrastructure investment cooperation. The collaboration between the Arctic countries and China on infrastructure investment would create economic opportunity for regional development and better accessibility of Arctic shipping routes. Increased Arctic transit would require specialized infrastructure, such as deep-water ports in Russia and Canada for large ships. As the world's largest exporter, China boasts not only the maritime expertise, but also the resources to construct the infrastructure as the extension of the "Belt and Road

Initiative."

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## How Big Data Analysis Can Contribute to the Positive Deviance Approach to Development

*Sannidhi Srinivasan*

The standard model of international development has traditionally employed a deficit-based approach to achieving change.<sup>1</sup> This entails looking for what is missing or wrong in a developing community and attempting to address it by means of an exogenously-derived solution. These solutions are often exported from elsewhere or formulated by experts who have considerable

subject-area proficiency, yet can often lack contextual understanding. The Theory of Positive Deviance (PD) presents an alternative approach to development. It stems from the observation that in every community one can find “individuals or groups whose uncommon behaviors and strategies enable them to achieve better [developmental outcomes] than their peers while having access to the

1. Saïd Business School, *Exploring Positive Deviance – New Frontiers in Collaborative Change*, May 2010, <http://www.ua.undp.org/content/dam/ukraine/docs/DG/socinnov/4.%20Exploring%20Positive%20Deviance.pdf>, 6.

same resources and facing similar or worse challenges.”<sup>2</sup>

The PD approach involves community members themselves in the construction of solutions, amplifying existing successful practices and incorporating much needed local context into the development process.<sup>3</sup> Since its first large-scale adoption in the mitigation of malnutrition in Vietnam in the 1990s, the PD approach has been tested in many countries and development domains, especially public health.<sup>4</sup> The Positive Deviance Initiative (PDI), an organization focused on promoting the PD approach, highlights some noteworthy cases: combating neonatal deaths in Pakistan, promoting primary student retention in Argentina, and countering Female Genital Cutting (FGC) in Egypt.<sup>5</sup>

While this bottom-up strategy has shown significant promise in addressing the gap left by the needs-based approach to development, it is also subject to certain limitations.

Identifying positive deviants can be time- and cost-intensive, as they depend on the obtention of an in-depth understanding of local context through primary data collection. Additionally, acquired insights are often challenging to scale up within and across communities.<sup>6</sup> A possible way of addressing these issues is through the use of Big Data analysis techniques.<sup>7</sup> Common methods include statistical and intelligent data analysis, one of which is Machine Learning (ML). Using these methods can be advantageous to the PD approach, as they lower time and cost of analysis, allowing for larger and broader data sampling.<sup>8</sup> This paper explores the potential contribution of Big Data analysis to the PD approach to development. Specifically, it argues that intelligent data analysis techniques such as supervised and unsupervised ML can contribute to the process of identifying and scaling up positive deviant behaviors and strategies.

2. “What is Positive Deviance?,” *Positive Deviance Initiative*, accessed December 2, 2018, <https://positivedeviance.org>.

3. Saïd Business School, *Exploring Positive Deviance*, 6.

4. Basma Albanna and Richard Heeks, “Positive deviance, big data and development: A systematic literature review,” *The Electronic Journal of Information Systems in Developing Countries* (2018): 2, <https://doi.org/10.1002/isd2.12063>.

5. Positive Deviance Initiative, Social Justice Initiative, Positive Deviance Wisdom Series Report, accessed Dec 2, 2018, <https://static1.squarespace.com/static/5a1eeb26fe54ef288246a688/t/5ac7d3e9758d464f1ef8b4dd/1523045372352/WisdomSeries-Eng>.

6. Albanna and Heeks, “Positive deviance, big data and development,” 7-8.

7. This paper will use to IBM’s definition of Big Data, which takes Big Data to refer to data sets characterized by “high volume, high velocity [frequency] and high variety.” “Big Data Analytics,” IBM, accessed December 2, 2018, <https://www.ibm.com/analytics/hadoop/big-data-analytics>.

8. Albanna and Heeks, “Positive deviance, big data and development,” 15.

## The Positive Deviance Approach to Development

The PD approach involves identifying individuals who are “most likely to prevent or overcome a widely shared problem” and then developing a plan to promote the adoption of the successful strategies by others affected.<sup>9</sup> Its asset-based, community-driven strategy gives it a few important advantages over the standard or traditional model of development. It transforms the lens of development initiatives from being scarcity-based to leveraging existing assets or resources. Furthermore, the endogenously-derived solutions endorsed by the PD approach avoid the resistance to outside practices that exogenous solutions advocated for by the standard model of development often face.<sup>10</sup>

Capitalizing on these advantages, a central feature of the PD approach is sustainability. For an identified solution to be scaled to other individuals, groups, or organizations, it needs to be simple, actionable, and accessible to all. Solutions that do not meet that standard are deemed ineffective for implementing change.<sup>11</sup> To make such a determination, another

key feature of the approach is local community involvement at every stage of the process. Ownership of the issue in question and its potential solution reinforces its sustainability and increases self-determination in developing communities.<sup>12</sup>

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**Intelligent data analysis techniques such as supervised and unsupervised ML can contribute to the process of identifying and scaling up positive deviant behaviors and strategies.**

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In recent decades the PD approach has been implemented primarily in the sectors of public health, education, and advocacy for intractable social issues. Public health is the sector in which the use of the PD approach has been the most common, and it has achieved much success in cases aimed at reducing neonatal and maternal mortality, endemic malnutrition, and hospital-acquired infections.<sup>13</sup> For instance, a study published in the *Journal of Nutritional Ecology*

9. “Positive Deviance Guiding Principles,” *Positive Deviance Initiative*, accessed December 2, 2018, <https://positivedeviance.org/guiding-principles-and-definitions/>.

10. Saïd Business School, *Exploring Positive Deviance*, 6.

11. Positive Deviance Initiative, Social Justice Initiative, *Positive Deviance Wisdom Series Report*, 15.

12. Positive Deviance Initiative, “Positive Deviance Guiding Principles.”

13. Arvind Singhal and Lucia Dura, *Positive Deviance: A Non-Normative Approach to Health and Risk Messaging* (Oxford University Press, 2017), 1.

*and Food Research* evaluated PD applications for the amelioration of malnutrition in resource-poor settings. By looking at evidence from ten countries across Asia and Africa, it identified that the PD approach was better at capturing “attitudes and complex behaviors” towards the issue in question and offered a higher benefit-cost ratio than other solutions.<sup>14</sup>

Education-focused development projects have also adopted the PD approach widely. Examples include: a rural student retention project in Argentina conducted by founders of the PDI, an education system initiative in Namibia jointly commissioned by UNICEF and the Namibian government, and a similar ongoing study in Kenya by a locally based consultancy.<sup>15</sup>

Advocacy around seemingly intractable social issues has also

found significant success by employing the PD approach. Positive deviant advocacy against FGC from different sections of society in Egypt resulted in a 19% decline in individuals believing it was an appropriate practice between 1995 and 2008.<sup>16</sup> In Uganda, it was used to work on the protection and recovery of girl survivors who had returned home after surviving abduction by insurgent militant groups. This PD project focused on identifying factors that led some survivors to be more successful in reintegrating themselves in society. Sharing this knowledge with others through education and capacity-building campaigns yielded overwhelmingly positive results.<sup>17</sup>

While the PD approach has had consequential success in some sectors, it has also exhibited path dependency.<sup>18</sup> For example, its application has mostly remained

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14. Mercy E Sosanya, Funke F Adeosun, Dorothy T Okafor and Lucy C Ifitezue, “Positive Deviance - An Expedient Tool for Action to Ameliorate Malnutrition in Resource-Poor Settings,” *Journal of Nutritional Ecology and Food Research* (2017), 1- 9. <https://doi.org/10.1166/jnef.2017.1165>.

15. Positive Deviance Initiative, Social Justice Initiative, Positive Deviance Wisdom Series Report, 12;

UNICEF and MOE Namibia, *Study of Positive Deviant Schools in Namibia*, July 26, 2016, [www.ean.org.na:8080](http://www.ean.org.na:8080), 1;

“Positive Deviance in Action: The Search for Schools That Defy the Odds in Kenya,” Duncan Green, *From Poverty to Power: Oxfam*, published April 3, 2018, <https://oxfamblogs.org/fp2p/positive-deviance-in-action-the-search-for-schools-that-defy-the-odds-in-kenya/>.

16. Saïd Business School, *Exploring Positive Deviance*, 7.

17. Positive Deviance Initiative, Social Justice Initiative, Positive Deviance Wisdom Series Report, 27 – 34.

18. The Theory of Path Dependency suggests that “organizations and actors are part of institutions that structure and channel their behavioral standards and activities along established paths. Once a path is chosen, it is difficult to change it because the processes become institutionalized and are reinforced over time.” H el ene Trouv e, Yves Couturier, Francis Etheridge,

confined to rural areas and it has not been significantly used to address challenges facing urban centers in developing countries.<sup>19</sup> However, with the advent of digitalization, broad-based mobile phone ownership, and increasing social media usage, the amount of usable data has multiplied exponentially, especially in urban areas. Not only does this data provide a low-cost alternative to the traditional means of gathering data, like censuses and surveys, it can potentially provide much insight into development issues such as service provision, energy consumption, and quality of governance.<sup>20</sup>

The underutilization of such data also underscores the debate surrounding the use of quantitative versus qualitative analysis in PD projects. Many of the PD success stories previously mentioned were pursued using only qualitative data analysis techniques. The education-centric initiatives in Argentina, Namibia, and Kenya, for instance, all used qualitative surveying and other traditional data-gathering methods.

On the other hand, a primary reason for the success of the PD approach in public health projects is the availability of quantitative data that can be analyzed.

That said, even within the public health domain, there are wide-ranging opinions about which methodology PD projects should follow. Many researchers advocate for in-depth studies of the subject area to generate qualitative hypotheses that can then be statistically tested on large, representative data samples.<sup>21</sup> Even those that argue for the use of qualitative and quantitative mixed methods in healthcare projects treat PD as the organizing principle only for qualitative analysis.<sup>22</sup> They believe that qualitative analysis is particularly well-suited for the PD approach due to its emphasis on understanding context and details, and also because it has better chances of discovering unanticipated findings. However, this argument does not address the constraints faced by this methodology.

