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Revisiting Czech philosophical critiques of science in the age of Generative AI and Big Data

Daniel Brennan¹

Abstract

This paper explores the resurgence of anti-scientism in contemporary debates surrounding the COVID-19 pandemic, Big Data, and Generative AI, drawing parallels with 20th-century Czech philosophical critiques of scientism. The work of Czech intellectuals such as Tomáš G. Masaryk, Karel Čapek, Josef Šafařík, Jan Patočka, and Václav Havel is revisited to understand how their concerns about the dominance of scientific rationalism remain relevant today. The paper critiques both the blind faith in science as a comprehensive solution to complex human problems and the reductive dismissal of science as a tool of control. It argues for a nuanced middle ground that recognizes the value of scientific inquiry while also emphasizing ethical, spiritual, and humanistic considerations. By engaging with these Czech perspectives, the paper proposes a framework for critically navigating the interplay between ethics, technology, and human values in the face of contemporary challenges such as pandemics, AI, and climate change. This approach challenges both scientific and anti-scientific extremism and advocates for a balanced discourse that integrates wonder, ethics, and critical inquiry.

Keywords: anti-scientism, Tomáš G. Masaryk, Jan Patočka, Karel Čapek, Václav Havel, positivism critique, technological determinism

In offering philosophical critique of scientific advance, philosophers must be careful. In so many areas of our lives, science has promised progress and solutions to the wicked problems besetting the current world situation: from Big Data, Generative AI, advances in immunology and the rapid development of vaccines for COVID-19, to developing mitigation initiatives for climate change. The promises are as massive as the scope of the problems they address. The gadfly-like role of the philosopher is imperative for holding these phenomena to account and ensuring that the world they transition us to is better than the one without them. However, the philosopher must be careful with critique lest it descend into a blanket rejection of science’s knowledge, which undoubtedly contains the potential to fulfil some of these grand promises, when managed properly. This warning for care is perhaps most vivid in the recent commentary of Giorgio Agamben, who transitioned from a clearly leftist thinker to a controversial voice aligned with right-wing rhetoric due to his critique of pandemic measures as biopolitical control (Kotsko, 2020). In bringing his critique of totalitarian biopolitical control to bear on the early COVID-19 measures, Agamben ended up endorsing a radical right-wing position. Agamben’s English translator, in coming to terms with Agamben’s turn to the right, claims that Agamben missed that discourses of freedom, in the west could be oppressive and reduce those, like essential workers, to bare life. “If any action by the state, including by state medical authorities, is always intrinsically oppressive, then we have no alternative but to fall back on our own individuality—exactly the libertarian position that the right wing has used for decades to cut off in advance any effort to challenge existing power structures” (Kotsko, 2020). This shift highlights the risks inherent in anti-scientific rhetoric, especially when it veers into extremes that undermine public health or embrace conspiracy theories. Without retreating into the polar opposite proclamation of science as a driver of teleological advancement—the kind of equally unhelpful reduction of science to progress in the recent work

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of thinkers such as Steven Pinker, or Daniel Dennett's work on replacing religion with science (Pinker, 2018; Dennett, 2006). The unbridled faith in science as the solution to all the wicked problems of our age, as many philosophers point out, is undoubtedly problematic. However, it is important to articulate, when we offer such criticisms whether we are against science itself, or scientism. By scientism I mean that very enthusiasm for science as the source of all knowledge, even ethics, such as that propounded by Sam Harris in *The moral landscape*, where science is the source of a total answer for how one ought to live (2010). Ultimately, Agamben's turn to the right is made from the same rejection of science, as Pinker's right leaning politics is from its embracement of science.

A fruitful way to consider debates about science and progress is to look at the generational considerations of a similar time of scientific disruption—Czechoslovakia in the twentieth century. In response to the blooming of positivist thought and the articulation of a scientist position, as well as different contexts of various democratic and socialist regimes, thinkers such as Tomáš G. Masaryk, Karel Čapek, Josef Šafařík, Jan Patočka, and Václav Havel, offered a sustained and evolving exploration of science and progress, the nuance therein providing excellent meditations on the current predicament. These Czech intellectuals were deeply concerned with the dehumanizing potential of unchecked scientific rationalism, and in their specific contexts developed responses aimed at keeping humanist focus on broad ethical considerations squarely in the picture, without jettisoning the fecundity of science for making progress. Masaryk, for example, critiqued the reductionism of positivism while emphasizing that science, when guided by ethical principles, is indispensable for human progress. Similarly, Čapek's literary explorations of technology's impact on society highlight the dangers of scientific advancement unmoored from humanistic concerns—crucially it is the political process of that unmooring, and not the technology itself I will argue is the key to Čapek's critique. This paper seeks to demonstrate that the nuanced debate between science and anti-scientism found in the Czech tradition offers a crucial framework for critically assessing the role of science in contemporary society. Rather than embracing either extreme—blind faith in science as the sole arbiter of truth or the outright dismissal of scientific contributions—I argue for a middle ground. This perspective values scientific knowledge but remains alert to its limitations, recognizing the importance of wonder, ethics, and critical inquiry in responding to today's complex challenges.

