



# Post-truth and scientific authority

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Received: 3 July 2023 / Accepted: 17 September 2023 / Published online: 2 November 2023  
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**Abstract** Post-truth refers to a social situation in which trust in clear and solid knowledge has been shaken, even though the ‘demand’ or ‘need’ for such solid knowledge has not diminished. This contradictory situation is particularly evident in the way in which science appears in public: on the one hand, expertise is transformed into a set of opinions that can be shared or not shared, as political decision-making seeks to legitimise itself more and more through ‘experts’. On the other hand, in times of crisis or rapid social change in general, the call for the replacement of politics by science grows louder: to bring the pandemic under control, virologists are supposed to say what measures should be taken to restrict individual freedoms. Such scientification of politics ultimately affects both fields, so that the fact that politics and science follow different functional principles is no longer recognised on either side: ‘evidence-based’ politics forgets that the political field is about balancing interests and setting values. In our article, however, we ask about the connection of this paradoxical situation with ‘the’ scientific practice itself: to what extent has science itself contributed to this strangely contradictory social role of its production of knowledge? And how does it seek to address the crisis of post-truth?

**Keywords** Fake news · Alternative facts · Relation of politics and science · Social role of scientific experts · Epistemisation of politics

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## Postwahrheit und wissenschaftliche Autorität

**Zusammenfassung** Postwahrheit bezeichnet eine gesellschaftliche Situation, in der das Vertrauen in eindeutiges, sicheres Wissen erschüttert ist, ohne dass damit die „Nachfrage“ oder der „Bedarf“ nach einem solchen sicheren Wissen schwächer geworden wäre. Diese widersprüchliche Situation zeigt sich besonders deutlich daran, wie Wissenschaft öffentlich in Erscheinung tritt: Indem Expert\*innen sich in die Legitimierung von Politik involvieren, verwandeln sie ihre Expertise in ein Set von Meinungen, die man eben teilen oder nicht teilen kann. Gleichzeitig wird gerade in Zeiten der Krise der Ruf nach der Ersetzung von Politik durch Wissenschaft laut: Virolog\*innen sollen sagen, welche Maßnahmen zur Beschränkung individueller Freiheiten zu setzen sind, um die Pandemie unter Kontrolle zu bringen. Eine solche Verwissenschaftlichung von Politik tangiert letztlich beide Felder, sodass der Umstand, dass Politik und Wissenschaft verschiedenen Funktionsprinzipien folgen, auf beiden Seiten nicht mehr eingesehen wird: Für die Politik ist die Unterscheidung von „richtig“ oder „falsch“ keine Leitdifferenz: Es gibt keine „richtige“ oder „falsche Politik“, weil es im politischen Feld um die Setzung von Werten geht. In unserem Artikel wollen wir nach dem Zusammenhang dieser widersprüchlichen Lage mit der wissenschaftlichen Praxis selbst fragen: Inwiefern hat die Wissenschaft selbst zu dieser merkwürdig widersprüchlichen Haltung gegenüber ihrer Erkenntnisproduktion beigetragen? Wie versucht sie der Krise der Postwahrheit zu begegnen?

**Schlüsselwörter** Fake News · Alternative Fakten · Beziehung zwischen Politik und Wissenschaft · Soziale Rolle wissenschaftlicher Expert\*innen · Epistemisierung der Politik

### 1 The post-truth situation

In 2021, Anna Schor-Tschudnowskaja and I published a short essay on the concept of post-truth (Schor-Tschudnowskaja and Benetka 2021). In our book, we described the phenomenon of post-truth as a crisis of trust with various philosophical, political and technological facets. In a separate chapter, we also discussed internal debates in science about the objectivity of scientific facts. In our presentation, we want to expand the discussion of what science contributes to a situation where statements about reality are fundamentally met with suspicion to include a discussion of the aspect of scientific authority.

Both *fake news* and *alternative facts* are considered symptoms of post-truth. *Fake news* are false reports or fabricated stories, primarily (but not exclusively) generated and widely spread on social media and other social platforms that report on facts or events that do not exist or that did not happen as reported. ‘Alternative facts’ represent a special class of such false statements: they are assertions that question the validity of factual claims. So, what is special about them is their function. They arise in response to the public communication of facts with the aim of relativising their claim to factuality. This applies in particular with regard to scientifically sound statements. The effect of fake news and alternative facts is contradictory in this

respect: they discredit factual claims and scientifically acquired knowledge while remaining tied to the high social prestige of scientific knowledge (see Kumkar 2022).

