Waning Trust in (Scientific) Experts and Expertise?

Recent Evidence from the United States and Elsewhere

Martin Thunert

"People in this country have had enough of experts," pro-Brexit UK government minister Michael Gove famously proclaimed just weeks before 52.4% of British voters decided to leave the EU on June 23, 2016, defying the warnings of economists, analysts, and other professional forecasters. Similar warnings could be heard several months later on the other side of the Atlantic Ocean before Donald Trump won the Electoral College vote to become the 45th president of the United States. Expertise, it seemed, had become toxic. Shortly thereafter, a book-length study by Anthony Nichols announced the "death of expertise" (Nichols 2017). To be sure, a trend of declining trust has been underway across the western world for many years, even decades, as survey evidence attests. It is not so much the case that interpersonal or generalized trust has declined, but what has eroded—especially in the US—is the credibility of members of the political class—especially elected representatives and the people around them—and members of the news media. This chapter intends to find out whether this decline in trust really extends to experts and expert bodies, and why or why not. In a first step, I will briefly define what is meant by the terms "expert" and "expertise," then look back to a time when, allegedly, expertise was universally trusted. This paper's second part will examine whether there is empirical proof that trust in experts and expertise is really declining. After weighing the available evidence—largely in the form of opinion polls and experimental studies—reasons for a possible crisis of expertise are discussed. Finally, some very tentative evidence and arguments are presented regarding the way the global coronavirus/Covid 19 epidemic has recalibrated the role of experts and their reputation in the US and elsewhere.

Expertise and its alleged "Golden Age"

The "expert" appears in pre-modern times in the role of the bearer or carrier of specialized knowledge (Rexroth and Schröder-Stapper 2018). The origins of modern expertise can be traced back to the second half of the 17th century, when scientists and merchants first established techniques for recording and sharing facts and figures. The expert's position in society results from an interplay of external and his/her own attributions of specialist knowledge. Today, an expert has specialist knowledge for which he/she is credentialed through academic degrees and activities, as well as memberships in relevant scientific and academic organizations, both nationally and internationally. In contrast to the pure scientific specialist, the expert shares his/her knowledge with non-specialists. Political decision-makers, who in most cases are not experts themselves, are a key audience of expert consultation, but so is the general public. Specialists become experts not by talking to each other, but by being approached by courts, political bodies, or the media—and thereby the wider public—for their specialized knowledge in their subject area.[1] The non-ideological, non-political, and almost technical character of their subject matter expertise is illustrated by the German term "Sachverständige."[2] As historians of expertise like Caspar Hirschi have shown, the term *Sachverständige* was first used for expert witnesses appearing before courts of law, as well as in purely technical matters like the certification of road-readiness for automobiles, etc. (2018: 29). Later on, it was extended to expert witnesses in parliamentary hearings and advisory councils.

When and Why Expertise Was Trusted

The very notion of waning trust in expertise suggests that there once was a time in the not-so-distant past when the public trusted experts—a proverbial "Golden Age" in the relationship between experts, the public, and those

1 A similar point is made by Rexroth, when he states that one should only speak about experts and expertise where their specialist knowledge is passed on within the framework of social institutions and is therefore institutionally established (quoted from Rexroth/Schröder-Stapper 2018: 12).

2 The online dictionary Leo offers the following translations: technical expert, person with a specialist knowledge, authorized expert, official expert, authority on a subject, even referee.

who govern. According to business researcher and consultant Rachel Botsman, trust in the course of human history has evolved in three basic stages (2017). Local trust or interpersonal trust prevailed in premodern times when people lived in small communities and everybody knew everybody else. In the modern age, with industrialization and urbanization, people had to develop institutional trust so that they could trust complete strangers running governments, corporations, legal institutions, as well as the global frameworks and norms for international trade, commerce, and finance. It is therefore not a coincidence that the heyday of the industrial age—especially the decades following the end of World War II—are often described as something akin to a golden age of expertise; especially in the Nordic countries. As Lundqvist and Petersen have shown, the development of the Nordic model of the welfare state would not have been successful and enjoyed wide public acceptance without the successful interplay between knowledge-based actors in the civil service, external experts, politicians, and institutions (2010). Between the late 1950s and the 1970s there was enormous optimism—in the United States and elsewhere—regarding the social role of experts helping governments to think better and to solve problems. In the mid-1960s, the belief in the predictability of social conditions that had already arisen in the New Deal era of the 1930s had reached a peak. With confidence in expertise, there was hope for de-ideologization and the rationalization of politics (see Bell 1960).

However, there are important voices among contemporary sociologists of science questioning the narrative of an alleged golden age. Perhaps we have wrongly described the past in this regard, contend the German sociologists André Kieserling and Simone Rödder (2019). In their opinion, it cannot be assumed that the authority of scientific experts was universally recognized in practically every field of human life 50 or 60 years ago. Historians like Richard Hofstadter claimed that "anti-intellectualism" and a "paranoid style" have been fundamental traits in US political history (1965). But even if the golden age argument is too nostalgic, there is no denying that, in the US, it was the space race in particular that gave science expertise a big boost during the 1960s and 1970s. In addition, there is ample case study evidence—e.g. from the field of social science, including the field of international relations—that in the second half of the 20th century in the US, there was at least a productive relationship between the political class and policy-makers on the one hand, and experts and their expert bodies on the other (see e.g. Desch 2019, Drezner 2017) At that time, public trust in government and the media was much higher than today. As Daniel Drezner notes, "the national security ad-

visors who dominated the 1960s and 1970s—Walt Rostow, Henry Kissinger, and Zbigniew Brzezinkski—all began their careers as academics" (2017:79). When surveys like the National Election Study began asking about trust in government in 1958, about three-quarters of Americans trusted the federal government to do the right thing almost always or most of the time. These very high trust levels began to erode during the 1960s. The decline continued in the 1970s with, for example, the Watergate scandal, but even then the numbers of those expressing trust stayed around 30% in the late 1970s. Since 2010, trust levels for government and the media have never reached above the 20% mark in the US (Pew 2017:1).

