How To Deal With One another—Hard or Soft Force?

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Abstract
A new, integrated model of social structure is developed and applied to how force and resources are used at the individual, organization and societal levels to achieve various ends. It is shown that this integrated, foundational model improves the understanding of human choices in application of force and management of resources. The model simplifies and streamlines the complexities and deficiencies faced in current theories. The case of the civil war is treated, and the findings are applied to violence reduction, identifying factors that influence individual orientation toward application of force and development of advantageous resource positions.

Introduction

Every society is built on humans interacting with the earth and with each other. The results can be characterized as political economy, but as we will show, that would only vaguely relate to the foundational aspects of human existence. Similarly, when interacting with the earth and with each other, there are always undesirable outcomes that at present are not understood and explained from a foundational point of view.

In assessing human interactions with the earth, one can consider the scale and extent of human influence on earth's climate and ecosystems [1-4]. In recent times such impacts have been so extensive that some assert that little is left in the earth that has not been influenced by humans [5].

Suggestions to improve human interaction with the earth vary widely. But one thing is clear. The bulk of human interactions with the earth manifests at the "business world," the producer and distributor of almost all goods and services that human masses use in daily life [6,7]. The business world is thus the creator of the lion's share of how humans influence and impact the earth [8]. Some reject the efficacy of the business world's market-based approach [9]. And in its place offer a different path through which everyone would develop a deeper philosophical understanding of the earth's "intrinsic values" [10]. Such approach has produced a maze that includes Bal Tashchit—Hebrew for "do not destroy",[11], "love" as essence of environmental ethics [12] and Rousseau's recipe of "reverie" as "blissful loss of consciousness of the self" to make humans whole with the earth [13].

Economists and ecologists pursue similar paths of value assign-

ment, for example declaring "natural capital" as the value to be preserved and managed properly [14, 15]. Complementing the value theories is the notion of protecting the earth through "planetary boundaries" within which humans would continue the current pace of production and distribution of goods and services. Such boundaries include chemical pollution, atmospheric aerosols, atmospheric CO_2 concentration, ocean acidification, stratospheric ozone, biogeochemical nitrogen cycle, phosphorus cycle, global freshwater use, land system change, and biological diversity [16]. In contrast, others express concern with human ability to manage such boundaries. As a vivid example, they point at the failure of the Kyoto strategy to slow down CO_2 emissions to address the global warming [17].

Though significant, in this article we are not concerned with what humans do to the earth, but what they do to each other when interacting. Even though one can make legal or psychological arguments as to when an individual becomes "human," it remains evident that regardless of the definition, humans constantly engage in acts that seriously harm other humans. Such instances of harm cover the full spectrum from very subtle to most blatant [18-24]. For example, throughout history, in acts of war, humans have harmed those labeled as "enemy" [20, 25-27]. Men have persistently viewed women as inferior beings to be exploited as sex object and free household labor [28-30]. In every society humans have consistently looked down on immigrants and refugees [31-34]. Other harmful practices have dehumanized humans and have treated groups of humans as if nothing but numbers [35, 36]. Along the same vein, humans continue to judge the relevance of many other humans only in physical or statistical terms [37, 38]. In the extreme, many societies have declared and treated groups of humans as nothing more than an-

imals [39-41].

All such harmful behaviors originate at application of force by one group of humans on another group of humans [39, 42-46]. This happens even though, interlaced with such behavior, humans also relate to one another cooperatively, supporting each other's lives. A diverse and extensive literature covers the cooperative and supportive behavior as "politics and economics." Many concepts and theories of "political economy" are offered, yet at present they do not provide a simple, holistic view of the political economy's foundational parameters [47-49]. As such, the purpose of this paper is to develop a simple, foundational view of human interactions traditionally characterized as political economy.