Qualitative-dominant methods would only be feasible if the sample

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Olivier Saint-Jean and Dominique Somme, "The path dependency theory: analytical framework to study institutional integration. The case of France," *International Journal of Integrated Care*, Vol 10, Issue 2 (June 2010): 4, <https://doi.org/10.5334/ijic.544>.

19. Albanna and Heeks, "Positive deviance, big data and development," 2.

20. *Ibid.*, 9.

21. Elizabeth H. Bradley, Leslie A. Curry, Shoba Ramanadhan, Laura Rowe, Ingrid M. Nembhard and Harlan M. Krumholz, "Research in action: using positive deviance to improve quality of health care," *Implementation Science: IS*, Vol 4 (2009): 1, <https://doi.org/10.1186/1748-5908-4-25>.

22. Adam J. Rose and Megan B. McCullough, "A Practical Guide to Using the Positive Deviance Method in Health Services Research," *Health Services Research*, Vol 52, Issue 3 (2017): 1211–12, <https://doi.org/10.1111/1475-6773.12524>.

size or pool from which researchers were trying to identify positive deviants was fairly small. This is due to the time- and cost-intensive nature of the traditional PD process. Albanna and Heeks even identified a study that reported an inability to achieve its envisioned sample sizes due to time constraints, and therefore questioned the quality of its findings.<sup>23</sup> The key challenge here is that these sample size and time constraints contradict the underlying assumption of the PD approach: that positive deviants are relatively rare. Therefore, in order for any outlier or anomaly analysis to be meaningful, there is statistical pressure on the sample size to be large enough to capture unordinary behavior.

Another debate regarding the PD approach to development centers around its scalability. PD projects have often faced an uphill battle with scaling up the identified positive outlier behaviors, both within and across communities.<sup>24</sup> Many advocates of the approach, including Monique Sternin, a member of the first PD initiative in Vietnam and co-founder of the PDI, believe that outlier solutions identified in one community are not meant to be spread or transferred to new settings, since they are designed

to be extremely context-specific.<sup>25</sup> Other scholars such as Duncan Green, however, have suggested that the PD approach should be viewed not as an alternative to the standard model of development, but as a way of improving it.<sup>26</sup> This could involve leveraging the PD approach to find endogenously derived, sustainable solutions that are potentially scalable. Even though such a shift would reduce the community ownership aspect that is important to the PD approach, it would retain its key advantage of identifying outliers and amplifying their existing successful practices.

Leveraging the PD approach to find solutions that are locally-sourced and scalable will have an important implication with regards to the aforementioned debate between qualitative and quantitative analysis. Development projects making the trade-off of reducing community ownership in favor of scalability will have to gather quantitative data and use various data analysis techniques to achieve desired development outcomes at a sustainable and large-scale level. A paper recently published by the Development Leadership Program (DLP) outlines a three-stage methodology for exactly this—using quantitative analysis to identify

23. Albanna and Heeks, “Positive deviance, big data and development,” 7.

24. Ibid.

25. Saïd Business School, *Exploring Positive Deviance*, 13.

26. Duncan Green, “Should Positive Deviance Be My Next Big Thing?,” *From Poverty to Power: Oxfam*, published December 2, 2018, <https://oxfamblogs.org/fp2p/should-positive-deviance-be-my-next-big-thing/>.

“positive outliers for development outcomes.”<sup>27</sup> It proposes a mixed methods approach that starts with the identification of positive outliers by means of simple regression analysis.<sup>28</sup> The next phase is a vetting of the regression results against existing literature and by country experts. Lastly, it recommends a thorough qualitative assessment of the outliers in order to understand their exceptional success. The utility of this methodology was established when it was able to identify cases of reduced corruption in the South African police sector and the Ugandan healthcare sector. The following section will argue that making a similar trade-off in favor of scalability is a desirable way to interpret the PD approach to development.

## **Big Data Analysis in Positive Deviance Development**

The scale offered by Big Data can open the door to a variety of powerful data analysis techniques. Due to its characteristics of “high volume, high velocity [frequency] and high variety,” it requires a stronger processing capacity than that of traditional data storage and management tools.<sup>29,30</sup> Distributed data systems are needed to handle the broad range of statistical and intelligent analytics that can be performed. Statistical analytic techniques are generally either descriptive, which aggregate and model data to illustrate the relationship between variables; or predictive, which infer the values of some variables based on others or forecast them using trend analysis and pattern recognition.<sup>31</sup> On the other hand, intelligent data analysis often refers to ML—a method by which computers are trained to “learn” from data.<sup>32</sup> It flips the process followed by

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27. Caryn Peiffer and Rosita Armytage, “Searching for Success: A Mixed Methods Approach to Identifying and Examining Positive Outliers in Development Outcomes,” Unpublished, 2018:1, <https://doi.org/10.13140/RG.2.2.24997.40164>.

28. Ibid.

29. IBM, “Big Data Analytics.”

30. ‘Volume’ references the huge amount of data that is typically processed by big data analysis programs. This data is often gathered by digital sources such as cellphone usage, social media, sensors. ‘Velocity’ alludes to the speed and frequency with which new data is generated and can alter the conclusions drawn from the data. ‘Variety’ refers to the availability of a high-dimensional structured and unstructured data. Albanna and Heeks, “Positive deviance, big data and development,” 9.

31. Albanna and Heeks, “Positive deviance, big data and development,” 13.

32. ‘Learning’ in this context refers to the ML system detecting patterns and structures in the data that can be used to make predictions for new data. USAID, *Reflecting the Past, Shaping the Future: Making AI Work for International Development*, accessed December 2, 2018, <https://www.usaid.gov/digital-development/machine-learning/AI-ML-in-development>, 10-

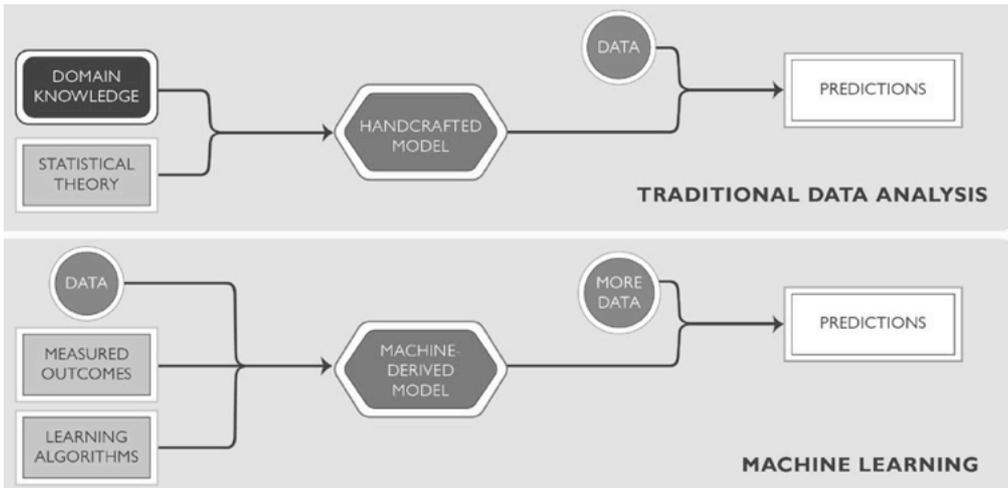


Figure 1: Process followed by Traditional Data Analysis vs Machine Learning<sup>33</sup>

traditional statistical analysis models, as illustrated by Figure 1 above.<sup>33</sup>

ML techniques can be supervised or unsupervised, with each best suited for a different type of analysis. Supervised ML builds models similar to a classification system. To do this, they require training data that is labelled, with its classification, such that the ML algorithm can build a model able to classify new data.<sup>34</sup> For example, a study that leverages this method uses a pattern of mobile phone usage to predict creditworthiness, including for the unbanked, by

training a supervised ML algorithm using labelled data of existing customers.<sup>35</sup> On the other hand, unsupervised ML does not require labelled training data. It instead detects “patterns or clusters in data without being told what to look for.”<sup>36</sup> This approach was used by a study to quantitatively analyze qualitative data about village assemblies in India and make inferences about the governance features they exhibit.<sup>37</sup>

When leveraged by the PD approach to development, Big Data and its analysis techniques provide

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33. USAID, *Reflecting the Past, Shaping the Future: Making AI Work for International Development*, 10.

34. *Ibid.*, 13.

35. “Artificial Intelligence for Economic Development Conference: Roundup of 27 Presentations,” *World Bank Blogs*, published March 20, 2018, <http://blogs.worldbank.org/developmenttalk/artificial-intelligence-economic-development-conference-roundup-27-presentations>.

36. USAID, *Reflecting the Past, Shaping the Future: Making AI Work for International Development*, 13.

37. World Bank Blogs, “Artificial Intelligence for Economic Development Conference: Roundup of 27 Presentations.”

some significant advantages. First, they allow for large sampling power and broader coverage, which increase the odds of successful detection of positive deviants.<sup>38</sup> Additionally, they can address the challenge regarding the time and cost of gathering data traditionally faced by PD projects by using the existing “data exhaust” that emerges from digital systems.<sup>39</sup> An example of this is metadata, which refers to “data about data” or “data about the collection of data.”<sup>40</sup> It is both easily accessible and powerful in terms of the insight it can provide. Metadata such as the frequency of communication, online transactions, and media consumption can elucidate high-level insights about patterns of behavior. These means of analysis can also offer input on the scaling up process, by being able to identify other communities, groups or organizations that have relevant commonalities with a particular positive outlier. While all the Big Data analysis techniques described above have significant uses, the potential impact of ML algorithms is particularly noteworthy, as its application to the identification and scaling phases of the PD approach

to development has been relatively untapped.

### **Machine Learning for the Identification of Positive Deviants**

The efficacy of ML algorithms in working with unstructured data has huge implications for the identification of positive deviants. They allow for systematic understanding of various non-numeric data types such as text, audio, and image data that offer information not available through traditional sources.

Unsupervised ML algorithms in particular do not need labelled training data and are able to establish trends among data points by accounting for all their properties.<sup>41</sup> This is ideal for the identification of positive deviants, through the process of “unsupervised anomaly detection.”<sup>42</sup> It involves searching for anomalies using high-dimensional and potentially unstructured data without any knowledge about the dimensions along which positive deviants will differentiate themselves from the rest of the population. Using such techniques would be an efficient way to not only identify positive

38. Albanna and Heeks, “Positive deviance, big data and development,” 15.

39. Data exhaust refers to the data created as an unintended by-product during the application of technology to a specific task. “Data Exhaust,” *Winton*, accessed March 30, 2019, <https://www.winton.com/glossary/data-exhaust-definition>.