Disenchantment about the role of (technocratic) expertise set in at the same time because of and during the war in Vietnam, the nuclear arms race, and the social upheavals of the 1960s, and came predominantly from the progressive/left-leaning side of the political aisle. "Progressive" criticism of the technocratic rule of experts chipped away at the idea of a US government—under the Democratic administrations of Kennedy and Johnson—run by the "best and brightest." It was the very involvement of "scholar-experts" in many, if not most, policies of the day, which generated criticism from left-leaning intellectuals like Noam Chomsky or C. Wright Mills (Drezner 2017: 80–81). As a consequence, scientific experts in the US turned inward, and a large amount of policy-relevant expertise outside the natural and medical sciences moved from universities to think tanks in the 1980s and thereafter (Medvetz 2012).

Ironically, and perhaps paradoxically, the current trouble with trust in expertise became most intense just when the notion of the "knowledge society" became the distinguishing marker for the period beginning in the late 1990s. The knowledge society became a double-edged sword as far as trust in expertise is concerned. On the one hand, the public within knowledge societies expects politicians and public institutions to act rationally and rely on relevant knowledge, as expressed in the notion of evidence-based decision-making. But in a knowledge society, experts and their expertise touch many more areas in the lives of citizens than before; for example, in questions of education or nutrition. This creates more opportunities for discomfort with experts, because many of them seem to contradict each other—especially outside the fields of the core natural sciences. During the heyday of trust in experts, expertise was much more limited, being essentially an affair between experts and decision-makers in government and the corporate world.

But in order to avoid the technocratic pitfalls of the era of planning optimism in the 1960s, the knowledge society continued producing and relying on ever more experts. The foundational idea for the knowledge society was that expertise could be democratized—not just by producing more experts and areas of expertise, but by erasing the boundary between expert knowledge shepherded over by certain credentialed individuals and expertise as a joint public good in a society with much higher levels of education and new groundbreaking technologies, such as the internet. If, in a knowledge society, information is a public good to which all people have access, any individual may also serve as a creator of knowledge and receive credit as an expert. As Americans became better educated, they also became increasingly confident in their own opinions, even though their actual subject matter expertise might not have increased. While conservative defenders of technocratic expert rule like Tom Nichols (2017) diagnosed the "death of expertise" in the US, Rachel Botsman or Financial Times columnist Gillian Tett, citing the same technological drivers of a knowledge society, recognized a diffusion of trust into different spheres of expertise. Through the digital revolution at the beginning of the 21st century, we are witnessing a devolution of trust from large and anonymous institutions to individuals—not to individuals on the local level, to individuals that one knows in person like in the pre-modern age, but to individuals in digitally generated peer groups and on the internet.

Michael Gove was by no means the first senior politician of a government of an OECD state who was critical of this new and broader type of expertise. As Lundqvist and Peterson (2010: 9–10) show, then Danish Prime Minister Anders Fogh Rasmussen, who later became Secretary General of NATO, said in his 2002 New Year's Speech:

> We do not need experts and arbiters of taste to decide things for us. In recent years, a veritable wilderness of governmental councils and committees and institutions has shot up everywhere…. There is a tendency towards a "tyranny of experts" which runs the risk of suppressing free popular debate. The Danish population must not accept admonishing fingers from so-called experts who think that they know best. Experts are fine when it comes to conveying actual knowledge. But when it comes to making personal choices, all of us are experts.

Rasmussen's quotation reveals a fundamental problem underlying the relationship between expert cultures and society. A traditional understanding of expertise is non-controversial, as it always refers to experts like rocket sci-

entists, civil engineers, or heart surgeons, where virtually everybody agrees that one should not have a say in certain things without expertise. But an expanded understanding of expertise—which is addressed by Rasmussen as personal choices—concerns questions of morality or lifestyle, where the idea of expert review can quickly become undemocratic.[3] Because this distinction is not always made, it is not really surprising that scholars like Tom Nichols or Salvatore Babones—both self-described conservatives—arrive at completely different conclusions regarding the role of experts in a modern knowledge society. While Nichols bemoans the death of expertise (2017), Babones (2018) blames the populist backlash against expertise—as expressed in the quotes by Rasmussen and Gove, or the victory of Donald Trump and Vote Leave in 2016—as a consequence of an anti-democratic power grab by a class of largely liberal-technocratic experts who seek to replace the vibrant unpredictability of democratic decision-making with a creeping authoritarianism of liberal-progressive technocracy. However, as the following section will show, the larger publics of the United States and other western countries seem to display a somewhat more relaxed point of view regarding trust in expertise. There is, perhaps, a crisis of expertise, but no linear decline in trust.

