



## Science, Politics, Activism in the U.S.: A Three-Body Problem

*Nafis Hasan*

**ABSTRACT:** The steady depoliticization of science with its concurrent neo-liberalization has brought us to empty epithets such as “believe in science” and the rise of anti-scientific populism, exemplified by the right-wing backlash to COVID vaccines across the globe and on most prominent display in the United States. The fears that propelled scientists to take to the streets in the early days of the Trump administration in the U.S. have largely been assuaged as bipartisan support continues to pour in for profitable chronic diseases, ballooning the budget of National Institutes of Health and continuing the biotech boom. Scientists, who were galvanized into participating in the political sphere and elected to office, have turned out to serve the interests of capitalists instead of the working class. Currently, science activism remains constrained within lobbying and running for office, a politics divorced from material reality. This complex scenario then presents us with a three-body problem—how can scientists practice politics with a material basis? Are politics and activism the same thing? If not, what differentiates them? And lastly, how do we solve it? In this essay, focusing on the political and social landscape of the U.S., I trace the historical class position of scientists in the U.S., and argue that the solution lies in the practice of Marxist politics, one that is grounded in class relations and takes place at the point of scientific knowledge production. Just as there is no general solution for the three-body problem in a closed form, tactics of challenging capitalist power and creating a science for the people will require learning from history and evolving with the shifting political landscape.

**KEYWORDS:** Science, politics, organizing, activism, labor.

### Introduction

The election of Donald Trump as the President of the United States in 2016 was followed by a bloom of “Believe in science” and “In this house we believe science is real” signs in the politically liberal neighborhoods across

---

Hasan, Nafis. 2023. “Science, Politics, Activism in the U.S.: A Three-Body Problem.” *Marxism & Sciences* 2(2): 13–28. <https://doi.org/10.56063/MS.2310.02202>

- *Correspondence:* Nafis Hasan, Brooklyn Institute for Social Research, New York.
- e-mail: [nafis.hsn@gmail.com](mailto:nafis.hsn@gmail.com)
- ORCID: 0000-0001-7124-2734
- DOI: 10.56063/MS.2310.02202
- *Received:* 09.04.2023; *Revised:* 25.07.2023; *Accepted:* 27.07.2023
- *Available online:* 05.11.2023.

the country. Trump had run on a platform that denied the scientific basis for the climate crisis, and his election to the highest office in the country sounded the alarm that cuts to the nation's budget for scientific research was coming, along with other strict regulations. True to his campaign platform, Trump did indeed gut the U.S. Environmental Protection Agency (EPA), withdraw the U.S. from the Paris Agreement and re-enacted a prohibition on embryonic stem cell research, overturning the Obama-era decision. Regardless of the nuances of such actions (e.g. did the Paris Agreement actually help combatting the climate crisis), Trump's actions were broadly viewed as anti-science and an attack on the faith that the scientific method had garnered in the public mind in the last two centuries.

Subsequently, scientists across the world organized a million strong March for Science across 600 cities to commemorate Earth Day in 2017, as a protest against the anti-science narrative that Trump embodied and espoused (Wessel 2020). March for Science took on the life of a non-profit with an operating budget of \$300,000 and a handful of full-time and part-time employees; however, the lack of concrete goals saw a steep decline in public participation during the 2018 March for Science. By that time, even though Trump had promised cuts, Congress had pushed back against those cuts and throughout Trump's tenure as U.S. President, would continue to do so and in some areas, boost funding compared to previous areas. Under the leadership of Scott Pruitt, a well-known climate change skeptic and ally of the fossil fuel industry, the EPA did indeed see drastic cuts in its budget and rollback of environmental regulations. However, during Trump's presidency, the National Institutes of Health saw its budget increase by nearly \$10 billion, the National Science Foundation grew by \$784 million and NASA by \$3.3 billion, all thanks to bipartisan efforts in Congress (Hourihan 2019). The fear of cuts abated, the materialist basis for bringing forth thousands of scientists, trainees and supporters wobbled leading to the tepid turnout in 2018 for March for Science, which focused solely on the climate crisis (Wessel 2020).

The COVID-19 pandemic saw a revival of such "believe in science" sentiments as the debate over lockdown and masking raged in the media sphere, with anti-vax sentiments gaining prominent ground among the right-wing ideologues and initially in the White House. Interestingly, Trump later took credit for enacting the Defense Production Act, necessary for financing and producing the COVID-19 vaccine at the requisite scale, a move that challenged the anti-science label bestowed upon him. But COVID-19 lockdown and masking debates saw scientists on both sides,

muddying the waters for the general public who were confused as to which science to believe in. This confusion lend more credence for conservatives to push back on liberal public health measures such as masking to the point that even under the recently elected Democrat President Joe Biden, the U.S. federal government lifted the mask mandate amidst celebration, despite public health guidelines recommending that masking still be in effect.