40. USAID, *Reflecting the Past, Shaping the Future: Making AI Work for International Development*, 20.

41. Albanna and Heeks, “Positive deviance, big data and development,” 14.

42. Markus Goldstein and Seiichi Uchida, “A Comparative Evaluation of Unsupervised Anomaly Detection Algorithms for Multivariate Data,” *PLoS One*, Vol 11, Issue 4 (April 2016): 3-4, <https://doi.org/10.1371/journal.pone.0152173>.

deviants, but also identify the features or behaviors that make them outliers.

### **Machine Learning for Scaling Up the Identified PD Behavior**

Once a PD project has been implemented in a particular community, the identified PD behavior can be scaled up with the help of supervised ML algorithms. They can identify other communities, groups, or organizations that resemble the community studied initially such that adoption of the PD behavior is likely to generate similarly positive results. To elaborate, a training data set can be constructed with the initial community along with others, labelled as similar or dissimilar to the original. After this data set is used to train a supervised ML algorithm, candidate communities where this PD intervention might be useful can be identified and considered at a large scale. An example of this has been identified in a USAID report that contends that supervised ML algorithms can be used to “monitor whether conditions are similar to those that have preceded crises in the past,” and enhance early warning systems for food security, conflict, and others.<sup>43</sup>

### **Conclusion**

In development literature, there is much debate surrounding the choice

between top-down and bottom-up approaches. Each comes with its own set of limitations: top-down strategies are considered too generalized and lacking in context; in contrast, bottom-up approaches tend to be idealistic but not scalable, and therefore inefficient. The traditional Positive Deviance approach to development falls squarely within the bottom-up strategy camp. It is referred to as a generally successful strategy but not an impactful one since it can only influence relatively small populations at a time.

The methodology proposed here is an embrace of PD ideology, primarily in the first phase of a development project, to identify viable solutions. Big Data analysis techniques, specifically Machine Learning, can then be used to bridge the gap between a bottom-up approach like PD and the challenge it faces with scalability.

The ability of unsupervised ML algorithms to detect anomalies in datasets, with a high number of observations and parameters, can be leveraged to identify positive deviants in a developing community. These identified positive deviant behaviors can then be scaled to other communities that can benefit from them. To tackle this, supervised ML algorithms can be trained to select which communities share relevant characteristics with the original

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43. USAID, *Reflecting the Past, Shaping the Future: Making AI Work for International Development*, 18.

community and are likely to achieve similar success by adopting the positive deviant behavior. In doing so, the scalability challenge often faced by the Positive Deviance approach can be addressed, and developmental outcomes further improved.

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## A Biometric State of Exception: Health Securitization and Modern Biometric Use

*Elise Racine*

*Biometrics (noun): The measurement and analysis of unique physiological (e.g., fingerprint, face, iris, DNA, palm veins) or behavioral (e.g., voice, signature, gait, keystroke) characteristics especially as a means of verifying personal identity.<sup>1</sup>*

The last several decades have witnessed a profound shift in global health governance, one in which health issues have increasingly been labelled

security threats. Intensified following the 9/11 terrorist attacks, this shift has been characterized by the suspension of normal politics, a heightened focus on precautionary risk, and an urgent call for new defensive measures. As surveillance systems designed to monitor and manage risk, biometrics offers an effective security and disciplinary solution. Consequently, the securitization of the global health

1. Merriam-Webster, "Biometrics," in *Merriam-Webster*, accessed December 16, 2018, <https://www.merriam-webster.com/dictionary/biometrics>; Charlotte Epstein, "Embodying Risk: Using Biometrics to Protect the Borders," essay, in *Risk and the War on Terror*, ed. Louise Amoore and Marieke de Goede (London: Routledge, 2008), 178-194.

system has enabled biometrics to thrive as an apparatus of biopower. A biopolitical critique of two modern examples-1) China's biometric use with the Uighur minority in the Xinjiang province and 2) the biometric borders erected by the United States — provides vital insight into the state of contemporary global health. First, biometric proliferation demonstrates the prevalence of the health security frame within global health. Second, by supporting national security agendas dominated by Western notions of risk, it both reveals and perpetuates the power inequalities within the global health system. Lastly, predicated on scientific impartiality, biometrics have legitimized and reinforced this securitization process and the use of exceptional, or emergency, measures.

### **A Biopolitical Introduction**

The 18<sup>th</sup> century marked the advent of greater political involvement in health. The scientific advances of the Age of Enlightenment made it possible to manipulate certain health outcomes. As a result, authorities increasingly attempted to optimize the

health of the population and, in turn, the productivity of the nation. French philosopher Michel Foucault explored the intricacies of these developments in his works on biopower, biopolitics, and governmentality.

As the “set of mechanisms through which the basic biological features of the human species became the object of... a general strategy of power,” biopower constitutes two poles.<sup>2</sup> The first, anatomo-politics, disciplines the individual, while the second, biopolitics, governs the population, or “species body.”<sup>3</sup> Viewing the population as a “biological and political problem” biopolitics “operates through administrative and strategic arrangements of the state”<sup>4</sup> that target the “basis of the biological processes,” including fertility, mortality, and life expectancy.<sup>5</sup> Foucault coined the term “governmentality” to cover the sum of these strategies, institutions, and techniques by which governments manage human conduct across all of life's domains.<sup>6</sup> Power is exercised and amplified through the discourses internalized by individuals (leading to self-regulation) and utilized to guide

2. Michel Foucault, *Security, Territory, Population: Lectures at the Collège De France*, 1977-78, ed. François Ewald, Alessandro Fontana, and Michel Senellart, trans. Graham Burchell (Basingstoke: Palgrave Macmillan, 2014), 16.

3. Michel Foucault, *The History of Sexuality*, vol. 1 (Pantheon Books, 1978), 139-140.

4. Natasha Saltes, “‘Abnormal’ Bodies on the Borders of Inclusion: Biopolitics and the Paradox of Disability Surveillance,” *Surveillance & Society* vol. 11, no. 1/2 (2013), 61.

5. Foucault, *History of Sexuality*, 139.

6. Michel Foucault, *The Foucault Effect: Studies in Governmentality*, ed. Graham Burchell, Colin Gordon, and Peter Miller (Chicago: The University of Chicago Press, 1991), 2; Lorna Weir and Eric Mykhalovskiy, *Global Public Health Vigilance: Creating a World on Alert* (New York, NY: Routledge, 2012), 17.

populations.<sup>7</sup>

This transition paralleled changing legal, disciplinary, and security mechanisms.<sup>8</sup> Diverging from previous prosecutorial practices of regarding an individual “at the level of his actions,” new forms of juridical governance acted on “the level of his potentialities.”<sup>9</sup> Foucault argues that the process shifted the focus from “What have you done?” to “Who are you?”<sup>10</sup> This transformation from “prosecuting offenders after the crime...to anticipating and preempting actions by those within high-risk groups” repositioned risk from individuals to populations requiring larger-scale surveillance methods.<sup>11</sup> The global health system has experienced similar mechanism changes in recent decades, illustrated in part by a heightened emphasis on preemptive action that resembles this preoccupation with potentialities and the question “Who are you?”

## The Securitization of the Global Health System

The securitization process hinges on threat identification. Specifically, it involves speech acts in which an actor labels a referent object an existential security threat, and an audience who then either accepts or rejects that claim.<sup>12</sup> Intrinsicly tied to “the logic of ‘war,’” the politics of security invokes a sense of urgency and legitimizes the use of extraordinary measures that bypass democratic procedures and other legal constraints.<sup>13</sup> Governmentality thrives in this exceptionalism, where the acceptance of a threat justifies extreme courses of action.<sup>14</sup> Emergency politics, however, can cause lasting institutional changes that make it easier to reactivate security rhetoric and processes, generating a permanent state of exception.<sup>15</sup> Tine Hanrieder and Christian Kreuder-

7. Ole Jacob Madsen, “Governmentality,” in *Encyclopedia of Critical Psychology*, ed. Thomas Teo (New York: Springer, 2014), 815.

8. Foucault, *Security, Territory, Population*, 21-24.

9. Michel Foucault, *Power: The Essential Works of Michel Foucault, 1954-1984*, ed. J.D. Faubion, vol. 3 (London: Penguin, 2002), 57; Jeremy W. Crampton, “The Biopolitical Justification for Geosurveillance,” *Geographical Review* 97, no. 3 (July 2007), 391.

10. Michel Foucault, *The Birth of Biopolitics Lectures at the College De France, 1978-1979*, ed. Michel Senellart (New York: Palgrave Macmillan, 2011).

11. Crampton, *Biopolitical Justification*, 397.

12. Alexander Kelle, “Securitization of International Public Health: Implications for Global Health Governance and the Biological Weapons Prohibition Regime,” *Global Governance* 13, no. 2 (2007), 218.

13. Tine Hanrieder and Christian Kreuder-Sonnen, “WHO Decides on the Exception? Securitization and Emergency Governance in Global Health,” *Security Dialogue* vol. 45, no. 4 (June 10, 2014), 333.

14. Weir and Mykhalovskiy, *Global Public Health Vigilance*, 58-63.

15. Hanrieder and Kreuder-Sonnen, “Who Decides,” 335.

Sonnen refer to these self-reinforcing tendencies as the “‘emergency trap’ of global security.”<sup>16</sup>

Largely driven by national economic and trading interests, the securitization process testifies to the influence of economics on global health governance. Capitalism necessitates not only “controlled insertion of [disciplined] bodies in the machinery of production,”<sup>17</sup> but governing the circulation of goods, services, and people.<sup>18</sup> Security practices organize this circulation, “making a division between good and bad... and maximizing the good circulation by eliminating the bad.”<sup>19</sup> With globalization, circulation has intensified and broadened, bringing concerns of novel “bad” elements that do not respect national borders.

In January 2000, the UN Security Council discussed a health issue for the first time: HIV/AIDS. Resolution 1308 of the meeting warned “that the HIV/AIDS pandemic, if unchecked,

may pose a risk to stability and security.”<sup>20</sup> Other actors, including the International Crisis Group, voiced similar fears.<sup>21</sup> Trepidation centered on the epidemic’s potential far-reaching effects on global economic output and political stability.<sup>22</sup> Such rhetoric not only frames the disease as a security risk, but substantiates biopolitical involvement. Actions are condoned “on behalf of the existence of everyone,”<sup>23</sup> and the biological characteristics of a population remain political concerns.

