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Infrastructural capital in the Israeli vaccination campaign against COVID-19[☆]

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ABSTRACT

This article examines the Israeli vaccination campaign against COVID-19, focusing on the state's acquisition of the vaccines from the pharmaceutical company Pfizer. In December 2020, Israel signed an agreement with Pfizer to purchase enough doses to vaccinate its entire population. In the months that followed, the country became a world leader in vaccination rates. But how was Israel able to purchase large quantities of then-scarce vaccines in the first place? To answer this question, I examine reports and publications by government and civil society bodies as well as news coverage about the campaign. Drawing on insights from the sociology of the state and from science and technology studies, I argue that Israel was able to secure vaccines by using its state-power as a form of currency. Theoretically, I suggest the term "infrastructural capital" – which I define as the resources a state can provide to an external capitalist actor by virtue of its power – to explain how Israel traded with Pfizer. In the conclusion, I discuss the potential implications of this case for other cases.

1. Introduction

At the beginning of 2021, Israel became a world leader in vaccination against COVID-19. The country, whose population numbers roughly 9.3 million people, received its first Pfizer vaccines in December 2020 (Cohen, 2020; Sokol, 2021). The vaccines were administered by the four Israeli Sick Funds: insurance-based, not-for-profit organizations that provide medical services to the population as part of a universal coverage system. By the end of January 2021, about a third of the population had received their first dose. By March 15, about half of the population were fully vaccinated and 60% had received one dose. As a comparison, the US had fully vaccinated only 12% of its population, and 21% percent had received their first dose at the same point in time (Rosen et al., 2021). As part of the rollout, vaccine access in Israel is extended to citizens (Arab and Jewish alike), refugees, asylum seekers and foreign workers (Zulat, 2021). According to the Israeli Ministry of Health, by February 13, 2022, 72% of the population had received one dose, over 65% had received two doses and almost 48% had received three shots. Additionally, 7.5% received a fourth shot, though its eligibility is restricted to specific groups (Ministry of Health website).

On the public stage, the Israeli vaccination campaign generated

much attention. Some praised the state for its effective vaccine rollout and quick distribution (Oni, 2021). Others criticized Israel for not sharing its vaccines with Palestinians in the West Bank and Gaza while engaging in 'vaccine diplomacy' with faraway allies (e.g., Ziser, 2021).

This article focuses on one important question regarding Israel's vaccination campaign: How was the state able to secure sufficient vaccines from Pfizer to begin with? As I examine this critical component of the Israeli campaign, I develop theoretical insights that are potentially relevant to scholars working on issues pertaining to health, medicine, the pharmaceutical industry, and the state.

I argue that Israel's ability to secure its vaccine supply stems from its use of what scholar Michael Mann called "the infrastructural power of the state" as a form of currency. In its original formulation, infrastructural power denotes the state's capacity to use its institutions to implement decisions in society (Mann, 1984: 189, 1993: 59). While infrastructural power has various manifestations, I emphasize one aspect of it: the state's ability to "recall immediately a massive amount of information" about its inhabitants (Mann, 1984: 189). The main reason Pfizer sold the doses to Israel was the state's ability to provide the company with important medical data about its population and the potential scientific and economic gains that data could produce. Thus,

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the Israel-Pfizer arrangement was a health-based exchange between the state and a capitalist enterprise (Helmreich, 2008; Rose, 2007), with state-power playing a major role in its consummation.

Theoretically, I combine theories of the state with insights from science studies and propose the concept *infrastructural capital* to theorize how the state used its power to secure vaccines. While infrastructural power denotes the state's ability to implement policies within its territory, I define *infrastructural capital* as the resources the state can provide to an external, non-state, capitalist actor by virtue of its infrastructural power. Thus, infrastructural capital constitutes a relatively under-examined facet of state-power.

This article proceeds with a theoretical background followed by a discussion of my data and analysis. Then, I describe the development of Israeli infrastructural power in the field of public health. I pay close attention to developments regarding medical data starting in the mid-1990s and ending with the Israel-Pfizer agreement. I also examine important political factors that shaped Israel's vaccine acquisition. Lastly, I discuss the implications of my findings and how the concept infrastructural capital might be relevant beyond this case.