The fundamental issue made stark by the chronicle of events above is the misunderstanding that science is apolitical—an idea that is a product of steady erasure of politics from the scientific enterprise in the U.S. over the last few decades that began with the anti-communist propaganda during the Cold War (Gordin 2019). Under this misconception, advocacy for science turns towards the well-known and practiced, albeit mostly futile, method of pressuring elected representatives for policy changes. However, the levers of power are not moved by such lukewarm activism, as is already proven in the case of the climate crisis. Thus, today some academics and scientists have called for further disruptionary, and mostly pacifist, tactics to put even more pressure on governments to take action. The obviously glaring hole in this strategy is the lack of a materialist basis, which is also a result of the depoliticization of scientific practice. This creates a classic three-body problem, consisting of science, politics and activism, where none of the three components line up to produce a desired outcome. The intent of this essay is to provide a solution to this three-body problem by rooting politics into scientific research and practice, and to explicate the materialist basis for scientists' power which can then be leveraged for organizing to gain real victories.

### **Science and Politics: A Misunderstanding**

The rise of anti-science sentiments in the Trump era also prompted scientists to run for office and dedicated political action committees (PACs) to support them sprang up as offshoots of March for Science (Wessel 2020).<sup>1</sup> Leveraging their identities as scientists, and by extension as heralders of technocracy and proponents of reason, these candidates ran for seats at all levels of governance in 2018—from school boards to congressional seats (Sifferlin 2018). Most of these candidates did not win, and some of them who did, found their application of scientific method in solving problems, to be insufficient in dealing with real life issues. For example, Valerie

---

1. A prominent example of such a group is 314 Action, its name a nod to Pi Day.

Horsely, a decorated cell and developmental biologist working at Yale, lost her Connecticut state senate election in 2018 and then got elected to the legislative council for the town of Hamden in 2019. In 2020, she voted to cut \$2.8 million from the town's education budget that would have helped bridge the achievement gap between students of color and white students (Gurwitt 2020). In an ironical performance of allyship, she took to Twitter the same year to denounce a joke made about the model worm, *C. elegans*, by extrapolating the basis of the joke to be sexist and racist. In 2021, she used her identity as a woman and as a "doctor" (in light of the First Lady of the U.S. Dr. Jill Biden's deserved honorarium), to weaponize parliamentary procedure and prevent a black council member, Justin Farmer, from representing his constituents at a finance committee meeting (Aman and Price 2021). Consequently, Horsely resigned from her position at the end of her term.

The incident with Horsely is not a one-off case where the identity as a scientist does not automatically mean a left-wing orientation to sociopolitical issues. Mark Kelly, a celebrated astronaut elected as a Senator from Arizona in 2020, voted against the Protect the Right to Organize (PRO) Act, which would have enfranchised millions of workers in the U.S. to unionize and afforded greater protections at the workplace (Grim 2021). Joe Cunningham, an ocean engineer elected as a Representative from South Carolina, joined the Blue Dog Coalition—a group of Democrats who consider themselves as moderate to conservative. His political orientation is manifested in his voting record—according to GovTrack, during his two year stint in the U.S. House of Representatives, Cunningham had the fifth least left-leaning voting record compared to other House Democrats (GovTrack 2021). Elaine Luria, a nuclear engineer elected to Congress from Virginia in 2018, was the only Democrat who voted against US military withdrawal from Iraq in 2021; during her 2018 campaign, she backtracked on her promise to not accept any corporate funding and ended up with thousands of dollars from defense contractors and tobacco companies (Fiske 2021).

The decision made by above scientist politicians is not off-the-mark from their fellow Democrat politicians, but their election via the scientist identity as a reaction to Trump and the Republicans' general anti-science views enforces the false dichotomy that Democrats are more "pro-science" than Republicans (Armstrong 2017). While Democrats have paid more lip-service in championing the need for scientific evidence in policymaking, the years of the COVID-19 pandemic under President Biden and his Centers for Disease Control and Prevention administration hardly hold up that

image. Why would then scientists run on the Democrat ticket? And more importantly, once elected, why do they vote along ideologically conservative lines?

The answer to the first question has to do with the class position of scientists in society—scientists as white-collar workers tend to be educated liberals who are more likely to support and vote for Democrats. This voting pattern is consistent with the ideals of a technocratic state that scientists as white-collar workers are dependent on, as C. Wright Mills' classic study has shown (Mills 2002). That, paired with the Republican party's anti-science stance in some cases (e.g. stem cell research, vaccines, climate change, etc.) and the party's "populist" turn against technocratic rule (and by extrapolation, regulations) have made the Democratic Party the easy choice for scientists considering elected offices (Kaurov et al. 2022). This choice is further validated by the dominance of a quasi-two party system within the U.S., where any third party or independent candidates barely make a dent in the polls.

