The Problems of Consciousness Now:

How the Unanswered Questions of Consciousness Can Guide Social Reform

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Introduction

The shapes of our societies reflect the shapes of our minds. It is important to remember this as we face life-altering challenges tied to climate change; social, political and economic transformation and artificial intelligence's Pandora's Box. Virtually every social construct— be it a government, a cultural custom, or a moral code — was created by conscious humans, and these conscious humans rely on their creations to sustain their conscious lives and fulfill their potential. It is inevitable that the nature of these minds, including the phenomenon of consciousness, would impact on the nature of the social structures they create—and vice versa. Of course, the nuances of how one affects the other can be hard to discern, but these relationships have existed since the beginning of human civilization. Moreover, the digitization of human existence, with near-instant global communication, intricately woven social networks and Brobdingnagian data banks on human behavior, is deepening these connections and making them more observable. It may be possible to develop principles for diagnosing the viability of a society by gauging how well that society enables, or hinders, the consciousness of its citizens. In other words, we can critique societies on their effectiveness as consciousness-augmenting tools.

Proposing a system to diagnose the health of societies, harnessing insights into consciousness no less, sounds like an unrealistic ambition. After all, shamans, philosophers, artists, doctors, psychologists and artificial intelligence researchers have sought to explain consciousness for millennia, and yet –as of the writing of this essay—it remains largely an ineffable mystery. However, the questions about consciousness that remain unanswered may be just as useful as the questions that have been answered when studying a society. For example, unanswered questions about consciousness show us what humans, and the societies they create, do not know about their own nature. This gives us insights into what a society can, and cannot

do, and where it is vulnerable. Much like the "X" variable in a well-defined math equation, mysteries like unanswered questions about consciousness can be turned into diagnostic tools.

Given that perspective, this essay will make four arguments regarding the viability of societies given our current state of understanding consciousness:

- *The First Argument*: Lingering mysteries about consciousness—be they temporary or perpetual—create theoretical limitations to a society's moral authority: much like Werner Heisenberg's Uncertainty Principle for quantum physics or Albert Einstein's Speed of Light limit for special relativity. Moral systems are informed by an understanding of human nature and the human condition, which themselves are defined by the phenomenon of consciousness. If we don't understand consciousness, then we don't fully understand human nature and the human condition, which means we can't be 100 percent certain our moral principles are valid. If a society cannot be 100 percent certain of the morality of its actions, it cannot definitively claim it makes the most moral decisions for its citizens.
- *The Second Argument:* If a society cannot be 100 percent certain of the morality of its actions, the best way to boost the odds is to maximize the mental resources it has available for making decisions and solving problems. That means maximizing the mental agency of every available citizen and optimizing their contributions to problem-solving.
- *The Third Argument:* For any society to maximize the mental agency of its citizens and optimize their contributions, it must meet certain criteria and address

certain needs. These needs and criteria can be formulated into design principles by which societies can be critiqued.

- *The Fourth Argument:* These design principles can be used to diagnose different societal crisis situations and guide reform.

To make this case, the essay will engage in four broader discussions:

- *The first segment* will discuss the mystery and ineffability of consciousness and its impact on moral certainty and authority.
- *The second segment* will discuss the feasibility of developing social design principles for maximizing conscious agency.
- *The third segment* will apply these principles to define different categories of crises where societies or social structures hinder or threaten the consciousness of its citizens. This segment will suggest naming such crises "PoCNows" (Problems of Consciousness Now), applying David Chalmer's characterization of "easy" and "hard" "problems of consciousness" to societies[1].
- *The fourth segment* will discuss what citizens must do themselves, individually and together, to maximize their mental agency.

[1] Chalmers D. (1995) Facing up to the problem of consciousness. *Journal of Consciousness Studies*. No. 2 (3). p. 201.

The essay will conclude with a discussion about the challenges of applying abstract concepts to real-life societies, and of the important role philosophers of consciousness play in affirming human dignity.

Moral Authority and the Mystery of Human Consciousness

The Growth of Social Accountability and the Need for Good Justifications

Consider the plight of your average gameshow contestant: sitting on a chair in front of millions of viewers, performing some task that is ultimately graded by judges or even by the audience. With each graded task, there is the chance that the gameshow contestant can lose and immediately get ejected from the show. This is the theoretical situation every leader or government faces with their citizenry. It is the game of the social contract, of accountability. Now, the circumstances are, of course, different in real-life. The leader might have an army, or the backing of wealthy cronies or criminal organizations or simply might not be up for election for several years. The chances of being immediately ejected are low, as are the chances of every decision somehow being questioned. Nonetheless, there will always be this theoretical potential, this implicit decision by the citizenry: accept or reject. And technology is slowly bringing reality closer to this potential, granting citizens the ability to monitor, communicate and organize in real time.

Inevitably, this will ratchet up the pressure on leaders and governments to justify their positions of power. They can use brutish arguments like they are the only game in town, or "embrace us or else." Such arguments rely on practical, physical situations that grant the leaders a demonstrable advantage. However, such situations don't last forever. The arguments that can be applied to a wider range of situations, and that have a chance at winning the hearts and minds

of citizens, are those centering around decisional authority based on competence or morality. We should be in power because we can make the best decisions for you. We should be in power because our actions are the most moral. However, there is a problem, or at least a catch to such arguments. Due to lingering mysteries and unanswered questions about the nature of consciousness, such arguments are impossible.

