

Social Capital as a Commons: Towards A New Framework for Leadership and Governance

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This study positions social capital—defined as the trust, reciprocity, networks, and collective norms that support societal cooperation—as a critical form of the commons. Building on foundational research into the tangible commons, the paper extends the concept to the "social commons," arguing that social capital qualifies as a resource vulnerable to externalities yet essential to societal health. Identified as a subcomponent of the broader social commons, it is critical in fostering cooperation, mitigating social tensions, and enabling sustainable development. Through an interdisciplinary literature review and the application of Social Affinity Flow Theory (SAFT), the analysis also reveals how social capital impacts governance, leadership, and institutional trust. Historical examples and contemporary case studies demonstrate how intentional actions, such as fostering community cohesion or addressing systemic inequities, can either strengthen or erode this vital resource. The findings suggest that modern governance and leadership must prioritize the protection and enhancement of social capital to ensure societal resilience and equity. By framing social capital as a commons, this research offers a new lens for evaluating leaders and institutions while advocating for policies that safeguard the social fabric at all levels.

The commons have been a topic of consistent scholarly investigation for at least five decades. Beginning with Hardin (1968), this journey started with the idea that overpopulation would precipitate the destruction of the limited natural resources all depend upon, called the commons. Assuming that self-interest drives behaviors within the social system, resource depletion is an assumed outcome. However, after Hardin (1968), successive scholars enumerated cases proving that the overuse of resources by the human communities that depend upon them is not a foregone conclusion (Netting, 1976; Berkes et al, 1989; Feeney et al, 1990; Ostrom, 1990; Ostrom et al, 1991, Acheson, 1997, among others). Since Hardin's 1968 treatise *The Tragedy of the Commons*, research initially coalesced into studies of the Big Five, which explored the areas of fishery, forestry, irrigation, water management, and animal husbandry, a scholarly progression documented by Van Laerhoven & Ostrom (2007). Beyond this quintet of topics, Van Laerhoven & Ostrom (2007) also showed that over time additional topics attracted researchers' interest such as "...biodiversity, climate change, intellectual property and copyrights, and especially commons related to computers, software, and the internet" (p. 8).

However, in the above expansion, a subtle shift in the idea of a commons occurred, moving from clearly tangi-

ble, common pool resources such as bodies of water, trees, and pastures to intangible common pool resources such as knowledge, intellectual property rights, and the internet. Hence, research on the commons began with studying a human social system that interacted with external, tangible resources to include common pool resources within the human social system itself. Further, Ostrom (2009) cataloged features within multi-layered and complex human social systems that allow sustainable usage of resources outside the community. Just as a sample, among governance systems these include network structure, property-rights systems, and operational rules; within the community of users, these include factors like leadership, social capital and norms, and technology used and interactions between various stakeholders there are factors such as information sharing, deliberation processes, lobbying efforts, and self-organizing activities that all play a part (Ostrom, 2009).

Given these social characteristics, some points bear exploration. What happens when these characteristics are taken for granted, or when they are depleted, what is the effect on the human social system? If, as Ostrom (2009) and others have stated these factors play a role in supporting sustainable action, they may be viewed as necessary resources, components that are internal and social, versus

those traditionally focused on that are external to the social system and tangible. These social resources are needed by societies to interact sustainably with external resources. If true, then this would suggest that at a minimum some of these factors are their own commons, as resources that can be depleted (or strengthened) and upon which desirable collective action depends.

Among the factors Ostrom (2009) lists under the community of users, this examination will focus on social capital, with some later reflections on the factor of leadership. Four research questions will be explored:

What is the definition of a “commons” and what major types have been identified in the literature?

What is the social commons and what comprises it?

What is social capital? Can it be seen as a form of commons?

What is social capital’s relationship to the social commons?

Depending on the answers to the above questions, there are also implications for other aspects of the social system. Towards the end of this investigation, some thoughts will be given to the implications for social phenomena like management and leadership, for institutional behavior and governance.