Traditionally, political economy is concerned with the economic, the political, and the relationship between the two. This leads to comparing, contrasting, and analyzing various economic and political ideas in narrow domains [50-52]. For example, it can focus on issues of *choice* and *performance*, highlighting the deliberations of the political elite and institutions as to how the legislated components of the economic system would be performing and the choices that people can have and exercise through legislative agents [53]. Or it would direct the focus on global conflict which declares the political economy as an interconnected structure made of five elements: "civil war, international war, size of the global economy, economic interdependence, and economic hegemony" [54]. In such orientations, the oppositional focus would describe "political economy as a prime site for hostile responses to the dilapidating effects of commerce on the virtue of citizens" [55]. None of these views provides a simple foundational model, and instead only create additional complexities especially through introduction of abstract concepts [56].

Without a foundational understanding of how humans interact with one another, the words "political economy" thus become an empty frame that could be filled in many ways. For example, Coram analyzes wealth inequalities and egalitarian voting power as political economy's components without saying anything as to what is meant by political economy [57]. Similarly, Acemoglu et al. analyze "political economy distortions" without a single mention of what is meant by political economy [58]. Lowi sets political economy as essence of every aspect of human life, yet the most that he delivers as definition of political economy is the assertion that "There is only *political* economy" [59]. Along the same lines of reasoning, some focus on what political economy *does* and not what it *means.* For example, Rosenberg states, "political economy builds on a view of human nature which is methodologically individualist. The individual is conceived to be a self-serving, rational agent who responds to situations by choosing the most satisfying course of action" [60]. In such models and analyses, the foundational question of what is the political economy does not get addressed.

In the following we will focus on developing a simple and foundational model of how humans interact with one another. This simple and foundational model would start with two dimensions. First, force and how it is applied on humans. Second, resources and how humans take resources from one another.

Developing A Foundational Model

It is plausible to assume that in daily life the world's foundational features are continually experienced by all humans even when they might lack a full awareness of the foundational aspects that affect human existence. For example, *force* is everywhere. It keeps the earth orbiting around the sun. It keeps atoms together in a molecule. It shoots a piece of metal out of the barrel of a gun. It allows humans to create force-based social structures [61-62].

Humans concentrate force in the form of police and armed forces and extend the concentrated force in the form of rules, laws and regulations. While we readily recognize the force that takes to throw a baseball, we often fail to see rules, laws and regulations as "force extensions," devices that direct human conduct and behavior with soft—extended force—that is backed by hard concentrated force. The hard force is the stuff of conflict. The extended force, the stuff of cooperation. The two *should be* symbiotically linked because in the conduct of daily life, humans in every society on earth prefer to deal with one another through force extensions, the laws, than to fight with swords and guns in order to settle an affair. But the use of the force extensions—the rule of law—is not a permanent arrangement in that human societies always remain ready to return to hard force when cooperation fails. This means that often the concentrated hard force and the extended force become dysfunctional, harming humans. When dysfunctional, the hard and extended forces do not watch out for each other as a symbiotic relationship would have demanded but become destructive as in acts of rebellion and war where the extended force network is abandoned and the hard concentrated force becomes the norm for directing and settling human affairs. All these dynamics are captured in the simple schematic of Figure 1.
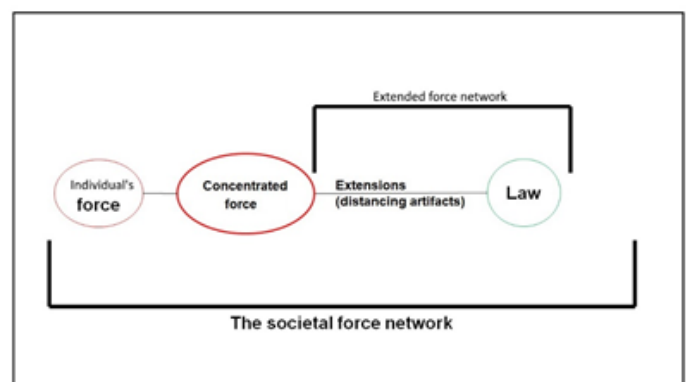

Figure 1: The foundational structure used in managing force when organizing and operating human societies [63].