The answer to the second question above lies in the fact that the scientific enterprise has been steadily depoliticized in the decades following the McCarthy era in U.S. history—the separation of politics used as an anti-communist tool—concurrent with its neoliberalization. Despite the explosive growth in scientific research following World War II, driven primarily by infusion of funds from the U.S. federal government, the scientific enterprise became fully subsumed under capitalism, leading Levins and Lewontin to conclude in 1985—"modern science is a product of capitalism" (Levins and Lewontin 2007), turning scientists into mere technicians. To give but one example, the race to sequence the Human Genome Project between 1990–2003 saw the singular focus on decoding the sequence demote scientists to technicians running gels instead of asking questions of what one would do once the sequence was decoded. Interestingly, it is common lore that the private sequencing company owned by Craig Venter had already sequenced the genome, but Venter in his "magnanimity" had allowed the NIH to publish the results first so the public wouldn't lose faith in the institution. As such, the divorcing of social, cultural and political biases from scientific practice has resulted in the widespread belief that science must be apolitical since it is rational—a resuscitation of the Weberian norm of axiological neutrality.

Such a stance has unfortunately served to perpetuate the neoliberal agenda, creating a myriad of issues that shake the trust that both general public and scientists have placed on the scientific method. As André Gorz

once wrote—“the belief that [science and technology] are value free and politically neutral, and that their “advancement” is a good and desirable thing because knowledge can always be put to good uses, even if it is not, presumably—is nothing but an ideology of self-justification which tries to hide the subservience of science and technology—in their priorities, their language, and their utilization—to the demands of capitalist institutions and domination” (Gorz 1972).

Thus, there now exists a “publish or perish” environment within academia, giving rise to the reproducibility crisis, corruption among scientists and misuse of public funds, spawning of predatory journals and conferences and much more (Pagano 2017). The continued influx of money from the federal government has served largely the ancillary industry that profit off of academic research—when NIH’s budget doubled between 1997–2003, the growth was mainly observed in ancillary markets such as reagent companies, expansion of universities and number of NIH contractors (Pagano 2017). The blurring of public and private interests in the scientific realm has resulted in scientists for hire by industry, especially the ones facing criticism for exacerbating the climate crisis and other societal ills, as detailed elsewhere by Naomi Oreskes and Erik Conway in their book *Merchants of Doubt* (Oreskes and Conway 2011).

The sterilization of politics from science has resulted in a void filled by a liberal politic which has led to deliberate manipulations of the levers of power in society. Politics has turned into “voting harder” for candidates who “champion science” (e.g. the leading magazine *Nature* endorsing Joe Biden in the 2020 U.S. Presidential elections) or advocating for policy-based changes through congregations like March for Science. But these approaches miss the fundamental point that elected officials are beholden to private interests as much as to their constituents, if not more, and that power to move politicians and policies don’t come from unorganized masses, but rather organized workers who would fight for their material interests. This brings us to the issue of activism, the common form of advocacy practiced by scientists on the left.

### **Partisanship, Political Hobbyism and the Limits of Activism**

As the 2017 March for Science took shape, its proponents came under fire for politicizing science—questions about why the March had put out a Diversity statement abounded despite well-known facts that the U.S. scientific community remains largely white and male. Following the March of

Science, scientists were viewed in a more favorable light by liberals whereas conservatives believed that scientists were more interested in their personal gain than solving important problems (Motta 2020). A study published early in 2023 showed that *Nature*'s endorsement of Biden in the 2020 U.S. presidential elections cost the magazine scientific credibility among conservatives (Lupia 2023). In both cases, the reason given was the “politicization” of science, or more aptly, the partisanship of science.

Partisanship in U.S. politics has been on the rise since the 1970s; a 2014 study by the Pew Research Center show the increasing polarization between the two camps with concurrent rise in ideological uniformity (Geiger 2014; Brewer 2005). This would explain why “politicization” often is synonymous with partisan bias, despite bipartisan support for increased science funding. This does not mean that certain conservatives question scientific evidence or that certain Democrats do indeed advocate for evidence-based policymaking, but in general this bipartisan support for more funding is largely in the interest of capital and propagation of the “social contract” between the federal government and private interests (Maienschein 2014). However, this aspect of how partisanship operates in the service of capital is largely ignored by scientists taking part in political advocacy as citizens. Further, when scientists do engage in politics, it is mostly in the form of “political hobbyism”—treating politics as entertainment and expression of identity—given their class and social positions and political leanings (Hersh 2019). Hersh's research shows that those who engage in politics via media and complaining tend to be college educated, white and male and on the political center and left—descriptions that would fit an average scientist in the U.S.

But it is also true that much of the same demographics were galvanized into action for the March for Science in 2017 and to a smaller extent beyond that. A prominent field where scientists have actively engaged in political advocacy is the climate crisis, arguably the biggest litmus test of our times on whether one is pro- or anti-science—the test itself a symptom of the increased polarization in our society. Scientists on the liberal to left spectrum continue to participate in various forms of climate activism—participating or donating to non-governmental organizations, lobbying politicians, and non-violent civil disobedience. The need for the latter comes from the realization that the technocratic process of change is neither sufficient nor effective given the power of the fossil fuel industry, and in the shadows, the interest of capital. Thus, scientist activists argue that

non-violent civil disobedience tactics should be undertaken to put more pressure on politicians (Nicholas 2023).