While the 2000 UN Security Council demonstrates securitizing tendencies prior to the “War on Terror,” the terrorist attacks on 9/11 and the series of anthrax letters sent a week later to American targets rapidly expanded the securitization of global health.<sup>24</sup> The risk of biological warfare was no longer limited to the armed forces but threatened the entire population.<sup>25</sup> Propelled by various speech acts that designated similar

16. Ibid, 335.

17. Michel Foucault, *Discipline and Punish: the Birth of the Prison* (New York: Pantheon Books, 1977), 141.

18. Claudia Aradau and Tobias Blanke, “Governing Circulation: a Critique of the Biopolitics of Security,” essay, in *Security and Global Governmentality: Globalization, Power and the State*, ed. Miguel De Larrinaga and Marc G. Doucet (Basingstoke: Palgrave, 2010), 1.

19. Foucault, *Security, Territory, Population*, 32.

20. UNSC, “UN Security Council Resolution 1308 (2000) on the Responsibility of the Security Council in the Maintenance of International Peace and Security: HIV/AIDS and International Peace-Keeping Operations,” July 17, 2000, 1.

21. Colin McInnes and Kelley Lee, *Global Health and International Relations* (Cambridge, UK: Polity, 2014), 38.

22. Ibid, 3, 38-39.

23. Foucault, *History of Sexuality*, 137.

24. McInnes and Lee, *Global Health*, 131.

25. Kelle, “Securitization of International Public Health,” 218.

attacks as threats in need of immediate action, a new health security narrative emerged that reaches beyond bioterrorism. This narrative remains dominant in the global health system today.

The implications of this shift can be observed in World Health Organization (WHO) Director-General Dr. Gro Harlem Brundtland's speech on "AIDS and Global Security" to a Nobel Centenary Roundtable in 2002:

The levels of ill-health in countries constituting the majority of the world's population pose a direct threat to their own national economic and political viability, and therefore to the global economic and political interests of all countries... so investing in global health is investing in national security.<sup>26</sup>

No longer is the risk hypothetical, but a real "direct threat," the global effects of which are clearly delineated. The intention remains to prevent these threats (and their consequences) from spreading into the Global North, despite efforts to present it as an

investment in "health for all."<sup>27</sup> The reference to national security reveals not only this co-option of the national security argument, but the power asymmetries within the contemporary global health system. This state-centric perspective prioritizes the nation's health and well-being over that of individuals or communities, and the interests of certain powerful states in particular.<sup>28</sup> Indeed, Western states have largely set the agenda for health security, which has been dominated by three arbitrarily selected issues: acute and severe infectious disease of epidemic potential, HIV/AIDS, and bio-terrorism.<sup>29</sup> Sara Davies maintains that "[d]eveloping states have been noticeable in this process only by their absence as key actors."<sup>30</sup>

Such power disparities are further evidenced in the revisions to the International Health Regulations IHR (2005). Since the IHR acts as a normative guide within global health governance and shapes perceptions around what constitutes an international health risk, any modifications carry substantial weight. Adopted in 2005 and entered into force in 2007, the IHR (2005) introduced "public health emergency

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26. Gro Harlem Brundtland, "Failed States, Countries in Crisis and Global Security: How Health Can Contribute to a Safer World," World Health Organization, September 25, 2002, <https://www.who.int/dg/brundtland/speeches/2002/washington/en/>.

27. Weir and Mykhalovskiy, *Global Public Health Vigilance*, 5.

28. McInnes and Lee, *Global Health*, 137, 144-145.

29. Ibid, 150-152.

30. Sara E. Davies, "Securitizing Infectious Disease," *International Affairs* vol. 84, no. 2 (February 26, 2008), 296.

of international concern” (PHEIC) to the global health lexicon and diverged radically in scope from preceding international health law that largely targeted infectious disease.<sup>31</sup> According to the WHO, PHEICs encompass “the public health aspects of chemical, biological, and radiological weapons use.”<sup>32</sup> North America and Europe have largely shaped this definition, while the Global South has objected to the inclusion of terrorism-related events.<sup>33</sup> This contention echoes critiques of Western interests dominating the WHO’s agenda<sup>34</sup> and is concerning considering other criticisms that the WHO has morphed into a “suprasovereign power” in global health.<sup>35</sup> For example, only the Director-General of the WHO can declare a PHEIC. Since the passing of IHR (2005), the WHO has declared four PHEICs exhibiting not only the reactivation potential, or emergency trap, Hanrieder and Kreuder-Sonnen describe, but the adaption of health agendas to security concerns.

Furthermore, by extending its scope to “illness or medical condition...that presents or *could* [emphasis added] present significant harm to humans,”<sup>36</sup> the IHR (2005) systematized a preoccupation with precautionary risk similar to the potentiality motif described by Foucault and Crampton. Targeting “the actual, the emergent, and the potential,”<sup>37</sup> health security invokes the anticipation and preventive decisions of war.<sup>38</sup> Defensive measures extend into public health infrastructure, further conflating health and security. This securitization act is repeated throughout the global health dialogue, fueling exceptionalism and legitimizing biometrics and other preemptive forms of control.

### **Biometrics: A Biopolitical Critique**

In January 2001, the *MIT Technology Review* named biometrics one of the “ten emerging technologies that will change the world.”<sup>39</sup> Less than a year later, the industry gained

31. Weir and Mykhalovskiy, *Global Public Health Vigilance*, 108-109; Kelle, “Securitization of International Public Health,” 226-227.

32. Weir and Mykhalovskiy, *Global Public Health Vigilance*, 149.

33. McInnes and Lee, *Global Health*, 107.

34. Davies, “Securitizing Infectious Diseases,” 296.

35. Weir and Mykhalovskiy, *Global Public Health Vigilance*, 174.

36. IHR, “International Health Regulations (2005),” *International Health Regulations (2005)* § (2008), 1.

37. Weir and Mykhalovskiy, *Global Public Health Vigilance*, 62.

38. Louise Amoore and Marieke de Goede, “Introduction: Governing by Risk in the War on Terror,” in *Risk and the War on Terror* (London: Routledge, 2008), 5-21.

39. “10 Breakthrough Technologies: 2001,” *MIT Technology Review*, January 1, 2001, <http://www2.technologyreview.com/featured-story/400868/emerging-technologies-that-will-change-the-world/>.

additional international attention following 9/11. According to Kelly A. Gates, 9/11 marked a profound shift in our cultural discourse in which “automated facial recognition [became] a homeland security technology.”<sup>40</sup> The confirmation of catastrophic, unpredictable, and unavoidable risk called for intensified efforts and technological interventions including proactive surveillance measures. Harnessing the latest advancements, the War on Terror has resulted in the “classification, compilation, and analysis of data...on an unprecedented scale.”<sup>41</sup>

But how did biometrics become a pervasive surveillance technology? Foucault asserts that emerging developments are accepted as new “technologies of power” and utilized to govern populations because they a) present risks as mathematical probabilities and b) are integrated within and/or resemble prior security mechanisms.<sup>42</sup> Determining risk requires a norm that rests on the principles of “qualification and correction,”<sup>43</sup> which entails ascribing bodies with measurable attributes

that can then be “controlled and managed.”<sup>44</sup> The statistical analysis of biological data, biometrics, applies these measurable attributes to rationalize risk in mathematical terms. This process is accomplished by using physical and behavioral traits to derive the “truth” of a subject’s identity, authenticity, and, by association, intent.<sup>45</sup> Hence, biometrics operates as “technologies of truth” that answer the key question “Who are you?”<sup>46</sup> Biometric systems then use this information to classify human bodies according to perceived risk, preventing the infiltration of any unauthorized or undesirable individuals.

In addition, biometrics has previously been used for security purposes in circumstances denoted by exceptionalism, making it primed for adoption as a technology of power. Exploring the history of the technology’s use in South Africa, Keith Breckenridge notes a “clear correlation between the societies that have moved quickly towards centralised biometric identity registration... and counter-insurgent

40. Kelly A. Gates, *Our Biometric Future: Facial Recognition Technology and the Culture of Surveillance* (New York: New York University Press, 2011), 100.

41. Amore and Goede, “Governing by Risk,” 9.

42. Foucault, *Security, Territory, Population*, 87.

43. Michel Foucault, *Abnormal: Lectures at the Collège De France, 1974-1975*, ed. Valerio Marchetti et al. (London: Verso, 2016), 49.

44. Mary Beth Mader, “Foucault and Social Measure,” *Journal of French and Francophone Philosophy* vol. 17, no. 1 (2007), 6.

45. Joseph Pugliese, *Biometrics: Bodies, Technologies, Biopolitics* (New York: Routledge, 2010), 3.

46. *Ibid*, 1-4, 165.

state[s].”<sup>47</sup> While South Africa had long maintained a fingerprint database of its black residents, in 1981 the country expanded the system to all South African nationals following a series of bombings by *uMkhonto we Sizwe*, the armed wing of the African National Congress.<sup>48</sup> The decision accompanied extraordinary legal changes, including an order that reconstituted authority in the hands of the South African military. Breckenberg asserts that South Africa’s incorporation of biometrics into an anti-terrorist strategy gave “concrete form to the global problem that the newly christened biometrics industry was searching for.”<sup>49</sup> This set a dangerous precedent that allowed the health security agenda to appropriate the technology.

Due to its acceptance as a security mechanism, biometrics has received extraordinary levels of public and private investment in recent years. For example, estimates indicate the size

of the biometric industry to increase from \$10.74 billion in 2015 to \$32.73 billion by 2022.<sup>50</sup> While biometric technology has been integrated across sectors and industries, “governmental spending still forms the largest portion of biometric expenditures” and is forecasted to reach \$8.6 billion by 2020.<sup>51</sup> North America dominates the government biometric market segment and is expected to make up 47.9% of the market’s revenues by 2020.<sup>52</sup> Asia and the Pacific form the second largest percentage share. Changing laws that “directly or indirectly [require] biometric functionality” and shifting public attitudes around surveillance are partly responsible for the growth.<sup>53</sup>

### **Social Sorting and China’s Uighur Minority**

Biometric systems are increasingly being used by governments to identify citizens and manage access to governmental services. China’s Xinjiang biometric program is one

47. Keith Breckenridge, *Biometric State: The Global Politics of Identification and Surveillance in South Africa, 1850 to the Present* (Cambridge University Press, 2014), 176.