By engaging with Czech critiques of scientism, this paper challenges both scientific and anti-scientific extremism. It calls for a discourse that acknowledges the importance of scientific advancements while also fostering an ethical, pluralistic approach to technology and public policy. In so doing, I aim to provide a thoughtful and historically informed framework for navigating the moral and political dilemmas posed by emerging technologies like AI and the global responses to pandemics and climate change.

Masaryk and titanism

Tomáš G. Masaryk's (1850–1937) critique of scientism, developed in the nineteenth century and stretching into the twentieth, is deeply rooted in his humanistic philosophy, which resists the reduction of human existence to purely scientific or technical terms. Central to Masaryk's thought is the concept of titanism, a term he used to describe the hubristic tendencies of modern civilization. Titanism, in Masaryk's view, refers to the belief that humanity, through science and technology, can transcend all limits and achieve mastery over nature. This notion is closely tied to his critique of positivism, which he saw as a philosophy that elevated scientific knowledge above all other forms of understanding, thus stripping life of its ethical, spiritual, and existential dimensions. Jan

Patočka, writing on Masaryk's philosophy, explains the connection of the term to its Greek mythological roots: "the Titans seek in vain to storm Olympus, in vain do they stress their moral autonomy, in vain do they demand the right to live their own life, in conformity with their own free nature" (Patočka in Kohák, 1989, p. 140). However, as Erazim Kohák claims, Masaryk's outlook on human potential remains fundamentally optimistic. Masaryk believes that, although titanism risks reducing knowledge to raw data and empirical control, science, when integrated with ethics and humanistic values, can lead to human flourishing (Kohák, 1989, p. 21).

For Masaryk, titanism is not simply a critique of scientific achievement but a warning against the dangers of an unchecked faith in human progress without a sufficient ground of meaning or ethical connection. He feared that the positivist worldview, which reduces all knowledge to empirical data, could lead to a kind of moral blindness—a failure to recognize the importance of values that cannot be quantified. Masaryk's concern was that in our pursuit of mastery over the natural world, we risk losing sight of our moral responsibilities to each other and to the environment. This critique resonates with contemporary debates around AI and Big Data, where the drive for technological control often overshadows the ethical implications of these advancements. For example, Yuval Noah Harari's most recent book, *Nexus* (2024), is a warning for a cautious approach to AI, as sheer size and scope of the networks that such endeavors employ is far beyond the capacity of human consciousness to comprehend. More than at any other time, he writes, "[w]e command immense power and enjoy rare luxuries, but we are easily manipulated by our own creations, and by the time we wake up to the danger, it might be too late" (Harari, 2024, p. 403).

Masaryk's response to titanism was not to reject science but to advocate for its integration with humanistic values, fostering a sense of wonder and responsibility. As he argued in *Humanistic Ideals*, "It is wisdom which is important. We shall not find salvation in massive quantities of raw data" (Masaryk, 1971, p. 120). A comparison of two cases of recent popular and general scientific publication makes the case for the nuanced difference between differing conceptions of science. Firstly, Julia Baird's *Phosphorescence* (2021) was a book which saw high sales during the early stages of the COVID-19 pandemic and resulting lockdowns. It is at heart a book which aims to demonstrate the wonder at the heart of the scientific enterprise by presenting wonderful, sublime, and threatened aspects of nature which we, humanity, do not currently have great understanding of. The book acts as an appeal to care—nature is so wonderful that we must protect, and conserve it. It is an example of the balance between knowledge and ethics, much like Masaryk's belief that science must deepen, not diminish, our connection to the world. In stark contrast, Steven Levitt and Stephen Dubner's *Freakonomics* (2005) exemplifies the dangers of reductionism, using data to oversimplify complex social issues—ignoring the structural forces behind human behavior, such as when they claim to 'prove' that African American naming conventions are what make employment opportunities scarce for African Americans. In order to criticize black culture (by pretending to assist it), they exclude social considerations, such as access to education, share of wealth, and whether social institutions can be structurally racist. This tension between wonder and reductionism illustrates Masaryk's central insight: science, when detached from ethical reflection, becomes a tool of control—the *Freakonomics* analysis gives fodder to simplistic argumentation that suggests the plight of the oppressed is their own doing.