When the force-based fundamentals of human life are not clearly understood, incomplete models are constructed for the social structure and human life. For example, instead of focusing on human capability of "force management," namely how humans concentrate and extend force, one might only see the "dark side" of cooperation as a temporary accommodation to only later engage in aggression and violence [64]. Such view misses the continuous continuum of force from hard to soft/extended and thus would underestimate the societal dedication that humans must

have in order to deal with one another through extended force. What difference would it make if cooperation is viewed as a temporary façade to later engage in direct use of hard force, or a purposeful attempt at moving away from the hard use of force in human interactions? The difference is in positioning the society's concentrated force both within the society and in relation to the other societies' centers of concentrated force.

Each center of concentrated force, namely the aggregation of police and armed forces sits at the foundation of the social structure that humans form as the state or the nation. If the society sees cooperation as a temporary façade for later aggression, then, as Hirshleifer has put it, it would constantly divert societal resources to acts of preparing to later engage in internal or external confrontations using the hard force [64]. This makes the extended force network secondary. When dealing with other centers of concentrated force, there exist the so-called international laws, but the primary focus of every society's center of force remains on the ability to use hard force against humans in other societies. Such orientation undermines the fact that the centers of concentrated force should only sit in the background as backup to the societal institutions that legislate, regulate, provide, and maintain the extended force network for human interactions.

In theory, what has been done for human individuals in order to interact through extended force could have been done for the centers of concentrated force when dealing with one another, but that has never happened throughout human history. Instead every societal concentrated force has persistently remained primitive and confrontational to the extent of being ready to vaporize the whole planet in a shower of nuclear weapons without any consideration of the masses of humans that are also getting vaporized.

By design, a center of concentrated force can be viewed in one of two ways. In the first, the hard concentrated force would be seen as the essence of human life. The second would declare the force extensions as the essence. With the force extensions as declared essence of human life, the only reason for having the societal concentrated force as backup to force extensions would be the human inability to design and manage the force extensions well. So far in history, humans have not been able to design and use the force extensions without having to back them by concentrated force. That inability makes the hard and extended forces inevitably linked in the social structure. In such an arrangement the order of priority and primacy becomes a human choice. The same is true in whether humans would choose to maintain the hard and extended forces as a symbiotic or a dysfunctional structure. At current levels of human capabilities, to manage the societal affairs and human interactions, hard force remains inherent in every aspect of life built on the extended force—namely the rule of law. Both the hard and extended forces are distinctly human-made. Hard force is inherently aggressive and destructive. Extended force is inherently cooperative and fluent. But like any artifact made and used by humans, every extended force has defects and can break down and in doing so invite the hard force to step in and manage the human affairs.

With today's knowledgebase, and today's ways of human behavior, in human societies the hard and extended forces should be symbiotically linked, but many times are not. Should human societies have a clear understanding of which of the two—the hard, or the extended—should be declared as primary when designing the operational aspects of the social structure? Or, would not addressing the question of primacy of the hard or the extended force, and as a result being surprised by dysfunctional outcomes like war, and in the extreme the nuclear war, be a better façade for human incapabilities? The option of maintaining the current facade of ignorance of primacy assignment, or taking the path of greater knowledge of force management is significant in that there is another influence in this societal arrangement, often treated separately. That is the *flow of resources* that humans need in the daily conduct of their lives.

Hard force, in isolation, is of little value. However, in relation to the flow of resources in human interactions, it becomes quite significant. Humans constantly use force to direct the flow of resources to their own advantage. We are so accustomed to force-based flow of resources that we often recognize neither the application of force nor the flow of resources. For example, consider brushing one's teeth. The act of placing the toothpaste on the brush needs the application of force to transfer a resource (toothpaste) to the brush and then with the force of up and down movements achieves a desired end, namely clean teeth. In this simple example, the resource "toothpaste" comes from other humans not by application of hard force but through extended force that balances the resource transfers among humans.

Many humans apply hard force to the earth material in the process of creating something like the toothpaste which is then *exchanged voluntarily* for resources provided by the user. Therefore, the social structure is not only a force-based system, but also a resource taking system. I take the resources of those that have created the toothpaste, and they take my money, a measure of the resources I am willing to exchange for the toothpaste. At the foundation the social structure thus possesses the characteristics of a "force-based resource taking system." It allows anyone to apply "extended force" to take from others or give to others in a voluntary flow of resources. The resource flows primarily take place within the "extended force network." We call the collective voluntary exchanges of resources within the extended force network the *marketplace*. The market is built upon and is a manifestation of the "force-based resource taking system."