2. Literature review

2.1. Infrastructural power in scholarship

According to Michael Mann's influential definition, infrastructural power denotes the state's ability "to actually penetrate civil society, and to implement logistically political decisions throughout the realm" (Mann, 1984: 189). In other words, infrastructural power refers to the state's use of its institutions and infrastructures for the purpose of regulating and coordinating social life across its territory (Mann, 1993: 59, 2008). Infrastructural power is demonstrated by the state's ability to provide a variety of social services, enforce contracts, control the population, extract resources (i.e., tax) and more (Mann, 1993: 59; Soifer and vom Hau, 2008). Mann contrasts infrastructural power with what he calls *despotic power*: a highly repressive, non-democratic power of state elites to do as they please without regard for civil society groups, popular representation (i.e., elected assemblies) or systems of checks and balances (i.e., courts) (Lucas, 1998; Mann, 1993: 59). While Mann argued that despotic power is relatively low in modern day capitalist democracies, these two types of power are not mutually exclusive (Mann, 1984, 2008). Since Mann coined the term infrastructural power, many scholars have used it to examine various settings, from South America to the United States to Southeast Asia (e.g., Clemens, 2020; Kurtz, 2013; Slater, 2008; Soifer, 2015).

Scholars who have examined the role of the state in public health and disease prevention have focused on how the state regulates and controls disease or provides services for its citizens. While these studies did not necessarily use the concept infrastructural power, they show how it operates in the realm of public health (Baldwin, 2005; McCoy, 2020). By and large, these scholars showed how public health measures and capacities to control disease within a state's territory develop gradually, in a path-dependent manner, in response to epidemic outbreaks. They thus show the interplay between health problems and the making of the state's ability to implement its decisions in the realm of public health.

Scholars drawing explicitly on the notion of infrastructural power have demonstrated its significance for advancing health initiatives (Lavers, 2021). For example, these studies showed that the promotion of universal health coverage depends to a large extent on the state's institutional apparatus and territorial reach. Specifically, these studies grant significance to state officials' training, the institutionalization of state-society relations and state legitimacy, and to the ability of the central state to influence the officials who are directly involved in implementing the initiatives.

These insights are valuable in explaining the Israeli vaccine rollout but cannot explain the *acquisition* of the vaccines. To be sure, the Israeli state's ability to quickly distribute and vaccinate its population rested on

its long-developed infrastructural power: a centralized health system with universal coverage in which the tried-and-true Sick Funds and their experienced personnel played a central role. However, the significance of infrastructural power in the Israeli vaccine campaign does not end with demonstrating how power radiates through state institutions to cover a territory (Mann, 1993: 59). Rather, Israel's infrastructural power was highly significant for the state's vaccine drive because it was used to deal and trade with capitalist actors that are external to the state.

Scholars (such as Noy, 2017) working on the sociology of global health have demonstrated the significance of state infrastructural power for the ability of international organizations to intervene in states' health policy in exchange for financial support. States with high infrastructural power in the field of health can effectively check the efforts of international organizations to promote their own agendas. Additionally, these studies found that low infrastructural power also limits the ability of international organizations to intervene in a state's health policy because it suggests there is no effective state bureaucracy for these organizations to coopt. In other work, scholars suggested that local state capacity is critical to render effective the efforts of international development bodies and aid provision in the field of health (Chorev, 2020).

However, Israel did not receive vaccines because it yielded to pressures to revise its policies, and its infrastructural power was a boon, not a bane, for external actors (as in Noy, 2017). Additionally, the Pfizer-Israel deal is not a case of aid (as in Chorev, 2020). The digitization and sharing of data by the state and the Israel-Pfizer deal more specifically show that economic incentives might flow in a direction opposite to that which sociologists of global health have argued, from the state to a pharmaceutical capitalist organization (Helmreich, 2008: 464).

2.2. Studies of biocapitalism

The Israeli case is important because it illuminates a novel aspect of infrastructural power: the potential to use its effects as a form of currency – or, what I call *infrastructural capital* – which a state can use to deal and trade with external actors. The concept I am proposing is inspired by scholarship in science and technology studies that focuses on *biocapital* (or biocapitalism). I should note right away that I do not intend to delve into the complex theoretical debates surrounding biocapital and similar concepts (e.g., biovalue) – debates that demonstrate "the fetishization of all things 'bio'" (Birch and Tyfield, 2012: 301).

What I take from these studies is their general emphasis on the relations between state, science, and the pharmaceutical industry in the pursuit of health and wealth and the significance of state-power for these relations (Helmreich, 2008; Rose, 2007: 18). Much as scholars of the state viewed infrastructural power as significant for public health initiatives, studies of biocapitalism show that it is often states that, like Israel (Migdal, 1988), are considered "strong states" with well-developed medical records and ability to recall information (Mann, 1984: 189, 1993: 59) that engage in biocapitalist partnerships (Pálsson and Rabinow, 1999; Rose, 2007: 18–19). One case with which the Israel-Pfizer deal might resonate is that of Iceland, which holds extensive clinical and genealogical records (Pálsson and Rabinow, 1999), and its relationship with the US company deCODE Genetics. There are indeed some similarities between the cases. For example, both Israel and Iceland began digitizing data repositories in the 1990s. The ethical problems of data sharing without the population's consent and that data's identifiability level are also evident in both cases (for Iceland see Merz et al., 2004; for Israel see below).