That's not for lack of trying. For millennia, brilliant people have devoted their lives to answering questions related to the source and the nature of consciousness. It is perhaps one of humanity's oldest, and one of its most important, intellectual endeavors. Unfortunately, it is also one of humanity's hardest. If you consider the broad panoply of intellectual paradigms developed to explain consciousness, you might recognize a pattern similar to the blind wisemen guessing the nature of an elephant based on the body part they were touching. Robert Lawrence Kuhn's taxonomy of the field describes no fewer than 225 theories, from 10 different paradigms including materialism, non-reductive physicalism, quantum theories, integrated information theories and theories about anomalous and altered states[2]. These theories search for consciousness in sources such as brain structures, neurochemical reactions, quantum fields, mathematical structures, and the universe—which may or may not be an illusion. There are even theories arguing that consciousness does not exist. This intellectual array is a testament to the

[2] Kuhn, Robert Lawrence (2024). A Landscape of Consciousness: Toward a Taxonomy of Explanations and Implications. *Progress in Biophysics and Molecular Biology* 190 (August 2024):28-169.

creativity and dedication of academics to the subject matter. It is also a sign that we are nowhere near a clear consensus on the issue.

The Relation Between Theories of Consciousness and Morality

These lingering mysteries make ripples. Consciousness is a lynchpin of both human nature and the human condition. Many moral systems are founded upon some understanding of both of these subjects. Thomas Hobbes envisioned human nature to be cruel and selfish, and consequently a danger to be safeguarded from via strict social structures[3]. Meanwhile, Aristotle claimed that the highest function humans possessed was reason, and that achieving excellence in this function was the key to virtue[4]. John Stuart Mill qualitatively divided happiness into different categories and made them into overarching goals to guide all our actions[5]. Immanual Kant argued that the human mind, particularly its capacity for reason, was the source of all morality[6].

Indeed, theories of consciousness can have profound impacts on moral systems. After all, consciousness is considered by many philosophers to be a key element for establishing moral status, or the right to certain kinds of moral treatment, as well as for moral responsibility and

[3] Hobbes, T. (2008). *Leviathan* (J. C. A. Gaskin, Ed.). Oxford University Press.

[4] Aristotle. (1998). *Nicomachean Ethics*. Oxford: Oxford University Press.

[5] Mill, J. S. (2002). *On Liberty*. Dover Publications.

[6] Kant, I. (2004). *Critique of Practical Reason* (T. K. Abbott, Trans.). Dover Publications.

moral knowledge[7]. In other words, in order to make moral decisions, understand morality or make moral complaints, you need to be conscious. Of course, moral arguments are regularly made regarding the treatment of animals, plants and even inanimate objects—but the arguments are made to conscious actors. The importance of theories of consciousness to moral systems will also grow as technology broadens the variety of conscious experience and actors, with ever-evolving artificial intelligence systems and brain implants.

One of the most powerful impacts theories of consciousness can have on moral systems involves the answers they provide to basic questions about the human condition. What is a person? What is the ultimate good or harm that can be done to a person? What is the purpose of a person? (This final question will have other ramifications later.) Whether you view consciousness as a neurobiologcal reaction, a soul, an information processing algorithm or a fundamental quantum phenomenon will lead to different answers to these questions and will influence the values you espouse. In some cases, the impact can be profound, such as moral issues tied to treatment of brain-dead patients, abortion, gender identity and capital punishment, among others. Your view of the importance of every person's consciousness can also shade your perceptions (and degree of outrage) over economic conundrums such as sweat-shops, child labor and abusive practices in rare earth mining, and so on. An argument can be made that the proliferation of different, and often opposing, moral codes may lie in part to a lack of consensus on the nature of human consciousness, and therefore, lack of consensus on the human condition.

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[7] Shepherd, J., & Levy, N. (2020). Consciousness and morality. In U. Kriegel (Ed.), *The Oxford handbook of the philosophy of consciousness* (pp. 654-672). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780198749677.013.30

This doesn't mean that humanity is facing some kind of moral crisis due to not understanding consciousness. This lack of consensus on the human condition and human nature has been the status quo for millennia, and we have been able to make do—more or less—with our intuitions, our arguments, and our fights. However, it does create a kind of theoretical limit to moral certainty, much like the aforementioned Heisenberg's Uncertainty Principle does for quantum mechanics and Einstein's Speed of Light Limit does for Special Relativity. If you can never be 100 percent certain what is a person, or what are the greatest goods or harms that can be done to them, and so on, then you can never be 100 percent certain that any moral system is correct. Again, individual human beings can make do, but societies cannot. Every decision and action that a society takes requires juggling multiple interests, factors and priorities, and that regularly means weighing different options. If a society's leadership cannot be 100 percent certain about the moral system used to decide greatest goods and harms, it cannot be 100 percent certain that it is making the best, or the most moral, decisions for its citizens. No society can make a claim to absolute moral authority, period.

Of course, this is not the only reason why a society or its leadership may lack knowledge of what is best for its citizens. The leadership could be lazy or inept and not have their finger on the pulse of their citizens' needs or wants. The leadership may not care. There could also be practical reasons, such as physical distance or lack of communication infrastructure or chaos due to a catastrophe. However, even if the leadership was infinitely motivated and could invent some kind of Universal Polling Machine granting complete knowledge of all the wants and needs of every citizen, that knowledge alone could not guarantee 100 percent that the leadership would make the best decisions. They would still have to process all of this information using some kind

of moral principles, which would never be 100 percent certain due to lack of complete understanding of consciousness.

The Need to Maximize Mentality, and Problem-Solving

These points may sound obvious, and also like splitting hairs, but it places a specific kind of onus on societies and their leadership. When faced with fundamental moral uncertainty, there is really only one recourse: maximize the agency of every available mental resource and ensure that a society's structures maximize their contributions. In other words, every available citizen has to be engaged somehow in a society's decision-making and problem-solving. No single person or group of people—no matter how qualified—has a mental capacity or problem-solving capability that exceeds that of the entire citizenry, and so cannot claim any kind of decision-making prerogative that excludes input from the rest of the populace. It's all or nothing. There are no just societies, only societies that try their best to be just by engaging every available unit of mental processing power (including human individuals) at its disposal.