48. *Ibid.*, 26, 175.

49. *Ibid.*, 176.

50. Alexandro Pando, “Beyond Security: Biometrics Integration Into Everyday Life,” *Forbes*, August 4, 2017, <https://www.forbes.com/sites/forbestechcouncil/2017/08/04/beyond-security-biometrics-integration-into-everyday-life/#21d80955431f>.

51. Dimitrios Pavlakis and Michela Menting, “Government Applications for Biometric Technology,” in *Government Applications for Biometric Technology* (ABI Research, April 14, 2015), [https://www.abiresearch.com/market-research/product/pdf\\_to\\_html/1021331-government-applications-for-biometric-tech/AN-1950.pdf/1/#pf8](https://www.abiresearch.com/market-research/product/pdf_to_html/1021331-government-applications-for-biometric-tech/AN-1950.pdf/1/#pf8).

52. “Global Government Biometrics Market 2017-2027,” *PR Newswire: news distribution, targeting and monitoring*, September 18, 2017, <https://www.prnewswire.com/news-releases/global-government-biometrics-market-2017-2027-300521422.html>.

53. Sean M. O’Connor, “Biometrics and Identification After 9/11,” *SSRN Electronic Journal*, 2002, 1.

such example. Located in northwest China, Xinjiang is home to over 11 million Uighurs, a Turkic-speaking Muslim minority.<sup>54</sup> The territory shares borders with several unstable countries, including Pakistan and Afghanistan. Violent Islamist extremism has risen in the area following the aftermath of 9/11 and the US invasions of Afghanistan and Iraq.<sup>55</sup> Furthermore, the large migration of Han Chinese (China's ethnic majority) into Xinjiang in recent decades has added to tensions, with hundreds dying in the unrest in the last several years. The Chinese government has blamed the Uighurs for the events, as well as a number of other violent incidents in China.

In response, China has ramped up security operations, painting their actions as “part of the state’s responsibility to ensure public security” and “social stability.”<sup>56</sup> Efforts include the “Physicals for All” initiative launched in 2016. The program collects biometric information, specifically blood type

and DNA samples, under the guise of free medical checkups. Patients do not appear aware of the extent of the biometric collection or its use. Nor does participation seem optional, with reports of individuals being detained indefinitely for refusing. The biometric databases are linked to national identification cards, CCTV cameras, education institutions, and medical and housing benefits.<sup>57</sup> A state news agency claimed that as of October 30, 2017, 18.8 million individuals had participated in the medical checkups, which according to preliminary calculations cost the district a total of 1.6 billion yuan or about \$230 million.<sup>58</sup> The program testifies to the extraordinary financial, human, and technical support China has provided to various biometric initiatives in their “Strike Hard Campaign Against Violent Terrorism.”

A number of securitizing speech acts have justified the government’s actions. One such speech act by the Chinese Communist Youth League Xinjiang Branch captured the

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54. Roland Hughes, “China Uighurs: All You Need to Know on Muslim ‘Crackdown,’” *BBC News*, November 8, 2018, <https://www.bbc.co.uk/news/world-asia-china-45474279>.

55. James Griffiths, “Rights Group Accuses China of ‘Systematic Campaign of Human Rights Violations’ against Muslims,” *CNN*, September 10, 2018, <https://edition.cnn.com/2018/09/09/asia/xinjiang-camps-china-hrw-intl/index.html>.

56. “Eradicating Ideological Viruses,” *Human Rights Watch*, September 9, 2018, <https://www.hrw.org/report/2018/09/09/eradicating-ideological-viruses/chinas-campaign-repression-against-xinjiangs>.

57. James Griffiths, “China Collecting DNA, Biometrics from Millions in Xinjiang: Report,” *CNN*, December 13, 2017, <https://edition.cnn.com/2017/12/12/asia/china-xinjiang-dna/index.html>.

58. Chao Jin, “Xinjiang: 2017 National Health Checkup Completed,” *Xinjiang Daily*, November 2, 2017, [http://www.gov.cn/xinwen/2017-11/02/content\\_5236389.htm](http://www.gov.cn/xinwen/2017-11/02/content_5236389.htm).

intensity of the language used, calling to “eradicate from the mind thoughts about religious extremism and violent terrorism, and to cure ideological diseases.”<sup>59</sup> This pairing of terrorism with a more historically typical health rhetoric (i.e., infectious disease) exemplifies the conflation of health and security.

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*Biometrics has previously been used for security purposes in circumstances denoted by exceptionalism, making it primed for adoption as a technology of power.*

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The initiative illustrates how health services have increasingly become responsible for counter-terrorism efforts and how populations have become normalized to heightened surveillance. As biometric systems grow, certain dialogues can be reinforced by the technology’s use and prevalence.

Depending on the results of these surveillance programs, people are assigned a degree of “trustworthiness”

that can enhance or restrict their mobility and access. While Foucault referred to this process of identifying risky others as “dividing practices,”<sup>60</sup> David Lyon uses the analogy “surveillance as social sorting” to capture the political implications of such systems.<sup>61</sup> How one is categorized depends on socially-constructed perceptions of race, class, gender, sexuality, and ability, among other attributes. Deviation from the desired norm—whether that is due to ethnicity or even drinking alcohol in China’s case—can result in exclusion and discrimination.<sup>62</sup> Since biometrics is considered a technology of truth, based on immutable traits, it lends further credibility and perceived impartiality to the system in which it is embedded.

Biometrics, however, can be coopted by authorities to reproduce and solidify certain power relations, including by disciplining and marginalizing minority groups. Such power asymmetries are even more consequential considering the immutable nature of and sensitive information provided by biometric identifiers. With biopolitical protection reserved for those

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59. HRW, “Eradicating Ideological Viruses.”

60. Michel Foucault, *Discipline and Punish: the Birth of the Prison* (New York: Pantheon Books, 1977).

61. David Lyon, ed., *Surveillance as Social Sorting: Privacy, Risk and Automated Discrimination* (London: Routledge, 2003), 1-8.

62. “Apartheid with Chinese Characteristics,” *The Economist*, May 31, 2018, <https://www.economist.com/briefing/2018/05/31/china-has-turned-xinjiang-into-a-police-state-like-no-other>.

regarded as healthy and normal and vulnerable populations frequently portrayed as “lacking in relation to the norm,” such information can be manipulated (including retroactively) to highlight perceived abnormalities and lead to exclusion from official juridical-political structures.<sup>63</sup> The expansive interconnectedness between China’s biometric program and other governmental systems demonstrates the vast potential for abuse and control over vulnerable populations.

### **The United States and Health Security**

The US has been at the forefront of setting the health security agenda, especially the emphasis on bioterrorism and the conflation of national security and health. Reflected in the revision of the IHR (2005), this particular security framing can similarly be regarded in the creation and mission of the Global Health Security Initiative (GHSI). Launched

in 2001 at the suggestion of Tommy Thompson, the Secretary of Health and Human Services at the time,<sup>64</sup> GHSI aims to “strengthen health preparedness and response globally to threats of biological, chemical, radio-nuclear terrorism (CBRN) and pandemic influenza.”<sup>65</sup> Members include Canada, the European Union, Japan, Mexico, and the United States, with the WHO acting as an expert advisor.<sup>66</sup>

Domestic efforts included the creation of the Office of Health Affairs (OHA) and its Health Threats Resilience Division within the US Department of Homeland Security (DHS) in 2003.<sup>67</sup> At the “intersection of homeland security and public health” the OHA operates under the position that “all threats to the homeland have health consequences.”<sup>68</sup> Colin McInnes and Kelley Lee note that the “casting of global health in military terms has been most prominent in the US.”<sup>69</sup> Such rhetoric has not only advanced the incorporation of

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63. Saltes, “‘Abnormal’ Bodies,” 61-63;

Wendy Lerner, “Spatial Imaginaries: Economic Globalization and the War on Terror,” essay, in *Risk and the War on Terror*, ed. Louise Amoore and Marieke de Goede (London: Routledge, 2008), 54;

B. Ajana, “Asylum, Identity Management and Biometric Control,” *Journal of Refugee Studies* 26, no. 4 (2013), 576-595.

64. McInnes and Lee, *Global Health*, 107.

65. GHSI, “Introducing the Global Health Security Initiative,” *Global Health Security Initiative*, accessed December 17, 2018, <http://www.ghsi.ca/english/index.asp>.

66. GHSI, “Global Health Security Initiative.”

67. McInnes and Lee, *Global Health*, 106.

68. Tracy Parker, “THA Overview,” rep., *THA Overview*, 2011, quoted in McInnes and Lee, *Global Health*

69. McInnes and Lee, *Global Health*, 109.

health issues into foreign and security policy, but justified the suspension of normal politics in a “cost-is-no-issue war on terrorism.”<sup>70</sup> The Bush Administration’s “Unitary Executive” agenda (in which the president was free from checks and balances) encapsulates the extent of exceptionalism and the potential for an emergency trap situation.<sup>71</sup> During this time, security technologies, including many biometric systems, received substantial funding.

### **Biometric Borders: the US-VISIT Program**

Immigrants have a long history as targets of surveillance, fueled by accusations that they spread diseases and act as a destabilizing force. Discrimination continues today with the US reserving the right to refuse entry to travelers with certain diseases, including gonorrhea and tuberculosis. With the War on Terror, risk expanded from disease to bioterrorism and there have been increased calls for new classification and governance mechanisms to monitor the US’s borders. Perhaps not surprisingly, international travel and migration

management account for the largest share of biometric consumption and are often accompanied with claims that “such measures are a necessary weapon in so-called homeland security.”<sup>72</sup> For example, on the fifth anniversary of the creation of DHS, President Bush stated the following:

On 9/11, America was attacked from within, by 19 men who entered our country, hid among us, and then killed thousands. To stop this from happening again we’ve taken important steps to prevent dangerous people from entering America.... [and] made our borders more secure.<sup>73</sup>

References to 9/11 not only incite fear, but provide justification for various exceptional institutional changes. Enacted after 9/11, the *Uniting and Strengthening America by Providing Appropriate Tools to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act)* directly and indirectly references biometric systems.<sup>74</sup> Provisions include Section 414, which instructs that in the development of “an integrated [alien]

70. Sean M. O’Connor, “Biometrics and Identification After 9/11,” *SSRN Electronic Journal*, 2002, 17.

71. Crampton, *Biopolitical Justification*, 397.

72. Pando, “Beyond Security;”

Mark Maguire, “Biopower, Racialization and New Security Technology,” *Social Identities* 18, no. 5 (June 18, 2012), 594.