However, there are two important differences between Israel and other cases of biocapitalism where states had extensive medical records. First, in Israel, data was collected, digitized, and controlled by state-bodies. As such, it was a clear expression of infrastructural power. In Iceland, long-held medical records were used to construct the national digitized database as part of the country's partnership with an external

capitalist actor (Pálsson and Rabinow, 1999), but the ability to use the information was no longer in the hands of the state. Iceland had contracted deCODE Genetics to build the database, in exchange for exclusive rights to use this data (Merz et al., 2004).

Second, the Israeli case departs from the emphasis on tissues, genomics, and stem cells, evident in the literature on biocapitalism (e.g., Helmreich, 2008: 463–464; Rose, 2007). In Israel, the data that the state collects on its population is more of a detailed ‘map’ that renders legible (Scott, 1998) the population’s medical history. The focus of data collection is not genomics but meticulous documentation of every doctor visit, illness, laboratory test result, procedure, allergy, medication, vaccination etc. that every individual receives, undergoes, or suffers from.

2.3. Infrastructural capital

As I suggested in the introduction, infrastructural capital is a relatively underexamined facet of infrastructural power. I theorize the difference between them as follows: According to Mann’s (1984: 189, 1993: 59) above-mentioned original formulation, infrastructural power refers to the power state officials hold over the inhabitants of the state. It is wielded within a given territory through state institutions. It is demonstrated, for example, in the provision of various social services by the state to the inhabitants as well as in the state’s ability to control the population via practices such as resource-extraction (Mann, 1984, 1993; Soifer and vom Hau, 2008).

By contrast, I define *infrastructural capital* as the resources the state can provide to an external, non-state capitalist actor by virtue of its infrastructural power: wielding the latter produces the former. Such resources might include a stable legal environment that guarantees the enforcement of contracts by virtue of a strong justice system (Soifer and vom Hau, 2008: 220), high levels of human capital by virtue of a strong education system, relatively high personal security, and a high degree of popular mobilization as the result of service provision (Migdal, 1988: 170). These can be used, for example, to attract foreign investors and companies that will supply the state with capital, products, or help generate employment opportunities. In the case at hand, the Israeli state used the vast medical data it accumulated and continues to accumulate by virtue of its infrastructural power to trade with a non-Israeli pharmaceutical company in exchange for products.

This case also allows us to identify more concrete conditions for how infrastructural power is turned into infrastructural capital and what might cause a state to utilize the latter. The making of Israeli infrastructural capital and the Israel-Pfizer deal more specifically were affected by a few factors, some institutional and some political-electoral. First, there is a robust universal-coverage health system consisting of a variety of facilities (i.e., clinics, hospitals, etc.) under the authority of the state. Second, this health system engages in comprehensive collection and digitization of medical data as well as data-sharing between the various facilities that comprise it. Third, there are state-driven initiatives to cultivate biocapitalist enterprises and data-sharing with external actors. Fourth, there was a political-constitutional crisis in which politicians’ electoral interests, not just objective health conditions, facilitated the use of infrastructural capital to woo pharmaceutical companies for political gain.

3. Data and analysis

The data used in this article includes yearbooks, legislation, decisions and plans, press releases, reports, speeches, and circulars issued by the Israeli government, government bodies (e.g., Ministry of Health), and delivered by Israeli politicians. I collected these materials at the website of the Israel State Archives (ISA); the website of the Israeli parliament, the *Knesset*; Ministry of Health’s website; Israel Government website and the website of the Israel State Comptroller. I also draw on publications by civil society and professional bodies. These data include

articles, position papers, conference proceedings, surveys, and letters to government and state bodies. They were produced by organizations such as the Israel Democracy Institute (IDI), Zulat Institute for Equality and Human Rights, Adva Center (think-and-do-tank), the Israel National Institute for Health Policy Research (NIHP), the Movement for Quality Government in Israel (MQG), and the Association for Civil Rights in Israel (ACRI). These data too were collected online, in each body’s website.