This tension between the humanistic and the scientific is also evident in Masaryk's concept of *anthropism*, elaborated in *The spirit of Russia* which emphasizes the central role of humanity in shaping both scientific inquiry and ethical decision-making (Masaryk, 1968, p. 209). Anthropism, for Masaryk, is the antidote to the dehumanizing effects of titanism. Masaryk propounds the value

of an anthropist perspective on theology, arguing that the philosopher, and scientist use critical skills to evaluate their positions rather than relying on blind authority; however he counsels strongly to avoid letting a science or philosophy go so far as to become a blind power itself (Masaryk, 1968, p. 213). Masaryk claims with Anthropism that meaningful advances such as the development of social reforms, and human rights, comes from a philosophically informed, and scientific humanist position (Masaryk, 1968, p. 211). Philosophers hence need to engage with science. The very recent publication of Benjamin Bratton's book *The revenge of the real: Politics for a post-pandemic world* (2021) is a vivid example of the role of philosophy in contemporary scientific debates about progress. Bratton demonstrates that the reductive accounts of COVID-19 responses as biopolitical control missed the deeply important reality that many of those measured saved lives (not merely reduced them to a kind of bare life) (Bratton, 2021, p. 12). He writes:

If contemporary philosophy's often reactionary suspicions have backed it into the corner where it can conceive of "biopolitics" only as a totalitarian oppression in need of endless critique and constant dismantling, then it needs a refresher course and a gut check... Today our hospitals and morgues are full because of the horizontal, spontaneous, individualist irrationality of the status quo (Bratton, 2021, p. 12).

Bratton points out that many liberal understandings of freedom were grossly inadequate for dealing with a virus which spread simply by being in the same room as another. That is, the virus did not respect the liberal individual, as people were more entangled than they would normally believe; hence a biopolitics of social distancing, in certain situations ultimately did save lives. That is not to say that every act of social distancing was good, instead it is a plea for a thoughtful biopolitics that maintained a humanist devotion to life, and that is aided by scientific knowledge. It is, in my view, closely aligned with Masaryk's humanism. Karel Kosík extrapolates a potent force in Masaryk's humanism for facing up to the challenges of emerging technology and generating new political imagination (Kosík, 1992, p. 154). That is, for Kosík, Masaryk's thought is a bridge between the disciplines of ethics, politics, philosophy and science.

In reflecting on Masaryk's critique of titanism, we can see clear parallels with the modern-day challenges posed by technological determinism. Just as Masaryk warned against the dangers of placing science above human values, today we are confronted with the question of how to navigate the complex ethical terrain surrounding AI, Big Data, and biotechnology. The drive to use these technologies to solve global problems—pandemics, climate change, social inequality—must be tempered by a recognition that such tools, while powerful, are not morally neutral. They are shaped by human intentions, and their application must be guided by a commitment to justice, dignity, and the common good.

Karel Čapek's critique of scientism

Karel Čapek, an influential Czech thinker of the 20th century, extended Masaryk's critique of scientism by exploring the ethical and existential dimensions of science and technology through his literary works. His perspective deepened the philosophical conversation about the limits of scientific rationalism, remaining profoundly relevant in light of current concerns about the dehumanizing potential of AI, Big Data, and other technological advancements.

The influence of Masaryk on Čapek is undeniable. For instance, Čapek's biography of Tomáš G. Masaryk, *Talks with T.G. Masaryk*, provides a unique lens through which Masaryk's political philosophy can be understood (1995). Rather than focusing on his political actions alone, Čapek presents a portrait of Masaryk's humanism as the foundation of his leadership. The biography

emphasizes the breadth and depth of Masaryk's philosophical reflections, and his life experiences, revealing that his political decisions were guided by a commitment to moral responsibility, personal integrity, and a belief in the dignity of the individual. Through this framing of Masaryk as a decision maker taking the full depth and breadth of his experience in his decision making process, Čapek demonstrates that Masaryk's politics were an extension of his humanistic philosophy. That is Masaryk did not merely respond to external political pressures, or problems as they arose but part of a larger ethical project to demonstrate the connection between lived experience and the ethical demands of politics, as well as the role that knowledge advances could play in answering those questions.