The post-truth situation has anti-totalitarian features, but its paradox lies in the dissolution of the relationships in which people can communicate about ‘true’ and ‘false’. This is exactly what Hannah Arendt pointed out: that individual thinking and judgement depend on the *community with others*, in which they mutually assure each other that they belong to the same world. The disruption of this shared understanding weakens judgement and thereby undermines the possibility of acting in solidarity with others.

Science is particularly affected by the general questioning of truth and the loss of trust in knowledge. At the latest in the 1980s, the concept of the ‘knowledge society’ became established in the context of sociology. In the German-speaking world, it was primarily Ulrich Beck (1986) who pointed out that in the knowledge society, non-knowledge is produced with all the scientific and technological progress: what is meant is the fact that people are increasingly unable to anticipate the consequences of their own actions based on scientific and technological achievements, and that precisely because of this, (calculating) anticipation of risk becomes the engine of social development. Nothing is paid as well as mathematically modelled forecasts and risk assessments. This is an early indication of the emerging post-truth if you will: a booming market for scientific expertise.

By scientific expertise, we mean the competence guaranteed by scientific education and corresponding anchoring in the scientific field to gain, justify and communicate knowledge methodically controlled. Experts transfer scientifically based knowledge into various practical fields where this knowledge should contribute to solving technical problems or making decisions in factual matters. In the field of politics, the inclusion of scientific expertise in decision-making is also increasing.

Regarding the field of politics, the social role of scientific experts is fundamentally different from the role of scientists who express themselves as intellectuals. Both share their public engagement, but they are active in different positions within the social structure and therefore have different claims to validity. The term *intellectual* first appeared in France in the context of the Dreyfus Affair (Bering 2010, pp. 24–60). In 1898, the defenders of the Jewish General Staff Officer Alfred Dreyfus, who had been wrongly convicted of high treason, resorted to a completely new form of public protest: they supported an appeal published in newspapers by printing their names underneath it. The group that exposed themselves in this way represented an elite: writers and scientists, the latter legitimised by the symbolic capital of academic titles and institutions. Together, this literary and scientific intelligence stood up for ‘scientific truth’, the commitment to reason inherent in the sciences, which should keep thinking free from the poison of primitive prejudice (see Bourdieu 1991).

We doubt that scientific experts today base their statements on this broad concept of truth and reason, which is connected to the tradition of the Enlightenment. They represent, to use Horkheimer’s words, an instrumental reason (Horkheimer 1947) by looking for the means to solve given problems, whereby the analysis of the meaningfulness of these purposes lies outside their professional competence—which, however, is not explicitly stated. Scientific experts in the field of politics usually act

on behalf of politics, i.e. on behalf of actors in the political field. However, we will also address cases where they take a stance with their expertise without being asked and occasionally address issues that are of social relevance.

On the whole, our lecture consists of two parts. In the first part, we attempt to outline the tension in which the political utilisation of scientific expertise, regardless of which political actors do it, promotes the production and dissemination of ‘alternative facts,’ thus undermining the authority of scientific knowledge—even though it also seeks to profit from it! In the second part, we examine what and how science contributes to the post-factual era and what consequences this has for its self-conception as well as its social authority.

## 2 Scientific experts in the field of politics

In several recent publications, Austrian sociologist Alexander Bogner (e.g. Bogner 2021) has strongly warned against a progressive epistemisation of politics: using the examples of the coronavirus and climate crises, he highlights the political loading of scientific expertise that ultimately leads to political disputes and social conflict-laden problem constellations being negotiated in public as knowledge conflicts and pure questions of knowledge. Bogner considers the political belief, especially in times of crisis, that science can take decisions away from politics, to be a mistake that ultimately endangers the principles of democratically structured societies: political action in democracies means making decisions based on the negotiation of conflicting interests and thus on value judgements. Scientific expertise has nothing to do with such interest-driven negotiation processes and, when misunderstood as political guidance, it experiences an empowerment that ultimately undermines the basis of political action altogether. Furthermore, under these conditions, political opposition, according to Bogner, can only express itself in the form of challenging expert knowledge. Both sides rely on knowledge, with political opposition relying on different knowledge, on counter-expertise, and ultimately on ‘alternative facts’ that are intended to undermine the knowledge claims of an expertocracy forced by ruling politics. In the field of politics, scientific expertise is thus degraded to a situated expression of opinion. The attack on positions that you are not willing to share is inevitably personalised. Nowhere is this more apparent than in internet forums: experts in social networks are constantly subjected to defamation.