Studying Epistemic Trust in Experts and Expertise in the early 21st Century

At first glance, the thesis regarding the decline of trust in experts—or, in its more pointed version, as the alleged "death of expertise"—seems plausible, as it is confirmed in the United States by innumerable forms of anecdotal evidence. From a broader empirical point of view, however, the situation is somewhat more complicated, since time series data spanning a longer period are more readily available on questions of generalized trust, as well as trust in political institutions, the media, business elites, churches, the military, etc., whereas surveys on trust in science, the scientific community, experts, and knowledge-based actors are more sporadic and were often carried out unevenly. Rigorous statistical analysis on trust drawing on General Social Survey (GSS) data from 1974 to 1994 conducted by political economists Alberto

3 One of the editors, Günter Leypoldt, has helped me to develop this argument.

Alesina and Eliana La Ferrara (2002) somehow confirms the "golden age" hypothesis insofar as they found "a lot of variation across types of institutions. The highest degree of confidence is attributed to relatively 'impersonal' categories like 'medicine' and the 'scientific community.'" (Alesina and Ferrara 2002: 216–17) The lowest level of trust they found was towards institutions like organized labor, Congress, the media, and the federal executive branch. In addition, they found that the variables displaying the highest positive correlation with trust in people are confidence in the scientific community (ibid. 217). Nearly 20 years later, a national survey by the Pew Research Centers, conducted March 24–29, 2020 among 1,013 US adults, found that more than three years into the Trump administration, larger shares of Republicans than Democrats express favorable opinions of eight of 10 government agencies included in the survey—at the top, two agencies that are expert-based and play a crucial role during the Coronavirus pandemic of 2020: the Centers for Disease Control and Prevention, and the Department of Health and Human Services (Pew 2020c).

From surveys like GSS, which study interpersonal trust and trust in "neighboring" social institutions (neighboring to expertise and science), two conclusion for the early 21st century can be derived: firstly, within most of the countries of the developed world—primarily represented by the member states of the OECD—there is a decline in trust values; secondly, this loss of confidence is more pronounced in the United States than elsewhere. Ever since the beginning of the 21st century, the United States has been an outlier among the world's richer countries in terms of generalized trust. Among the 30 member states of the OECD in 2008, the United States ranked fourth for median household income, but was the 10th least trusting country, with only 48.7 percent of Americans responding that, generally speaking, most people could be trusted.[4] With regard to the authority of scientific expertise and trust in experts, things are more complicated.

Longitudinal Measure of Epistemic Trust: Edelman Trust Barometer (ETB)

The Edelman Trust Barometer (ETB) relies on surveying thousands of people in 28 predominantly western countries including the US. Among other

4 Drezner 2017: 46–49 provides a good summary of this data.

things, ETB asks about trust in institutions—especially government and the media—and tackles the question of trust in expertise mostly in an indirect way. For example, two-thirds of people surveyed in 2016 in 28 countries for the 2017 Edelman Trust Barometer expressed low levels of trust in "mainstream institutions" such as business, government, media, and nongovernmental organizations. The Trust Barometer probes the credibility of technical and academic experts by comparing them with other sources of knowledge and information including the category of "a person like me." According to ETB, trust in institutions—especially government and the media—continued to decline from 2005 until 2017. For several years, this global survey also found disturbing trends in the attitude toward "experts," with "a person like me" increasingly considered to be on par, in terms of credibility, with a technical or academic expert. This result seems to confirm Nichols's notion that especially Americans express overconfidence in their own subject matter expertise. 59% of people surveyed would rather believe a search engine than a human editor, and more than half (53%) do not regularly listen to people or organizations with whom they disagree. But if Edelman's most current data is to be believed, the erosion of trust in experts has at least slowed down or halted, perhaps even reversed. In 2007, the Edelman Trust Barometer found that Americans trusted their peers (a "person like yourself") the most, and, in 2017, a "person like yourself" was seen as just as credible a source of information as a company or a technical or academic expert (60 percent), and far more credible than a CEO of a private corporation (37 percent) or a government official (29 percent). But after 2018, trust in technical experts has been up and has reached 60% in the US and even more globally (63%), with academic credibility at 61% (sitting well ahead of government at 35% and journalists at 39%), whereas trust in a "person like yourself" has dipped to an all-time low of 54% in ETB's history.

Pew Research Center Studies on Trust in Expertise

The Pew Research Center in 2019 explored links between institutional trust and interpersonal trust in US society.[5] In terms of interpersonal trust, about a fifth of adults (22%) display consistently trustful attitudes, and roughly a third (35%) express consistently wary or distrustful views. Some 41% hold mixed

5 The source of the following numbers is Pew 2019a.

views on core personal trust questions. The first notable, but not very surprising finding was that levels of personal trust are associated with race and ethnicity, age, education, and household income. This finding is consistent with what Alesina and Ferrara found nearly two decades earlier about the lack of trust in very economically unequal and socially and racially heterogeneous states of the US (Alesina and Ferrara 2002). The share of whites who show high levels of trust (27%) is twice as high as the share of blacks (13%) and Hispanics (12%). The older a person is, the more likely they are to tilt toward more trustful answers. The more education Americans have, and the greater their household income, the greater the likelihood they are high on the personal trust spectrum. Those with less income and education are markedly more likely to be low trusters. The military enjoys "a great deal" or "fair amount" of confidence among 83% of US adults, as do scientists (83%)—an important component of the expert community.[6] Even "low trusters" show as much confidence in scientists as they show in the military (Pew 2019a: 6). These largely supportive views stand in sharp contrast to the public's overall lack of confidence in elected officials and corporate leaders: 63% express little confidence in elected officials, and 56% take a similarly negative view of business leaders. Although supporters of the country's two main political parties hold similar levels of personal trust, Democrats and those who lean Democratic are more likely than Republicans and Republican leaners to express worry about the state of trust in America.[7]

In a companion survey (Pew 2019b) on trust and mistrust in scientific experts, 86% of all Americans expressed at least a fair amount of confidence in scientists to act in the public interest. The proportion of Americans who said that they have a great deal of confidence rose from 21% in 2016 to 35% in 2019. More specifically, the survey conducted in January 2019 of 4,463 adult age Americans focuses on scientific experts working in three fields of research: medicine, nutrition, and the environment. Beyond a generally positive view of scientists in these fields, only 20% believe that scientists in America are transparent about potential conflicts of interest (Pew 2019b: 14–16). Trust is lowest vis-a-vis the transparency of environmental experts.