Čapek is perhaps best known for his literary contributions, particularly his exploration of the ethical dilemmas posed by technology in works like *R.U.R. (Rossum's Universal Robots)* (originally published 1920, (2019)) and *War with the Newts*. Čapek's use of fiction allowed him to vividly illustrate the dangers of a world where technology outpaces moral development. His works often present dystopian futures where the drive for scientific progress leads to unforeseen and catastrophic consequences for humanity. In *R.U.R.*, for instance, Čapek introduces the concept of robots—artificial beings created to serve humans—only to show how their exploitation eventually leads to the downfall of mankind. This narrative reflects Čapek's concern with the dehumanizing potential of technological progress when it is pursued without consideration for its ethical implications. The robots in *R.U.R.* are not merely symbols of technological advancement; they represent the dangers of treating human beings and the natural world as mere instruments of production and control.

However, Čapek's critique is not purely negative. Like Masaryk, he did not reject science outright but instead called for a more ethical approach to technological development, one that is attentive to the capacity for innovation to be accompanied by other (not necessarily scientific) vices like greed and lust for control. In *War with the newts*, Čapek explores the consequences of commodifying life itself—that is he focuses on the way that technology is coopted in a politics of oppression (which is not to say that the technology itself is the source of that politics). The newts, when discovered to be an intelligent species, are exploited by individuals in business, for economic gain until their rebellion threatens the survival of humanity. Here, Čapek's concern lies in the moral blindness that accompanies the pursuit of profit and control, a critique that aligns with his broader humanistic ethics and is based around a much more nuanced critique that encompasses the machinations of power, ideology, and capital, not just a reductive view of the scientific enterprise as being the source of this oppressive power. Where Masaryk had demonstrated the need for interdisciplinary approaches to scientific advancement, incorporating ethics and philosophy to ensure a direction to social justice, Čapek on the other hand demonstrates the already existing ground of politics which, if left unchecked, uses technology as a mechanism for control. This amplifies the need for philosophy to offer a sustained and meaningful critique to allow politics to keep its direction to progress and serve concrete everyday life, rather than an ideology (Jemelka, 2019). This is crucial as Čapek's engagement with science also complex due to his association with pragmatist thought and its ability to focus human knowledge on the concrete everyday world.

Further reflecting his commitment to a philosophy that serves life and humanity, Čapek engaged critically with pragmatism—a movement that influenced his thought but which he never accepted wholesale. Beginning with his 1914 seminar work, later published as *Pragmatism, or the philosophy of practical life* in 1918, Čapek valued pragmatism's moral dimension and its focus on everyday life over abstract theories (Jemelka, 2019, p. 170). For Čapek, the greatest value of pragmatism lay in its potential to be a “philosophy in the service of life,” aligning with his broader

humanistic concerns. While ultimately, not a strict pragmatist—Jemelka noting that Čapek’s lifelong crusade against the subordination of life to abstract ideology began before he encountered pragmatism—Čapek developed a personal philosophical synthesis that often employed pragmatic ideas or motifs to serve his broader humanistic and life-affirming worldview that is informed by science (Jemelka, 2019).

Jan Patočka and the natural world

Jan Patočka’s (1907–1977) philosophical engagement with science offers a critical perspective on the relationship between humanity and the natural world, focusing on the ethical implications of scientific rationalism and technological progress. Like Tomáš G. Masaryk and Čapek, Patočka was concerned with the dehumanizing effects of modern science. However, his critique extends beyond Masaryk’s humanistic framework by engaging with phenomenology and existentialism, offering a more radical challenge to the dominance of scientific rationality in shaping our understanding of the world.

While both Patočka and Masaryk share a concern about the dehumanizing effects of modern science, their differing conceptions of titanism reflect a deeper philosophical divergence. Masaryk’s titanism embodies the belief that scientific progress, when aligned with ethical reflection, can serve humanistic goals, fostering democracy, responsibility, and social good (Masaryk, 1971). For Masaryk, human ambition is a tool that, if tempered by wisdom, enables individuals to harmonize scientific inquiry with moral values. Patočka’s view of titanism, however, carries a more existential weight. His titan acknowledges the absence of any divine or historical guarantees and faces the burden of creating moral order independently (Kohák, 1989, p. 22). This solitary responsibility shapes Patočka’s critique of scientific rationality: he warns that modern science, through its objectification of the world, alienates individuals from their lifeworld, stripping existence of meaning and forcing humanity to confront its own finitude.

At the core of Patočka’s thought is his concept of the “natural world,” which he contrasts with the “objective world” constructed by modern science. For Patočka, the natural world is not merely a collection of objects to be measured and controlled; it is the lifeworld—the world as experienced by human beings in their everyday existence. Patočka argues that modern science, in its pursuit of objectivity, has stripped the natural world of its meaning, reducing it to a series of data points that can be manipulated for human ends. This process of abstraction, he warns, alienates humanity from the deeper ethical and existential dimensions of life, leading to a false metaphysics that overlooks the richness of human experience (Patočka, 2016, p. 113).