73. George W. Bush, *Public Papers of the Presidents of the United States, George W. Bush* (Washington, D.C.: Office of the Federal Register, National Archives and Records Administration, 2010), 329.

74. O’Connor, “Biometrics and Identification,” 11.

entry and exit data system... the Attorney General and the Secretary of State focus particularly on the use of biometric technology.”<sup>75</sup> In April 2003, DHS launched the US Visitor and Immigrant Status Indicator Technology (US-VISIT) program in efforts to develop a comprehensive biometric entry and exit system.<sup>76</sup> By October 2005, the US-VISIT program was fully operational, collecting biometric data (i.e., 10 fingerprints and a digital photograph) on aliens entering the US at all ports of entry.<sup>77</sup>

Operating under the slogan “keeping America’s doors open and our nation secure,” the US-VISIT program illustrates the quandary posed by the desire for a porous yet closed border where economic opportunities can thrive and threats are eliminated.<sup>78</sup> By surveilling all who pass and distinguishing “good”

from “bad,” the US-VISIT program offers an effective security solution that simultaneously allows for globalization-level circulation. The program interfaces with over twenty existing health, travel, immigration, education, and police databases before profiling and encoding subjects with a degree of risk.<sup>79</sup> By January 2006, over 44 million individuals had passed through the program.<sup>80</sup> Biometric borders were “Congress’ dream of a perfect shield for the homeland.”<sup>81</sup>

Similar to China’s biometric program, the US’ biometric borders serve as a means of social sorting. In both instances, the biometrics collected can be “corrupted, stolen, ransomed” and/or abused by authorities to “target, harm, or... control.”<sup>82</sup> Due to technological advances, seemingly innocuous data may provide unintentional information

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75. CRS, “Terrorism: Section by Section Analysis of the USA PATRIOT Act,” *Terrorism: Section by Section Analysis of the USA PATRIOT Act* (Congressional Research Service: The Library of Congress, 2001), 35.

76. GAO, “DHS Has Made Progress in Planning for a Biometric Air Exit System and Reporting Overstays, but Challenges Remain,” in *DHS Has Made Progress in Planning for a Biometric Air Exit System and Reporting Overstays, but Challenges Remain* (United States Government Accountability Office, February 2017), <https://www.gao.gov/assets/690/683690.pdf>, 41.

77. *Ibid.*, 41.

78. DHS, “US-VISIT” (Department of Homeland Security), accessed December 16, 2018, [https://www.dhs.gov/xlibrary/assets/usvisit/usvisit\\_edu\\_traveler\\_brochure\\_english.pdf](https://www.dhs.gov/xlibrary/assets/usvisit/usvisit_edu_traveler_brochure_english.pdf).

79. William Walters, “Putting the Migration-Security Complex in Its Place,” in *Risk and the War on Terror*, ed. Louise Amoore and Marieke de Goede (London: Routledge, 2008), pp. 158-177.

80. Epstein, “Embodying Risk,” 180.

81. *Ibid.*, 180.

82. WIN, “Blockchain for Humanity Global Challenge,” in *Blockchain for Humanity Global Challenge* (World Identity Network, 2018), <https://win.systems/wp-content/uploads/2018/09/blockchain-for-humanity-1.pdf>, 19.

that can be further manipulated and used for discriminatory purposes. For example, studies have linked specific fingerprint patterns with certain medical conditions, including Down's Syndrome, Alzheimer's, Schizophrenia, and Diabetes Mellitus.<sup>83</sup> Claims assert race, sex, and drug use can also be determined; the latter two through tests that evaluate the molecular profiles in fingerprint residue.<sup>84</sup> Such methods have received criticism for utilizing involuntary biochemical information and raise concerns about a) further confluences of health and security and b) increasingly asymmetric power dynamics between biometric collectors and their subjects.

Unlike China, however, the US targets non-citizen, foreign bodies. Not only are US citizens spared

biometric scrutiny, but US passports do not include "the biometric chip that the US government has imposed upon other states as a condition for allowing entry to their citizens."<sup>85</sup> Ultimately, these power disparities portray a health security agenda set on protecting the US while delegitimizing perceived "others." The preferential attention given Western interests in the global health system and the perpetual exceptionalism fomented by the securitization process encouraged this dynamic. American surveillance techniques have further compounded the issue by reducing "human life to biographic risk profiles."<sup>86</sup> The "risky" (and often disenfranchised) individuals targeted by biometric initiatives reflect the hierarchy prescribed in the dominant health security narrative.

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83. Gh Bhat et al., "Dermatoglyphics: in Health and Disease - a Review," *International Journal of Research in Medical Sciences* vol. 2, no. 1 (February 2014): pp. 31-37, <https://doi.org/10.5455/2320-6012.ijrms20140207>.

84. Nichole A. Fournier and Ann H. Ross, "Sex, Ancestral, and Pattern Type Variation of Fingerprint Minutiae: A Forensic Perspective on Anthropological Dermatoglyphics," *American Journal of Physical Anthropology* 160, no. 4 (September 23, 2015), 625;

Crystal Huynh et al., "Forensic Identification of Gender from Fingerprints," *Analytical Chemistry* vol. 87, no. 22 (November 17, 2015), 11531;

Melanie J. Bailey et al., "Rapid Detection of Cocaine, Benzoyllecgonine and Methylecgonine in Fingerprints Using Surface Mass Spectrometry," *The Analyst* vol. 140, no. 18 (September 21, 2015), 6254-6255;

Caren Chesler, "Your Fingerprints Are About to Reveal a Lot More About You," *Popular Mechanics* (September 8, 2015), <https://www.popularmechanics.com/technology/security/a17172/your-fingerprints-are-about-to-reveal-a-lot-more-about-you/>; Eric Bland, "Fingerprints Reveal More than Identity," ABC Science (Discovery News, December 15, 2008), <http://www.abc.net.au/science/articles/2008/12/15/2446313.htm>.

85. Epstein, "Embodying Risk," 184.

86. Rens Van Munster, "The War on Terrorism: When the Exception Becomes the Rule," *International Journal for the Semiotics of Law Revue Internationale De Sémiotique Juridique* vol. 17, no. 2 (2004), 141.

## Conclusion

These two use-cases illustrate the far-reaching potential of biometrics. They also demonstrate the risk for misappropriation, mismanagement, and, ultimately, discrimination. This risk is even greater in states of exception where normal politics have been suspended. By calling for more robust surveillance methods, the recent shift to exceptionalism in the global health system has provided a perfect environment for biometric use to expand. This expansion highlights the prevalence of the securitization narrative within contemporary global health; a narrative which in turn is further reinforced by the presence of biometric programs. Not only do these programs interact with securitizing speech acts to establish a credible threat, but they sustain exceptionalism by enabling governments to better discipline individuals and govern populations. The perceived impartiality of biometric technology only provides additional credibility to the health security frame. Lastly, the targeting of mostly vulnerable and marginalized groups by biometric systems both exposes and perpetuates the inequalities within global health by prioritizing, legitimizing, and projecting more privileged voices and interests.

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## **Plant-based Diets: Their Effect on Environmental Sustainability and Potential Implications for Developing Countries**

*Sabrina Zechmeister*

The global population is expected to skyrocket to 9.7 billion by 2050, creating an unprecedented demand for food. At the same time, temperatures are rising due to climate change. Both issues make it ever more difficult to secure a sufficient food supply worldwide. This crisis is especially urgent for developing countries, which are already struggling to obtain stable access to food. Plant-based diets will pose a key solution to these

issues by expanding food supply to the benefit of the world's population and environment. Moreover, they could protect the ecosystem. Plant-based diets generally consist of fruit, vegetables, legumes, grains, seeds, nuts, and little or no animal-derived products.

This paper aims to explore how such diets can ensure a sufficient amount of food despite developing countries' budget constraints. In

addition, it outlines the effects of plant-based diets on the ecosystem as well as on human health and proposes that adopting these dietary changes renders respective countries more environmentally sustainable and populations healthier.

### **Global Population Growth**

The global population, which reached 7.4 billion in 2016, will rise to as much as 9.7 billion by 2050.<sup>1</sup> The majority of this increase will take place in developing countries. These nations are therefore bound to experience additional hardship. To meet demand in 2050, food producers will need to increase their production by 70% compared to their output in 2005. In addition to an increase in overall food demand, the proportion of calories consumed per capita is likewise expected to increase. In fact, in the period from 1997 to 2015, the daily calorie intake rose from 2,195 to 2,360 calories, and per capita, in the least developed countries (LDCs). In comparison, the amount of calories

consumed in developed nations grew from 3,380 to 3,440. Nutritional researchers claim this trend will persist with the daily intake expected to reach 2,540 kilocalories in LDCs and 3,500 kilocalories in the developed world by 2030. The less-developed economies will consume more than before.<sup>2</sup>

With future consumption outpacing production, dinner tables may be sparsely set in the developing world. Today, 821 million people lack access to a secure food supply, compared to 784 million in 2014.<sup>3</sup> Since 2014 this figure has further climbed and surpassed 800 million.<sup>4</sup>

### **Climate Change and Its Relation to Food Supply**

Climate change represents another obstacle. It is widely accepted among experts that countries which are already worse off, namely developing countries, will also bear 75-80% of the costs incurred by climate change.<sup>5</sup> It is predicted that these nations will experience a decline in crop yields and food security. This reduction is

1. Rattan Lal, "Feeding 11 Billion on 0.5 Billion Hectare of Area under Cereal Crops," *Food and Energy Security* 5, vol 5, no. 4 (2016): 239–51.

2. WHO, "Global and Regional Food Consumption Patterns and Trends," *World Health Organization*, Accessed November 16, 2018, [https://www.who.int/nutrition/topics/3\\_foodconsumption/en/](https://www.who.int/nutrition/topics/3_foodconsumption/en/).

3. "The State of Food Security and Nutrition in the World 2018, Building climate resilience for food security and nutrition," *FAO, IFAD, UNICEF, WFP and WHO*, (Rome: FAO, 2018).