Some might argue that this is a situation with a foreseeable end, for example the eventual solving of the problem of consciousness. Any discussion over the remaining duration of these mysteries gets tricky. A number of philosophers ascribe different layers to the mystery of consciousness, with differing degrees of difficulty—and possibility of solution. There is, of course, the famous "easy" and "hard" problems of consciousness articulated by David Chalmers[8]. Chalmers described the "hard" problem of consciousness as the effort to explain why, and how, humans have phenomenal consciousness, with qualia and subjective experience[9]. The "easy" problems, he described, were explaining all the other mental processes that can come with

[8] Chalmers. Facing Up to the Problem, p. 201-203.
[9] Chalmers. Facing Up to the Problem, p. 201-203.

this subjective experience, including "the ability to discriminate, categorize and react to environmental stimuli," "the integration of information by a cognitive system," and "the reportability of mental states[10]." Philosophers who agree, more or less, with this characterization include Joseph Levine[11], Colin McGinn[12] and Ned Block[13].

Consequently, it is anybody's guess whether further empirical work, theory development, question-framing or something else entirely will solve the hard problem of consciousness. It's also anybody's guess as to when this might happen. Moreover, lingering mysteries of consciousness not only involve the what or the how, but the why. For some thinkers, what we ultimately decide to do with our conscious lives is just as significant as its origin and nature—and this is a question that can only be decided by each person individually during the course of their lives. New humans, and consequently new potential answers, are born all the time and will continue to do so for the foreseeable future. Consequently, some questions regarding consciousness might be answered in years or decades, while others might take even longer than that. Some might never be definitively answered.

Consequently, the issue of uncertain moral authority may be a perpetual challenge for societies, one that citizens and social engineers must perennially address in the design of social institutions. This is where paying attention to how social structures and citizen mentality interact becomes important.

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[10] Chalmers. Facing Up to the Problem, p. 201-203.
[11] Levine, J. (1983), Materialism And Qualia: The Explanatory Gap. *Pacific Philosophical Quarterly*, 64: 354-361.
[12] McGinn, C. (1999). *The mysterious flame: Conscious minds in a material world.* Basic Books.

[13] Block, N. (2009). Comparing the major theories of consciousness. In M. S. Gazzaniga, E. Bizzi, L. M. Chalupa, S. T. Grafton, T. F. Heatherton, C. Koch, J. E. LeDoux, S. J. Luck, G. R. Mangan, J. A. Movshon, H. Neville, E. A. Phelps, P. Rakic, D. L. Schacter, M. Sur, & B. A. Wandell (Eds.), *The cognitive neurosciences* (4th ed., pp. 1111–1122). Massachusetts Institute of Technology.

Society and Mind, and Consciousness: A Design Problem

Social Toolmakers on Planet Tabula Rasa

So, what exactly is mental agency supposed to be, and why does it matter? To answer these questions, let's consider a thought experiment based on a popular science fiction scenario: a group of amnesiacs deserted on a remote planet. We shall call this planet Tabula Rasa. Either due to an experiment, some malefaction or a spaceship crash, a few hundred people have been isolated on this planet with all of their memories wiped. They are blank slates—aside from basic survival instincts, they are devoid of all knowledge of their previous lives as well as all general knowledge of subjects such as math, science, culture and so on. However, they retain the capacity to learn and develop these concepts should the need arise. How would they work together to survive?

If they are to collaborate, they will have to create many of the social institutions that we take for granted. They will have to invent the idea of the group to avoid fighting and actually work together. They would develop communication to share information and coordinate their actions, and then language to make their information sharing more precise. Some kind of writing will help improve the duration of this shared knowledge. Laws will allow them to regularize their behavior amongst each other. Along the way they will probably experiment with multiple systems for enabling group decision-making and problem-solving— in other words, governments. Essentially these Tabula Rasans would do everything our earliest ancestors did over the centuries: invent a human society.

Because they are blank slates and everything they develop will be new to them, the Tabula Rasans will likely be more flexible with their social creations than we are. For us

Earthlings, tinkering with our social institutions is harder because of millennia of history and context. Such context is not intrinsically a bad thing, it allows for rich and nuanced cultural debate for instance, but it discourages us Earthlings from being coldly objective, and well, heuristic, with our social institutions. Tabula Rasans, due to their state of zero knowledge and their pressing survival pressures, will have to be brutally hard-nosed about their social constructs. In some ways, they would be like first responders at a disaster location creating a crisis command center. Every social construct they use must be a well-oiled emergency epistemic device.

This laser focus on epistemic efficacy is where we get our first insights into mental agency. The Tabula Rasans will have three major priorities: addressing survival needs; answering questions and solving problems. Very often, they will have to address two or all of these priorities at the same time. Every question, big, small, pressing or otherwise, could have huge survival value. For example, questions about current threats and sources of shelter and sustenance are obviously worth immediate attention, while bigger-picture questions about who or what they are, and why they are on this planet, could help them prepare for future needs and dangers. As far as the Tabula Rasans are concerned, there are no stupid questions, only operational challenges related to answering the most questions efficiently, and at the right time. That means they need every bit of data-gathering, information-processing, decision-making and problem-solving potential from everyone. That means everyone—they can't afford to waste a single iota of mental capacity that can contribute to their survival odds. On this planet, there will never be a good reason to either ignore, or give undue precedence to, any person's input.

But how can the Tabula Rasans maximize such mental agency? Firstly, they will have to figure out how to balance decision-making work with all the other duties, like building shelters,

gathering food and protecting against various threats— for everyone. Secondly, they will recognize the survival value of improving their operations as they grow in experience and knowledge. No construct, custom or concept can be sacrosanct in the face of improved data or evolved circumstance. This includes growing insights into how their minds operate. They will recognize that debates work better with people not talking over each other and that certain mnemonic devices will help them remember key survival information during crises, and so on and so on. Essentially, they will discover—bit by bit—the psychological and social sciences as well as principles of organizational engineering. They will apply what they learn to the design of their social institutions.