This approach, exemplified by the Climate Youth Strikes and the Extinction Rebellion, again suffers from a misunderstanding of how political power works. For example, while Greta Thunberg, the initiator of the climate youth strike, has been invited to the Davos Economic Forum to speak to world leaders, her speech was treated more as a performance than a serious reckoning of the dire state of the world. The Extinction Rebellion is often derided as having no political orientation, and their public stunts have drawn ire from the working class who have historically been deemed the agents of transition away from capitalism. While the non-violent civil disobedience tactic is highly praised by activists in the U.S., given its effectiveness during the Civil Rights movement and allegedly the decolonization movement in the Indian subcontinent, it also fails to account for the historical trends where violence often accompanied the non-violent movements (Malm 2021). Fundamentally, such tactics ignore the idea that the power of capital cannot be challenged without withholding the labor that produces surplus value for capital. From the New Deal to the 40 hours work week to the formation of the EPA by Richard Nixon and subsequent environmental regulations – all these sociopolitical and economic changes were brought about by organized masses, a social movement that was supported by labor unions, who understood that to successfully challenge the interest of capital, one must realize the power and value of their own labor. Scientists need to be able to do the same if they are to bring forth the changes they advocate for. To do so, we first need to analyze the class position of scientists in U.S. society.

### **The Curse of the Professional-Managerial Class**

The question of where scientists fall as workers has been long discussed since scientists do not produce surplus value, but only “contribute to its realization” (Garner 1974a). In his 1972 article “Technical intelligence and the capitalist division of labor,” André Gorz argued that to figure out where scientists and technical workers fall within the class divisions in our capitalist society, we need to first figure out “what functions technical and scientific labor perform in the process of capital accumulation and in the process of reproducing capitalist social relations.” Gorz concluded that technical workers, alienated from the process of production, also serve to enact



a social division of labor given the specialized knowledge they need to obtain for their work, and therefore maintain the hierarchical structure of labor as dictated by capitalist social relations.

Gorz's article prompted a discussion among Marxist scientists of the time in the radical publication *Science for the People* on the role of the technical worker. While Gorz's analysis was generally accepted as being true, his conclusion that the managerial role of technical workers makes them the "immediate enemy" of workers on the shop floor was contested. As Jeff Schevitz, a sociologist at University of California Berkeley, pointed out – "[technical workers'] privileged status does not negate the concrete reality of the proletarianization of scientists and technologists" (Schevitz et al. 1973). This reality is portrayed in the fact that the technical workers in the U.S. were organizing as early as 1933 with the formation of Federation of Architects, Engineers, Chemists and Technicians (FAECT) and the World War II years (1943–45) saw one of the largest spikes in unionization by engineers (Garner 1974b; McDonald and Tomasula 2022). FAECT would go on to play a significant role in passing the Housing Act of 1937 that provided millions of dollars in subsidies to build low-income housing (McDonald and Tomasula 2022).

However, the ideological distinction between technical workers and their counterparts on the shop floor interfered with unionization efforts. For example, the Committee to Plan a Computer Union got off the ground in December 1970 in New York with the ambitious goal to create an industry-wide union which would include both professional (programmers, analysts, etc.) and non-professional workers (key-punch operators). However, a year later, the organizers had to admit failure in their efforts to do so—as Larry Garner, writing in *Science for the People* magazine write—"ascribing it to the fact that most computer workers held values which prevented them from seeing the meaninglessness of the work they are doing" (Garner 1974a). In some cases, the ambiguous position of technical workers in the production process has resulted in skirmishes between unions, thus weakening bonds of solidarity across workers against the employer and affecting organizing campaigns negatively. The Society of Professional Engineering Employees in Aerospace (SPEEA), started in 1944 and who waged and won the largest white-collar strike in the U.S. in 2000 against Boeing, came under jurisdictional attacks from the International Association of Machinists (IAM) District Lodge 751, who represented the blue-collar workers at the same Boeing facility. When the same IAM local tried to organize thousands of non-union, white collar Boeing workers in 2001,

they failed by a huge margin. When contrasted with SPEEA's organizing victory in 2000 in Wichita, Kansas, IAM's failure speaks to the role that professionalism and educational attainment can play in weakening worker solidarity (McDonald and Tomasula 2022).

Given the educational levels and perceived income levels, scientists are often relegated to the "professional-managerial class" (PMC)—a class that leans towards voting Democrats in the U.S. elections and have high income and education levels (Fertik 2018). However, a recent dissection of this stratum of class, especially as to who votes for Democrats, reveals that the PMC itself might be fragmenting—higher educational attainment doesn't necessarily translate to higher income levels (Maisano 2023a). While the general presumption has been that low-income folks tend to vote for Republicans, a closer look reveals that low-income low education voters have shifted their allegiance towards conservatives whereas low-income high education voters are still voting for center-left and left parties; high education low-income white voters also form the core social base for the left in capitalist countries. In fact, Maisano argues that "many PMCs are actually working-class" who are "pro-labor and pro-redistribution" (Maisano 2023b).