6 Not far behind are principals of K-12 public schools (80%) and police officers (78%). Confidence in journalists stands at 55%.

7 The partisan cleavage in most trust-related matters is a recurrent pattern to which we will return later.

In another finding, more Americans trust science practitioners like medical doctors or dieticians more than medical researchers or nutrition scientists (ibid. 33–34, 44–45). Most Americans of all stripes expressed that open public access to data and independent committee reviews would boost their trust in scientific expertise (ibid. 24–27). Distrust fueled by misconduct—especially performed by medical experts—is far a greater concern among black and Hispanic Americans than among white Americans (ibid. 23–24). While most Americans (63%) believe that the so-called "scientific method" of observing and collecting empirical evidence is fundamentally sound and 55% believe scientists' judgments are "based solely on the facts," as opposed to scientists being "just as likely to be biased" in their judgments as other people (44%), more Democrats than Republicans (including those who lean towards either party) are inclined to express confidence in both the scientific method and scientists' conclusions. 55% of Republicans believe that scientific experts are as biased as other people (ibid. 9–12). Interestingly, 64% of Republicans with high science knowledge say scientists are just as likely to be biased as other people, while 42% of Republicans with low science knowledge agree. In other words: knowledge of the scientific process is less important in judging an expert's susceptibility to bias than a partisan lens, a phenomenon for which Pew coined the term "motivated reasoning" (ibid. 12).

A similar study was conducted in the UK after Brexit. Inspired by the Gove-quote on experts, a YouGov survey in the United Kingdom taken eight months after the Brexit referendum between February 14–15, 2017 has tested how far the British public trusts different types of experts when they talk about their own fields of expertise (see YouGov:2017). Three possibilities were given: "trust," "don't trust," "don't know." The net "trust" score is the "trust" answers minus the "don't trust" answers (see Table 1).

Table 1: Trust in different types of experts

Type of Expert	Net Trust
Nurses	+77
Doctors	+74
Your own GP	+71
Scientists	+60
Historians	+61
Sports commentators	+22
Weather forecasters	+20
Nutritionists	+03
Civil Servants	-17
Economists	-19
Your local MP	-32
Politicians	-74

At 84%, the group of experts the public was most willing to trust was nurses. The opinions of doctors were almost equally trusted, at 82% for doctors in general and 80% for people's own General Practitioner. Scientists and historians also performed well, with 71% of people saying they trust them when they talk about their own areas of expertise. At the other end of the scale, politicians in general were the least trusted, with just 5% of people trusting them—although this does increase to 20% for people's own MP. Also coming off poorly were civil servants (26%) and economists (25%). The results show that Leave voters are less likely than Remain voters to trust every single type of expert listed. This trust gap was especially pronounced for certain types of experts: Leave voters are 21 percentage points less likely to trust economists than Remain voters, 20 points less likely to trust scientists and civil servants, and are even 15 points less likely to trust weather forecasters.

Survey research on trust in experts and expertise has shown that attitudes towards experts have changed, but there is no across-the-board, uniform decline of trust in expertise comparable to the decline of trust in other social institutions like government or the media. Even though it is evident that confidence in institutions associated with knowledge and learning was higher in the 1970s than it was in 2008 and 2012, for example, the most recent data by the Pew Research Center in the US and YouGov in the UK suggests that the

decline in institutions that can be associated with "expertise" was less dramatic than the decline in trust in government or the media. However, most quantitative survey research on trust in expertise focuses on experts and expertise in medicine, the natural sciences, including the environment, as well as technical experts in engineering and computer science. Only the YouGov survey distinguished between scientists on the one hand and experts from the humanities (e.g. from history) or from the social sciences (e.g. political science, international relations, psychology etc.) on the other.

In an experimental large-scale study conducted in the UK and the US, a research team from Queen Mary University in London examined the responses of randomly chosen groups of people in both countries to social policy interventions in the form of "nudges," which were suggested either by scientists or by a government working group consisting of special interest groups from the social policy field and policy makers (Osman et al: 2018). The research team found that trust was higher for scientists than the government working group, even when the scientists were proposing fictitious nudges. According to the Queen Mary study, people trust scientific experts, who in this case were not natural scientists, but mostly social scientists like psychologists, far more than members of the political class.

Explaining the Trust/Distrust in Expertise Conundrum

One set of plausible explanations for these and other empirical findings usually revolves around the digital revolution. The Edelman findings seem to confirm what Rachel Botsman has written on distributive trust in the digital age. The internet and digital media have allowed people to distribute their trust over more sources of expertise and knowledge than before. A good deal of knowledge that people trust on the internet does not come from professional experts per se or directly from them, but often from reviews, recommendations, etc. by laypeople whose currency often is first-hand experience or by experts that count as practitioner experts as opposed to experts based on academic research. A similar observation was made by Financial Times columnist Gillian Tett: "At a time when we increasingly rely on crowd-sourced advice rather than official experts to choose a restaurant, healthcare and holidays, it seems strange to expect voters to listen to official experts when it comes to politics." While Tett described a shift from vertical axes of trust to horizontal axes, researchers like Rachel Botsman have called the same phenomenon

"distributed trust." Distributed trust is facilitated and made possible by high-tech platforms, many of which (though not all) are run by the private sector. Distributed trust, triggered by the digital revolution, has clearly led to a relative decline of trust in unknown experts, especially as far as consumer choices and other decisions in the non-political world are concerned.