Since the Tabula Rasans are human like us, their path of discovery in this area will likely mirror ours in some respects. For example, sooner or later, they will experience the issues of the "easy" and "hard" problems of consciousness as articulated by Chalmers and others. In their efforts to research and understand human mentality, they will likely experience periodic success in some areas, such as those related to the mental processes that accompany consciousness, such as sensation, memory, logic and so on, but remain at a loss with regards to explaining consciousness itself. In other words, they will be exactly where we are on the subject here on Earth.

They will then, like us, have to decide whether consciousness, from a design standpoint, is a worthwhile concept to consider when experimenting with social constructs. Why not just focus on the "easy" problems related to mentality and use what they learn in this area to periodically improve their society on Tabula Rasa? However, perhaps unlike us, the Tabula Rasans would be less fazed by the ineffability of consciousness because they already have experience working in a state of zero knowledge. It is simply another mystery to work with

because, whether they understand it or not, they know the phenomenon defines their existence. But how do you account for a characteristic that you cannot describe?

Borrowing Intellectual Tools from Different Fields

It will never be easy designing social institutions to account for the phenomenon of consciousness. However, we may be able to borrow approaches from other fields to make it more effable. For example, there is the concept in art and architecture of negative space, which imbues the empty, undefined spaces around objects with meaning. In astronomy, scientists often look for unseen celestial bodies by watching for the effect their gravitational fields have on bodies that can be seen. Mathematics may provide a number of useful tools for visualizing consciousness. We already discussed the idea of the "X" variable earlier, where we visualized unanswered questions about consciousness as a specific unknown that could help us theorize what societies can and cannot do. This allowed us to develop the idea of fundamental moral uncertainty. Consciousness can serve as an "X" variable in a number of visualization exercises, where you try to discern its nature by the effect it has on phenomena you can see. One interesting avenue would involve observing the nature of virality, attention culture, Zeitgeists and trends to look for clues regarding consciousness. Understanding the traits and processes that enable a meme or idea to travel through a population of different individuals can give insights into what triggers consciousness.

Another potentially potent tool from mathematics could be the idea of infinity, particularly as it applies to infinite limits and infinite series. If you visualize consciousness, or the knowledge of consciousness, as an infinite value that you always approach but never quite reach, it may become more intellectually tractable. This concept of a value you always approach but never reach is called by mathematicians an infinite limit, and it can be used as a principle for

designing social constructs that can evolve as our knowledge of human mentality grows. For example, social systems can already account for—in varying degrees—the fact that humans use language, have memory and possess a capacity for reason. Bureaucracies, organizational systems, and theories about business and marketing are built on such minimal models of human mentality. But what about organizational systems that can account for creativity, divergent thinking, intuition, non-neurotypical individuals or even altered states of consciousness? Can you imbue social constructs with mental scalability?

A related concept using infinity is the infinite series, where you look for the sum of an infinite number of related values. An analogue of this idea could be very powerful in accounting for the unique mentality of each individual. If you treat each individual's consciousness as a sum of such infinite values—be it unique thoughts and experiences, potential creativity or perspectives, or idiosyncratic decision processes—you can design social structures that can allow for the wondrous panoply of human mentality. Of course, the concept of infinity may prove impractical, maybe even impossible, to apply in detailed social designs. Even so, the concept has value as a reminder for intellectual humility, much like the admonition Hamlet had for Horatio in Act 1, Scene 5 of William Shakespeare's *Hamlet:* "There are more things in Heaven and Earth, Horatio, than are dreamt of in your philosophy[14]."

Three Basic Needs and Three Basic Principles

With the intellectual toolkit now afforded to us, we can develop a list of basic needs and design principles for societies that maximize their mental resources to address fundamental moral uncertainty. The easiest way to do this is to discern where the basic needs of a society and

[14] Shakespeare, W.. *Hamlet*. Bevington, D. (Editor) New York: Bantam Books, 1988.

the conscious agency of its citizens intersect. In other words, what are the most basic needs that consciousness addresses for society, and what are the most basic needs that society addresses for the phenomenon of consciousness? These needs will be very simple, and rather obvious, but they will be essential for both stakeholders in this equation. They are also discernible without a deep understanding into the nature of consciousness.

There are three such needs:

1. **Life (Survival)**
2. **Data**
3. **Problem-Solving**

Further explanation of these needs is as follows:

Life: The basic need of life, for survival, is the impetus for nearly everything else. It also goes both ways. Consciousness enables the survival of the individuals who comprise a society, and when they apply their consciousnesses collaboratively, it enables the survival of the society. Societies, in turn, enable the survival of the phenomenon of consciousness, first, by enabling the survival of the individuals who possess consciousness, and second, by promoting the conditions that enable the phenomenon to thrive. Such conditions would include time to think, resources for education and food, safety and health resources to enable unhindered mentality.

Data: As far as we know, data in some shape or form is an essential building block for consciousness, be it a simple sensation, experience or something more complex. It is certainly essential for all the processes related to consciousness that enable it to contribute to the survival of the individual, and of society. Society, in turn, provides the resources and conditions that allow its individual citizens to gather the data they need to contribute.

Problem-Solving: Problem-solving is what consciousness does with the data, and how it contributes to survival. Generally speaking, this activity can cover all the thinking, deliberating, debating, deciding, planning, and all other mental activity that individuals and groups do to survive. Societies in turn provide the resources, conditions and processes by which their citizens can most effectively solve problems. This would include all the customs, rules, language and communication quirks, as well as deliberative and governmental procedures that would enable problem-solving.