Research Methodology

The main task of the literature review was to research the commons, social commons, and social capital as the main constructs being examined. Three main sources of mostly peer-reviewed articles were consulted: two semi-structured searches using EBSCO databases and the Digital Library of the Commons (<https://dlc.dlib.indiana.edu/dlc/>), supplemented with articles from open internet sources. As the reader will note below, given the large volume of prior research on the commons (Van Laerhoven & Ostrom noted in their 2007 publication some 10,000 plus titles at that time), our task was to select from hundreds of works on our three constructs the most salient contributions to our analysis.

The search began with the Digital Library of the Commons (DLIC database). Separate searches were conducted on the terms “commons” (255 results), and “social commons” (0 results). Preference from the outset was given to articles by Ostrom as well as works by Mestrum and Zeyland. Of the initial 255 articles, 35 articles were selected for closer analysis from DLIC.

For the EBSCO search, the Academic Search Complete and Sociology INDEX (SocINDEX) were consulted. Most articles from our search explored environmental resources and how aspects of economics or the human social system impact the behavior of groups. In all but a few cases, these articles were bypassed because they were like ones from the DLIC database, examining how factors from the social system affected conduct towards the commons of a tangible resource. We were specifically interested in articles on the social commons, just as in the DLIC search. This process reduced the initial pool of 104 articles to a core 15 articles. A deeper dive still into these 15 articles focused on those with higher mentions of the social commons construct. Consequently, this focused

search found that ultimately 4 of the 15 sources were the most significant.

Since the construct of social capital was also being investigated, a recent EBSCO search for Gourdine & Morrison (2023) uncovered several articles that contributed seven articles of interest. Adding to this number were results from a second search done using the DLIC on social capital. The terms “capital” and “social capital” returned a total of 135 articles on the subject. Many were prior studies of aspects of how social capital related to governance, cooperation, or facets of the stewardship of common-pool resources, often in settings within developing nations. This theme was already explored in articles from the prior DLIC and EBSCO searches and was therefore of marginal added value, with just two exceptions. One was an article dealing with the measurement of social capital, and the other spent time defining the construct. Altogether, this distilled the starting list of 135 DLIC articles on social capital down to 8 articles. A final article was included in the course in internet searches and with the seven articles mentioned from a prior publication, the total on social capital was brought to 16.

During the review process for this paper, an independent reviewer recommended some additional titles to strengthen our analysis. This added 10 additional titles to our review process.

RQ1: What is the definition of a “commons” and what major types have been identified in the literature?

Earlier works on the commons focused on tangible resources. Accordingly, scholars defined these commons by attributes such as the difficulty of exclusion and resource subtractability (Berkes et al, 1989; Feeney et al, 1990; Ostrom, 1991). The former relates to the inability to restrict access of users to the resource while the latter refers to the decrease in the resource available to later users by those who access it first. However, there are nuances to these characteristics, according to the situation and the person conducting the analysis. For example, while Berkes et al (1989) point to exclusion as being problematic for common pool resources, Cornes & Sandler (1996) document the actions of lobster gangs in Maine that destroy the lobster traps of would-be interlopers to restrict access to lobster grounds (p. 284). Coase (1974) showed that in some cases lighthouses could exact payments from the harbor fees paid by ships using a harbor (p. 362), while Van Zandt (1993) argued that boats could access the information provided by lighthouse beacons without a ready means to restrict such access (p. 50). Broadly speaking, however, the problem of excludability was present to some extent in these cases as was subtractability, particularly in the case of tangible goods and natural resources.

However, over time scholars have expanded the idea of what constitutes a commons to include the internet, biodiversity, computers, software, etc., as noted by Van Laerhoven & Ostrom (2007). We can add knowledge itself to the list, according to Basu et al. (2017) who started with the classical commons of a natural resource in their study focused on drought-resistant rice in India. They acknowl-

edged that “commons can be understood as natural resources that groups of people...manage for individual and collective benefit” (p. 146). Still, they also assert that a commons may include phenomena such as knowledge.