Media and truth researchers like Danish philosophers Vincent F. Hendricks and Mads Vestergaard reject the notion that experts have lost their trust entirely (2018 and 2019). Like Botsman and Tett, they tie the reduction of trust in facts, journalists, and experts to the digital dissemination of information, through which the opinions of experts are drowning in the general cacophony of the internet and social media. This favors a kind of news that is not just fake news, but mixed products of the true, half-true, and freely invented. And this kind of news is very well suited to inflate narratives by reducing complexity. The most recent drops in trusting a peer (a person like myself) can be explained by a certain disillusionment regarding the benefits of digitization and the knowledge economy.

Historians of science and expertise point out that an important characteristic of the expert and of expertise is the claim to independence. Caspar Hirschi suggests that this claim has two aspects: Independence means to have no economic interest in the object of the expert consultation and not to be exposed to any political influences in the advisory activity (Hirschi 2018: 30). If this independence is questioned, experts will become lobbyists, activists, or propagandists depending on the situation, which will at least damage their credibility. The slightest suspicion, valid or not valid, that members of the political class are exploiting their power for their own private interest, has severely damaged trust in governmental institutions. The Muenster Epistemic Trustworthiness Inventory (METI) project at the University of Münster in Germany seems to confirm that this could potentially happen with trust in experts and expert bodies as well. Many of the problems regarding trust in expertise revolve around issues of transparency and conflict of interest of experts and less about doubts about their credentialed knowledge. In the Queen Mary Study, people were ready to trust social policy interventions and recommendations by scientific experts more, even when these recommendations were fictitious and bordered on the absurd, rather than trusting actual recommendations by government working groups. An experimental study by a team of researchers at METI may help to understand why.

The objective of the METI team was to measure laypeople's ascriptions of epistemic trustworthiness to an expert and to determine the underlying

dimensions of such epistemic trustworthiness. Epistemic trust in "unfamiliar" experts was measured in three dimensions: i. Expertise: knowledge about topic; ii. Integrity: adhering to scientific standards, iii. Benevolence: towards others and society. For experts ("scientific authors") to be rated high on the scale of epistemic trustworthiness, they needed to do well in the three characteristics of expertise, integrity, and benevolence. The results showed that if a scientific author was rated highly on one dimension, this led to a higher rating on other dimensions—especially between "integrity and benevolence." But when an expert was rated high on expertise alone, i.e. was seen as very knowledgeable, it did not lead to epistemic trustworthiness, unless the expert was rated high on integrity and benevolence as well. In other words, there are other and arguably more important dimensions in trusting an expert than credentialed knowledge about a subject matter. In short, knowing your stuff is not enough: an expert needs to be seen as honest (integrity) and good-hearted with empathy (benevolence) (Hendriks et al. 2015). Obviously, the groups of the Queen Mary study thought that the members of the government working group—which included experts from interest groups—were lacking the all-important qualities of integrity and benevolence.

A similar conclusion on the importance of the two latter qualities of experts is drawn by Canadian philosopher of science Maya J. Goldenberg, who studies "vaccine hesitancy," which can be understood as a cautious or critical stance towards vaccines. By some estimates, it is on the rise in many western countries including the US and Canada. According to Goldenberg, hesitancy of parents to vaccinate their children is not primarily driven by scientific illiteracy or online misinformation, but ‚rather, by public mistrust of scientific institutions. The non-expert public takes the necessary leap of faith into such institutions only if they are confident that the experts therein are both competent and honest (Goldenberg 2019). Again, the perception of honesty/integrity and benevolence in addition to competence/knowledge are crucial criteria that experts—and scientific experts in particular—have to meet if they want to be trusted by the public. At the risk of over-interpreting the findings of the METI project and Ms. Goldenberg, it can be stated that major scientific questions can be derailed by issues of trust like the lack of expert integrity and expert benevolence: when experts and expert institutions engage in political self-dealing, media hype, professional hypocrisy, or public confusion, and general gullibility, they are risking the benefits of their actual scientific accomplishments.

The Changing World of Expertise and Expert Institutions: Lack of Transparency and the Perception of Undue Influence

Ideas Industry

It can be argued that especially in the US, the trustworthiness of experts has been challenged by changes in the world of expertise and expert bodies: overconfidence in their methods, arrogance, the politicization of expertise, and scandals pertinent to some expert bodies. Daniel Drezner argues that many experts and expert institutions outside the natural sciences are now part of an emerging "ideas industry" (2017). In the US, "ideas industry" public intellectuals, defined as experts "who are versed and trained enough to be able to comment on a wide range of public policy issues" (2017: 8) are being sidelined by "thought leaders." This more recent archetype is, according to Drezner, "an intellectual evangelist" (2017: 9). In Isaiah Berlin's distinction of knowledge actors, public intellectuals are foxes, who know a little something about many things, while thought leaders are hedgehogs, who know a lot about one thing and—as thought leaders—flog that one particular allegedly "big" idea to death. But public intellectuals are not only foxes, they are also critics and skeptics; they prioritize expertise and they are often pessimists. Thought leaders, on the other hand, are creators instead of critics— preachers rather than doubters—and they prioritize experience over expertise and tend to be optimists (Drezner 2017: 9–10). Drezner emphasizes that these binary distinctions should not suggest that archetypes embody different kinds of people within the ideas industry, but rather roles and archetypes that a certain group of experts may assume at different times. Drezner's point is that the modern marketplace of ideas has become an ideas industry and thereby benefits the thought leader more than the older types of public intellectuals. Several factors are responsible for this transformation. The erosion of trust in erstwhile prestigious institutions has weakened the position of both academia and the traditional journalistic perches of public intellectuals. The polarization of American politics has segmented that marketplace into distinct and separate niches, and the dramatic growth in economic inequality has made wealthy individuals and corporations into the primary buyers of "ideas," and thereby dominating the market—at least in the US, but perhaps worldwide (Drezner 2017: 11–12).