## 3 The functionality of the knowledge question for politics

We need not dwell here for long on sociological distinctions. It is obvious that the field of science operates according to rules and codes that are different from those of the field of politics. Both the form and handling of knowledge produced in these fields are different. Politics requires knowledge to make decisions—decisions that, once implemented, cannot be undone. Science is free from this pressure to act, experimental setups that do not prove successful can be discarded and replaced with others. Unlike in politics, in science, the arrow of time is not directed: just

as you can go back to a starting point in a book, you can go back to a starting point in science and begin something new. The knowledge produced under these conditions is, like the process of its production itself, reversible, that is, uncertain, always surrounded by a courtyard of non-knowledge. Ultimately, it is precisely this constant doubt that keeps dissent among the knowledgeable and keeps the scientific production in progress. However, under constant pressure to act and decide, political action demands *secure* knowledge. Experts therefore operate at the intersection of the political and scientific fields. They must translate scientific knowledge into knowledge available to politics—and thereby create clarity that does not suit the findings they refer to. This makes us understand how difficult the position of experts is: they are required to provide what their expertise cannot—knowledge that is beyond doubt.

What politics contributes to this situation can be summarised in a simple formula: especially in times of crisis, such as at the beginning of the pandemic, politics tends to delegate responsibility for unpopular decisions to scientists. This also works retrospectively. At the end of the pandemic, the Austrian Chancellor apologised to ‘corona measure opponents’—in Austria, they represent a not insignificant electoral potential—with the comment that his party, in its government responsibility, had been too “obedient” with regard to the advice of experts and therefore could not be held responsible for measures that may turn out to be ineffective, excessive, and in any case too expensive in retrospect. “You have to ask the experts”, said the Chancellor, “they should explain to you why it was decided that way and not differently”. Of course, this also works the other way around: to avoid unpopular measures, politics tends to treat scientific expertise as ‘alternative facts’. For example, the German Chancellor in a talk show on German television, in which he spoke out against an embargo on Russian gas supplies, about a month after the Russian invasion of Ukraine: it was “irresponsible”, said Scholz, “to add up any mathematical models that won’t work”.

In these cases, politics does what the discussion around ‘alternative facts’, fake news, post-truth or post-factual democracy is capable of. Nils C. Kumkar (2022) has written an important book on the question of how ‘alternative facts’ can be functional for politics. The discussion about the validity of scientific findings allows for the impression that there is no consensus on the matter that must be decided by politics, which means that hasty intervention would not only be illegitimate but also highly unreasonable. Put polemically: if there were no social groups that create background noise with their spread of ‘alternative facts’, which challenge the validity claims of certain scientific expertise, you would need to occasionally invent such groupings *ex officio*, as it were, to relieve the burden of politics. Think of the man-made climate crisis. The facts introduced by science presented politics with a dilemma: it would have to do something it is either unwilling or unable to do, which is to massively intervene in a market economy that has gone out of control. Kumkar’s analysis of the communicative function of fake news and ‘alternative facts’ actually leads to a significant enrichment of the ongoing debates about the post-factual age. If it is true that their communicative function is to question the validity of scientific expertise, then it is completely irrelevant what is actually said or believed by the actors. This circumstance gives these statements their specific

form: what is put forward by populists against scientific expertise are not factual statements that someone wants to take responsibility for; they are merely statements that are supposed to problematise factual findings. Kumkar speaks in this context of an indefinite negation: ‘alternative facts’ do not formulate an alternative thesis; they are supposed to reduce factual findings to mere opinions through continued negation. Therefore, the Austrian leader of the right-wing populist party cannot be harmed by recommending a wormicide from veterinary medicine for coronavirus treatment, even though it is completely senseless. Because that is precisely the essence of an indefinite negation: if it is contradicted, the nonsensical claim is simply replaced by another. From the communicative form of indefinite negation, it follows, first, that because no factual truths are claimed, ‘alternative facts’ cannot be lies, and, second, that this function is completely independent of whether anyone actually believes what is being presented as a fact.

To summarise: politically charging scientific expertise leads to the fact that political opposition to the ruling politics, at least in part, takes the form of questioning the validity claims of scientific expertise. This shift away from the discussion of political issues towards the negotiation of knowledge questions can be functional for politics insofar as it allows political actors to free themselves from an existing political pressure to act. The discussion of knowledge questions can therefore legitimise political inaction.