Patočka’s critique of this disenchanting worldview is closely related to his thoughts on anthropocentrism, which he sees as a central feature of modern science. Anthropocentrism, in Patočka’s view, involves placing humanity at the center of all understanding, reducing the natural world to a mere resource for human use. This perspective, he argues, leads to the domination and exploitation of both nature and other human beings. Like Masaryk, there is a two-sidedness to the critique, as Patočka acknowledges, for instance in his essay ‘The Dangers of Technicization in Science according to E. Husserl and the Essence of Technology as Danger According to M. Heidegger’, the transformative potential of science in its ability to make certain things clearer, and to challenge blindingly oppressive power systems through rational evidence (Patočka, 1989a, p. 330). On the other hand, Patočka also warns that technology’s ability to reveal the world as a collection of resources for human use carries profound existential risks. In doing so, it risks blinding humanity to deeper truths. He argues that “the uncovering that prevails at the essential core of technology necessarily loses sight of the uncovering itself, concealing the essential core of

truth in an unfamiliar way and so closing man's access to what he himself is—being capable of standing in an original relation to the truth" (Patočka, 1989a, p. 331). This insight aligns with Patočka's broader critique of anthropocentrism: modern science's reduction of the natural world to mere material undermines humanity's capacity for ethical reflection and self-understanding. While technology may enable practical insights, it distances people from truth in its fullest sense—the capacity to relate meaningfully to existence beyond immediate utility.

Patočka underscores that modern humanity, [among all the securing, calculating, and using of raw materials], increasingly knows "only individual, practical truths, not the truth" (Patočka, 1989a, p. 331). This encapsulates his concern that, by focusing solely on practical gains, humanity loses sight of the deeper, holistic understanding of being. Patočka's view builds on Husserl and Heidegger, reinforcing his critique that modern science, while transformative, alienates people from their lifeworld. For Patočka, while modern science can challenge oppressive power systems, its dominance threatens to obscure humanity's original relation to truth and the world.

In *Heretical essays in the philosophy of history*, Patočka traces the historical development of this worldview, showing how the rise of modern science and technology has contributed to the objectification of the natural world and the loss of a more holistic, ethically grounded understanding of our place within it (Patočka, 1996). This critique of anthropocentrism stands in contrast to Tomáš G. Masaryk's concept of anthropism, which, while also concerned with the ethical implications of scientific rationalism, takes a different approach. For Masaryk, anthropism emphasizes the centrality of humanity in shaping both scientific inquiry and ethical decision-making.

While both thinkers are critical of the dehumanizing effects of scientism, they diverge in their views on humanity's role in the natural world. Masaryk's anthropism is optimistic about the potential for human agency to guide scientific progress in an ethical direction. He believed that by placing humanity at the center of scientific inquiry, we could ensure that science remains a tool for promoting humanistic and democratic values. In contrast, Patočka's critique of anthropocentrism is more skeptical, warning that placing humanity at the center of the natural world risks reinforcing systems of control and domination. For Patočka, the solution lies not in further elevating humanity but in recognizing the limits of human knowledge and the ethical responsibilities that come with our position in the world.

In his *Heretical essays in the philosophy of history*, Patočka traces the evolution of war in the twentieth century, asserting that technology of war has transformed war into a war of economics (Patočka, 1996, p. 125). The disturbing imagery of the final heretical essay, of machinery feeding people into itself, powering its momentum, is a confronting description of the nihilism that was at the heart of totalitarianism which had swept across Eastern Europe, and also, shrewdly identified by Patočka, at the heart of Western capitalism. The final essay lambasts the tendency of modernity to use technology, not just as a means of keeping war mobilized, but also for societies to use technology to avoid confronting the dark reality which we have constructed. A technology of comfort allows individuals to avoid questioning the machine of war which uses them as participants—even without their enlistment. Patočka's call in the essay, for the "solidarity of the shaken" is for individuals to question, confront, and risk their lives to poke holes in the comforting illusion that everything is for the best (Patočka, 1996, p. 126).

Paul Ricoeur, in his foreword to the essays, connects the solidarity of the shaken with Patočka's critique of science. The shaken, in their challenge to systems of totality, are concerned with meaning. "The loss of "meaning" is not the decent into the "meaning-less" but an access to the quality of meaning implied in the search itself" (Patočka, 1996, p. xiv). Ricoeur connects the

debate to Heidegger, calling Patočka's analysis a move with and past Heidegger's analysis of history, pre-science, and the way that technology had taken humanity away from the question of being. The Heideggerian inflection though may be more of a red-herring in the sense that this seems more a deeper engagement with the Czech critique of science, and the debate about titanism than specifically Heidegger's question concerning technology.