How do we make sense of this trend within the context of scientists? The term "scientist" has been used as a catch-all term for a diverse array of workers, ranging from graduate students to postdoctoral researchers and professors in an academic setting to technical workers in various engineering and tech industries. The income differential between a fully tenured professor compared to other academic workers, especially graduate workers and postdoctoral researchers, can explain the rise of the high education low-income group who are in favor of redistribution. The rise in living costs over the decades did not result in an adjustment of graduate worker salaries, the dire situation reflected in a 2020 national survey that found more than 25% of respondents suffered from housing or food insecurity (Langin 2022). On the contrary, universities have undertaken austerity measures to shore up their budgets. The increased accessibility of higher education to the public has produced a surplus army of academic labor who produce surplus value beyond the wages and benefits they take home (Torracinta 2020; Hasan and LaRock 2021).

The COVID-19 pandemic worsened the already stifling working conditions of lower-rung academic workers as universities put on hiring freezes and job prospects dried up, resulting in a severe crisis of their wellbeing (Nature Editorial 2020). Even as the NIH and NSF proposed salary scales

for graduate and postdoctoral workers, these guidelines often do not take into account differences in living costs across geographical regions. Moreover, compared to graduate workers, postdocs often do not get additional benefits such as childcare support, health insurance and retirement (Yalcin, Martinez-Corral, and Chugh 2023). It's not just the graduate and postdoctoral workers—in 2021, less than one—eighth academic scientists had tenure compared to more than 50% in the 1970 (Wu 2021).

Gorz had argued that an academic worker cannot succeed “unless [the workers] put the interest of capital (of the company or corporation or the State) before the interest of the people”—the curse of the worker belonging to the PMC (Gorz 1972). What would it take for the scientist to put the interest of the people before their careers in times of such precarity? Or in the words of the historian Gabriel Winant, what would it take “to turn [the PMC] against its masters?” (Winant 2019).

### Resolving the Three-Body Problem

It is a matter of assimilation of the scientist to the cause of the proletariat, to the construction of a new society in which he played his full part within the process and as a scientist. Science was to be developed by scientists, but a new type of scientist, with his feet more firmly on the ground, with his mind more opened to the whole, with his life and work more organically connected to the society of which he formed a part. – Christopher Caudwell<sup>2</sup>

The business model adopted by universities means that universities now actively contribute to social ills as landlords in areas with housing crisis, participants in the prison-industrial complex and exacerbate the climate crisis by investing in fossil fuel industries and deforestation (Torracinta 2020; Hasan and LaRock 2021). The neoliberalization of the laboratory during the 1970-80s incorporated aspects of an assembly line, thus further alienating scientists from the product of their labor and proletarianizing them (Wu 2021). The convergence of these two phenomena can perhaps provide a path to answering Winant's question above—as the contradictions heighten for scientists in the workplace and their daily lives, they can begin to see themselves as part of the proletariat and not apart from them. Thus, they can begin the transformation to the “new type of scientist” as referred to in the epigraph. Such transformation cannot be achieved only through the assimilation that Caudwell writes about, but also requires the self-realization by scientists that they are part of the proletariat—indentured into wage slavery, toiling way in the interest of capital—and the actualization of their organizing as workers, can we move the levers of power against capitalism and towards the greater good and thus, resolve the three-body problem.

---

2. As paraphrased by Helena Sheehan (Sheehan 2018).

While there is historical precedence of technical worker unions fighting for greater social benefits, e.g. FAECT fighting for housing subsidies as mentioned above, currently the union density in the U.S. is at its lowest. It also stands true that unions are not inherently emancipatory, and it was the communists and socialists within these unions who drove the agenda to fight for the greater good. The once-powerful industrial unions who were critical in passing the New Deal, and environmental regulations during Richard Nixon's presidency, now are on the backfoot after decades of internal corruption, disorganization and increasingly anti-labor legislation passed in the U.S. The working class is increasingly fragmented and decomposing, and mass movements in the last few years in the U.S., such as the Black Lives Matter and George Floyd protests in 2020, did not result in major sociopolitical changes. Given these conditions, the assimilation and actualization of the scientist to the proletariat, admittedly, seems to be a tall order.

The recent surge in STEM worker organizing across the U.S., especially into industrial unions such as the International Union, United Automobile, Aerospace, and Agricultural Implement Workers of America (UAW) and the United Electrical, Radio and Machine Workers of America (UE), can shed light into how this assimilation might take place. Currently, 20% of UAW membership are campus workers; the UE is continuing its streak of graduate worker organizing with announcement of a drive at Stanford University at the time of this writing (McDonald and Tomasula 2022). It's not only graduate student workers—the UAW is currently organizing fellows at the NIH as well (NIH Fellows United). In 2022, academic workers across 25 different universities voted to unionize by large margins (Eidlin 2023).

It's not just new organizing drives. Academic workers are also on a striking streak. Last year, 48,000 graduate workers, student researchers, postdoctoral scholars and academic researchers in the University of California system, represented by two UAW locals, held the biggest academic worker strike in U.S. history (Eidlin 2023). The reverberations of this strike were felt far beyond the state of CA. Emboldened by the offensive nature of the UC strike, the Temple University Graduate Student Association (TUGSA) went on strike for over a month starting at the end of January 2023. The strike ended with major victories including higher wages, paid parental leave and health insurance premiums for dependents (Quinn 2023). Per the Cornell University Institute of Labor Relations, there have been 19 academic worker strikes since January 2022 to date (ILR Labor Action Tracker).

