

Ralf Ludwig

# Science under threat: Recognizing and countering attacks

## Prologue: The difference between freedom of expression and academic freedom

As a physical chemist, I naturally attended the Bunsen Conference in Dresden in 2026. On the topic of Properties and Processes under Confinement, we heard from exciting speakers, discussed presentations by doctoral students and postdocs, and engaged in lively conversations during poster sessions. It was a topic of our choice, worked on using methods we have selected and freely communicated at a conference: a testament to academic freedom. Academic freedom is enshrined in Germany's Basic Law (Art. 5 (3), sentence 1 GG) and forms a central pillar of independent research. It enables scientists to conduct research, teach, and disseminate their findings publicly without external pressure. Academic freedom therefore means the right to freely choose the topics and methods used in research, as well as the freedom to choose how research findings are communicated in teaching and beyond.

It differs from civil liberty of speech, which is also protected under the constitution as the right to freedom of expression (Art. 5, para. 1, sentence 1 GG). Renowned historian Joan Scott sums

up the difference succinctly: "Free speech makes no distinction about quality. Academic freedom does [1, 2]." What this means is that not every expression of opinion can sail under the flag of academic freedom. Rather, minimum requirements of "seriousness, rationality, and sufficient objectivity" apply, as does a "requirement for moderation," as Klaus Ferdinand Gärditz, professor of public law at the University of Bonn, affirms [3].

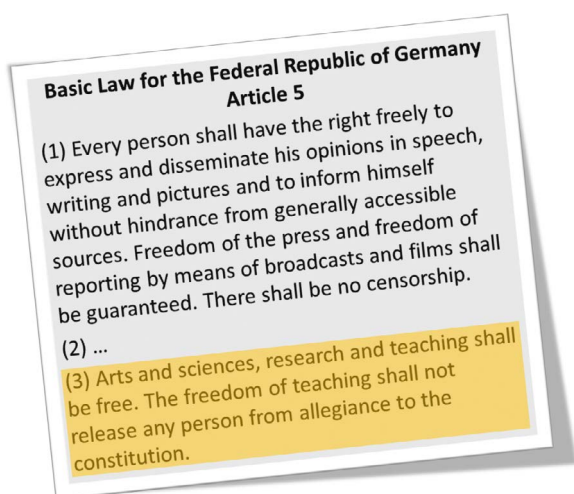
## Attacks on science and research worldwide

In the United States of America, freedom of speech has constitutional status, but there is no protected freedom of science. The consequences are well known: research funding that has already been approved is being withdrawn, researchers are no longer allowed to travel to present their findings at international conferences, and they are no longer allowed to publish their results in renowned journals of their choice. Research funding is being used as a political tool. Funds are being cut and will only be released again once universities have adapted to the right-wing agenda of the Trump administration and created an overall friendly academic environment for "conservative ideas."

Academic freedom is also under threat in Europe. Funding for universities has been cut for ideological reasons, professors critical of the regime have been dismissed, academic committees have been repopulated with political representatives, and in Hungary, an entire university has been closed.

## Attacks on science and research in Germany (by the AfD)

In Germany, science and research are also under threat. Because of their systematic, objective, transparent, and critical pursuit of knowledge and understanding, they are strategic targets of a "confirmed right-wing extremist" party, the AfD (so-called Alternative für Deutschland). The party attacks science and research as a whole, especially institutions that conduct socially sensitive or politically relevant research – climate, gender, democracy, memory culture, pandemic research. The aim is to highlight the dysfunctionality of research, question its legitimacy, and undermine trust in scientific authority. The open campaign against civil society, culture, free media, and, not least, academic freedom in the United States raises the question of whether such a development is also possible in Germany if the AfD is successful in the elections and enters government. The answer to this question is clearly yes.



**Fig. 1:** Basic Law for the federal Republic of Germany Article 5(3). Renowned historian Joan Scott sums up the difference: "Free speech makes no distinction about quality. Academic freedom does."

Prof. Dr. Ralf Ludwig  
University of Rostock  
Physical and Theoretical Chemistry  
Albert-Einstein-Str. 27, 18059 Rostock, Germany  
ralf.ludwig@uni-rostock.de

DOI-Nr.: 10.26125/amwq-wb04

This article is divided into three chapters. *First*, it identifies topics, disciplines, institutions, and personalities that are particularly targeted by analyzing AfD programs, motions, and minor interpellations in parliaments, as well as public statements by opinion leaders. *Secondly*, even without being directly involved in federal or state government, the AfD influences discourse in science and research, for example in gender politics, medicine, and climate research. Where will the AfD strike first once it is involved in government? The evaluation of programs, motions, and statements allows us to draw conclusions about this. *Thirdly*, a ten-point plan is proposed to ensure that we are well prepared and able to fend off attacks on science and research.