In this context, Patočka's critique of technology becomes not just a rejection of scientific progress but a call for a fundamental rethinking of our relationship with the natural world. He argues that science, when detached from the lifeworld, becomes a tool of control that alienates us from the very world it seeks to understand. This stands in contrast to Masaryk's more hopeful vision of science as a means of human advancement. Patočka insists that the natural world must be seen not as an object to be dominated but as a space of freedom, where human beings must exercise care and responsibility. For Patočka the very framework of technological thinking shapes our understanding of ethics and our place in the world. This perspective remains crucially relevant in our era of AI, Big Data, and climate change, urging us to look beyond surface-level ethical guidelines and consider how these technologies are reshaping the nature of human existence itself.

What is vital is to not read Patočka's critique as a rejection of science per se, but a renewed call, and a different approach to Masaryk's insistence on a humanistic approach to knowledge attainment. This paper lacks the space to delve too deeply into the different historical contexts of Patočka and Masaryk, especially the experience of totalitarianism, and a Marxist science masquerading as an ethical science, but the much more sustained critique of how power operates in and through technology is of grave concern to any attempt to understand, like in Čapek's novels, how political uses of science exacerbate any dehumanizing effects. To reduce Patočka to an anti-scientific thinker, as some recent scholars have, is to miss the great utility of his challenge. Ľubica Učník's interpretation of Patočka's work, for instance, emphasizes the disconnection between the lifeworld and the 'true' world of natural sciences, arguing that modern scientific abstraction alienates individuals from authentic meaning and ethical considerations (Učník, 2016). While this view echoes Patočka's concerns about the dehumanizing effects of scientific rationalism, it risks oversimplifying the complex relationship between scientific inquiry and lived experience. Učník's call to reconnect scientific insights with the lifeworld is valuable, but her portrayal of science as fundamentally disconnected from human experience may inadvertently obscure the legitimate achievements and practical benefits of scientific endeavor. A more nuanced approach, in line with Patočka's sophisticated critique, would recognize both the existential challenges posed by scientific abstraction and the potential for science, when properly contextualized, to enrich our understanding of the lifeworld.

Such an approach, for example, might be evident in the work of Sridhar Venkatapuram. His capabilities ethics skillfully integrates scientific and public health debates with a strong commitment to justice and equality, embodying a nuanced critique that resonates with Patočka's sophisticated understanding of science and ethics. Venkatapuram demonstrates how scientific insights can be combined with ethical considerations to address complex issues like vaccine deployment, while also highlighting how oversimplified scientific models can overlook crucial factors such as social inequality in analyzing how COVID-19 adversely effected different groups (Venkatapuram, 2021). Venkatapuram shows deftly how to incorporate technology and science into discourses of justice and ethics to aim at real and meaningful progress, and to call out real oppressions.

Between myth and history: Josef Šafařík's critique of scientific and religious 'salvation'

Josef Šafařík (1907–1992), a contemporary of Jan Patočka and an influential figure for Václav Havel, presents perhaps the most radical critique of scientism within the Czech philosophical tradition. His work, particularly *Seven letters to Melin* (2020) and *On the way to the last* (1992), offers a profound challenge to the dominance of scientific thinking in modern society, while also extending his critique to the very foundations of European culture and religion. At the core of Šafařík's critique is the argument that both science and religion have erred in presenting absolutes, be they progress' 'or god' 'as the source of meaning, or the ground of experience. For him, such finality leads to the dehumanization of human beings by closing them off to the aporias in which meaningful context is found. He contends that the ascendancy of scientific rationalism, coupled with the Judeo-Christian conception of salvation, marginalizes and devalues the ethical, aesthetic, and spiritual dimensions of life, which he believes are crucial for truly meaningful human existence. He is not though, advocating for a moderate middle ground, rather Šafařík's critique of science is primarily about the god-shaped hole in scientific knowledge.

In *Seven letters to Melin*, Šafařík employs vivid imagery to contrast what he sees as the sterile, controlled environment of the scientific laboratory with the dynamic, unpredictable nature of human creativity and spirituality. He writes, “[a]s a scientist, you are convinced that the being whom you transport in comfort up to the summit by cable car will be the same being as if had clambered up there by himself” (Šafařík, 2020, p. 34). For Šafařík, understanding is connected to participation in life, that is, it is not ‘of’ life, it is lived experience, it is character. Šafařík's further describes what he terms cold rationalism, a new Inquisition (Šafařík, 1992, p. 45). However, Šafařík's critique extends beyond science to encompass religion as well. He argues that the Judeo-Christian tradition, by creating a narrative of history as salvation history, has laid the groundwork for the gradual technicization of the world. In his view, both religion and science offer illusory remedies against mortality, ultimately exposing humanity to death's mercy rather than providing true salvation.