These strikes, as sociologist Barry Eidlin writes, are not defensive, but rather are undertaken to “expand gains” (Eidlin 2023). The gains are not only financial, but also include social causes as well. For example, the bargaining platform of the Graduate Employees Organization at University of Michigan (GEO AFT-Michigan local 3550) include abolitionist measures, transgender healthcare and reproductive rights among others (GEO 3550). In 2021, after a 3-week strike, the Union for Graduate Employees at New York University (GSOC UAW local 2110) won concessions on getting police off of campus, in

the wake of the Black Lives Matter protests in the summer of 2020 (Eshghi 2022).<sup>3</sup> In 2018, the UAW local 4121 that represents over 2000 academic workers went on a strike and won numerous benefits including healthcare benefits for trans workers (Sanchez 2022). Reflecting on how labor unions can shift the balance of power, members of the Student Workers of Columbia (UAW local 2710) wrote “we need to consider the socioeconomic impact of our research and the exploitative relationships in our labs and departments. What motivates our research? Which institutions (military, governmental, or private) fund our research, and why? Finally, who stands to gain from the work we do, and how?” (Bartusek et al. 2022)—questions a scientist, who is a part of the proletariat, might ask.

Beyond social causes in their contracts, academic workers have turned out in solidarity with on campus service workers in a display for cross-class solidarity (Hasan and LaRock 2021). The integration of academic workers into UAW has planted the seeds of such solidarity, as UAW’s Region 9 director Vicente called them “an invaluable asset” and that the academic workers “have been able to help us to try to organize ourselves” (Press 2023). With the upcoming contract fights for UAW with the big three automakers in the US, it remains to be seen what roles academic workers will play. But if the solidarity between striking academic workers and delivery drivers represented by Teamsters is any indication, it can be expected that academic workers will be on the picket lines if there are strikes.

It’s not uncommon for social causes to be included in union contract fights—teachers’ unions across the U.S. have historically employed what is called “bargaining for the common good” to fight for racial justice, climate justice, immigration reform and more (Bargaining for the Common Good 2018). Academic workers unions could also incorporate this strategy within their contract fights, especially considering the multi-faceted oppressive identities that a university inhabits today.

The three-body problem in physics, which involves three bodies orbiting each other trapped in corresponding gravitational forces, has no general solution. Instead, it can only be solved under particular conditions and the solutions found so far have relied on historical precedents (Cartwright 2013). Similarly, the problem of science vs politics vs activism does not have a general solution, but rather depends on the historical precedents and current conditions, as Marx has described in the process of historical materialism. Thus, it is necessary to understand the current class position of scientists and to realize that while scientific labor does not directly involve market exchange, the production of scientific knowledge follows the logic of capitalism, alienating scientists from their labor. To further the cause of the greater good, this alienation needs to be overcome so the power of capital can be challenged alongside social movements, just as history shows us.

---

3.This is in stark contrast to the performative Diversity, Equity and Inclusion efforts undertaken by universities in the wake of the 2020 uprisings (Prescod-Weinstein 2020)