“At this point, it is important to note the nature of knowledge and its complex and multi-layered qualities of non-rivalry and non-excludability. Unlike natural commons – which are both rival and excludable (only one person can use any one item or portion at a time and in so doing they use it up, it is consumed) and characterised by scarcity (they can be replenished but there are limits to this, such that consumption/destruction may overtake production/creation) – knowledge commons are characterised by abundance (they are non-rival and non-excludable and thus, in principle, not scarce, so not impelling competition and compelling governance).” (p. 149).

From this viewpoint, the former characteristics of excludability and subtractability no longer form a one-size-fits-all boundary for what constitutes a commons. Make no mistake: this is a philosophical shift; time gives clarity of perspective. If knowledge can be a commons as can clean air and fish stocks, then prior definitions of a commons were not universal, they were built for the particular class of commons under investigation. A more universal definition should apply equally to all types of commons.

In Ramos (2017), the commons is defined simply as “that which we mutually depend on for our survival and well-being” (pg. 74). Though attractive in its simplicity, there is more presented by Ramos (2017). He also cites Bollier (2011) which defines the commons not simply as the resource itself, but as the entire social system that provides stewardship of the resources with the aim of preserving it for future generations (see also Edwardh et al, 2020).

Bollier (2011) also adds that the commons is self-organized by communities acting free of a market or state which he attributes as often jeopardizing the commons. He also states the commons can be “a sector of the economy...that generates value in ways that are often taken for granted” and can include “gifts of nature, civic infrastructure, cultural works and traditions, and knowledge” (commons site). This definition is similar to Nonini (2006), Edwardh et al (2020), and Mestrum (2015 and 2020). As an aside, an interesting story is told in Zetland (2022) that illustrates the idea of the commons. He shares a story in which two younger fish are talking to one another and an older fish passes by asking them about the water. A short while later one of the fish asks the other “What is water?” The idea central to many definitions of the commons is that it is usually a vital resource that is paradoxically taken for granted. This point will be returned to later.

Zetland (2022) defines the commons according to a more traditional, economics-based taxonomy of four quadrants, in which one quadrant is common-pool goods and importantly, these are non-excludable and subject to potential overuse (he uses the term over-appropriation). Unlike Bollier (2011), Zetland (2022) does not automatically include both the state and market as jeopardizing the commons but divides his matrix so that the market allocates via excludable goods on the left side but on the ma-

trix’s right side (reserved for non-excludable goods), both the government (the state) and the community are responsible for the political allocation of goods. As shown later, scholars such as Bollier (2011) and Mestrum (2015) assume a jeopardizing role where the government colludes with the market. Here Zetland (2022) presents a cleaner framework where the two have distinct roles.

Anecdotal observation shows that Mestrum and Ramos’ assumptions about government functioning are unfortunately often accurate, as they point to real norms. Still, Zetland’s model (2022) may be both more accurate theoretically and the prescription of what society needs of government to protect the commons. Further, the role of the state (i.e., government) in preserving the commons is later cited by Ramos (2017) in his article, where he mentions a more enlightened 21st-century role for government under the term “partner state” with some examples given. For this analysis, the simple definition initially put forward by Ramos (2017) will be used: “that which we mutually depend on for our survival and well-being.” We will later add to this definition, but will at least use this broader (and simpler) definition as a start.

As to examples of commons, the list is quite varied. Zetland (2022) lists a unique list of domains he calls commons: family and friends, food and health, energy and power, housing, and neighborhoods as well as the expected entries of land and ecosystems, technology, and institutions, among others. Mestrum (2020) makes a case for universal healthcare to be included as a social common, while Nonini (2006) lists broader categories such as natural resources, various social commons, intellectual and cultural, and scientific commons. Further, Edwardh et al (2020) mention the following commons: natural, social, civil, cultural, knowledge, and economic.

RQ2: What is the social commons and what comprises it?