#### **4 Dissent only works within science?**

In our book on post-truth, we discussed the thesis of the loss of authority of science using an essay by the Austrian social scientist Franz Seifert (2020). Seifert argues that the principle of dissent and self-criticism inherent in modern science has contributed to undermining its claim to a special status of expertise and thus playing into the hands of the anti-Enlightenment critique of science in the present; in plain language: the right-wing populist opinion rabble. The dilemma with which the self-relativisation of scientific authority struggles is demonstrated by Seifert in the Science and Technology Studies that emerged in the 1970s. A characteristic of science research is the effort to uncover the (constructive) mechanisms of knowledge acquisition by means of an ethnographic description and analysis of research practices in laboratories and other scientific environments. One of its central insights is that research does not generate certainties but only methodologically reliable knowledge, so that one can predict with a certain degree of certainty which method will produce which result. Accordingly, there are no meaningful answers to the question of the relationship between the results of research and those objects or parts of reality that they allegedly represent. In essence, as Seifert points out, the central concern of Science and Technology Studies is emancipatory: the reconstruction of how ‘truth’ is made reveals political interests and social power relations that are hidden behind this ‘truth’. The erosion of the legitimacy of scientific expertise is therefore an opportunity “for openness, transparency, discourse, and reflection”, which, by “dismantling the authority of science”, contributes to a “democratisation of science” and thus to a “further democratisation of democracy”. However, this ongoing cul-

tivation of self-doubt could not have foreseen what happens when the addressees and recipients of criticism no longer come from within the scientific community but from the political field of right-wing populist movements. Therefore, according to Seifert, the original paradigm of Science and Technology Studies can contribute hardly anything essential to shedding light on the crisis of truth in the post-factual era.

## 5 The scientific self-control system has failed

Against Seifert's interesting testament on the self-inflicted loss of authority of science, it can be argued, against the backdrop of the aforementioned, that the fact that political controversies are now being negotiated as knowledge conflicts is not due to a waning but rather to an entirely exaggerated social expectation of science from the standpoint of the sciences. As we have shown, the degradation of scientific knowledge to mere opinions is ultimately a consequence of the political appropriation of scientific expertise. Thus, following Seifert, we arrive at an apparently paradoxical formula: the loss of authority of scientific knowledge is a consequence of an exaggerated attribution of political authority to science. Of course, science is not simply a victim of politics in this regard. It is, so to speak, part of the problem, insofar as the degradation of scientific knowledge is, as Seifert suggests, largely self-inflicted. In the second part of our presentation, we now explore the question of what and how science itself contributes to the loss of authority of the knowledge it generates. We will come to a conclusion that is almost the opposite of Seifert's thesis: that science is in need of not less but more self-criticism and thus more democratic control. In short, what science sometimes lacks in the vortex of politics is both scientific *and* political reflection—not scientific and political *education*. However, to show that both are essentially one and the same will constitute the conclusion of our arguments.

We refrain from discussing the fact that individual scientists blatantly and openly serve party political or private business interests. Above all, we also refrain from discussing how psychologists have been involved in crimes against humanity at various times and in various contexts—moreover, not always in totalitarian contexts, as the example of US colleagues who worked on developing methods of white torture for the Bush administration shows (Mausfeld 2009). So, we do not talk about scientific ethics and the abuse of science, but rather about seemingly trivial things in comparison: first, about how scientists push themselves into the feuilleton sections of journals and newspapers and how they present their science there. We only need to recall the debate on free will initiated by cognitive neuroscientists at the beginning of the new millennium. With the help of highly technical investigative methods, modern science had determined that the concept of 'guilt' or 'responsibility' would basically be nonsensical, and that the findings of brain research would thus force us to reconsider the foundations of our legal system and therefore the foundations of our social coexistence. Neural connections determine us—we should therefore stop talking about freedom—wrote Wolf Singer (2004), director of the Max Planck Institute for Brain Research, in the *Frankfurter Allgemeine Zeitung*. Wolf Singer at

that time was also one of the leaders of the group of German neuroscientists who in 2004 went public with a manifesto in the popular science magazine *Gehirn und Geist* [Brain and Mind], promising a broad lay audience the liberation of humanity from Alzheimer's, dementia, Parkinson's, schizophrenia, depression, and even an artificial retina for the next 10 years (Elger et al. 2004). We are not concerned with criticising neuroscience here, but solely with the way in which neuroscientists, free of any self-doubt, present their science and themselves in public. Instead of seriously reporting on the research situation, which is mostly far from unambiguous, they aim to amaze their audience. Or, to put it differently: instead of communicating facts and their justifications, they communicate opinions.