Additionally, I use 28 online news articles, in Hebrew and English, that address the Israeli vaccination campaign. From early-to mid-2021 and during February–March 2022 I have conducted several searches for articles. As I began data collection, I used Google to search for combinations of general terms such as “Israel,” “Pfizer,” “COVID” and “vaccines.” To focus on more specific issues/themes that came up from the data, I searched for phrases such as “Israel Pfizer agreement,” “national plan for digital health,” or “Israel world laboratory.” If the articles I found referred to other helpful articles, I used them too. I collected data from both Israeli and international sources. English-language sources include outlets such as Reuters, Business Insider, NBC News, Forbes, the Wall Street Journal, the Jewish Telegraphic Agency, and The Jerusalem Post. Hebrew-language Israeli sources include major news outlets such as Ynet, Ha’aretz, Globes, Walla, TheMarker, Israel Hayom, Mako, and smaller outlets such as the Times of Israel. I translated titles and transliterated authors’ names for citations in Hebrew.

4. The origins of Israeli infrastructural power in the field of health

The development of the Israeli Sick Funds is tied to the formation of the state and the rise to power of the Zionist Labor Movement – the main Israeli state building elite. This elite was composed of Eastern European socialist Zionist immigrants that arrived at Ottoman- and later British-ruled Palestine out of national zeal. These immigrants sought to settle Palestine, that was inhabited mostly by Arabs, and work in the land, placing a heavy premium on agricultural colonization. The first Sick Fund was formed when one agricultural laborer was injured in an accident in 1911 and lost his hand. Even before this incident the workers realized the growing need for organized medical help as Palestine lacked any centralized medical services (Shvarts, 1995; Sufian, 2007). The accident and the objective medical needs were what pushed the workers to develop small regional Sick Funds. By 1921, these funds united and were placed under the workers’ trade union: the Federation of Jewish Labor (the *Histadrut*). Despite its prominence and its ties to the national project’s foremost elite, the Labor Movement’s Sick Fund remained sectorial and included only those associated with the Movement. During the 1930s, other Sick Funds developed to provide medical services to those unaffiliated with the Labor (Horev et al., 2003). After the state gained independence in 1948, the Israeli Ministry of Health became the “supreme administrative authority in matters of health and healthcare” as well as a provider of services (Government of Israel, 5719: 120; Grushka, 1959), consolidating the state’s infrastructural power in matters of health.

In 1995, the state further solidified its infrastructural power. After numerous attempts throughout the years, a National Health Act (NHA) passed in the Knesset. The purpose of this act was to promote universal health coverage. It stipulated that every citizen and resident of the state is entitled to receive basic medical services, to be funded through a “Health Tax.” As a result of this legislation, government intervention and centralization in the field increased. The state found itself acting simultaneously as a health provider, regulator, and national resources allocator (Horev et al., 2003; Mizrahi and Cohen, 2012).

5. Medical records and state power

Shortly after passing the NHA, the state officially recognized the significance of a meticulously detailed medical record (Bar Siman Tov,

2019; Ministry of Health, 2017: 24). While medical files were kept long before the 1990s, the significance and obligation to maintain detailed medical records was recognized in legislation in the 1996 Patient's Rights Act (Knesset, 1996). Additionally, the Ministry of Health formally defined the medical record as "the tool to document all the medical information concerning a patient" (Ministry of Health General Manager Circular, 1996: 2). It stressed the importance of maintaining comprehensive records, including reports, charts, and opinions related to a patient's illnesses, surgeries, examinations, births, laboratory tests results and so on. Another important change during the 1990s was an increasing use of computers in the Israeli health system, which led to a transition from paper to digital records. Each person's medical file became an electronic record, concentrating all the information known about them to the Sick Fund in which they were insured (Balicer and Afek, 2017: 2452; Knesset, 2014: 3; NIHP, 2010).

Later years saw state attempts to increase the population's legibility by initiating data-sharing between the different health institutions under state authority. In 2004, the Ministry of Health announced it intends to create the "Israel National Medical Record:" a national computer system that would enable multiple caregivers to access one's medical records regardless of that caregiver's relationship with the individual's insuring Sick Fund. The declared goal was improving healthcare. The project faltered, partially because of the legal and ethical questions it posed (Knesset, 2014). However, in 2011–2012 the Ministry of Health still initiated data-sharing (Ministry of Health General Manager Circular, 2011, 2012). Several hospitals and all four Sick Funds began to share patients' medical records with one another (Knesset, 2014). The meticulous data in each patient's file could now be accessed in various institutions.

It is important to note that limited digitization of medical data began already in 1988. These early efforts are significant because they specifically focused on vaccination records. Over the years, vaccination databases were expanded until a database called *Nachlieli* – Hebrew for Wagtail – was created in 2012–2013 and became a nation-wide network of vaccination data sharing (Israel State Comptroller, 2012–2013). As we shall see, Wagtail was to play an important role in the Israel-Pfizer deal.