We first acknowledge the term Social-Ecological-System (SES) used by scholars such as Ostrom (2009), McGinnis & Ostrom (2014), and Liu et al (2023), naming just a few. Consistent with the term SES, almost universally when any commons is mentioned, some aspect of the human social system that interacts with it is mentioned, whether it be the actions of communities and institutions, or traits such as cooperation, trust, reciprocity, etc. Further, these mentions are for scholars just addressing the commons of natural resources. This is to say nothing of various commons inherent to human activity, like technology, healthcare, etc. In this context, the literature was split between scholars whose focus was on some commons of tangible resources but acknowledged the impacts of the adjacent social system (Allison, 2023; Zetland, 2017 and 2022; Daniels, 2008; Ostrom, 2008a & b; Axelrod, 1984) while another set of authors focused on the social commons explicitly or acknowledged its existence (Fleurbaey et al, 2021; Edwardh et al, 2020; Mestrum, 2015 & 2020; and Ramos, 2017).

Of the authors explicitly addressing the social commons, Fleurbaey et al (2021) describe components of the social commons and its qualitative context. The authors state, “the quality of social relations, the social bonds be-

tween people, the moral values that inspire the community, may have the fragility of commons because selfish depletion may plague them in a similar fashion as economic resources.” Note the authors admit that aspects like the relationships within society can be negatively affected by the actions of others. This is another way of saying that negative externalities can exist within the social commons just as in economics. Additionally, Fleurbaey et al (2021) assert that the social and economic commons are inseparable.

Given that a commons is potentially vulnerable to externalities from the human social system that interacts with it, we can now revisit Ramos’ (2017) definition of a commons. If defined simply as “that which we mutually depend on for our survival and well-being” (Ramos, 2017), where does vulnerability to externalities come into play? After all, prior scholars such as Berkes & Folke (1993) and Jodha & Bhatia (1998), among many others, assert that a commons is vulnerable to be both negative and positive impacts by its adjoining social system.

To be clear, we assert that a resource still qualifies as a commons if depended upon by humans, but the nature of the relationship splits commons into two broad classes, based on whether there is conscious engagement by the community with the resource or unconscious usage. Ramos (2017) definition is indeed universal, but vulnerability to human actions carries with it the responsibility of resource stewardship for the human system.

If we travel back in time, 20,000 years ago the streams and air that hunter-gatherers depended upon was a commons. However, the impact of human activity was negligible and on a scale not much different than the animals and flora that also used them. A semi-nomadic, single-digit number of people with stone-age technology have low impact in one given area. But in modern times the streams and air adjacent to permanent cities of millions like Changzhou, China, or Philadelphia, PA are also a commons. The impact, however, today is enormous with externalities on completely different orders of magnitude. Different thinking is also needed to address these challenges and their complexity.

On this point, the example above clarifies the slightly different definitions of a commons asserted by Mestrum (2015) and Bollier (2011). According to these scholars, a commons is not the resource itself but requires a community that cares for it and operates according to some policies and/or norms to protect the resource. We make the finer distinction that this responsibility for sustainable usage is a separate matter of degree and conscious engagement by the community. Adopting Ramos’s (2017) definition simplifies issues of excludability, tangible goods or intangible, and applies to common-use resources as varied as trees and clean air to secure cyber-transactions. Referring to our hunter-gatherers of 20,000 years ago, the difference is the commons in modern times are much more vulnerable to human activity which is at an unprecedented scale and concentration. It is the impact of human activity that requires systems thinking, among

other frameworks, to address issues of stewardship and sustainability. These aspects assert themselves as required features of responsible, modern governance.

Returning to the topic of the social commons, Ramos (2017) includes material aspects of the social commons that are “shared goods” such as “infrastructure, libraries, and public safety.” For the sake of being explicit with the reader, Ramos’ (2017) infrastructure includes publicly shared goods such as “roads, rail, bridges, parking, [and] airports”. Ramos (2017) also includes public health and hygiene, education, and social security systems. Mestrum (2015) also discusses social protection systems and she states, these “commons sustain our common being, our being together, our co-existence.” She also lists sub-systems that are part of these protections such as “social insurances, social assistance, public services, labour rights and environmental rights” (2015). She later adds to this list healthcare (Mestrum, 2020).