A similar distinction is made by the Swiss historian of expertise Caspar Hirschi (2019). "Expert preachers" are similar to thought leaders in that they

are scientists who have achieved top researcher status in their discipline and then turn into public authorities to change the world with "big ideas" from within their research. Expert preachers do not specialize in generalizations, but rather generalize their specialization by applying the perspectives, methods, and norms of their discipline beyond its boundaries. Examples mentioned by Hirschi in the field of International Economics are scholars like Jeffrey Sachs, Joseph Stiglitz, and Paul Krugman; in Business Administration, Clayton Christensen; historians like Niall Fergusson; and psychologists like Jordan Peterson. Expert preachers, like thought leaders, push big, often contrarian ideas through outlets such as TED talks, social media blogs (especially YouTube), op-eds, a brand name, and the paid lecture/speaker circuit. In the US especially, they are supported by ideologically friendly private funders and/or housed in ideologically-driven think tanks. Expert preachers are very good at broadcasting ideas widely and reaching large audiences of people hungry for allegedly "new" thinking. In Hirschi's terminology, expert preachers sideline or even replace so-called "professorial/academic journalists," who are a crossover species between journalism and academia. Like public intellectuals, "Professorenjournalisten" and conventional academic experts are critiquing and expanding the public's understanding of a topic. Their preferred outlets were, and still are, "highbrow" periodicals in the US such as New Republic, Commentary, Dissent etc., and they often hold fellowships, professorships (of practice) at universities, academies, and governance schools.

Think Tanks

A major type of expert institution in the US and elsewhere is think tanks. When the think tank boom in the US started to take off in the1980s during the Reagan administration with the arrival of conservative advocacy think tanks, the integrity of the research findings of right-wing and libertarian think tanks—like the Heritage Foundation, the Cato Institute and even older ones like the American Enterprise Institute—was challenged and questioned by many academic scholars because of these think tanks' close ties to the US business community and to wealthy businessmen disguising as politically neutral philanthropic foundation chiefs. But towards the end of the Obama era, flagships of the centrist, center-left, and mostly prestigious academic think tank world of the "universities-without-students" type—like the Brookings Institution, the Center for Strategic and International Studies, the Atlantic Council, or the Center for Global Development—were also challenged,

especially by investigative journalists from the New York Times, for murky influence peddling and being bought by foreign governments and self-declared progressive donors. The New York Times traced $92 million in donations from 64 foreign governments to 28 US think tanks between 2011 and 2014 (Lipton et al. 2014). To the surprise of many liberal-leaning readers of the Times, the money did not just come from the "usual suspects" like Qatar or the United Arab Emirates, but also from an established and adulated democracy like Norway. While think tank managers were quick to emphasize that the money from governments like Norway or even UAE would not compromise the integrity of their organization's research, an internal document from the Norwegian government, quoted by the Times, stated that "funding powerful think tanks is one way to gain such access" to Washington decision-makers, especially for a small country struggling to be heard in the Washington power game. The problem here is not that think tanks as expert institutions are ineffective with policy-makers, rather the contrary: the problem is one of trust—that the line between scholarly research by experts and lobbying by experts on behalf on their donors was completely blurred, and, thus, the credibility of think tanks as a genre undermined. This calls to mind that, as the Pew survey found, scientific experts were mostly distrusted for lack of transparency, including conflicts of interest (2019b).

But the loss of credibility due to insufficient transparency and undue influence are not the only problems of US think tanks. The public relations firm Cast from Clay (formerly We are Flint) focuses on studying think tanks in the United States and United Kingdom and their impact on public debate. In 2018, a large survey conducted by Cast from Clay found that half of Americans knew what a think tank is and slightly less than half of Americans surveyed knew what a think tank does. 20% of Americans said they trust what a think tank has to say, while 24% do not. [8] But despite this seemingly low trust score, the surprising result was that over 50% of Americans said that they do not know whether to trust think tanks or not. The public relations professionals of Cast from Clay did not interpret these scores as a devasting blow to think tanks' reputations and credibility, but rather as an opportunity to shape and forge the narrative around an expert institution—think tanks—about which most people did not have a fixed opinion. Experts—including experts in think

8 The 2018 study on US think tanks surveyed 2,007 American adults over the age of 18. The sample was nationally representative by age, gender, and region, according to the report. See Hashemi and Muller: 2018a.

tanks—might know a bunch of stuff—and that stuff might be important—but unless those facts and figures are perceived as honest and benevolent, they will fail to break free from the bubble they are in.