Data-sharing generated serious concerns among government bodies and civil society organizations because of the lack of adequate regulation. In theoretical terms, critics charged that this unregulated expansion of state-power has despotic characteristics. For example, ACRI raised concerns about patient privacy and consent. It claimed the Ministry of Health was determining facts on the ground with regards to data collection, rendering legislation meaningless and violating Knesset sovereignty as part of an intentionally expansive governmental data collection strategy (ACRI, 2014; Knesset, 2014: 17). Despite these objections, that were known to the government, data collection continued unregulated, and patients were not notified or given the option to opt-out of the system. By 2019, the Israel State Comptroller sought to put an end to this situation. He called for adequate regulation and stated that the normative framework for data-collection must be determined (Israel State Comptroller, 2019: 9–12, 73–76).

6. Biocapitalism and infrastructural capital

As data-sharing and its problems persisted, the state sought to develop partnerships with external capitalist actors. In 2018, the government inaugurated *The National Plan for Digital Health as an Engine of Growth*. As in other cases of biocapitalism, the *Plan's* goal was to foster alliances between state, science, and commerce (Rose, 2007: 18), both within and outside Israel.

Medical records were to play a central role in promoting such future alliances. Indeed, the *Plan* revealed the state's wish to use its infrastructural capital to woo external capitalist actors. The government sought to develop a "comfortable business environment" (Prime Minister's Office, 2018a) and turn Israel into a "Beta Site" for big-data-based

medical research and product development (Prime Minister's Office, 2018b: 7). It would do so by providing companies in the field of 'digital health' with access to the vast medical information held by the Sick Funds. This way, the *Plan* provided companies with "real world" testing and validation of their products. Doing so, it was argued, would improve healthcare. But it would also yield enormous revenues for the state, potentially in the billions of dollars. 'Beta-siting' Israel could also promote Israeli startup companies working on 'digital health' and attract investments and foreign companies (Lubell, 2018; Prime Minister's Office, 2018b: 5, 7, 10, 21). Then-Prime-Minister Benjamin Netanyahu said that the population's medical records held by the Sick Funds are the *Plan's* foundation and declared his liking "to let market forces act – they are usually smarter than us" (Prime Minister's Office, 2018c). One journalist tellingly captured the *Plan's* gist and how the state sought to use its infrastructural capital by titling their article "Our Blood Tests are the State's New Natural Resources" (Linder, 2018).

Consequently, one of the *Plan's* goals was to improve the existing medical 'map' of the inhabitants and to further increase the state's ability to recall and share it. The *Plan* casted the patient-level digitized medical file as "the basic 'Lego unit' that would enable all the digital health developments in Israel" (Prime Minister's Office, 2018b: 10). It called for extending and deepening data collection into more areas (without exactly saying what these would be), filling any exiting gaps in data and standardizing the terminology in which the data was entered and codified. With these and other measures, the state sought to make medical records amenable to big-data analysis and Artificial Intelligence tools (Bar Siman Tov, 2019; Lieber, 2019).

The turn to biocapitalism and the use of infrastructural capital raised again questions of patient privacy and consent. The government wanted to formulate the adequate normative-regulative framework for data-sharing with external organizations and instructed the ministries of health and justice to work towards that end (Prime Minister's Office, 2018b: 42–43). Guidelines and recommendations stipulated privacy-protection measures such as the De-Identification (anonymization) of data (Ministry of Health General Manager Circular, 2018a, 2018b).

However, in 2019, the Israel State Comptroller noted that research was conducted without appropriate regulations and found cases in which researchers and the bodies/people who initiated certain studies received *identified* data (Israel State Comptroller, 2019). The Comptroller also pointed to the fundamental ethical problems associated with biocapitalism (see, e.g., Merz et al., 2004) and the use of infrastructural capital. He wrote that there is an "inherent contradiction" between de-identified data and the type of data needed for research purposes "which is data that can be re-identified when needed" (Israel State Comptroller, 2019: 9).

Civil society organizations raised other concerns over questions of ownership, privacy, equity, and commodification of medical data. These organizations too pointed to the dangers of data re-identification but also noted patients were not notified or consented to be in those databases (IDI, 2019). Organizations also sought to turn to the government's plan in to an "engine of equality," not just growth (Svirsky, 2020). They contended that just as patients' bodies belong to them, so do the data regarding these bodies. Thus, there should be recognition of that ownership, appropriate protections of privacy and mechanisms that ensure the economic benefits of the *Plan* revert to the public. From the data I have, it is not clear if this resistance to government plans had impact.