In the case of scholars not explicitly naming the social commons, there is a significant list of social characteristics. Zetland (2022) discusses institutions, social norms, culture, language, and religion. Allison (2023) in her research in Bhutan mentions a care ethic that includes not only people but also the natural environment, and shared values such as responsibility, humility, vulnerability, and competence. Daniels (2008) focuses on institutions and governance, while Ostrom (2008 a & b) stresses the importance of trust, reciprocity, and cooperation. Axelrod (1984) also focused heavily on cooperation and reciprocity. In summary, the social commons includes almost every facet of society from common-use goods such as roads, airports, and bridges, to protection systems that people depend upon such as social security, hygiene, healthcare, and forms of insurance, to society’s relational facets such as reciprocity, sense of belonging, care ethic, trust, and cooperation, to name just a few.

RQ3: What is social capital? Can it be seen as a form of commons?

In terms of relevance, social capital has been well studied and certainly, there is more research on the horizon. A wide cross-section of scholarship touches on the subject, from hate group formation (Szendro, 2021), to childbearing in an Iranian hospital (Firouzbakht et al, 2022), to U.S. health insurance enrollment (Williams, 2020), COVID-vaccination compliance (Carson et al, 2022), to social networks among households in rural Rwanda (Cassidy & Barnes, 2012) and studies on collective action within communities (Ostrom, 2008a).

As for definitions and characteristics, Krishna (2004) defines social capital as “a resource, a propensity for mutually beneficial collective action that communities possess to different extents. Communities with high levels of social capital can act together collectively for achieving diverse common objectives.” Diaconu & Dumitru (2017), borrowing from Ostrom (2000), state that among the conditions that favor the development of self-governing common-pool resource institutions is social capital, defined as ‘the shared knowledge, understandings, norms, rules and

expectations about patterns of interactions that groups of individuals bring to a recurrent activity””. These authors also assert that social capital is a public good, often undervalued and produced as a by-product of other activities. Szendro (2021) ties social capital to a community’s ability to engage in collective action and trust between its members. He states a lack of such capital in a community is associated “with a number of proverbial social ills” including higher crime rates (Szendro, 2021).

It is also important to discuss the related construct of social capital theory. Firouzbakht et al (2022) describe social capital theory as having three components: structural, cognitive, and relational. The structural component consists of social networks, the cognitive is somewhat related to culture as it encompasses common goals in the minds of the community’s members and values. The relational component is tied to the quality of relationships and trust takes on a vital role. But as with Szendro (2021), for social capital with Firouzbakht et al (2022), it is not just the definition that matters here, but also its role. According to the authors, social capital “can significantly affect behaviors by creating the possibility of information exchange, facilitating access to resources, fostering cultural values and norms, and affecting beliefs and attitudes” (p. 266). From this, it can be stated that social capital is an enabler of many desirable aspects of community and organizational life.

The above point of positive enablement was affirmed by research conducted by Ozgun et al (2022), who found in a hospital setting that when social capital is linked with intellectual capital, there was a positive effect on organizational performance. The authors associate social capital, in the organizational context, with the Resource-Based View of the firm, a central concept from strategic management used to formulate an organization’s strategy for attaining competitive advantage (Porter, 1991). For their study, Ozgun et al (2022) defined it “as the values and properties such as social interaction, mutual trust and understanding, shared vision and norms, which allow organizational members to work toward a goal successfully” (p. 2). Ozgun et al (2022) are consistent with the earlier scholars presented above in referencing the multidimensional nature of social capital in aspects that are structural, relational, and cognitive.

Social capital is therefore defined in multiple ways, from a more theoretical framework it has structural, cognitive, and relational components. Another common theme is it enables collective action and is connected to positive outcomes in communities and organizations. The most immediate and intuitive understanding of what it might mean is also included in the definition as well: the sense of connection, trust, and collective well-being that permeates a community and that gives individuals a sense of positive regard for one another. As an aside, it is important to note that social capital is often not directly measured; this was said to be impossible by Krishna (2004). It is normally measured via a measurable set of proxies and these in turn can vary according to the culture

and patterns of human beings in respective contexts. Further, there is no universal measure of the proxies that constitute social capital (Krishna, 2004) and in turn, this means that a global comparative study would require thoughtful choices of proxies to avoid this trap.