4. *Ibid.*

5. OECD, "Putting Green Growth at the Heart of Development - Summary for Policymakers," (Paris: OECD, 2013).

World Bank, *Development and Climate Change*, World Development Report 2011, (Washington, DC: World Bank, 2011).

worrisome as these countries rely heavily on agriculture. In some African countries, around half of the GDP is generated within this sector, which employs more than 60% of the population.<sup>6</sup>

However, some scholars argue that developing economies are not prepared to respond to the challenges of climate change.<sup>7</sup> They claim that, although development programs in South Africa are less costly and are meeting food demand, they emit a considerable amount of greenhouse gases (GHGs). Switching to alternative strategies would require an excessive initial investment, which is unaffordable for the majority of countries most affected by environmental changes.<sup>8</sup>

Previously, growth was merely measured in terms of GDP, which scientists criticize as an incomplete measure.<sup>9</sup> Therefore some scholars

have proposed the model of “green growth,” which takes the environment and human well-being into account.<sup>10</sup> As a result, growth measures include improvements in indicators for human wellness such as water quality. Through this approach, countries can attain long-term and stable economic progress while at the same time assuring livability for future generations.<sup>11</sup> Also, there is widespread belief that through green growth a higher level of food supply can be reached. In contrast to this assumption, several experts argue that “green growth” can hinder development. This is because developing countries lack the necessary economic means to replace their old production processes with more environmentally friendly ones.<sup>12</sup> This absence of finances leads to a decline in the food supply of the respective country.

6. Paul Collier, Gordon Conway, and Tony Venables, “Climate Change and Africa,” *Oxford Review of Economic Policy* vol. 24, no. 2 (Summer 2008): 337–53.

7. Stéphane Hallegatte, Geoffrey Heal, Marianne Fay, and David Treguer, *From Growth To Green Growth - A Framework*, Working Paper 17841, (Cambridge, MA, 2012).

8. Danielle Resnick, Finn Tarp, and James Thurlow, 2012, “The Political Economy Of Green Growth: Cases From Southern Africa,” *Public Administration and Development* (32): 215–228.

9. Stéphane Hallegatte, Geoffrey Heal, Marianne Fay, and David Treguer, 2012; Pilling, David. “Has GDP Outgrown its Use?” *Financial Times*, July, 4, 2014, <https://www.ft.com/content/dd2ec158-023d-11e4-ab5b-00144feab7de>.

10. Stefan Dercon, “Is Green Growth Good for the Poor?” (Washington, DC: The World Bank Development Research Group, 2012);

Walter Whitman Rostow, *The Stages of Economic Growth: A Non-Communist Manifesto* 2nd ed. (Cambridge: Cambridge University Press, 1971).

11. OECD, “Putting Green Growth at the Heart of Development.”

12. Danielle Resnick, Finn Tarp, and James Thurlow, “The Political Economy of Green Growth: Cases from Southern Africa” *Public Administration & Development* vol. 32, no. 3 (August 2012): 215–28.

Academia has overlooked diets as an important aspect contributing to climate change, which in turn makes agricultural production more difficult. Nonetheless, diets may be the key to tackling the food insufficiency problem in light of the rising population and changing environmental conditions.

### **The Effects of Plant-Based vs. Meat-Based Diets**

Scholars have understated a factor contributing to climate change: the production of meat for human consumption. Around 24% of total GHG emissions are caused by meat production. To produce 1 kg of beef, 14.8 kg CO<sub>2</sub> are needed, whereas one gallon of gasoline only requires 2.4 kg CO<sub>2</sub>. GHG emissions vary greatly according to the food consumed even when the quantity of calories absorbed remains the same. In contrast to the production of meat-based products, plant-based products, particularly vegetables, legumes, and cereals, emit considerably lower CO<sub>2</sub>.<sup>13</sup> In addition, it is estimated that the United Nations' goals to reduce GHG emissions are met by decreasing meat production by 25%. Nevertheless, with rising

incomes, meat consumption has been increasing for the past 15 years. If this trend continues, global meat intake will reach a level 70% higher in 2030 than that in 2000, comprising an amount equal to 1.9 billion tons of GHG emissions. The largest increase in meat consumption will take place in developing countries whose population is progressively becoming able to afford meat.<sup>14</sup>

Despite the growth of meat-based diets, consuming a plant-based diet offers more benefits. One advantage is that it is more affordable.<sup>15</sup>

In 2009, Lusk and Norwood undertook a study in which they concluded that the production of plant commodities, such as soy, wheat, peanuts, and corn, is less costly than that of meat-based commodities.<sup>16</sup> In the study, the researchers compared both the highest cost production of peanuts, a plant-based product, with broilers, a meat product. The findings suggest that consuming the latter will always be more expensive. Particularly, absorbing a calorie from meat is five times less affordable than absorbing a plant-based one. The same holds true for protein consumption as absorbing one gram of protein from

13. Michael B. Beverland, "Sustainable Eating: Mainstreaming Plant-Based Diets In Developed Economies," *Journal of Macromarketing* 34, no. 3 (September 2014): 369–82.

14. Nathan Fiala, "Meeting the Demand: An Estimation of Potential Future Greenhouse Gas Emissions from Meat Production," *Ecological Economics* 67, no. 3 (October 15, 2008): 412–19.

15. Jayson L. Lusk, and F. Bailey Norwood, "Some Economic Benefits and Costs of Vegetarianism" *Agricultural and Resource Economics Review* 38, no. 2 (2009): 109-24, doi:10.1017/S1068280500003142.

16. *Ibid.*

a peanut is 3.26 times less expensive than consuming the same amount from broilers.<sup>17</sup> As research into the economic feasibility of plant-based diets is still limited, studies fail to take into account the effects of meat production on the environment. If the ecosystem were considered, the data would show that the overall cost to society would be far higher.<sup>18</sup>

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*Diets may be the key to tackling the food insufficiency problem in light of the rising population and changing environmental conditions.*

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Surges in the prices of plant crops are primarily due to the large portion of such crops used for animal feed. These price increases hinder the poor's access to food supply.<sup>19</sup> If this tendency were reversed, more than three billion people could live on the crops that are now used instead as animal feed, resulting in a

sufficient food supply and in positive environmental externalities. Such surges in crop prices, as the United Nations Food Program estimates, have pushed an additional 10 million people worldwide into poverty, and an extra 44 million are now suffering from undernourishment.<sup>20</sup>

Whereas plant-based diets result in an efficient distribution of resources, meat-based ones do not. Experts in the field have concluded that producing meat for human consumption depletes the highest amount of resources when compared with other types of food.<sup>21</sup> This is illustrated by the amount of water needed for meat-derived products in comparison to plant-derived ones. The former requires around ten times more water than the latter.<sup>22</sup> It can therefore be inferred that carnivores drain between five to ten times more water than herbivores.<sup>23</sup> Moreover, to generate one kilogram of meat-based protein, six kilograms of plant-based protein are required to feed the respective animal.<sup>24</sup>

Alternatively, this volume of plant-protein could be redistributed

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17. Ibid.

18. Beverland, "Sustainable Eating: Mainstreaming Plant-Based Diets In Developed Economies."

19. Ibid.

20. Anand D. Saxena, *The Vegetarian Imperative*. (Baltimore, MD: The John Hopkins University Press, 2011).

21. Lusk and Norwood, "Some Economic Benefits and Costs of Vegetarianism."

22. Tristram Stuart, *Waste: Uncovering the Global Food Scandal*. (London, UK: Penguin Books, 2009).

23. Saxena, *The Vegetarian Imperative*.

24. Gary L. Francione "Animals: Property or Persons?" In *Animal Rights: Current Debates and New Directions*. (Oxford University Press, 2004).

to humans, increasing the available protein supply six-fold.

In addition to being economically advantageous, such a shift in diets could result in positive externalities, particularly in increased well-being and fewer diseases.<sup>25</sup> Indeed, the health benefits of a plant-based diet and, correspondingly, human health conditions induced by animal-based diets were extensively researched in the “China Study.” This study is the largest research on human health with regard to nutrition ever conducted up to date. It concludes that certain human diseases are linked to animal-based diets and may potentially be reversed by switching to plant-based diets.<sup>26</sup> These positive externalities would furthermore help developing countries whose medical establishments are often limited in the care they can offer. Many health problems, such as the avian flu and resistance to antibiotics, arise mainly due to the mass production of meat. Antibiotic resistance occurs partially as a result of the overuse of these medications in animal feed. This phenomenon may become especially harmful if the trend continues, as the WHO warns, “we are heading for a post-antibiotic era, in which common

infections and minor injuries can once again kill.”<sup>27</sup>

A plant-based diet may also lead to additional cost reductions such as in health care spending, as these diets usually lead to less frequent illnesses and improved overall well-being. This decline would aid developing countries whose health care systems are mostly overburdened. Reductions in health care spending may also arise from an improvement in well-being deriving from fewer environmental externalities and less harmful animal waste.<sup>28</sup>

A further positive factor of plant-based diets is their enormous advantage for the environment. The decrease in GHG emissions resulting from a reduction in meat production makes pursuing “green growth” strategies more feasible. In addition, reaching internationally aimed targets becomes more feasible. Moreover, this decline results in improved water and air quality which enhances overall well-being.<sup>29</sup> Correspondingly, some experts argue that if developed economies were to consume more plants instead of meat, the reduction in GHG emissions would be significant as these countries are currently the largest CO<sub>2</sub> producers. This vast

25. T. Colin Campbell and Thomas M. Campbell, *The China Study*, (Dallas, TX: BenBella Books, 2005).

26. Ibid.

27. WHO, “Antibiotic Resistance,” *World Health Organization Fact Sheet*, <https://www.who.int/news-room/fact-sheets/detail/antibiotic-resistance>.