Šafařík's critique of scientific rationalism is further illuminated by his nuanced understanding of the transition from mythical to historical thinking. He argues that mythical and historical (or scientific) ways of experiencing the world coexist, sometimes even within the same individual. Šafařík's work resonates with Patočka's concerns about the alienation of individuals from the lifeworld but takes a more extreme stance. Where Patočka sought to reconcile scientific inquiry with phenomenological understanding, Šafařík sees a fundamental incompatibility between scientific rationalism and authentic human existence. He strongly privileges non-scientific forms of knowledge—such as art, literature, and philosophy—arguing that they alone can provide the depth and nuance necessary to grasp the complexities of the human condition. That is, it is not the humanist's role to consider the best steering for science, but to offer profound truths which cannot be found in science at all.

Šafařík's radical position is not without its problems. His critique often veers into creating a false dichotomy between wisdom and science, oversimplifying the complex relationship between scientific inquiry and human experience. The phenomenological privilege he gives to conscious experience, critiquing science for observing what consciousness cannot directly perceive, risks recreating the very reductionism he seeks to challenge. *Seven letters to Melin*, for instance contains many straw-persons accounts of science that create a picture of a blind laboratory

While Šafařík's critique serves as a valuable counterpoint to uncritical scientism, recent global events have highlighted the limitations of purely phenomenological or individualistic approaches to complex scientific challenges. Benjamin Bratton, as mentioned in the first section of this paper,

argues convincingly that the COVID-19 pandemic revealed the inadequacy of liberal philosophies of the self in addressing collective biological realities. Bratton contends that responsible biopolitics, informed by scientific understanding, is crucial for addressing global challenges that transcend individual experience. The development of COVID-19 vaccines, aided by Big Data and AI, saved an estimated 19.8 million lives in its first year (Journal of Pediatrics and Child Health, 2022), demonstrating the life-saving potential of scientific advancements. That is, the disparate depiction of the laboratory and lived experience is not an accurate account of how science and the world interact. Furthermore, addressing complex issues like climate change requires models and calculations beyond the scope of individual human consciousness, necessitating the use of AI and Big Data (United Nations, 2023). These examples illustrate that while Šafařík's emphasis on human authenticity remains valuable, a nuanced approach that recognizes both the power and limitations of scientific inquiry, and the role of other pursuits for attaining knowledge and insight, is essential for navigating contemporary wicked problems.

Václav Havel, technocentrism, and Gaia

Václav Havel (1936–2011), playwright, dissident, and eventually the first president of post-communist Czechoslovakia, represents the culmination of the Czech tradition of anti-scientism. As a student of Patočka and an admirer of Šafařík, Havel's work synthesizes the philosophical critiques of his predecessors with practical political engagement, bringing the debate on scientism into the realm of civic discourse and governance.

Havel's critique of modern civilization reflects a deep inheritance from Masaryk, Čapek, Patočka, and Šafařík. Like his predecessors, Havel was concerned with the reduction of human existence to purely technical and economic values, a trend he saw as characteristic of modern society's misplaced priorities. His concept of "post-totalitarianism", introduced in his seminal essay *The power of the powerless* (1978), describes a system that perpetuates itself through the recreation of its ideas rather than through specific commands, echoing Patočka's "solidarity of the shaken" and extending it into a critique of both communist and capitalist technocratic systems.

Across his *oeuvre*, Havel maintains that forces imposing reductive definitions on human existence are the source of totalitarian power. This critique manifests in his plays, such as "The Memorandum" (1965), which lampoon ideological and bureaucratic language, exposing how jargon can be used to obscure meaning and manipulate reality. His examination of language as a tool of power extends the Czech tradition's concern with how scientism can be used to justify oppression through the language of progress or advancement. Through both his dramatic works and political writings, Havel develops a comprehensive critique of systems that reduce human meaning to technical or bureaucratic terms. His famous New Year's Address on January 1, 1990, exemplifies this stance: "For forty years you heard from my predecessors in this office the same thing: how our country was flourishing... I assume you did not propose me for this office so that I, too, would lie to you... Our country is not flourishing. The enormous creative and spiritual potential of our nations is not being used sensibly" (Havel, 1997, p. 3).