However, the point is that societal dependence on social capital is clear. The quality of this capital in a community, at whatever level “community” is defined, has a profound effect on all aspects of life, as varied as education, public safety, hate group formation, community safety and violence, online hate speech, health policy/COVID vaccine compliance, etc. (Szendro, 2021; Williams, 2020; Kaakinen et al, 2018; Carlton & Vallance, 2017; Cassidy & Barnes, 2012). It is a resource human society depends upon.

Therefore, social capital may be framed as being to society what water is to the fish mentioned in Zetland (2022). The water surrounded the fish, was entirely essential to their existence, and yet it was taken for granted. Likewise, social capital exists everywhere, is essential to societal functioning, and is also taken for granted. It is an assumed feature of the background while we continue our focus on tangible “things”.

Like any commons, social capital is subject to externalities from human actions and can be both damaged and repaired. For example, South Africa was a pariah state for years as it formally embraced a racial caste system of apartheid. Yet after the end of apartheid, South Africa established Truth and Reconciliation courts under the government of National Unity (justice.gov.za). This was the community’s effort to address the damage in its own commons of social capital. The country could not move forward without acknowledging its deep and festering wounds. In a similar vein, there is a Truth and Reconciliation Commission of Canada, which seeks to address the damage done to native communities in that country’s history (TRCC: Calls to Action). Interestingly, both examples involve positive actions by the government to address a damaged commons.

A shared feature of each social system, whether apartheid South Africa, India under its caste system, or 1960’s America is a story of imposed power and leverage. One group intentionally enforces policies for its own benefit that damages social capital so that it may accrue material benefits and access at the expense of other groups. Thus, if the lens is shifted from the ethnic, geographic, and cultural particulars to look instead at the underlying issues, at the heart of each is damaged social capital, which we would otherwise name an exploited commons. The dark side of human systems is the social exclusions that can exist between its groups. These cultural practices damage the fabric that would otherwise support a more unified and whole society. This form of injustice can be pervasive and very difficult to root out.

Wilkerson (2020) in her book *Caste: The Origins of Our Discontents*, identifies the damage done to the American social fabric by its history with race. For example, in America after the 1964 Civil Rights Act, the years of

1960's were marked by open white hostility to changing social norms of race, with fierce backlash against desegregation. In contrast to the culture of 1960's America and its damaged commons, Columbia, Maryland was quietly founded in the 1960's by a white land developer named James Rouse who envisioned a community that would go directly against the nation's norm of race relations. He wanted to establish Columbia as a place that deliberately had no restrictive covenants on race but did the opposite: it openly welcomed people of all colors and religions to live together and contribute to a new type of American community (Brown, 2017). Columbia was founded as a protected space from the tempests of the time.

As another positive example, constructive action by a government also was taken on the other side of the world, this time in Singapore. In the 1960s its new government was faced with a need to provide housing for its population but at the same time considered the ethnic factions that were living in their own urban enclaves at the time (Sim et al, 2003; Chua, 1991). To avoid the ethnic/racial tensions witnessed by other countries at the time (America no doubt was part of this observation), the government required residents in its new housing to move next to people in an alternating, woven pattern by ethnicity. This intentional "stitching together" of a new society was deliberate so that across ethnic lines Malays, Chinese, and Indian families would be calling one another close neighbors (Sim et al, 2003; Chua, 1991). This novel approach was envisioned as fostering a more integrated and whole future society. It was a direct action to positively affect the small nation's social capital.

In modern-day America, community efforts positively affect social capital and the local commons. As of this writing, the organization Keep Growing Detroit (DetroitAgriculture) is committed to neighborhoods growing their own fruits and vegetables, which both clearly depends on the existing relationships and trust in the community but also positively reinforces these pro-social qualities and is clearly a form of collective action. The town of Edwardsville, Illinois, stands as yet another example of collective action, embracing an initiative called Edwardsville Unity. This is a concerted effort by various groups, including local members of the Baha'i community, to bring together residents from across cultural, racial, and religious affiliations in a collective embrace. A growing annual event called Unity Fest is aimed at increasing the connections among residents and fostering a collective sense of community (EdwardsvilleUnity). In each case, communities work cooperatively because of and with intentionality towards fostering a resource which they all depend upon. Their commons of social capital is being consciously engaged with and nurtured as a resource for all to draw from.