7. Infrastructural capital and the Israel-pfizer deal

The vaccine purchase agreement between the Israeli Ministry of Health and Pfizer was announced in early December 2020, about 7.5 months after the first confirmed COVID case in Israel. The state paid Pfizer with money but also with medical information on the vaccinated. In exchange, Israel received millions of vaccines, sufficient to inoculate

its entire population, at a rate of 100,000–500,000 doses per week (Zaken, 2021a).

Reportedly, the idea of contacting Pfizer to gauge the prospects of vaccine purchase came from within the state, in a meeting with Netanyahu and other officials. The goal was to woo Pfizer to sell vaccines to Israel rather than to other countries. The meeting's participants discussed the capacity of the Israeli healthcare system to rollout vaccines as well as its ability to *control data and information*. It was decided that Netanyahu himself will approach Pfizer CEO Albert Bourla on this issue, accompanied by Israeli experts (Zaken, 2021a). It seems clear that the state was trying to court an external capitalist actor and considered potential ways to entice it, including its infrastructural capital.

Israel and Pfizer signed the *Real-World Epidemiological Evidence Collaboration Agreement*, whose redacted version was publicized following public pressure. The agreement states that the parties will share de-identified information “on a reasonable basis” regarding the vaccine's distribution, administration, and benefits, to ascertain the possibility of achieving herd immunity (Ministry of Health, 2021). Concretely, Israel will share the numbers of cases, deaths, ventilator usage, and hospitalizations per week, both aggregated and divided to subgroups. Reporters claimed Pfizer will also receive information about the time required for antibodies to develop as well as knowledge of individuals' background diseases (Zaken, 2021a). An IDI member argued that the state gave Pfizer access to Wagtail, and that the company will also benefit from discovering potential drug-drug reactions (Shwartz Altshuler, 2021). Thus, Pfizer might have received more data than the redacted agreement reveals – data that is not necessarily related to the pandemic.

As the above implies, the Israel-Pfizer agreement was a logical continuation of the Israeli turn towards biocapitalism just a few years earlier. After the consummation of the agreement, both Bourla and Israeli journalists described Israel as a large laboratory whose vaccine campaign would help determine vaccination schemes elsewhere and assist in “developing COVID vaccines and other medications” (Levine, 2021; Zaken, 2021a).

The idea of turning a country into a laboratory for medical experimentation from which knowledge could be generalized on a larger scale is well-known in scholarship on colonial public health (e.g., Tilley, 2011). Yet more than contemporary reverberations of colonial ideologies (King, 2002), the notion of Israel-as-Laboratory reflects the fundamental principles of the *Plan*: the above-mentioned ‘Beta-Siting’ of Israel and Israeli leaders' wish to create a business-friendly environment for the pharmaceutical industry, including openness to ‘real-world’ product validation. In fact, the title of the agreement between the parties and the use the phrase “real-world” clearly echoed the language of the *Plan* (Prime Minister's Office, 2018b: 5, 21).

Thus, the agreement did turn Israel into a ‘laboratory’ of sorts, but it was not a colonial laboratory. On Pfizer's end, Israel was a laboratory for product-validation and profit-seeking. Instead of experimenting with its product on a group of volunteers, Pfizer was able to see how it actually performs on a population of millions (Shwartz Altshuler, 2021), determine if and how herd immunity is achieved, ascertain how the vaccine interacts with various medications and so on. Based on this data, Pfizer could potentially plan similar deals and vaccination campaigns in other countries as well as further develop vaccines and other medications it could later sell. Indeed, the Israeli data is a potential goldmine for the company.

As in previous years, providing Pfizer with medical information brought criticism, especially since the government initially tried to keep the contract between the parties confidential. Israeli cyber and legal experts claimed that the deal with Pfizer is lacking in transparency and might also lack adequate measures to keep the data secure (Zinger, 2021).

Other critics protested the use of data as infrastructural capital. These critiques not only warned, again, from commodifying data, but also cautioned this commodification might effect subjectivities (see

Rose, 2007). An IDI member wrote that the agreement with Pfizer shows “decision makers, in the government, the Ministry of Health and the Sick Funds keep thinking our health and data are their property. This must change now” (Shwartz Altshuler, 2021). Others protested “trading” privacy for vaccines and stated that the government acted “as if it owns our personal information and can barter it abroad in exchange for something” (Freund, 2021). Still others alerted that “some people might feel they are being traded in instead of being looked at as human beings” (Zinger, 2021).

Critiques of the Israel-Pfizer agreement are important also because they reveal the dynamic relationship between infrastructural power and capital – namely, how the state further developed its infrastructural power during the pandemic, which in turn yielded more capital to exchange with Pfizer. Critics argued that the state adjusted Wagtail to collect COVID and vaccination data and centralize the details on all confirmed COVID cases, epidemiological inquiries and more (Shwartz Altshuler, 2021). With this repurposing, Wagtail had a key role in fulfilling Israel's share of its agreement with Pfizer.