Like Čapek's dystopias in *R.U.R.* and *War with the Newts*, where scientific progress dehumanizes individuals by reducing them to measurable outputs, Havel critiques how the communist regime manipulated scientific data to create a false narrative of progress. This aligns with Patočka's warning that both state socialism and global capitalism use scientific rationality to justify control, concealing human and environmental costs. Havel's speeches expose how industrial metrics and economic statistics masked the harsh realities of environmental degradation and declining life expectancies, reflecting Patočka's critique of science as a "false metaphysics"

detached from ethics and lived experience. In calling for a reorientation toward ethical and spiritual values, Havel not only rejects the regime's narrative but also critiques the broader misuse of scientific discourse as a tool of power. His message echoes Patočka's concept of the "solidarity of the shaken," urging citizens to confront the ethical consequences behind the façade of scientific justifications. I have previously published on the deep connection between the "solidarity of the shaken" and the "power of the powerless" and it is worthwhile to expand that connection now to the analysis here of a sustained generational critique at how ideology and power can coopt and corrupt technology and progressive science (Brennan, 2014).

Havel's 1994 *New York Times* opinion piece, "The new measure of man", further develops his critique of scientism. He calls for a holistic understanding of humanity that integrates scientific knowledge with moral responsibility and respect for the mysteries of human existence. Havel emphasizes the need for a "new measure of man" that goes beyond technical rationality and embraces ethical considerations as fundamental to genuine progress. However, Havel's thought is not without contradictions. Consider, for instance, his one-time embrace of the Gaia Hypothesis where he claims "that the dense network of mutual interactions between the organic and inorganic portions of the Earth's surface form a single system, a kind of mega-organism" (Havel, 1994). Despite the clear Humboldtian undertones Havel risks falling into the same reductionism he critiques in scientism. This tension in Havel's work reveals a broader challenge in the critique of scientism: the temptation to replace one reductive framework (scientific materialism) with another (in this case, a quasi-mystical understanding of ecology). Despite this contradiction, Havel's work remains significant in its attempt to bring the philosophical critique of scientism into the realm of practical politics.

Havel's legacy in the Czech anti-scientism tradition is thus complex. On one hand, he powerfully articulates the dangers of reducing human existence to quantifiable metrics and technical solutions. Havel though is keenly aware of the need for action, and for action to have some framework behind it. Hence "living in truth" can, in its best sense be seen as the constant re-evaluation of one's position in order to not let a legitimate commitment to an idea transform into a stale reproduction of an oppressive stagnation. This tension in Havel's work serves as a reminder of the ongoing challenge in critiquing scientism: to maintain a commitment to complexity, nuance, and a grounded understanding of both science and human experience, even as we seek alternatives to reductive scientific worldviews.

Conclusion

The Czech tradition of anti-scientism, as embodied in the works of Masaryk, Čapek, Patočka, Šafařík, and Havel, offers a rich and nuanced critique of the dominance of scientific rationalism in modern society. This intellectual lineage, spanning nearly a century, provides a valuable framework for navigating the complex relationship between scientific progress and human values in our contemporary world.

Masaryk's humanistic approach laid the foundation, emphasizing the need to integrate scientific knowledge with ethical considerations. His concept of "titanism" warned against the hubris of unchecked scientific ambition, a theme that resonates throughout the works of his successors. Čapek, through his literary prowess, vividly illustrated the potential consequences of divorcing scientific progress from moral responsibility. Patočka deepened this critique by exploring the phenomenological implications of scientific rationalism. His concept of the "natural world" and his warnings about the alienating effects of technological systems provide a philosophical grounding for resisting the reduction of human experience to mere data points. Šafařík, in his

radical stance, reminded us of the irreducible aspects of human existence that scientific inquiry alone cannot capture, challenging us to preserve the richness of lived experience in an increasingly technocratic world. Havel brought these philosophical insights into the political sphere, demonstrating how the misuse of scientific discourse can serve as a tool for ideological control. His call for “living in truth” serves as a powerful antidote to the dehumanizing tendencies of both totalitarian regimes and unchecked market forces.

As we grapple with the challenges posed by AI, Big Data, climate change, and global health crises, the Czech tradition of anti-scientism offers several crucial insights. It emphasizes the necessity of integrating scientific knowledge with ethical reflection and humanistic values, while maintaining a critical stance towards claims of scientific objectivity, especially when used to justify political or economic agendas. The tradition underscores the need to preserve and value aspects of human experience that cannot be quantified or reduced to scientific terms, while warning against replacing one form of reductionism (scientific materialism) with another (mystical or ideological alternatives). In our current era, where AI algorithms increasingly shape our social interactions, where Big Data informs public policy, and where global challenges like climate change and pandemics require coordinated scientific responses, the Czech tradition of anti-scientism remains profoundly relevant. It calls us to approach these issues with nuance, to resist oversimplification, and to continually question how our use of technology and scientific knowledge affects our humanity.

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