The prior examples of Singapore, Columbia, MD, and Edwardsville, IL contain clues about social capital's rehabilitation: going from an eroded state to active support and even restoration. Understanding these processes can be explained by Social Affinity Flow Theory (SAFT, see Gourdine et al, 2019 and Gourdine & Morrison, 2023)

including the phenomenon of externalities.

SAFT is a systems-based social theory that explains the tendencies of group behaviors in organizations and societies. One of its core tenets is that, in the absence of structures and incentives to do otherwise, individuals and factions within a larger system will tend to act according to their isolated self-interest and often so in ways that erode the state of the larger system. In other words, they will erode the state of the commons to preserve or strengthen their own well-being. This tendency is more pronounced in free-for-all environments, especially when there is a lack of cooperation between the system's parties (think of the various ethnic prejudices and antagonisms around the world) or they are locked in intense competition with one another (say, for social standing, or vital resources like arable land or clean water). Though the theory was independently developed by applying the Constructal Law from physics to social contexts, the result is it underlies an understanding of both Hardin's (1968) Tragedy of the Commons and Ostrom's (2009) findings of how the commons can be preserved.

The second tendency predicted by SAFT is the actions of societal leaders. Leaders in such positions can tap into the psycho-social reality of portions of the population and once forming this connection, are able to move populations. This is the charismatic appeal and/or referent power of leaders, whether history deems their actions as having benefited society at large or whether they only served their own short-term aims. Though we can look back today at leaders such as Gandhi (India), Ataturk (Turkey), or Queen Victoria (England) and see how their use of power created lasting benefits for their societies, it is also easy to see many examples of leaders who mainly benefited themselves and sub-factions of the population that support them. The pursuit of isolated self-interest at the system's expense is not only predicted by SAFT, but this phenomenon was also documented by Franz et al (2019) in "The Personalization of Power and Repression in Dictatorships". Such leadership takes away from the well-being of society and uses it for purposes of personal power and self-aggrandizement. This is a difference that needs to become more recognized as society evaluates the types of leadership needed to create a better future, one markedly different from both the present and the past.

We should also recall that institutions have been repeatedly shown as features of our social commons (Elmqvist, 2000; Ramos, 2017; Carson et al, 2022; Zetland, 2022). These relationships also exist between the population and its institutions, including those of governance. A new lens is that our trust in them is both valuable to societal functioning and part of social capital. If asking why ties to institutions are included within social capital, then consider how the sense of trust and reliance upon institutions is central to societal order. For example, one can think of police officers, court systems, and even insurance companies. Society functions not just because these institutions exist, but because they are considered dependable. Drivers trust that if they have an accident, they will be compensated and can get their vehicles repaired. Likewise, the

mere existence of police officers and court systems alone does not provide assurance, but it comes from trust in their responsiveness and capability. This trust is also a pillar of civilization that can be taken for granted.

The January 6th, 2021, U.S. capital attack illustrates the dangers of depleted social capital. Many taken-for-granted norms of the American social commons were violated, including the orderly transfer of power. The social capital that existed between the citizenry and their government had been eroded to the point where armed groups attempted to violently override the government's rightful proceedings, and they injured law enforcement officers. Angry mobs stalked elected representatives in the Capitol building to commit physical assaults (Elliott, 2024). Not only can social capital become highly vulnerable in an environment of intense factionalism, but like any commons without adequate protections, it is vulnerable to exploitation. In this case, the trust in institutions to conduct free and fair elections was attacked and exploited.

In addition to the term "externality" that has been borrowed from economics, another concept that applies here is moral hazard. If we consider the totality of stakeholders that depend upon the resource (social capital in this case), it is important to consider not only society at large but as Nonini (2006), Ramos (2017), and others suggest, future generations as well. If trust in institutions is eroded, this hobbles not only the present functioning of society but is also a sustained loss for the future.