## I. Topics, disciplines, institutions, and personalities

### *Climate research*

The AfD denies man-made climate change and often refers to it as “climate hysteria” or “climate religion.” Researchers and institutions such as the Potsdam Institute for Climate Impact Research (PIK) are deliberately discredited. The role of former director Hans Joachim Schellnhuber as an advisor to the German government has been called into question. Climate researcher Mojib Latif from GEOMAR in Kiel has been defamed as a “prophet of doom.” The climate reports of the German Weather Service (DWD) are described as politically motivated. The AfD calls for the cancellation of funding for climate research and a halt to the expansion of renewable energies. International agreements such as the Paris Agreement are to be terminated.

### *Social sciences and humanities*

The AfD regularly defames gender studies, migration research, and democracy research as “ideological pseudoscience.” It wants to cut funding for these areas and abolish university chairs. Individual researchers are personally attacked through parliamentary inquiries and public campaigns – which is intended to have an intimidating effect.

### *History and Remembrance Culture*

The AfD attempts to reinterpret or relativize historical research on the Nazi era (“bird droppings” rhetoric). Memorial work and historical education projects dealing with the topics of National Socialism, anti-Semitism, and right-wing extremism are being targeted. The work of the Buchenwald and Mittelbau-Dora Memorials Foundation is criticized as “one-sided.” The scientifically based reappraisal by the Central Memorial of German Resistance or the Auschwitz Committee is defamed as a “cult of guilt.”

### *Social and cultural research*

Research projects on racism, migration, right-wing extremism, and hostility toward democracy are under attack. In minor interpellations, the AfD questions this research and labels it “left-wing ideology.” Scientists working on the topic of right-wing extremism are particularly targeted in public attacks. Examples include Andreas Zick from the Bielefeld Institute for Interdisciplinary Conflict and Violence Research, who researches right-wing extremism, racism, and anti-Semitism, and Michael Butler from the University of Tübingen, who is denounced as a “propagandist” for his research on fake news and conspiracy theories.

### *Democracy research*

Democracy research is accused of “one-sidedness” and “left-wing ideologization.” This applies in particular to projects carried out by the Göttingen Institute for Democracy Research, the Center for Research on Anti-Semitism at the Technical University of Berlin, and the Institute for Contemporary History Munich-Berlin (IfZ).

### *Medicine/Virology/Epidemiology*

During and after the coronavirus pandemic, the AfD fueled mistrust of epidemiological and virological research. Despite scientific recommendations to the contrary, it called for the immediate lifting of coronavirus measures. During the coronavirus pandemic, the Robert Koch Institute (RKI) was attacked as a “government institute” or defamed as being politically controlled. There were repeated calls to reform the institute and replace its leadership (“Wieler must go”). Experts such as Christian Drosten from Charité Berlin were labeled “alarmists” and their credibility was questioned.

### *Gender studies and gender research, educational sciences*

The AfD describes gender studies and gender research as “ideological pseudoscience.” In state parliaments, it calls for the abolition of chairs and professorships and the cancellation of research projects, which it describes as “ideological waste of money.” It wants to end their influence on universities and research policy. The AfD also calls for a return to a “traditional” view of roles and the family and criticizes educational institutions that carry out anti-discrimination projects, for example. It wants the goal of equality to be removed from university laws.

### *Anti-elite and anti-expert rhetoric*

Scientists are portrayed as an “out-of-touch elite” who “conduct research that ignores the people.” The AfD speaks of a corrupt and wasteful “power elite.” Expertise is replaced by so-called “common sense” – particularly evident during the coronavirus pandemic, when AfD members of parliament launched massive attacks on virologists and epidemiologists. This elite promotes politically motivated agenda-driven research such as gender, climate, and migration research.

### *Attack on externally funded research*

The German Research Foundation (DFG) is Germany’s largest research funding agency and the central self-governing body for science. It serves science in all its forms and disciplines. The DFG funds basic research of the highest quality and operates according to scientific principles. It is supported by the voluntary commitment of thousands of scientists from Germany and abroad. The AfD does not like this. In a draft election platform for the election to the 9th State Parliament of Saxony-Anhalt on January 23, 2026, it calls for the complete abolition of externally funded research. Funding agencies such as the DFG are accused in the document of imposing political requirements on every project grant. It states literally: “What does not conform to the political mainstream will not be funded. Climate research that does not confirm the dogma of human-caused climate change; migration research that sees more disadvantages than advantages in mass immigration; German studies that cultivate German identity rather than destroy it; COVID-19 research that concludes this virus is relatively harmless – all

of this and much more is being starved of funding through the systematic denial of third-party grants.” Point 11 in the chapter on Science is titled “End the Third-Party Funding Circus.”