28. Stuart, *Waste*.

29. Hallegatte, Heal, Fay, and Treguer, “Has GDP Outgrown its Use?”

decrease in GHG emissions could alleviate the pressure on developing countries to conform to internationally aimed targets, such as the United Nation's Sustainable Development Goals (SDGs). This mitigation could be regarded as an outcome of global cooperation, providing developing countries with more leeway to pollute and more time to adapt to changing environmental conditions.<sup>30</sup>

However, to achieve a shift toward plant-based diets, the social consensus about dietary habits needs to change. This is because food choices are heavily influenced by societies. For example, developing countries perceive meat as superior to plants. This social consensus is also due to the level of unawareness of the effects of meat-based diets. Furthermore, this belief arises because individuals lack the responsibility for the consequences of their dietary choices. Thus, governments need to raise their population's interest in plant-based diets by advising them on the plethora of benefits deriving from these lifestyle changes.<sup>31</sup>

In fact, a shift towards this

approach can already be seen in the country which is currently emitting the highest GHGs, China. Moreover, it is the nation with the largest population. In 2016, the Chinese Nutrition Society issued new dietary recommendations with the aim of reducing the citizens' meat consumption by 50%, initially introduced to boost citizens' health. The government is increasingly encouraging awareness in the population of the benefits of a plant-based diet by using celebrities to advertise such diets.<sup>32</sup> If successful, these strategies could have enormous effects on the environment, given the country's contribution to GHG emissions and its population size. In addition, spillover effects could occur in other nations which perceive China as a model for solving this specific dilemma—as they have regarded China's growth strategies as an alternative possibility to the Washington Consensus, which was a set of policy prescriptions from Washington DC-based institutions for developing countries facing crises.<sup>33</sup>

30. World Bank, *Development and Climate Change*, World Development Report, (Washington, DC: World Bank, 2011).

31. Marco Springmann, et al. "Options for keeping the food system within environmental limits." *Nature*. 562. (October 2018), 519–525.

32. Marcello Rossi, "Ravenous for Meat, China Faces a Climate Quandary," *Undark*, July 30, 2018, <https://undark.org/article/china-meat-consumption-climate-change/>.

Oliver Milman and Stuart Leavenworth, "China's Plan to Cut Meat Consumption by 50% Cheered by Climate Campaigners," *The Guardian*, June 20, 2016, <https://www.theguardian.com/world/2016/jun/20/chinas-meat-consumption-climate-change>.

33. Scott Kennedy, "The Myth of the Beijing Consensus," *Journal of Contemporary China* vol. 19, no. 65 (June 2010): 461–77.

## Conclusion

It is evident that meat production is greatly contributing to global warming and an insufficient supply of food. An alternative solution to meat consumption is needed, namely plant-based diets. Such food choices can mitigate climate change and help to achieve an adequate level of food supply, a task which will become arduous within the coming years. These measures may be of particular relevance to developing countries to simultaneously address many of their issues, in particular availability of food, economic feasibility, and environmental sustainability.

Yet, obstacles remain. Not only is there limited awareness of the problem, but people are averse to changing their patterns of thinking. However, a shift in thinking is fundamental for adopting plant-based diets. Creating a shift in thinking and awareness of the consequences of meat-based diets requires a considerable number of various actors, including individuals and governments, is needed. As China's exemplary policy has demonstrated, this shift may result in a higher consumption of plant-based products.

Future research might consider these factors along with other methods in their aim to tackle food insufficiency as well as preserve the environment. These include means such as reducing dietary waste and investing in various alternative agricultural techniques.

In conclusion, if no changes are undertaken, our planet will face a dire outcome: a deficit in food supply which will leave millions of people hungry on top of environmental crises.

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# A New Global Ethic? A Review of Peter Singer's *One World*

Leif Olsson

Peter Singer is the Ira W. DeCamp Professor of Bioethics at Princeton University and is a well-known utilitarian ethicist. Utilitarian philosophy requires making choices of maximal utility. Utility is usually defined as the fulfillment of preferences or “good” generally. So, the axiomatic expression of utilitarianism is: “the greatest good for the greatest number.”<sup>1</sup> This axiom underlies Singer’s concern for global politics as expressed in his book, *One World*. Singer’s book responds directly to concerns about the changing post- 9/11 world. It implores the international community to preserve the liberal order which gave birth to cooperative organizations such as the World Bank and the WTO. Singer’s argument in *One World* is that it is incumbent upon us<sup>2</sup> to be globally ethical within the liberal order. Indeed, it is the result of such an order that we are able to act ethically in ways previously

unimaginable. This being the case, Singer gives the following thesis: “How well we come through the era of globalization (perhaps whether we come through it at all) will depend on how we respond ethically to the idea that we live in one world.”<sup>3</sup> Lacking typical philosophical verbosity, *One World* demarcates a remarkably clear argument with which the reader must contend.

While it is difficult to disagree per se with this thesis, there are weaknesses present within the argumentative structure Singer delineates. In this book, Singer habitually recommends widespread socio-political changes with little clarification of method. He calls for restructuring international organizations with few suggestions of how such complex tasks should be accomplished. Despite this, Singer is best when discussing the application of ethics outside the political sphere. Such discussions are on expert display in the chapter titled “One

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1. *The Stanford Encyclopedia of Philosophy*, s.v. “The History of Utilitarianism,” accessed November 10, 2018, <https://plato.stanford.edu/archives/win2014/entries/utilitarianism-history/>.

2. “Us” here can mean any number of things; us the international community, those in the West with power, international institutions etc. “Us” depends largely on the section of the book one finds themselves in.

3. Peter Singer, *One World: The Ethics of Globalization* (New Haven, CT: Yale University Press, 2008), 190.

Community.” In it, Singer concisely illustrates his brand of the globalist argument.

Singer operates in the arena of politics as many intellectuals who lack pragmatic political experience:<sup>4</sup> he calls for extensive and obtuse changes to intricate structures. On rare occasion, changes of this nature prove beneficial. However, these situations are more often akin to asking a physicist how to fix an airplane: they may understand its composite aspects, but their technical expertise leaves something to be desired. Unless we would like to see the aircraft that is our international set of structures lurch from the sky, we should be wary of taking technical advice from experts in non-political fields.

The first and perhaps most radical of Singer’s injunctions is to replace the Westphalian state system. He states in no uncertain terms that the evil of nationalism necessitates, “a redefinition of state sovereignty or ... an abandonment of the absolute idea of state sovereignty that has prevailed in Europe since the Treaty of Westphalia in 1648.”<sup>5</sup> Students of international relations will recognize this as an especially radical concept. Singer must also recognize this. One may speak with acuity about what is happening in the world, but it is not the same as prescribing what the

international community should do. This is especially true when discussing a system which has governed global organization for almost 400 years. The Westphalian system is among the most sophisticated achievements of humanity as it represents a locus of organizational enlightenment akin to the creation of agriculture or the printing press. To wave away such a system because it generates nationalism is short sighted.

Singer makes a similarly quixotic claim about the United Nations. He proposes a “World Assembly” which would be proportionally representative—but only for those nations willing to subject themselves to UN election observation.<sup>6</sup> If states choose not to have their elections observed by the UN, they will be given only one delegate. Upon first reading, this seems like a reasonable strategy to deal with election fraud and even dictatorial regimes. However, Singer hides a presupposition in this argument: he supposes that those states with fair elections who submit to being observed also hold the best interests of the international community and other states in mind. States left with one delegate will be subject to agreements which may impact their constituents. Those with voting authority hold power over “misbehaving” states. But why does

4. One runs the risk of fallacious “appeals to authority” when regarding Singer as equally cogent in areas outside of ethics.

5. Singer, 106-107.

6. Ibid., 2500-2501.

Singer assume states which hold fair elections will treat others fairly? Moreover, why does he assume those same states care about the condition of the globe rather than their own self-interest? Singer conflates fair elections with a globalist morality and creates a legislative structure based on that conflation. The result is a potentially disastrous situation in which some nations hold more power by virtue of a somewhat arbitrary requirement.

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Singer does a lot of work to convince the reader that personal concerns *are* global concerns, but with one exception. Singer claims that partiality of parents to their children is acceptable based on the “unavoidable constraints of human nature and the importance of brining children up

in loving homes.”<sup>7</sup> However, one could just as easily write “due to the unavoidable constraints of human nature and the importance of bringing up citizens in a safe nation.” By making an exception to his argument about one’s “sphere of care” he opens new avenues for nationalist argumentation. He makes the claim that the care of loving parents is likely to be better than the care of state-run organizations or adoptive parents.<sup>8</sup> But of course, one could say that the care of citizens is likely to be better under a local state structure than an intra-state structure or a bureaucracy across the sea.<sup>9</sup> Rather than making an argument for a “locus of best care,” Singer may benefit by delineating a distinct difference between the *type* of care given by parents to children, which is markedly different than that of a state given to citizens. Without this distinction, the nationalist can simply claim that the state is in effect the “parent” of the citizen. Singer could clarify the difference in utility by explaining that familial partiality benefits a market structure and social cohesion within the state, whereas the inter-state arena generates higher utility under impartiality. It is not difficult to defend trade, joint humanitarian exercises, and conflict mediation. One could also consider the significant negative utility that

7. Ibid., 1753.

8. Ibid.

9. Is it not this exact concern which sparked the Brexit controversy? Singer runs the risk of making the nationalists’ arguments for them.

arises from national self-interest (war), whereas familial self-interest is much less malignant.

Outside of his more extreme claims in the realm of politics, Singer is at his best when discussing pure ethics without international political commentary. In “One Community” he demonstrates that the human proclivity toward nationalism is not harmonious with a global ethic. He details this with a story: after the 9/11 attacks the victims and their families garnered \$1.3 billion in donations. Singer contrasts this with the one billion individuals around the world living in poverty at the same time. It is nearly impossible to justify why one would spend so much on victims of the attacks when others were suffering and could have derived higher utility from the same amount of money.<sup>10</sup> Singer’s argument is especially effective because it does not derive its insight from esoteric neoliberal arguments. Rather, it presents the reader with this humane statement: regardless of geography—human suffering matters. As a result, Singer argues we should re-calibrate aid to maximize total utility. Singer approaches the problem again with higher resolution: you are walking down the street in your nicest clothes and you see a young child drowning in a lake. You know you will ruin your clothes and you will be late to

your destination, but of course you save them anyway. Most people agree that this is a morally good action. So, he asks: why is it any different if the children who are drowning happen to be from Bengal rather than the US?<sup>11</sup> For Singer, there is no difference, which means we should not hinge assistance on nationality but on the generation of utility.

Global suffering may seem a daunting problem. One must remember, of course, that *One World* is asking simply for a re-coordination of preferences. Singer argues we should view members of foreign nations not as ‘other’ but as fellow members of a world community. He makes a strong argument to combat the existential threat of climate change and to restructure our priorities in this area to maximize overall utility. While these recommendations are welcome, some lack technical precision such as his arguments for restructuring the voting mechanism of the United Nations. Of course, one may miss the forest for the trees by focusing on critiques of technical recommendations. One should not forget the simplicity of Singer’s argument: choices that maximize utility for the global community make everyone better off. We need only treat those from other nations as if they were our neighbors. This is the most valuable intuition from Singer’s book.

10. Singer, 1626-1627.

11. *Ibid.*, 1691-1692.

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