What happens if humans are not aware of the force-based resource taking system? What theories would they construct to describe human behavior? Let us start with Hirshleifer and his view on primacy of hard force [64]. From his perspective, the extended force, namely rules, laws and regulations are temporary facades readily discarded given any opportunity for one-sided gains. Another similar theory offered by Coase observes that humans use force extensions and act cooperatively for mutual gain so long as the one-sided opportunities do not present themselves [65]. What is the difference between a view based on the "force-based resource taking system" and the views proffered by Coase and Hirshleifer? The difference is in orienting humans toward the question of primacy of hard or extended force.

Unaware of the force-based resource taking system one may fall into the trap of assigning the primacy to hard force and treating

the extended force as a façade. When doing so, certain outcomes are easy to predict. For example, the centers of force will always prepare to confront humans with hard force when force extensions are deemed ineffective or dysfunctional. Violent conflict becomes the fallback position and the norm when the hard force is viewed as essence of societal life. In this perspective we note that the specter of large resource losses accompanying any destructive behavior does not deter the utter violence inherent in the application of the concentrated force on humans and human-made structures. When humans set the hard force as the essence of life, arming many and engaging in war become rational responses.

The force extensions are human artifacts. They are no different than anything else humans make and use. Therefore, like all other artifacts, they can go stale, break down, and become ineffective. The force-based resource taking system allows humans to see that the societal life is a form of "boundary drawing" by groups of humans. Within the boundary the individuals abandon the direct use of hard force on other humans and transfer any use of their hard force to the society in order to create the society's concentrated force in the form of police and armed forces. The concentrated force in turn functions as the backing for the network of force extensions—the rules, laws, and regulations—within which the acts of resource taking can take place through voluntary exchanges of goods and services [61-62]. The success of this system is totally dependent on "management of force extensions." If force extensions are not managed well, some humans will always return to the direct use of the hard force to get the resources they need. The force-based resource taking system would label such humans as "criminals" and if caught would apply the society's concentrated force to them to at minimum take away their freedom to apply force and take the resources of others, thus the notion of prison.

What happens if half of the society decides not to obey the force extensions? This is the classic scenario for a civil war. In normal times the society's center of force backs the institutions that provide the force extensions to the citizens. How would a center of force behave when a major part of the society abandons the use of the society's extended force network? The typical analysis of this dilemma often focuses on the resource conditions that create it. It is known that the resource taking differentials—as in the powerful elite versus the masses—could bias the design of the force extensions in favor of the powerful and the elite, which can create resource position disparities that in turn would translate into relative power conflicts [66]. Our force-based resource taking model makes it clear that in any center of force confrontations, each side's success depends on the effectiveness of its resource taking. This aspect is especially visible in requirements to finance a rebellion [67]. With large-scale breakdown of the force extensions, rebels have to create their own version of the force extensions and compete with the original center of force. Such dynamics is most vivid when the state is weak and multiple groups set up their own centers of force. It decomposes the original center of force into multiple centers, each with its own extended force network seeking to remain stable and if possible overtake the competing extended force network of the others. In such a setting we note that the prime purpose of the force extensions is the protection than cooperation [68].