## REFERENCES

- Aman, Talat and Zaporah Price. 2021. "Activists Demand Yale Professor Valerie Horsley Resign from Hamden Legislative Council." *Yale Daily News*. April 16, 2021. <https://yaledailynews.com/blog/2021/04/16/activists-demand-yale-professor-valerie-horsley-resign-from-hamden-legislative-council/>.
- Armstrong, Eric. 2017. "Are Democrats the Party of Science? Not Really." *The New Republic*, January 10, 2017. <https://newrepublic.com/article/139700/democrats-party-science-not-really>.
- Bargaining for the Common Good. 2018. "Concrete Examples of Bargaining for the Common Good." <https://www.bargainingforthecommongood.org/wp-content/uploads/2019/06/Common-Good-Demands-Memo.pdf>.
- Bartusek, Sam, Paul Brown, Tess Jacobson, Claire Warner and Avi Zeff. 2022. "More Is Stronger: Only Radical Bottom-up Unionism Can Change STEM." *Science for the People Magazine* (blog). December 11, 2022. <https://magazine.scienceforthepeople.org/labor-special-issue/more-is-stronger-only-radical-bottom-up-unionism-can-change-stem/>.
- Brewer, Mark D. 2005. "The Rise of Partisanship and the Expansion of Partisan Conflict within the American Electorate." *Political Research Quarterly* 58(2):219–29. <https://doi.org/10.2307/3595624>.
- Cartwright, Jon. 2013. "Physicists Discover a Whopping 13 New Solutions to Three-Body Problem." *Science*. March 8, 2013. <https://www.science.org/content/article/physicists-discover-whopping-13-new-solutions-three-body-problem>.
- Eidlin, Barry. 2023. "The Future of Academic Unionism Will Play Out in the University of California System." *Jacobin*. February 15, 2023. <https://jacobin.com/2023/02/uc-strike-uaw-contract-academic-workers-conflict>.
- Eshghi, Iraj. 2022. "Power Struggles: Material and Cultural." *Science for the People Magazine* (blog). December 11, 2022. <https://magazine.scienceforthepeople.org/labor-special-issue/power-struggles/>.
- Fertik, Ted. 2018. "(Occupational) Class and Party Identification." *Medium* (blog). October 30, 2018. <https://medium.com/@ted.fertik/occupational-class-and-party-identification-72327cbdc045>.
- Fiske, Warren. 2021. "Elaine Luria Flips on Pledge to Refuse Corporate PAC Money." *Politifact*. February 5, 2021. <https://www.politifact.com/factchecks/2021/feb/05/elaine-luria/elaine-luria-reverses-pledge-refuse-corporate-pac/>.
- Garner, Larry. 1974a. "Computer Workers as Professionals." *Science for the People* 6 (6): 28–32.
- . 1974b. "Engineers and Unions." *Science for the People* 6 (6): 23–27.
- Geiger, Abigail. 2014. "Political Polarization in the American Public." *Pew Research Center - U.S. Politics & Policy* (blog). June 12, 2014. <https://www.pewresearch.org/politics/2014/06/12/political-polarization-in-the-american-public/>.
- GEO 3550. n.d. "Proposed Contract Changes: 2022-2023 Contract Campaign." Accessed. April 9, 2023. <https://www.geo3550.org/wp-content/uploads/2022/09/Proposed-Contract-Changes-%E2%80%93-2022-2023-Campaign.pdf>.
- Gordin, Michael D. 2019. "Is Science Political?" *Boston Review*. August 21, 2019. <https://www.bostonreview.net/articles/michael-d-gordin-science-political/>.
- Gorz, André. 1972. "Technical Intelligence and the Capitalist Division of Labor." *Telos* 1972 (12): 27–41. <https://doi.org/10.3817/0672012027>.
- GovTrack, 2021. "Rep. Joe Cunningham [D-SC1]'s 2020 Legislative Statistics." *GovTrack.U.S.* January 30, 2021.

- [https://www.govtrack.us/congress/members/joe\\_cunningham/412814/report-card/2020](https://www.govtrack.us/congress/members/joe_cunningham/412814/report-card/2020).
- Grim, Ryan. 2021. "Sen. Mark Kelly Is Emerging as an Obstacle to the PRO Act." *The Intercept*. April 12, 2021.  
<https://theintercept.com/2021/04/12/pro-act-mark-kelly-angus-king-dsa/>.
- Gurwitt, Sam. 2020. "Hamden Council Flat-Funds Ed Board." *New Haven Independent*. May 17, 2020.  
[https://www.newhavenindependent.org/article/hamden\\_council\\_flat-funds\\_ed\\_board](https://www.newhavenindependent.org/article/hamden_council_flat-funds_ed_board).
- Hasan, Nafis and Timothy LaRock. 2021. "The PRO Act Could Be a Game Changer for Academic Labor Organizing." *Jacobin*. April 21, 2021.  
<https://jacobin.com/2021/04/pro-act-unions-academic-workers-universities>.
- Hersh, Eitan. 2019. "Politics Is for Power, Not Consumption." *Boston Review*. November 4, 2019.  
<https://www.bostonreview.net/articles/eitan-hersh-politics-power/>.
- Hourihan, Matt. 2019. "Update: In the Age of Trump, Congress Keeps Boosting Science Funding." *American Association for the Advancement of Science*. December 18, 2019.  
<https://www.aaas.org/news/update-age-trump-congress-keeps-boosting-science-funding>.
- "ILR Labor Action Tracker." n.d. Accessed April 9, 2023.  
<https://striketracker.ilr.cornell.edu/>.
- Kaurov, Alexander A., Viktoria Cologna, Charlie Tyson and Naomi Oreskes. 2022. "Trends in American Scientists' Political Donations and Implications for Trust in Science." *Humanities & Social Sciences Communications* 9 (1): 368.  
<https://doi.org/10.1057/s41599-022-01382-3>.
- Langin, Katie. 2022. "Ph.D. Students Demand Wage Increases amid Rising Cost of Living." *Science*. May 23, 2022.  
<https://www.science.org/content/article/ph-d-students-demand-wage-increases-amid-rising-cost-living>.
- Levins, Richard, and Richard Lewontin. 2007. "The Commoditization of Science." *Libcom.Org* (blog). June 12, 2007.  
<https://libcom.org/library/commoditization-science>.
- Lupia, Arthur. 2023. "Political Endorsements Can Affect Scientific Credibility." *Nature* 615 (7953): 590–91.  
<https://doi.org/10.1038/d41586-023-00799-3>.
- Maienschein, Jane. 2014. "Constructing Embryos for Society." In *Embryos under the Microscope: The Diverging Meaning of Life*, 216–52. Cambridge, MA: Harvard University Press.
- Maisano, Chris. 2023a. "US Voting Patterns Are Shifting. But It's Not Simply 'Class Dealignment.'" *Jacobin*. February 1, 2023.  
<https://jacobin.com/2023/02/us-voting-patterns-shifting-class-dealignment-education-income>.
- . 2023b. "Class Politics Beyond the Blue-Collar?" Substack newsletter." *Labor Politics* (blog). February 14, 2023.  
<https://laborpolitics.substack.com/p/class-politics-beyond-the-blue-collar>.
- Malm, Andreas. 2021. *How to Blow up a Pipeline*. Brooklyn, NY: Verso Books.
- McDonald, Trent and Jewel Tomasula. 2022. "STEM Organizing in Waves: A Macro and Micro View." *Science for the People Magazine* (blog). December 11, 2022.  
<https://magazine.scienceforthepeople.org/labor-special-issue/stem-organizing-in-waves/>.
- Mills, C. Wright. 2002. *White Collar: The American Middle Classes*. Fiftieth Anniversary Edition, Fiftieth Anniversary Edition. Oxford, New York: Oxford University Press.
- Motta, Matt. 2020. "New Activism by Scientists Can Lead to Partisan Backlash." *Scientific American*. October 28, 2020.  
<https://www.scientificamerican.com/article/new-activism-by-scientists-can-lead-to-partisan-backlash/>.
- Nature Editorial. 2020. "Postdocs in Crisis: Science Cannot Risk Losing the next Generation." *Nature* 585 (7824): 160–160.  
<https://doi.org/10.1038/d41586-020-02541-9>.