This list of needs, clearly, is not comprehensive. More examples will undoubtedly be identified as we learn more about human mentality. There is also a wealth of insight to be found in the millennia of research, literature, philosophy and art devoted to human society. Humans are not strangers to the contemplation of society, nor of consciousness. What is perhaps rare is the analysis of these insights through the lens of a technical support person addressing customer complaints about tools of consciousness. The important point for this discussion is that these three basic needs, if nothing else, must be met so a society and the consciousness of its citizens can have the best odds for survival. Both consciousness and society can be viewed as symbiotic in this way. Societies can thus be diagnosed on whether, and possibly how well, they address these basic needs.

We now have a set of parameters for building viable societies, based on how well they enable conscious problem-solving: the principle of moral uncertainty; the resultant impetus for maximized mentality in a society and the three basic needs necessary for enabling this maximized mentality. Societies that meet all parameters would follow three basic principles of design.

These principles are:

1. **The Principle of Integrality of Consciousness**
2. **The Principle of Optimization of Problem-Solving**
3. **The Principle of Valid Function in Social Structures**

Further explanation of these principles are as follows:

The Principle of Integrality of Consciousness: Every individual consciousness must be treated as a sovereign, independent agent, free of control and definition by others, so long as the behavior of the individual doesn't threaten the safety, sovereignty and independence of any other consciousness, or the safety of the society. This is necessary because the principle of moral uncertainty makes it impossible to judge the rightness or wrongness of an individual's mentality, experiences or personal decisions. This may translate into a consequentialist argument in favor of the freedoms of thought and pursuit happiness as well as diversity and tolerance of different identities, genders, personal beliefs and lifestyle choices. However, it is not a justification for absolute freedom in how an individual contributes to a society's problem-solving. For example, if a society is facing a water drought emergency, the individual isn't free to ignore it and decide to discuss laws related to outdoor home décor. Instead, this is an admonition against enforcing any kind of conformity of mentality or assigned neurotypicality.

The Principle of Optimization of Problem-Solving: In order to sustain its long-term survivability against evolving risks, a society must commit to one overarching standard for all of its social constructs: whether the design offers the best possible capacity for problem-solving. All other factors, such as aesthetics and popularity, are subordinate to this standard. This is especially important in terms of government and leadership structures. Under no circumstances is a

leadership structure that takes input from only one, or a few individual consciousnesses, acceptable. Under no circumstances is any decision-process that doesn't utilize the most accurate, best quality data and the most, comprehensive and disciplined deliberation and argumentation acceptable. This may translate into a consequentialist argument in favor of highly participative democracies, high standards for government integrity, transparency and public discourse as well as the development of a highly-trained citizenry well-versed in analysis, decision-making and collaboration.

The Principle of Valid Function in Social Structures: In order to optimize the problem-solving of any social structure or institution, all of its components must serve that same purpose of problem-solving and not be included for any other reason. If citizens determine that a particular argument, process, or concept has been used not to solve problems but out of devotion to tradition, or to satisfy a personal taste or psychological need, then that construct must be abolished. For example, public rhetoric that employs insults would be considered invalid. This may translate into a consequentialist argument in favor of functionalism in government. However, given that the nuances of any social structure might be open to broad interpretation, the application of this principle would require a deft touch—and a great deal of debate. Stringent rubrics might be necessary before this principle could be applied in force.

A key question to address regarding these three principles is whether they are more like guidelines, that can be broken when necessary, or laws, requiring strict adherence. Strong arguments can be made for the former. In the case of the Principle of Integrality, one likely exception can be found in cases involving mental illness—requiring some kind of intervention over an individual's self-determination. In the case of the Principle of Optimization, there are a wide variety of practical concerns and real-life exigencies—such as access to resources—that

might justify temporary compromise. In the case of the Principle of Valid Function, there is the issue of simple difference of opinion.

If these principles are indeed more like guidelines, it may be more useful to apply them as engineering specifications with defined ranges of acceptable tolerance. In other words, if a society pushes too far out of some defined safety reading for Integrality or Valid Function into a "red zone," it is at risk. But how do you define such tolerances? This is where delineating different crisis scenarios, or "PoCNows" (Problems of Consciousness Now), may prove useful.

The Problems of Consciousness Now

Framing the Problem

Let's say Earth sends a spaceship to Tabula Rasa. What could we learn from these pragmatic cousins? Of course, the most obvious lessons would include the benefits of viewing societies as epistemic tools; of framing every question concerning the human condition as a problem of consciousness and of simply valuing the mental agency of every single citizen. With such simple lessons you can start to develop engineering specs for viable societies.

For example, if you want to look upon a society as a computational device designed to respond to the challenges of human survival, then its viability could be represented by the following—admittedly simplistic—equations:

$$F\ (C_I\ ,\ S_C)\ = P_{Solving}$$

$$P_{Solving} \geq P_{Survival}$$

In this equation, C_I represents the conscious agency of every individual, while S_C represents the factor by which a society's institutions and constructs collaboratively augment this agency. The variable $P_{Solving}$ represents the problem solving potential of this society, while $P_{Survival}$ represents the problems associated with a society's survival. The first equation translates into the following statement: the combined problem-solving potential of a society is equal to the conscious agency of every individual combined, in some collaborative fashion, and augmented by the constructs of a society. The second equation translates into this statement: a society is viable if this combined problem-solving potential is equal to, or greater, to the problems associated with the survival of the society. In other words, if a society's constructs enables the problem-solving abilities of all its citizens to combine so that they are greater than all the problems the society is facing, the society will survive.

Of course, these formulae are theoretical. It is unclear whether these concepts can even be quantified at all. Yet, the effort to try, even if it proves impossible, may be well worth it. Aiming for more precision in understanding how individual minds interact with their social constructs like language and culture, and then perceiving how these individual mentalities combine into collaborative actions would be extremely valuable. If nothing else, it will spur more work, both theoretical and experimental, into areas such as human computation, collective intelligence and Big Data. However, the basic message of these equations should be above reproach: social constructs have to bring out the best of citizens, both individually and collaboratively, in terms of their problem-solving. If not, a society will not survive.