Furthermore, as part of making the deal, Pfizer representatives received a live, real-time demonstration of how infrastructural power is being converted into capital. They were able to examine Israel's COVID headquarters, the health system, the operation and spread of the Sick Funds and the system that collects data and surveils infected individuals (Zaken, 2021a). In this way, Pfizer, as a capitalist actor external to the state, was able to actually observe how state-power yields the resources it would receive.

8. “Le vaccin, Ç'est moi:” pandemic politics and infrastructural capital

As I have contended, the Israel-Pfizer deal was at least partially prompted by internal Israeli political turbulence. The pandemic hit Israel when the country was already facing an unprecedented political-constitutional crisis. Since 2019, Israel was locked in political stalemate revolving around Netanyahu's criminal charges and his capacity to serve as Prime-Minister. There were large protests against Netanyahu's continued, 12-year reign which included repeating right-wing attacks on the judicial system (Kritzman-Amir, 2021). Both anti-Netanyahu and pro-Netanyahu parties failed to form a government after two consecutive elections in April and September 2019. Such situation had never happened before in Israeli history.

As the political crisis combined with the pandemic, a Netanyahu-led interim-government drew on a record-high number of emergency regulations to curb morbidity, such as imposing restrictions on large gatherings. These included lockdowns and restrictions on political protests that were exceptionally harsh compared to other countries (Fuchs and Lurie, 2020) while anti-Netanyahu protests continued. This interim-government also used extra-budget funds to mitigate the effects of the pandemic and tracked cases using sophisticated surveillance tools usually used by the security services (Kritzman-Amir, 2021). Following a third election in March 2020, an unstable coalition government formed out of pandemic necessities. Netanyahu's new and reluctant partners sought to help navigate the country through the health emergency and stop the continued erosion of democracy. This government suffered from repeated infighting and from Netanyahu's political maneuverings (Azulai, 2020; Ha'aretz 2020; IDI website; Kritzman-Amir, 2021; Sales, 2020). It soon collapsed.

These harsh COVID mitigation measures by Netanyahu and his allies represented a significant increase in despotism. While public health initiatives are frequently at odds with democracy and civil rights (Baldwin, 2005), these measures were criticized as disproportionately, politically motivated and democracy-eroding since they effectively bypassed the Knesset, gave the (interim-) government overwhelming power, and violated basic rights. Civil society bodies, Netanyahu opponents, and Israel's Attorney General vehemently protested these measures and their effects on Israeli democracy (e.g., ACRI, 2020;

Hermann and Anabi, 2020; Ministry of Justice, 2020; MQG, 2020, undated a, undated b).

This was the political context that shaped Israel's vaccine purchase, especially the collapse of the beleaguered coalition government in December 2020, which led to another, fourth election. Roughly, Israel's vaccine-acquisition timeline is as follows: In June 2020, Israel signed a purchase agreement not with Pfizer but with Moderna and was negotiating with other companies (Efrati, 2020). Figures in the ministry of health reportedly claimed that negotiating with multiple companies is a wise risk-management strategy that avoids "putting all the eggs in one basket" (Yas'ur Bet-Orr, 2020). By December 2020, Israel received some 100,000 Moderna doses (Ashkenazi, 2021). However, in that same month, December 2020, the media reported a dramatic development: millions of vaccines will soon arrive not from Moderna but from Pfizer, following secretive dealings with the company. This supply was to drastically alter the course of the pandemic in Israel (Even et al., 2020). At that point, receiving the full supply from Moderna became unurgent (Ashkenazi, 2021). Moderna vaccines regained importance in Israel only after the fourth election, in April 2021, when the government purchased 8 million additional doses from the company. Moderna demanded that this time its vaccines be widely used (Zaken, 2021b).

What accounts for the dramatic shift from Moderna towards Pfizer between December 2020 and April 2021, a shift that contradicts reported earlier attempts to avoid overreliance on one manufacturer? This decision, I suggest, was not just motivated by a genuine desire to fight the virus, but also by political-electoral interests and calculations.

The political motivations behind the Israel-Pfizer deal and using infrastructural capital to secure it quickly became clear. Netanyahu thought that the vaccines were the key to increase public support of him and to beat his opponents in the fourth election that was scheduled for March 2021. During the first months of 2021, Netanyahu repeatedly touted his relationship with Bourla – even during the Holocaust Memorial Day service that is normally regarded with sanctity – involuntarily 'recruiting' Bourla for his re-election bid (Jaffe-Hoffman, 2021; Linder, 2021a). Netanyahu's goal was to brand himself as "Israel's Vaccinator-in-Chief" (Ben Zion, 2021). Claiming "I brought millions of vaccine doses," "I negotiate" with Pfizer and Moderna (Heller, 2021; Linder, 2021b) and arguing his political rivals could not have possibly secured the deal with Pfizer (Jaffe-Hoffman, 2021), Netanyahu tried to leverage vaccine-acquisition for political-electoral success by paraphrasing Louis XIV: His message effectively was "Le vaccin, ç'est moi" – "I myself am the vaccine."