Further, since the behaviors that jeopardize the larger system carry little to no downside risk for such actors, this is a system that incentivizes moral hazard. Unless that trust is somehow restored and the corrosive, systemic effects reversed, such a society will have reduced functioning as its future state. This tragedy of the commons is just as palpable as the loss of trees, biodiversity, and clean water.

Reflecting on the findings of Ostrom (2009), the behaviors and reinforcing structures that protect the commons such as positive governance are lacking. Perhaps later, the careful research of Ostrom (2009) and others will be considered as to how social capital and the social commons in general can be better protected. Clearly, there are implications for the fields of leadership and governance, which can be addressed in a later investigation.

RQ4: What is social capital's relationship to the social commons?

The evidence is clear that social capital does serve as a commons, by our definition and it is affected by criteria similar to other commons. It is both a resource depended upon for societal functioning, but it can also be eroded by human actions as well as preserved. Also, even if we were to apply the more stringent standard of some scholars that a resource only qualifies as a commons when there is a community that works to protect it (Bollier, 2011), we can see this would be demonstrably met in cases by community and government actions.

Not only is social capital a commons, but it is logically a sub-component of the social commons. To review, Ra-

mos (2017) includes within this commons libraries, public safety, tangible items such as "roads, rail, bridges, parking, [and] airports" as well as public health and hygiene, education, and social security systems. It should also be acknowledged that information systems and technology have also been labeled as another component of the social commons (Zetland, 2022). With the understanding of social capital as a sub-component, we also gain more clarity on the prior work of Axelrod (1984), Ostrom (2008 a & b), and Allison (2023) who focused on characteristics such as trust, reciprocity, shared responsibility, and cooperation as features of social systems engaged in sustainable action.

Conclusions

Earlier scholars have included tangible resources within the social commons such as roads, schools, infrastructure, and institutions for societal functioning like social protections, insurance, etc. Our analysis shows that social capital is not only a significant component of the social commons, it also qualifies as a commons in its own right. In a sense, this brings to full circle one of the assertions of Hardin (1968). Though he framed the Tragedy of the Commons as a looming problem in the context of global overpopulation, he also asserted that humanity was nearing the end of solely relying on Adam Smith's invisible hand and pursuit of individual self-interest to "promote the public interest." Hardin (1968) points out that Smith "...contributed to a dominant tendency of thought that has ever since interfered with positive action...namely, the tendency to assume that decisions reached individually will, in fact, be the best decisions for an entire society."

If individual decisions are not reliably in the best interests of society, it is important to make collective well-being a new focus of thought. This in turn will be supported by collective action and governance.

From the work of Ostrom (2009) and others, collective action is required of any community to preserve and protect its common pool resources. Further, the externalities produced by human systems require higher levels of social functioning than these systems would otherwise have. Without adopting measures of self-regulation, the system is threatened by its own internal dynamics. In other words, human systems must mature beyond being an assemblage of self-interested actors to instead act in support of collective interests. This is a lesson from small villages yet to be applied to our other social contexts and to other commons. This requires transparent information sharing, communication, collaboration, and trust in institutions at local, national, and even international levels, among other features, that are all part of social capital.

The global community is only in the initial stages of identifying various commons and awakening to the necessity of creating higher forms of governance to adequately care for them. Parallel to the damage done to the ecological commons, social capital is also in need of restoration. Virtually every society of the world today is affected by social tensions, ethnic strife, and age-old conflicts. In more acute cases, issues of governance affect major re-

gions with mass migrations of hundreds of thousands in some cases to millions in others as victims of warfare, economic collapse, and pervasive corruption. Regarding the improvement of the commons, Mestrum (2015) concludes “the state will be needed to set norms and standards and to guarantee rights”. The fact that such government actions cannot be reliably found today despite the clearly degraded state of various commons shows the dire need for improvement.

Our analysis showed that modern leadership and governance are needed that promote trust in institutions and strengthen the social fabric. An ethos of restoring social capital, fostering greater unity and societal resilience, constructive action, and repairing relationships marred by historic tensions are our greatest needs. In addition to furthering our understanding of collective action, this implies new normative standards for the entities that influence our societies. These themes will be the subjects of future investigation.

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