Imbalances in Problem-Solving

This basic state of viability can fall out of balance in three ways:

1. **The survival problems can be bigger than the society can solve**
2. **The citizen's mentality, including consciousness, can change and become out of synch with the society's institutions**
3. **The society's institutions can change and become out of synch with the citizen's mentality**

Further explanation into these three scenarios are as follows:

Scenario 1: The survival problems can be bigger than the society can solve

Sometimes a society cannot solve the problems threatening its survival, be it famine, drought, climate change, breakdowns in commerce or wars. These unsolvable problems could result from factors outside the society's control. However, they could be the result of a society's failure to address problems when they were solvable. Moreover, there are times when these survival problems become unsolvable because the society's ability to solve problems breaks down. The next two scenarios cover the most basic conditions for when problem-solving fails.

Scenario 2: The citizen's mentality, including consciousness, can change and become out of synch with the society's institutions

Human mentality continues to evolve, sometimes in giant leaps that go beyond the ability of current social structures to adapt—causing an imbalance. This appears to have taken place in key points in human history, such as the theoretical "Great Leap" which occurred some 60,000 years ago and ushered in modern human mental abilities, or the widespread proliferation of literacy and education due to the printing press. Essentially, human minds become more complex than the social tools they use and the society's existing problem-solving systems malfunction. If

institutions don't evolve, citizens may take the initiative to reorganize them in revolutions, regime-changes and so on.

Scenario 3: The society's institutions can change and become out of synch with the citizen's mentality

In this scenario, it is the society's institutions that evolve beyond the normal parameters of its citizens' mentality, again causing imbalances. This could happen due to rapidly advancing technologies, such as the evolution of Big Data and Deep Learning systems, which evolve beyond the day-to-day understanding of most citizens. This also could have happened when societies could no longer train citizens in vital skills necessary for maintaining widespread technologies and processes. This may have been what happened during the collapse of Bronze Age civilizations 3,000 years ago, or during the Dark Ages after the fall of the Roman Empire. Then there are the interesting challenges that come from the rise of Artificial Intelligence systems, which could lead to widespread existential crises for many individuals. In this case, the tools of our society can become our competitors in conscious agency.

A society can also endanger its problem-solving when it goes outside the safety tolerances of the three basic needs and three basic principles discussed previously.

Failures Addressing Basic Needs

Failures addressing the three basic needs could include the following examples:

Life: Any time a society fails to protect, or willingly endangers, the lives of any of its citizenry, it is harming its conscious agency. For example, when a society threatens the survival of its intelligentsia and academics to crack down on dissent, or endangers the lives of different

communities amongst its citizenry due to racism or some other prejudice, or expels immigrants from the country.

Data: Whenever a society does, or allows to happen, anything that threatens access to the data that its citizens need to solve problems, it harms its conscious agency. This can involve blocking, or censoring, the Internet; eliminating freedom of the press; controlling research and dissemination of scientific knowledge, or restricting free speech, and so on.

Problem-Solving: This occurs whenever a society, or its constructs, threaten the ability of its citizens to process or use data to solve problems. This can happen in many ways: superstition and magical thinking; taboos against certain ideas; distrust of facts; maligning of logic or reason; hostility in public discussion, and breakdown in established decision-making processes.

Threatening the Engineering Tolerances

Meanwhile, situations that threaten the engineering tolerances of the three design principles could include:

Threats to Integrality: This occurs whenever a society threatens the sovereignty and self-determination of an individual's mental life due to racism, prejudice or bias. If a person's identity, personal beliefs or lifestyle choices can be viewed as part of the individual's process for exploring and answering questions about the human condition, anything that hampers these things harms the individual's conscious agency and the society's ability to generate insights about human existence. Of course, any behavior that outright harms others must be stopped, but anything else must be treated as part of that person's exploration of human consciousness.

Threats to Optimization: This occurs whenever a society ignores its responsibility to maximize conscious agency. It could happen when leaders impose dictatorships or oligarchies or otherwise hinder democratic processes. Of course, there will be times when immediate actions violating this principle must be taken for a society's survival—but such actions must be quickly evaluated for their appropriateness and their impact. If unchecked, these actions could erode the agency of its citizens.

Threats to Valid Function: This occurs when any institution or social structure that hinders the free conscious agency of any citizen emerges, is imposed or is protected from reform. It could be potentially anything: insults, biases, stereotyping, cruel humor, propaganda, false news stories and conspiracy theories. Any meme or cultural artifact that does not enable problem-solving, and particularly those that hinder it, can be considered failures in valid function. If enough of these structures propagate through a society without correction, it could paralyze its mental agency.

The nine scenarios outlined above represent breakdowns in the engineering specs of societies as consciousness-augmenting, problem-solving devices. Each of the three imbalances; the three basic need failures and the three threats to engineering tolerances, all represent situations where a society cannot solve the problems that threaten its survival. These are the basic crises where a society, and its institutions no longer reflect, nor enable, the conscious agency of its citizens. This is why this essay suggests classifying these nine crises as Problems of Consciousness Now, or PoCNows, for these are indeed crises of consciousness within a society. Censuring critics would argue that Chalmer's phrase of "problem of consciousness," was not meant to apply to social crises, only states of knowledge and understanding of the phenomenon. However, it could be argued that these crises are the result of failure to understand and appreciate

the role of consciousness within a society. They are indeed problems of consciousness in both understanding the phenomenon as well as enabling the phenomenon within our societies.