This is only possible because they somehow have their finger on the pulse with their opinions and are therefore in public demand. At the end of our polemic against the—as we believe—exaggerated claims of cognitive neuroscience in psychology, published in 2016, Hans Werbik and I speculated about the social needs that neuroscientists could fulfil with their appearances in public (Werbik and Benetka 2016; Benetka and Werbik 2021). However, only the fact that the media—and here especially the so-called quality media—offer such expressions of opinion a platform or even become their mouthpiece is relevant in our context. 'News' from the world of brain research can be sold for many reasons: it is spectacular in its promises—from the cure of mental illnesses to the early detection of a predisposition to deviant behaviour—spectacular in terms of the technical equipment it uses, spectacular also in its claim that it can transform mental processes, thoughts, feelings and motives, our whole more or less confusing inner life, into something tangible, i.e. visible in colourful images, and thus understandable. Their exaggerations—e.g. Gerhard Roth, when he says that not a person but their brain makes a decision—are often an imposition on common sense, which also secures attention, especially from educated readers.

In our book on post-truth, we extensively quoted a report from the weekly magazine *Die Zeit*, which appeared in the print edition of 16 November 2017 (Aisslinger 2017), a report covering four large-format pages on the research of emeritus Tübingen professor Niels Birbaumer. The title was "Can he read minds?" And underneath: "A brain researcher has succeeded in making contact with people who are completely paralysed but still conscious". The science journalist from *Die Zeit* was allowed to accompany Birbaumer to Italy, where he visited a 38-year-old man in a small village who was suffering from amyotrophic lateral sclerosis and was a completely locked-in patient. The eyewitness report is a hymn to the scientist whose wonderful apparatus is able to record the brain responses of the patient to the questions of his relatives. At least the German colleagues among you know the case. The scientific study on which this production is based was published by Niels Birbaumer and his research group in the open-access journal *PLOS Biology* in January 2017. Within a short time, 80,000 accesses were recorded. The German Press Agency (dpa) prepares the event as a news item with news value. Newspapers and news magazines pick up the 'story', Birbaumer gives countless interviews. A young computer scientist checks the published data and discovers inconsistencies in the statistical analysis. He contacts the Birbaumer group, but they do not want to hear about his reservations. Finally, in 2019, he publishes the results of his research, and Birbaumer is



accused of scientific misconduct. The disputed article has to be withdrawn, the German Research Foundation (DFG) initiates proceedings, and Birbaumer is banned from applying for grants, serving as a reviewer for 5 years and has to repay parts of the research funds received by the DFG. He sues against these sanctions, and after a court hearing, a settlement is reached. The sanctions are lifted prematurely on 1 January 2023, and Birbaumer himself acknowledges that the procedure for determining his scientific misconduct by the DFG “was carried out properly and in accordance with the procedural rules”. The DFG explicitly does not see this out-of-court settlement as a rehabilitation. We do not want to withhold the response of the science department of *Die Zeit* to this affair (Simmanck 2019). Under the title “Maybe he can’t read minds after all”, they rightly warn in the print edition of 13 April 2019—the proceedings had just begun—against premature condemnation. However, the concluding statement is remarkable. Until then—until the conclusion of the proceedings, that is—one must ask oneself “what role the media play in this case. They had made Birbaumer’s scientific results so big [no quality medium, by the way, as big as *Die Zeit* itself], often without checking them thoroughly”. How is that supposed to work, you might wonder. In the future, must science journalists check the statistical analysis of every study themselves? Or repeat the entire study themselves?

The case is interesting because neither in court nor in the scientific debate was it questioned whether or not Birbaumer’s developed brain–computer interface actually works. What was demonstrated is that the data for publication were slightly, how shall we say, trimmed. Is that already fraud, lies, deception? Or, *horribile dictu*, still a piece of normal scientific practice? In the words of the renowned German biomedical scientist Ulrich Dirnagl in December 2020 on the occasion of the announcement of the Einstein Foundation Award for quality assurance in research, “concerns” are “not primarily about those researchers who deliberately manipulate their results. Such cases of fraud exist, but they are rather rare”. More problematic are those cases “where colleagues repeat their experiments so often until they finally get the results they want” (Spiewak 2020). Dirnagl leaves it at this example. He could have continued with a series of similar practices. What about the many studies that do not yield results and therefore are not published? Or with research results that are simply omitted in the publication because they do not correspond to the hypotheses? Or with the later adjustment of hypotheses so that they match the actual results? Or with the elimination of individual subjects who would not behave in experiments or when filling out questionnaires as the experimenters expect? Small adjustments, corrections of data—who could control that?