Some journalists even argued that the decision to use infrastructural capital for purchasing vaccines was made solely by Netanyahu who "singlehandedly decided to share Israel's pandemic data with Pfizer" (Jaffe-Hoffman, 2021). As I mentioned, Netanyahu was personally involved in the negotiations with Pfizer, and it was he who determined the agreement's final details with Bourla (Zaken, 2021a). Bourla himself also made the connection between politics and infrastructural capital. In an interview to the *Financial Times*, he acknowledged Israel's high-quality medical databases were a major attraction for Pfizer. He also said it was clear to him that Netanyahu was trying to get vaccines not just out of concern for his people but also out of personal political interests, which is probably why Netanyahu called Bourla about 30 times a day in his efforts to secure doses (Crow, 2021).

Thus, the Israel-Pfizer agreement and Israeli infrastructural capital were indeed supposed to help Israel recover from the pandemic. But they were also intended to help Netanyahu recover from and win his battles to stay in power. The pursuit of health and wealth converged with the pursuit of power amid two unprecedented, combined, health and political crises. This convergence had important implications for the state's infrastructural capital and for questions of patient privacy, consent, and commodification.

9. Conclusion

In this article, I argued that Israel was able to purchase vaccines from Pfizer by using its state-power as a form of currency, or, what I called infrastructural capital. Drawing on the widely used notion of infrastructural power in the sociology of the state, I focused on a specific aspect of it: the state's ability to recall information. Combining theories of the state with studies of biocapitalism, I defined infrastructural capital as the resources a state can provide to an external, non-state, capitalist actor by virtue of its infrastructural power. In the case at hand, Israel used the vast medical data it accumulated and continues to accumulate to trade with a pharmaceutical company in exchange for products. I have also argued that the Israel-Pfizer agreement and the making of infrastructural capital should be viewed as the outcome of institutional developments and political crises. These developments include the creation of a robust universal-coverage health system under state authority; comprehensive collection and digitization of medical data; state-initiated biocapitalist enterprises and data-sharing with external actors; and, lastly, a political-constitutional crisis in which politicians' electoral interests, not just objective health problems, facilitate the use of infrastructural capital to woo pharmaceutical companies for political gain.

I suggest that the concept of infrastructural capital is applicable to other cases as well. As scholars have argued, there are several states that, like Israel, enjoy high infrastructural power and are already engaged in biocapitalist enterprises in which medical and genealogical records are significant (Rose, 2007: 18–19). Thus, the Israeli government's *Plan* and the Israel-Pfizer deal resemble other cases in which state-power played a role in how medical data was commodified (Rose, 2007: 19).

Additionally, there are other countries that draw on their infrastructural power in the field of health, that have extensive medical records or that initiated large-scale legibility-digitization projects. Ethiopia, for example, utilized its infrastructural power with the aim of increasing health insurance coverage, though success varied regionally (Lavers, 2021). In Latin America, "health has often been a central concern of state development" since the 1930s (Noy, 2017: 2). Germany has extensive medical records, though mandatory digitization was to be introduced only in 2021. The US embarked on a large digitization project in 2009. While Israel's advantage is in digitization and centralization of data (Singer, 2021), other countries can potentially use their power in the field as currency in their dealings with pharma companies. Indeed, the Israeli media already reported that Pfizer announced it is considering similar deals with other countries (Oni, 2021).

However, we should keep in mind that the extension of state-power and the accumulation of resources are potentially dangerous and certainly come with a price. Critiques of Israeli data-sharing, biocapitalism, and the Israel-Pfizer deal reveal the 'dark side' of extending state-power and of what seems to be overall favorable outcomes such as improved service provision or securing vaccines. These critiques reveal not only ethical concerns regarding privacy and consent, but also questions of political economy, state overreach, democracy, and self-hood. If in recent decades the state was highly focused on using medical data for what it construed as national development, its critics are effectively arguing 'my body, my data, myself, my revenues.' Utilizing infrastructural capital might have had its benefits, at least for Israelis, but we should not forget that it also has its costs.

Credit author statement

Omri Tubi is the author of this article. He has conducted data collection, Formal analysis and theorization.

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