The rebellion competes for maintenance of a pattern of resource flows that would make the rebels' offer of security and protection valuable [69]. Since the rebellion's confrontation with a center of force is primarily about management of hard force, invariably the development and management of force extensions are pushed into the background. That is why often the absence or weakness of the force extensions would manifest as violence against civilians. This can be explained in terms of the rebels' center of force seeking to satisfy its immediate resource needs, especially through terrorizing the masses to prevent them from supporting the opposing center of force [70]. More foundationally, the force-based resource taking system, as shown in Figure 2, points at the scarcity of force extensions as the main cause. Instead of the resource taking processes taking shape voluntarily within a functional extended force network, they exist within a network of hard force. Violence is simply the outcome of the resource taking processes being managed in a network of hard force.
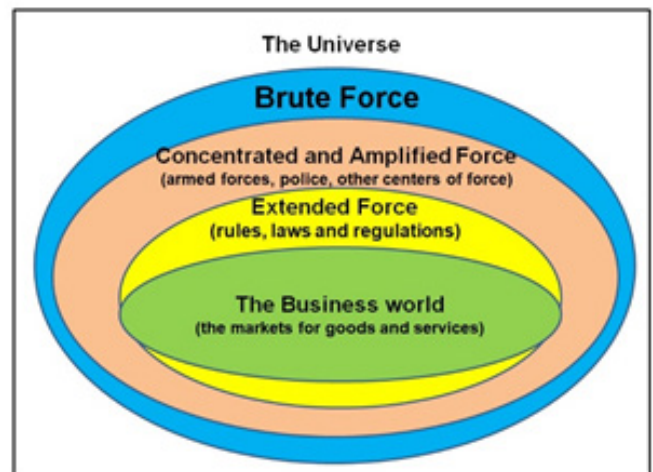

Figure 2: The foundational significance of recognizing that the business world can provide the goods and services for daily needs of the masses only if it is allowed to operate and exist within a functional extended force network [71].

A civil war highlights two factors. First, the centers of concentrated force, and second, the balance of hard and extended forces. Every rebellion is a social artifact constructed out of the concentrated force vying for supremacy with respect to another center of concentrated force. Such behavior is outlined by Hirshleifer [64]. When it comes to the center of force interactions, they all see the force extensions and cooperative behavior as a façade and comprehend only the language of hard force. By design, they cannot "not fight" when structurally threatened with hard force. From the point of view of the force-based resource taking system, the centers of force see no distinction between the external or the internal hard force challenges. They are built to function as fighting machines. True, in humankind's current knowledgebase they are a tool of creation and maintenance of the "extended force network" in which humans engage in cooperative acts of resource taking through voluntary exchanges, but in that setting the role of the concentrated force is explicitly understood as the fallback position when the extended force network becomes dysfunctional. While some theories seek to explain civil war in terms of resource flows [67-70, 72], we see it primarily in terms of "concentrated force management." When

humans confront each other with hard force, the resource flows only support and respond to the concentrated force dynamics.

In the force-based resource taking system, the application of force and the taking of resources are rational in that humans engage in knowledge processing to choose the goods and services they need through voluntary exchanges. The rationality equally applies to the duality of the hard or extended force in assignment of primacy. We may assign primacy to extended force, but we cannot fault the rationality of assigning primacy to hard force. Given the two possibilities, the rejection of one or the other reflects a lack of understanding of the physical link between the two in the choice to be made in the assignment of primacy to the hard or extended force. This lack of understanding at times produces strange composites of rational possibilities, for example, in descriptions like "rational madness" [73]. We see no such contradictions but simply the human choice of assignment of primacy between two physically linked possibilities: the hard or the extended force as the key driver of the human way of life.

It is suggested that seeing the social structure as an aggregate of hard force, force extensions, and resource taking processes is incomplete and higher levels of complexity and dynamics are involved [74]. The additional complexity emerges from the composite of humans and human-made things acting as "living-complexes" [75]. The simplest living-complex combines one human and one human-made thing, for example, a human and a car. A car by itself does only one thing: sit in one place, and given enough time, fall apart. The human alone has limited capabilities in carrying load and covering distances. But combined, the living-complex of car+human performs feats that neither human nor car can do on their own. Moreover, as highlighted by Korf, the behavior of the living-complex is beyond the driving rules set for the human and the specifications designated for the car [74]. We note the notion of complexity is not only at the human but also at the human-made thing. Both carry complexity and it grows with the number of humans and things combined in creating a living-complex. Thus, the centers of force are huge living-complexes that need to be understood well if humans are to excel in management of force and resources.

In this paper we have introduced the force-based resource taking system as an integrated and systematic model for managing the foundational aspects of human existence, namely force and resources. The balance of the hard and extended forces and the assignment of primacy to one or the other are critical aspects of force and resource management. In assessing our model's strengths and weaknesses we focus on civil war which applies hard force where normally the extended force is to reign. Today's normal society organizes its center of force as provider and protector of force extensions for its citizens. But instead of dealing with its rebels through force extensions or through reorganization of concentrated force, the society treats the rebels as outsiders and exposes them to the harmful effects of the hard force. By understanding the dynamics of such transitions in societal behavior we seek to develop a deeper understanding of the factors that prevent the direct use of the hard force and improve the efficiency and effectiveness of the force extensions.