- NIH Fellows United. n.d. "About Us | NIH Fellows United." Accessed April 9, 2023. <https://www.nihfellowsunited.org/about/>.
- Oreskes, Naomi and Erik M. Conway. 2011. *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Climate Change*. Reprint edition. New York London Oxford New Delhi Sydney: Bloomsbury Publishing.
- Pagano, Michele. 2017. "Don't Run Biomedical Science as a Business." *Nature News* 547 (7664): 381. <https://doi.org/10.1038/547381a>.
- Prescod-Weinstein, Chandra. 2020. "The Rules of the Diversity and Inclusion Racket." *The Riveter* (blog). June 16, 2020. <https://theriveter.co/voice/the-rules-of-the-diversity-and-inclusion-racket/>.
- Press, Alex. 2023. "Can the UAW Rise Again?" *Jacobin*. March 31, 2023. <https://jacobin.com/2023/03/uaw-convention-bargaining-shawn-fain-reform>.
- Prof. Kim Nicholas \*WeCanFixIt.substack.com\* [@KA\_Nicholas]. 2023. "Scientists, Don't Separate Activism and Research, Urges @JKSteinberger. We Need Ongoing Critical Reflection; Only Way to Understand a System Is Try to Change It. Activism Critical to System Change. 1/ <https://t.co/NQMC0ZlOoH>." Tweet. *Twitter*. [https://twitter.com/KA\\_Nicholas/status/1636309592823980032](https://twitter.com/KA_Nicholas/status/1636309592823980032).
- Quinn, Ryan. 2023. "Temple Strike Ends after Grad Students Accept Deal." *Inside Higher Ed*. March 13, 2023. <https://insidehighered.com/news/2023/03/14/temple-strike-ends-after-grad-students-accept-deal>.
- Sanchez, Shua. 2022. "Building Power in STEM Requires Championing Broad and Local Goals." *Science for the People Magazine* (blog). December 11, 2022. <https://magazine.scienceforthepeople.org/labor-special-issue/building-power-in-stem-requires-championing-broad-and-local-goals/>.
- Schevitz, Jeff, Mike Hales, Joe Neal, Stonybrook SESPA, Britta Fischer, Mary Lesser, Al Weinrub, and Andre Gorz. 1973. "Which Side Are We on - A Forum on the Class Position of Technologists." *Science for the People* 5 (3): 4-29.
- Sheehan, Helena. 2018. *Marxism and the Philosophy of Science: A Critical History*. Verso Books.
- Sifferlin, Alexandra. 2018. "Why More Scientists Are Running for Office in 2018." *Time*. February 7, 2018. <https://time.com/5134417/scientists-running-for-office/>.
- Torracinta, Simon. 2020. "Extinction Event." *N+1* (blog). May 28, 2020. <https://www.nplusonemag.com/online-only/online-only/extinction-event/>.
- Wessel, Lindzi. 2020. "Trump Catalyzed the March for Science. Where Is It Now?" *Science*. October 30, 2020. <https://www.science.org/content/article/trump-catalyzed-march-science-where-it-now>.
- Winant, Gabriel. 2019. "Professional-Managerial Chasm." *N+1* (blog). October 10, 2019. <https://nplusonemag.com/online-only/online-only/professional-managerial-chasm/>.
- Wu, Calvin. 2021. "Socialize the Lab." *Science for the People Magazine* (blog). September 15, 2021. <https://magazine.scienceforthepeople.org/online/socialize-the-lab/>.
- Yalcin, Esra, Rosa Martinez-Corral, and Mayank Chugh. 2023. "Retaining Postdocs by Recognizing Their Worth." *Nature Biotechnology* 41 (2): 296-98. <https://doi.org/10.1038/s41587-023-01656-4>.