### Foreign students

Immediately after the US tightened visa requirements for foreign students, the AfD followed suit with minor inquiries to state governments. In the Saxony-Anhalt state parliament, the AfD is questioning the rising numbers of foreign students and the legal basis for residence permits for foreign students in Germany. Questions about the role of academic progress and language skills are intended to identify criteria for revoking residence permits or at least restricting them. Specifically, it asks under what conditions foreign students in Saxony-Anhalt can be deported. The answer then serves as a legal blueprint, so to speak. This is a disastrous development for the internationalization of universities and the battle for the best minds worldwide.



**Fig. 2:** Freedom of science under threat: topics, disciplines, institutions, and personalities are targeted

## II. The AfD's Potential Agenda if It Joins the Government at the Federal and State Levels

An analysis of AfD platforms, motions, and parliamentary questions, as well as public statements by opinion leaders, suggests a clear AfD agenda should it join the government at the federal and state levels. This agenda essentially follows the approach of the Trump administration, which launched an all-out assault on education, science, and research. While initially it was the unpopular programs for greater diversity, equity, and inclusion (DEI) that were targeted, today all academic disciplines and subjects are affected by the U.S. government's systematic undermining. Trump is cutting funding for research he deems unnecessary, such as on climate change, democracy, or diseases of poverty. So what will happen if the AfD has a say in decision-making?

### Cuts and the Elimination of Entire Fields of Research

In the field of gender studies, vacant professorships would no longer be filled, and projects would be abruptly terminated. The

AfD is already touting the significant savings this would yield. The estimated savings are deliberately overstated. Climate research: Elimination of government funding for research on climate change and the energy transition. In the U.S., we are already seeing the scale of the disaster when monitoring stations are closed and climate data is no longer reliably collected. Job cuts at weather services are already preventing the population from being protected quickly enough against natural disasters. Research on racism and democracy could be cut: there is a threat that funding for critical social research will be halted.

### Political influence on funding institutions

A march through the institutions, as we are already seeing in all social and public institutions, will not stop at science. There is reason to fear influence on the German Research Foundation, foundations, and project funding in general. Political criteria rather than scientific excellence could then determine the allocation of funds (according to the AfD's interpretation, supposedly "ideology-free"). Key institutions such as the RKI or the PIK could be staffed with new personnel.

### Reinterpretation of historical science and remembrance culture

The Trump administration does not stop at geographical renaming (the Gulf of Mexico became the Gulf of the USA), nor at reinterpreting its own history (slavery, civil war). In Germany, the AfD will be primarily concerned with reevaluating the Hitler dictatorship and the Holocaust. Restrictions or reorganization of memorial work and research projects on the Nazi era are already apparent. We are already seeing a stronger emphasis on national narratives. There is a danger of relativization or politically motivated reinterpretation of historical research.

### Reorientation of Education Policy

The AfD wants to return to the Diplom/Magister degree system instead of the Bologna structures (Bachelor's/Master's). This is less about the quality of education and more about the international permeability of degree programs, which attracts more international students to universities. We must continue to fear restrictions in school and university education: e.g., the ban on external organizations in sex education or the abolition of diversity programs. According to the AfD, German as the mandatory language of science should be strengthened, while the international orientation should be weakened.

### Weakening of international scientific cooperation

Apart from the fact that climate policy seems to have reached a low point worldwide, an AfD-led government would implement a withdrawal from climate agreements (Paris Agreement). EU research programs (Horizon Europe) would be given a stronger national focus, and exchange programs would be reduced.

### Attacks on Academic Autonomy

With the AfD's participation in state governments, universities and research institutions could face greater political control. In governing bodies, committees, and commissions, the AfD would constantly attempt to highlight the dysfunctionality of research and question its legitimacy. The freedom of research and teaching would be at risk. Intuition and common sense would take the place of scientific expertise and evidence.



**Fig. 3:** Universities are the home of enlightenment, democracy, and the rule of law. To build greater resilience, we must clearly identify the potential threats – both internal and external – to academic freedom and the freedom of scholars.

### III. Ten points for greater resilience in science

For us scientists, this means there is an enormous need for action. We can already see that universities, in terms of their structure and nature, and science, as a largely publicly funded system based on cooperation but also competition, appear extremely vulnerable. In its own uncertainty about its role in the political and social fabric, science offers a large target for attack. In the current situation, it is essential to pay more attention to the real and imminent threats to academic freedom. To this end, we make ten proposals to better defend against attacks on science and research.