Organizations In Extended Force Network

Our force-based resource taking model declares "not arming" or "not engaging in war" as impossible in social structures founded on the force-based resource taking system. Arming is an inherent aspect of force concentration, and the concentrated force is the artifact used to create and sustain the backing for the society's network of force extensions. War is a consequence of the breakdowns in the extended force network which return human interactions to the direct use of the hard force. Thus, instead of not arming and not having wars, the focus should return to efficiency and effectiveness of managing the force extensions and resource flows, especially if the human mindset has given primacy to the extended force in the physical mix of hard and extended forces. In every society the key organizational structures within the extended force network are the government and the business. Government manages and maintains the concentrated force and the force extensions. Business manages the voluntary exchange-based resource taking processes within the extended force network in order to produce and provide goods and services that human masses need in daily life. Business and government are physically linked and, in theory, should be symbiotically linked. Business needs an extended force network and government provides it. Government needs resources to create and maintain the concentrated and extended forces and does so by taxing the business's resource flows. One cannot exist without the other.

The organizations in the force-based resource taking system are living-complexes designed as resource takers operating within the extended force network. We should also add that the extended force network is not purely made of the force extensions. The force extensions emanate from the society's concentrated force and embed the organizations in an aggregation of rules, laws and regulations that are explicitly backed by the societal concentrated force. In addition to that, there is a residue of informal rules, expectations and constraints that originate at individuals and groups. They are "pseudo force extensions" in that they are not backed by the societal concentrated force. All pseudo force extensions constantly seek to gain the backing of the societal concentrated force to become part of the accepted rules, laws and regulations—to become "force extensions." Every organization is thus constructed out of a composite of force extensions and pseudo force extensions.

Every organization is a "resource taker." Every organization constantly seeks to manage the resource flows in ways that would give it a resource advantage relative to the others. Within the physical mix of hard and extended forces, every organization seeks to conduct the resource taking through arrangements that do not invite the direct use of the hard force. This is often characterized with terms like "markets" and "democratic institutions." Nonetheless, resource taking remains the existential essence of every organization.

Every organization is a "living-complex," a composite of humans and human-made things. Its behavior and dynamics are not defined by just the force extensions and the resource taking processes. As a living-complex, the key question is the *ways of control of humans and resources*—the governance structure.

The internal controls direct the actions of humans and things in the living-complex in ways that take into account interactions with external living-complexes.

From the force-based resource taking model's point of view, organizations emerge because the society organizes according to the force-based resource taking system. Each organization mimics the force-based resource taking system. It operates within an extended force network. It uses the extended force network to engage in acts of resource taking to create relative resource advantage. And it does so in the manner of a living-complex interacting with other living-complexes. If this holistic and foundational view is overlooked, one tends to return to the elephant and three blind men, seeing only fragments of the force-based resource taking system. For example one may note only the input-output flows of the organization and thus declare resource efficiency as organizattion's prime characteristic [76]. Or, recognizing that resource taking has revenue and cost components, one may characterize the organization as an entity focused on cost minimization or revenue maximization. Or, one could focus on the control structure and, noting its hierarchical order, characterize the organization in terms of the control differentials that translate into internal or external power differentials [77]. Such characterizations only describe aspects of the force-based resource taking system. Our definition of the organization as a force-based resource taking system, we believe, is more constructive. It provides an integrated, holistic view of the foundations of human existence through managing force and resources. It does so without using vague parameters such as constraints and opportunities [78, 79].

What else can we learn from the civil war using the force-based resource taking model? In normal times organizations operate in the extended force network, engaged in voluntary resource taking transactions that produce and distribute goods and services. The arrangement carries the illusory absence of the hard force. Civil war, where every aspect of life is primarily arranged through application of hard force, obliterates that illusion by making the extended force network irrelevant and at best dysfunctional. The rebels no longer adhere to the force extensions backed by the society's center of force. As a result, in that setting, in some measure, all organizations shift from the extended force to the hard force. The degree of shift from the extended to hard varies. It can be minor if the rebel group is small and major if the rebel group is large. Even those remaining loyal to the center of force are not immune from this shift as they are linked to rebels through the business's resource flows.