These scenarios are abstract, but they could have bearing in many real-life situations, both historical and contemporary. Imagine all the key points in our cultural and intellectual evolution, such as the invention of speech, language and writing, when social constructs transformed our mental existences. Or the moments when the evolution of our minds, such as the Great Leap, led to a wellspring of social creation. Don't forget all the moments in our history when the minds and agency of the citizens of a country were suppressed, and this led to revolutions, civil wars and the development of new philosophies of government. How many of these potential PoCNows are relevant now as we struggle to martial our collaborative problem-solving capabilities in the face of life-changing challenges? If we are to maximize our chances at survival, we must maximize our problem-solving potential, and to do that we must embrace the nature of our consciousness—both what we know, and what we don't know.

Project HC: Turning Citizens into Professional Problem-Solvers

So, we have outlined nine basic scenarios that can threaten the viability of a society, at least in terms of its problem-solving abilities. But how do we prevent a society from ending up in one of these scenarios, and what do we do if a society is already in one, or perhaps even more, of them? This essay has avoided specific details on many subjects –perhaps maddeningly so— because of the idea of fundamental moral uncertainty. No one person, no one essay, no one theory can dictate what a society must do. Only a collaboration of every available conscious citizen—gathering data, deliberating, debating— can decide the specific actions any society must take in anything. This includes preventing and resolving a society's crises. However, it is clear

that maximizing the agency of your citizens is a key step to improving your society's survival chances.

Indeed, there is a wealth of wisdom on how to create capable, responsible citizens. Aristotle[15], Confucius[16], Jean-Jacques Rousseau[17], Georg Hegel[18] and Marcus Aurelius[19] were among the many philosophers who addressed the topic directly. Others approached the subject by writing about the ideal societies that could be possible if we had ideal citizens—utopias. Utopian writers include, of course, Thomas More[20], Plato[21], Jonathan Swift[22] and Christine de Pizan[23]. There are many worthwhile routes to consider for developing a competent citizen. Instead of

[15] Aristotle. (1998). *Nicomachean Ethics*. Oxford: Oxford University Press.

[16] Confucius. (1999). *The analects of Confucius : a philosophical translation*. New York : Ballantine Books.

[17] Rousseau, Jean-Jacques. *The Social Contract*. Translated by Maurice Cranston. Penguin Books, 2004.

[18] Hegel, G. W. F. (1979). *Phenomenology of spirit* (A. V. Miller, Trans.). Oxford University Press.

[19] Aurelius, M. (2002). *The Meditations*. Random House.

[20] More, T. (1516/1967), "Utopia", trans. John P. Dolan, in James J. Greene and John P. Dolan, edd., *The Essential Thomas More*, New York: New American Library.

[21] Plato., Bloom, A., & Kirsch, A. (2016). *The Republic of Plato.* Paperback third edition. Basic Books.

[22] Swift, J., Higgins, I., Rawson, C. Julien. (2005). *Gulliver's Travels.* New ed. Oxford: Oxford University Press.

[23] De Pizan, Christine. (1999) *The Book of the City of Ladies*. 1405. Trans. Rosalind Brown-Grant. London: Penguin.

reinventing the wheel on the subject, this essay will suggest certain key milestones to reach , no matter the path, to empower citizenship.

The important milestones are as follows:

1. **The Potential Must be Recognized**

   There are a great many people who have embraced their mentality in a variety of interests. There are sports fans, history buffs, birdwatchers, comic book otakus, music enthusiasts, hobbyists, armchair political analysts, amateur cooks, artists, gamers and nerds of every possible lore and activity imaginable. It is also important to be aware of the dark side of such devotion, the conspiracy theorists, the trolls, and the generators of false news. All of these individuals, and their communities, represent raw talent to recruit, cultivate and incentivize in the discussion of problem-solving. They must be awakened to their potential.

2. **Consciousness Must be Professionalized**

   This may be the most important, and perhaps most difficult, milestone. Individuals must treat their mentality and problem-solving as abilities that can be rigorously trained and improved much like martial artists, musicians or master crafts people. They must also develop an ethos for achieving this mastery, and a sense of standards, integrity and professionalism. There are many analogues to draw from in real life: dojos and their belt-systems, chess and its ranking system, and trade guilds and their levels of professional competence.

3. **The Craft and Expertise Must Be Developed**

   After these professional communities have emerged, the hard work must start to develop their craft. They need challenges, projects and experiences. They need peers to critique

their technique. They need terminology and language to discuss the nuances of their burgeoning craft. They will need codes of conduct. They will also need ways to compete, to challenge each other. Analogues of these competitions can be found in sports, in academics and in leagues devoted to various interests. An example from literature to be considered would be the concept of the "Glass Bead Game," from the novel of the same name by Hermann Hesse[24]. Hesse imagined this fictional game as a way by which academics could symbolically discuss culture and philosophy, with rigorous rules and strategies.

4. **The Community Must Solve Problems**

   Once this community of collaborative citizen philosophers has developed their profession, they must apply it everywhere possible. These could be philosophical questions, political and social issues, civic quandaries big and small. Initially, it could just be discussions and proposals, but in time it could grow to real-world projects. Problem-solving will be the means by which these craftspeople of consciousness will develop and assert their power. The more problems they solve, the more technique and expertise they develop, and the more influence they can have on society. Their solutions will be their greatest weapons.

Citizens who understand their mentality; know how to harness it, and know how to collaborate to solve problems are the backbone of any society. It can be argued that they are the society, and everything else is just the window-dressing. They perhaps represent what our earliest societies looked like when our ancestors first decided to work together and invent all of our other

[24] Hesse, Hermann (2000). *The Glass Bead Game*. Vintage Classics.

social institutions. The better these citizens are at their profession as conscious agents of problem-solving, the better they will be at protecting our societies from all of our crises. With enough work, they might even be able to divorce the phenomenon of power from that of problem-solving.