1. Science should be fully aware of its attackers and their motivations and address potential threats at an early stage. This requires an internal culture of openness and discourse.
2. Universities and scientific institutions should network effectively and form a community based on solidarity. This will enable them to develop their capacity to act, create room for maneuver, and thus defend themselves against attacks on science and research.
3. The scientific community should demand financial resources that enable it to defend democracy, the rule of law, and human dignity. Universities in particular need sufficient basic funding to become more resilient.
4. In scientific institutions, established scientists should take a clearer stance on current developments and not leave it solely to students and mid-level academic staff to voice dissent and protest.
5. Science is not partisan, but it is political. We should venture into the political and social arena and speak out clearly and loudly, especially where facts are denied or misrepresented. We should take our ideas and findings to the places where social debates are held and political decisions are made.
6. Science must demand a clear commitment from politicians to academic freedom. This includes sufficient and reliably plannable basic funding.

7. Science communication must be significantly improved. What does that mean? The motives and goals of the work are explained, academic controversies are highlighted, and the limitations of the disciplines are pointed out. Communication is honest and authentic, dead ends are acknowledged, and negative results are discussed.

8. The key to trust in science is its lived values: clarity, transparency, objectivity, verifiability, reliability, openness, and integrity, and, last but not least, novelty.

9. We should better explain how science and research see themselves. This includes, for example, openness to results, the provisional nature of results, and the role of model assumptions.

10. For cutting-edge research, we need the best researchers from around the world. Internationality should therefore be a top priority. International students and scientists must find an open society and a welcoming environment.



**Fig 4:** The values of science also serve as a good guide for life.

### Conclusion

The AfD aims to highlight the dysfunctionality of science and research and to question their legitimacy. The goal is to undermine trust in scientific evidence and authority. To this end, the AfD systematically collects information in order to discredit disciplines, institutions, and individuals. We would be well advised to actively defend academic freedom and democracy. Science is not partisan, but it is political. We should venture into the political and social arena and speak out clearly and loudly, especially where facts are denied or misrepresented. We should take our ideas and insights to the places where social debates are held and political decisions are made. Of course, the prohibition of coercion applies; teachers must not impose their opinions on students. However, the combative term “requirement

of neutrality,” which the AfD likes to use, does not exist. On the contrary: we are called upon to live by and defend our constitution. Not only for the sake of academic freedom.

### References

- [1] Scott, J. W. (2019): «Knowledge, Power, and Academic Freedom.» New York: Columbia University Press.
- [2] Ash, M. G.: «Welche Art Freiheit gebührt der Wissenschaft und welche tut ihr gut? » In: *Forschung: Politik – Strategie – Management*, **15** (2022), Heft 3+4, S. 94–100.
- [3] Gärditz, K. F. (2022): «Wehrhafte Hochschulen und Wissenschaftsfreiheit» (23.10.2022). <https://verfassungsblog.de/wehrhafte-hochschulen-und-wissenschaftsfreiheit/> (08.11.2022).

#### Prof. Dr. Ralf Ludwig



Ralf Ludwig was born in Gladbeck in 1961. His plan to study mining engineering at RWTH Aachen University did not come to fruition. Instead, he studied physics there. He switched to physical chemistry for his diploma's thesis, and in 1991, Ludwig earned his doctorate in Manfred Zeidler's research group. After an inspiring stint as a postdoctoral researcher at the University of Wisconsin in Madison (USA) in Tom Farrar's research group and within Frank Weinhold's circle, he decided to pursue a career in academia and physical chemistry. In 1999, Ludwig completed his habilitation at TU Dortmund University and in 2004 accepted a professorship in Theoretical Chemistry at the University of Rostock. In 2011, he declined an offer to move south and instead took up the Chair of General Physical and Theoretical Chemistry in Rostock. His research focuses on elucidating the structure and dynamics of clusters, liquids, and solutions, as well as on developing a mechanistic understanding of chemical reactions. He actively contributes this work to the interdisciplinary faculty at the University of Rostock and, as an associated professor, to the Leibniz Institute for Catalysis. Ludwig is a member of the Senate of the German Research Foundation (DFG) and the NFDI expert committee. Recently, he served as president of the German Bunsen Society for Physical Chemistry.

**KarriereRadio**  
The yPC CareerPodcast

**From Academia to Industry and Back:  
Navigating Non-Linear Academic Careers**

**Join yPC and shape the future of the Physical Chemistry Community!**

Do you like to work in a team?  
Are you creative or like to connect to others?  
Then join the young Physical Chemists!

**Our goals:**  
Connect early career scientists!  
Represent their interests in and outside DBG!  
Support them in their career development!

Interested? Get in contact!  
[ypc@go.bunsen.de](mailto:ypc@go.bunsen.de)