The Coronavirus Pandemic and Trust in Experts

During the first months of the Coronavirus pandemic (February to May 2020), it became clear that both policy-makers and large parts of the general public were increasingly turning to scientific experts, working either in academia or for government agencies, and trust in whom, as we saw earlier, has been slowly on the rise in recent years. Coronavirus has catapulted a particular group of experts—medical specialists, especially epidemiologists and virologists—into virtual celebrity status; nearly world-wide, but also in the United States. There are two medical specialists in particular, who both became the scientific expert faces of the White House Coronavirus Task Force[9] and its daily briefings with the president. The task force was established on January 29, 2020 and Deborah L. Birx was picked by Vice President Mike Pence to become the White House Coronavirus Response Coordinator. Another key member of the Task Force is Anthony Fauci, who has been the director of the National Institute of Allergy and Infectious Diseases since 1984. The 79-year-old Fauci has advised every president since Ronald Reagan. In order to have an impact on the behavior of US citizens during the crisis and to communicate their expertise successfully to a larger American public, Birx and Fauci needed the authority of expert government advisers on Coronavirus and could not just assume the role of talk show expert pundits in a highly polarized media environment. If polls are to be believed, Deborah Birx and even Anthony Fauci seemed to be successfully straddling a fine line. Zignal Labs, a media analysis company, studied 1.7 million mentions of Dr. Fauci across the web and TV broadcasts from Feb. 27 to March 13, 2020 and found that, through mid-March, he was mainly praised, and his comments were straightforwardly reported. Right-wing figures quoted Dr. Fauci approvingly or lauded him for his approving comments on shutting down travel to and from China, Zignal Labs said (New York Times 2020). As a matter of fact, Anthony Fauci, with

9 The group is a US Department of State task force that coordinates and oversees the Administration's efforts to monitor, prevent, contain, and mitigate the spread of the coronavirus disease (COVID-19).

78% approval, earned the highest approval rating for his handling of the response to the coronavirus, according to a Quinnipiac University national poll released on April 8, 2020 (Quinnipiac University:2020). Governors followed at 74% approval, while President Trump and Congress were below 50%, at 46% and 44% respectively. "In a country gripped by crisis and divided by partisanship, public opinion is united when it comes to Dr. Anthony Fauci," concludes the survey (ibid.). Governors collectively, and especially those who were following the recommendations of epidemiologists and virologists, have been winning widespread praise from the public for their handling of the coronavirus pandemic, often with the kind of bipartisan approval that has eluded both President Trump and those governors who pushed for a speedy reopening of their states (Washington Post 2020a). Three months into the Covid-19 pandemic, health experts like Anthony Fauci and Deborah Birx have won the trust competition with President Trump by a considerable margin. In addition, Americans in red and blue states are staying home at nearly exactly the same rates, as was recommended by most scientific experts. Another recommendation by experts, the wearing of masks, is supported by 80% of Americans (Washington Post 2020b). These results suggest the public is highly attentive and is listening to advice from medical experts.

A new national survey by Pew Research Center, conducted April 29 to May 5, 2020 among 10,957 US adults, and a new analysis of a national survey conducted April 20 to 26, 2020 among 10,139 US adults, confirm the trend of rising trust in medical and scientific experts since the beginning of the pandemic, but with some important caveats (Pew 2020a). The percentage of Americans with a great deal of confidence in medical scientists to act in the best interests of the public has gone up from 35% before the outbreak to 43% in the Pew April 2020 survey. Similarly, there is a modest uptick in public confidence in scientists in general, from 35% in August 2019 to 39% in May 2020. But public confidence in medical and scientific experts has turned upward only among Democrats, not among Republicans. Thus, the somewhat bi-partisan trust in chief medical advisors Birx and Fauci has not translated into a bipartisan increase of trust in medical scientists in general. "Among Democrats and those leaning to the Democratic Party, 53% have a great deal of confidence in medical scientists to act in the public interest, up from 37% in January 2019. But among Republicans and those who lean Republican, 31% express a great deal of confidence in medical scientists, roughly the same as in 2019 (32%). As a result, there is now a 22 percentage point difference between partisan groups when it comes to trust in medical scientists." (Pew 2020a:

5–6) Another finding from the Pew survey conducted after the outbreak of Covid-19 confirms a trend that was visible in the most recent edition of the Edelman Trust Barometer. When people were asked, who should have a say in policy decisions about scientific issues, a majority of U.S adults (55%) in 2020 say that public opinion (which equals the answer "people like me" in ETB) should not play an important role "because these issues are too complex for the average person to understand," while 43% think the public (= "people like me") should help guide such decisions. "The balance of opinion on this issue has shifted since 2019, when a Center survey found the majority (54%) said public opinion should play an important role in science policy decisions" (Pew 2020a: 13). Partisan political differences over the role and value of scientific experts have remained since the breakout, but on some issues, they have been slightly reduced. The Covid-19 outbreak may have further increased trust in scientists, medical experts, and medical professionals—both from its lows in 2016/17 and from the time prior to the outbreak of the pandemic—but it has not significantly reduced distrust between the Democratic and Republican camps in the US. Republican trust in medical experts and scientists is no higher in 2020 than it was in 2019, while among Democrats trust rose by 16% in medical experts and 9% in scientists. Beyond the sustained partisan divide, it is noticeable that the increase in trust in both medical experts and scientists in general between 2019 and 2020—prior and after the Covid-19 outbreak—has been more pronounced among men than among women, more among whites and Hispanics than among blacks, and slightly more pronounced among the millennial generation than among older generations. Among African-Americans, confidence in scientists in general has actually fallen by 2% between 2019 and 2020, while it has risen by 11% among Hispanics during the same time period. (Pew 2020a: 31)