Given the global nature of many of our problems and societal crises, we might want to consider launching citizen-developing initiatives on an international basis. We could start Project HC (Human Condition), where we aim at achieving the four milestones described above, but across borders. Instead of pockets of problem-solvers limited to specific countries, cultures and languages, we could have billions of minds developing a shared language and expertise of problem-solving. Of course, there are many precedents: the United Nations; Doctors without Borders, the International Red Cross and Red Crescent and even the Olympics, and so on. In this way, we could gather the greatest group of minds to start work on the challenges that threaten our survival now.

Conclusion

The Light of the Candle Flame

As the Tabula Rasans try out different tools, they'll probably invent something like the candle. A candle is a versatile source of light. You can use almost anything for the wick. You can use almost anything for the fuel. However, the candle flame itself is less compromising. It won't burn with wind or water or too much cold. Societies are much like candle flames[25]. They can be built in a wide variety of circumstances, but too many compromises will extinguish them.

[25] In comparison, Colin McGinn used the image of the flame as a metaphor for consciousness. McGinn, C. (1999). *The mysterious flame: Conscious minds in a material world.* Basic Books.

This essay discussed many abstract ideas and proposed many theoretical applications. Most of them probably seem too ethereal to have bearing on anything as concrete and down-to-earth as a society. Human life and interactions are messy, chaotic and full of compromise. There is little hope that these ideas can be applied to the real world with anything that looks like perfection, or precision. This is fine, because neither perfection nor precision is the ultimate goal. The ultimate goal is simply less compromise.

In the real world, societies and social institutions are built with the hope of fairness and justice—if not for everyone at least for as many people as possible. Governments are formed with the hope of doing right for the people. We collaborate to make a host of different things—schools, hospitals, companies, research organizations, nonprofits—in the hopes that some of these things will provide some benefit to others. Then come the compromising realities: lack of resources; lack of expertise; lack of consensus; polarization; competing interests, crime and corruption, and so on. Each reality leads to a compromise in what we hope to accomplish. And these compromises gather like drops in a rainstorm, threatening to extinguish the potential of our societies. Too many compromises and we will lose the ability to weather future challenges.

If we want to compromise less, we need to see the potential in every human, period. We cannot afford anything less. Embracing human potential involves, in part, recognizing and appreciating the phenomenon of consciousness. Whether we understand it or not, consciousness defines us and guides the construction of our societies. Of course, we will learn more about this phenomenon as philosophers and researchers make further discoveries and develop greater insights. But comprehension won't be their only contribution. By simply showing us how to look at, and respect, the mystery that is consciousness, they will show us how to respect the awesome

mysteries that are in every human being. That kind of respect will be essential for the hard work we need to do—together—to keep the candle flame of civilization burning.

Bibliography

Aristotle. (1998). *Nicomachean Ethics*. Oxford: Oxford University Press.

Aurelius, M. (2002). *The Meditations*. Random House.

Block, N. (2009). Comparing the major theories of consciousness. In M. S. Gazzaniga, E. Bizzi, L. M. Chalupa, S. T. Grafton, T. F. Heatherton, C. Koch, J. E. LeDoux, S. J. Luck, G. R. Mangan, J. A. Movshon, H. Neville, E. A. Phelps, P. Rakic, D. L. Schacter, M. Sur, & B. A. Wandell (Eds.), *The cognitive neurosciences* (4th ed., pp. 1111–1122). Massachusetts Institute of Technology. https://doi.org/10.7551/mitpress/8029.003.0099

Chalmers D. (1995) Facing up to the problem of consciousness. *Journal of Consciousness Studies*. No. 2 (3). p. 200-219.

Chalmers, D. J. (1996). *The conscious mind: In search of a fundamental theory.* Oxford University Press.

Confucius. (1999). *The analects of Confucius : a philosophical translation*. New York : Ballantine Books.

De Pizan, Christine. (1999) *The Book of the City of Ladies*. 1405. Trans. Rosalind Brown-Grant. London: Penguin.

Hegel, G. W. F. (1979). *Phenomenology of spirit* (A. V. Miller, Trans.). Oxford University Press.

Hesse, Hermann (2000). *The Glass Bead Game*. Vintage Classics.

Hobbes, T. (2008). *Leviathan* (J. C. A. Gaskin, Ed.). Oxford University Press.

Kant, I. (2004). *Critique of practical reason* (T. K. Abbott, Trans.). Dover Publications.

Kuhn, Robert Lawrence (2024). A Landscape of Consciousness: Toward a Taxonomy of Explanations and Implications. *Progress in Biophysics and Molecular Biology* 190 (August 2024):28-169.

Levine, J. (1983), Materialism And Qualia: The Explanatory Gap. *Pacific Philosophical Quarterly*, 64: 354-361. https://doi.org/10.1111/j.1468-0114.1983.tb00207.x

McGinn, C. (1999). *The mysterious flame: Conscious minds in a material world.* Basic Books.

Mill, J. S. (2002). *On Liberty*. Dover Publications.

More, T. (1516/1967), "Utopia", trans. John P. Dolan, in James J. Greene and John P. Dolan, edd., *The Essential Thomas More*, New York: New American Library.

Plato., Bloom, A., & Kirsch, A. (2016). *The Republic of Plato.* Paperback third edition. Basic Books.

Rousseau, Jean-Jacques. *The Social Contract*. Translated by Maurice Cranston. Penguin Books, 2004.

Shakespeare, W.. *Hamlet*. Bevington, D. (Editor) New York: Bantam Books, 1988.

Shepherd, J., & Levy, N. (2020). Consciousness and morality. In U. Kriegel (Ed.), *The Oxford handbook of the philosophy of consciousness* (pp. 654-672). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780198749677.013.30

Swift, J., Higgins, I., Rawson, C. Julien. (2005). *Gulliver's Travels.* New ed. Oxford: Oxford University Press.