The scientific self-control system established in recent decades has failed, actually failed, not only because it cannot prevent such practices of scientific misconduct but because it even promotes them and inevitably produces them *en masse*. The effort to objectify the research achievements of scientists has fundamentally changed the conditions of the production of research. A competitive environment has emerged that functions as if it were parodying the practices of neoliberal economics. The performance criteria, as in business, are easily quantifiable, and the development goal is simple: to increase competitiveness by increasing productivity. What is demanded, therefore, is an increase in publications, research proposals, networking, etc. Only

in this way does the system produce as a real fact what it claims to prove as existing independently of itself: that there is actually more and more publishing, proposing and networking. Under the conditions under which scientists work today, faceless mass-produced goods are inevitably created—quantity instead of quality. ‘Publish or perish’ is not simply an idiom; it accurately describes the professional reality, especially for young researchers. In order to maximise output, errors are ultimately accepted. There simply isn’t time for good scientific practice. Taking time means, in science—as in business—a competitive disadvantage. Poor scientific practice is, in this sense (again, the formulation is only seemingly paradoxical!) to a large extent an outcome of measures to ensure the quality of scientific research.

One of the peculiarities of this system is that it leads scientists to force themselves into the world of platform capitalism, for example, through publication databases. ResearchGate is Facebook for scientists—here, as there, working on your profile is image cultivation, working on your own self-presentation. We remind ourselves that the new social media were initially enthusiastically welcomed by parts of the scientific community because they seemed to promise new possibilities for the *direct* communication of scientific knowledge. Under the existing competitive conditions, however, an entirely gatekeeper-free self-description of science threatens to degenerate into mere reputation rhetoric guided by interests. We do not know if there are already critical studies on this: about how and what scientists communicate on Twitter, for example. The platform has now been well researched in terms of the dissemination of fake news. To achieve a reach of 1500 people, correct information on Twitter takes six times longer than false information (Wormer 2022, pp. 44–45). Which brings us back to our starting point, to the question of what scientists themselves contribute to undermining the authority of scientific knowledge, in this case, by adapting the production of news to conditions that are unsuitable for the communication of scientific knowledge.

## 6 Conclusion: The role of scientists in undermining the authority of their knowledge

To summarise, the authority of scientific knowledge is not only being challenged from outside by politicians and right-wing populist movements but it is also undermined by the ongoing depoliticisation of politics. But scientists themselves also undermine the authority of their knowledge through poor scientific practice and the way in which they publicly communicate their knowledge. In individual cases, both aspects may be more or less closely related. But both are apparently expressions of the same deficiency—to use Max Weber’s words—a lack of “intellectual rectitude”. From a university teacher—Weber gives his famous lecture on *Science as a vocation* to students (Weber 2004 [1919]), from which we take the following quote, hence, the restriction to ‘university teacher’, but it does not change his argument if we put ‘scientist’ instead of ‘university teacher’ in general—one must demand “intellectual rectitude”. That means “to realize that we are dealing with two entirely *heterogeneous* problems. On the one hand, we have the establishing of factual knowledge, the determining of mathematical or logical relations or the internal structure of cultural

values. On the other, we have answers to questions about the *value* of culture and its individual products, and in addition, questions about how we should *act* in the civilized community and in political organisations” (Ibid., 20). Weber’s comments on value judgements in science later caused misunderstandings, especially among left-wing critics of science. Contrary to the widespread belief, according to Weber, science cannot start without stances on values [*Wertgesichtspunkte*], but it should become self-critically aware of these stances on value and its fundamental situatedness. Science should be limited to what can be said from its perspective and based on its inevitably limited and always valid knowledge of certain aspects of reality under certain conditions and assumptions (Benetka and Schor-Tschudnowskaja 2019): not what one should do, but—and not always—what one could do in this or that situation. What Weber demands of science is that it is aware of its social role, its possibilities, and limitations in a complex social world. However, we believe that this, in turn, is a political undertaking: because what should science be other than an intellectual instance of critical reason. Therefore, we believe that science should respond to the crisis of truth in the post-factual age by defending its own principles against the prevailing boom of profit-oriented instrumental reason. The resulting loss of authority of individual scientists is easy for science as a whole to bear, but the refusal to be co-opted by politics ensures the authority of scientific knowledge—and also protects democracy from the depoliticisation of politics through science.

**Funding** Open access funding provided by Sigmund Freud Privatuniversität Wien

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