During conflict, the centers of force may negotiate and adopt certain force extensions as common. Noting that the concentrated force differentials are the key determinant in any conflict, the tendency has always been to undermine or ignore the force extensions. The application of the hard force, characterized as rule of violence, takes precedence over the use of the force extensions that imply cooperation and are characterized as civilized behavior and the rule of law. The greater the intensity of the use of the hard force and the longer the duration, the more the extended force network will become dysfunctional and humans would have to deal with one another through hard force [74]. We emphasize that this outcome has more to do with human inabili-

ty to manage extended force than with anything else.

In the force-based resource taking system, the concentrated force is like a large pool enclosed by the walls made out of the force extensions. Wherever there is a crack and the hard force leaks out, humans experience what is known as violence. One can blame the pool of the hard force, but that is not logical. We have already made the point that human life without hard force is not possible. The point of blame must thus rest at the lining of the pool, namely the force extensions. The human inability to manage the force extensions, and the inclination to assign primacy to hard force increase the possibilities for the direct use of the hard force and the presence of violence. One can view the conflict in terms of the two warring sides using the hard force and undermining the force extensions, but it is more constructive to see it as humans "incapable of creating and maintaining the force extensions." The force extensions are artifacts no different than any other thing that humans make and use. We readily recognize the inability of a society to make airplanes or send humans to the moon. The same recognition must be applied to the force extensions. They are not things that every society can make and use successfully. This allows us to observe that violence is not embedded in the human condition, even though the hard force is. It is the deficiencies in application of the extended force in the resource taking processes that create violence. The extended force is a method of converting the violence of the hard force into the soft, voluntary exchange of resources through force extensions. The awareness that force can be managed as hard or extended, and the knowledge that the extended force is more supportive of human wellbeing in any resource taking process make "skillful management of force" essential to humankind's existence and wellbeing.

Our force-based resource taking model also provides a better view of the rights and duties. In the force-based resource taking system the rights and duties are *force-defined and force-protected* conditions—they are force extensions. The rights and duties are not directly linked. For example, the center of force can remove the right while keeping the duty. This means the management of rights and duties is another aspect of managing the extended force network. Thus, in times of conflict, when the extended force network becomes dysfunctional, the notion of arguing from the point of view of "rights" is illusory. Arguments from the point of rights presume the primacy of force extensions over hard force and are selectively focused on some slice of the extended force network. Such behavior has minimal value when the extended force network is dysfunctional and the hard force rules.

Along the same line of reasoning we need to be careful with the notion of "legitimacy." In our force-based resource taking model legitimacy means "alignment with the force extensions," or, when the force extensions become dysfunctional, "alignment with the mandates of the hard force." In conditions of civil war, legitimacy becomes largely an alignment with the mandates of the hard force. We see such shift as an inherent aspect of the force-based resource taking system. When the extended force network collapses, hard force is the only alternative for managing human affairs. We continue with the belief that improvements in human ability to manage the extended force and the

assignment of primacy to the extended force constitute the best approach to managing force and resources in any society.

Business And Center Of Force Linked
In the force-based resource taking system, organizations are complex arrangements of force and resources. They operate within force extensions and engage in resource taking. They optimize by emphasizing one or the other, giving operational priority to the force manager or the resource taker. The force managers focus on force concentration and maintenance of a functional extended force network. This, in aggregate, we know as government. The resource takers operate within the extended force network and their primary purpose is to create positions of resource advantage through production and distribution of goods and services. This, in aggregate, is the business and its wealth creation processes.

Government and business are dynamically governed, physically connected, and should be symbiotically linked. They cannot exist and prosper without one another even though each seeks to improve its resource and force positions at the expense of the other. Business seeks to maximize its resource position and give the least to government. Government seeks to extract the most from business to direct toward maximization of the concentrated force and stabilization of the extended force network. In this battle, the force extensions dynamically adjust as business and government living-complexes evolve over time [80, 81].

The force-based resource taking system is inherently a "plunder and protect" system. The extended force network replaces the "plunder system" that otherwise would be built on the direct use of the hard force. The plunder is softened and takes place through the voluntary exchanges. In this setting protection comes from two angles, first the plunder having to align with the force extensions and second, the plunder being conditional on providing goods and services. This means the wellbeing of the force-based resource taking system is founded on the human individual receiving the needed goods and services. This brings into play a difficult to manage communal aspect. It raises questions similar to the primacy of the hard and extended forces; the question of how the society should orient the resources taking activities in relation to the goods and services produced and distributed. Should the resource taking process focus on serving the wealth-seeking needs of the individual resource taker—the one that manages the production and distribution of the goods and services, or the community—the collective of the recipients of the goods and services?

We have noted the prevailing human tendency to place primacy on the hard force. There is also a strong tendency to serve the individual resource taker rather than the community. In civil war, at any societal position, the emphasis is on the individual survival, even though as shown by our force-based resource taking model, the wellbeing of every individual depends on the wellbeing of the extended force network that in turn optimizes the wealth generation and the production and distribution of goods and services.

Conclusions
We have introduced the force-based resource taking system as an integrated, holistic, and systematic model of the social structure and have demonstrated its foundational value in managing force and resource flows. We have shown that human life is a force-based system, always exposed to the direct use of the hard force. Furthermore, within the force-based structure, the human life always takes shape in confrontations of resource takers, each seeking to improve one's resource position relative to that of the others. Force is the tool for doing so. The "extended force" is a human artifact created in order to engage in acts of resource taking without having to resort to the hard force. It is a strategy of minimization of harm to the individual and the society.

The application of the hard force on humans is always accompanied by harm and violence. Such possibility has a constant presence in human life because hard force is central in every aspect of human existence, and the extended force is an artifact far from perfect. The only factor that changes the threat of application of hard force is the "degree of extension" applied to the hard force. The more extended the social structure becomes, the more human life would be devoid of violence and away from threats of violence. And that can only happen through maximization of the societal knowledgebase. It is "knowledge" that creates the artifact "extension." Without knowledge humans become animals only capable of dealing with one another through hard force. The extended force, without exception, originates at a knowledge-driven process.

We have highlighted the fact that the assignment of primacy to hard or extended force is crucial to the mindset that creates and manages the social structure. The more humans lean toward the primacy of the hard force, the more they will spend significant portions of the societal resources on concentrating hard force. The more they spend resources to maximize the concentration of hard force, the more they will bring into existence situations of intense violence regardless of how valuable human life in the extended force network may have seemed. Given the direct link between the hard and the extended forces, the assignment of primacy to the hard and the extended forces is a rational human choice. Yet, the outcome is radically different. One amplifies the center of concentrated force; the other shrinks its size and instead amplifies the effectiveness of the force extensions in serving human needs. The center of concentrated force would never disappear from the force-based resource taking system, but as a human choice, its size can be reduced.

In the force-based resource taking system humans are always engaged in "resource wars." The purpose of such confrontations is to determine the pattern of production and distribution of goods and services among humans. The resource wars can be conducted in violent format using the hard force, or in soft and voluntary format using the extended force. The battlefield would always exist because every society inherently is a "society of resource takers" and a "society of force appliers." But the extended force network can alter the battlefield to a field of "force extensions." We have pointed out that the hard and soft strategies are physically linked. The hard strategy always lurks in the background of the soft strategy and humans must strive to develop the skills that would keep the hard strategy in the background as long as possible.

We note that the soft to hard transition can take place very quickly. This implies that the extended force network is a fragile structure whose maintenance needs substantial attention from every player within the field of the force extensions. The force-based resource taking system can readily flip from soft to hard, but the reverse takes much longer as it requires an effective and efficient extended force network for producing goods and services. It is much easier to destroy using the hard force than to build using the soft force of the force extensions. This makes our article's initial question of human orientation toward primacy of the hard or extended force even more crucial to human wellbeing.

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