Conclusion

This paper has advanced three main arguments: First, and at the risk of overgeneralization, it argued that a crisis of expertise has more than one origin: the deliberate spreading of doubts about the credibility and the benevolence of experts certainly does occur—especially in the US—but it can only undermine public trust in expertise if and when some experts and expert institutions in some fields have shown an undeniable lack of transparency or clear conflicts of interest. Deliberate attempts to undermine trust in experts exists, but the

data seems to indicate that these attempts only succeed in those instances where and when bodies of expertise tend to violate the norms of transparency and benevolence. Secondly, there is a backlash against a perceived tyranny of expertise when technocratic expertise is perceived as intruding into lifestyle choices or into questions of morality and ethics. In this realm, distributed trust (e.g. in people like oneself) can become as high or even higher than trust in technical experts. Thirdly, and perhaps most importantly, empirical evidence has demonstrated that, in the US, public trust in experts and expertise has stopped its decline—which had started in the late 20th century and peaked during the years after the Great Recession of 2008—and shown signs of reversal since 2018. With respect to experts in the natural and medical sciences, the outbreak of the Coronavirus pandemic in the spring of 2020 has accelerated rising public trust in this area of expertise, even though these very experts are sometimes sidelined by those in government.

The recent rise in public confidence for scientific and medical experts is in stark contrast with that for other groups and institutions in the US. For example, confidence in the military has been stable over the same time period, and that for journalists has declined, and slipped even further since the outbreak of Covid-19 (Pew 2020b). Still, the sharp partisan divide revealed by the most recent numbers suggests that the politicization of expertise can be expected to continue in the US—and most likely elsewhere as well. Advising governments in an ongoing crisis like the current Covid-19 pandemic poses risks for scientists. The nature of a crisis like Covid-19 means that scientific work that would normally take months or even a year to conduct, had to be done in a matter of days. The Imperial College London modelling study of March 16, 2020, which seemed to have had a strong influence on changing government policy on the pandemic in both Britain and the United States, has been criticized for allegedly using an outdated computer model that predicted an outlandishly high number of casualties should governments fail to take drastic action.[10] The behavior of individual experts, especially when they acquire a quasi-official role, is taken into account when citizens evaluate their trust in scientific expertise. It can boost the public reputation of the scientists and their research teams, as we saw in the case of US Coronavirus Task Force members Deborah Birx and Anthony Fauci, but it can also undermine the public reputation of experts, as we witnessed in the UK, when the head scientists of the Imperial College modelling team, Neil Ferguson, was forced to resign

10 See https://www.ft.com/content/41e98ccb-a39c-4f88-b444-74d50a76c383.

from the UK government's Scientific Advisory Group for Emergencies (SAGE) in early May 2020, after it was revealed he had broken social distancing rules, which had been recommended by scientific advisers. A public advisory role puts a spotlight on experts and their personal background, whether they like it or not. One reason why Fauci enjoys (limited) bi-partisan support is that he restricts his scientific advice to his narrow field of expertise: public health. When he was asked whether schools or the economy should open, he declined to give a recommendation and said that he would not give advice about economic things, nor any advice about anything other than public health. Fauci and Birx are reasonably popular and trusted scientific experts, but they are not perceived as thought leaders or as members of the ideas industry.

However, rising trust in medical and scientific experts may not immediately solve the credibility crisis of other expert bodies such as think tanks or universities. To regain trust, expert bodies and expert institutions like think tanks or university departments have to regain trust in their integrity and benevolence rather than trust in their subject matter knowledge.

Works Cited

Alesino, Alberto and Elania La Ferrara (2002): "Who Trusts Others?," *Journal of Public Economics* 85 (2002) 207–234.

Babones, Salvatore (2018): *The New Authoritarianism. Trump, Populism and the Tyranny of Experts*, Cambridge: Polity Press.

Bell, Daniel (1960): *The End of Ideology: On the Exhaustion of Political Ideas in the Fifties*. Glencoe: The Free Press.

Botsman, Rachel (2017): *Who Can You Trust? How Technology Brought Us Together and Why It Might Drive Us Apart*, New York: Public Affairs.

Desch, Michael C. (2019): *Cult of the Irrelevant. The Waning Influence of Social Science on National Security*, Princeton: Princeton University Press.

Drezner, Daniel W. (2017): *The Ideas Industry*, New York: Oxford University Press.

Goldenberg, Maya J. (2019): "Vaccines, Values and Science," *Canadian Medical Association Journal, CMAJ* April 8, 2019 191 (14) E397–E398; DOI: https://doi.org/10.1503/cmaj.181635.

Hashemi, Tom and Muller, A (2018a): "Forging the Think Tank Narrative (USA): Credible but not Effective Communicators." *We are Flint report*, https://we

areflint.co.uk/foreging-the-think-tank-narrative-perceptions-usa/, June 25, 2018.

Hendricks, Vincent F. and Vestergaard, Mads 2018: *Postfaktisch: Die neue Wirklichkeit in Zeiten von Bullshit, Fake News und Verschwörungstheorien*, Munich: Blessing Verlag at Random House.

Hendricks and Vestergaard 2019: *Reality Lost. Markets of Attention, Misinformation and Manipulation*, Cham: Springer Open.

Hendriks, Friederike, Kienhues D, Bromme R. (2015): "Measuring Laypeople's Trust in Experts in a Digital Age: The Muenster Epistemic Trustworthiness Inventory (METI)" *PLoS ONE* 10(10): e0139309. https://doi.org/10.1371/journal.pone.0139309.

Hirschi, Caspar (2018): *Skandalexperten, Expertenskandale, Zur Geschichte eines Gegenwartproblems*, Berlin; Matthes & Seitz.

Hischi, Caspar (2019): "Warum nicht das Schlimmste verhindern?," *Frankfurter Allgemeine Zeitung* Nr. 1, 2.1.2019, p.N4.

Hofstadter, Richard (1965): *The Paranoid Style in American Politics, and Other Essays*, New York: Knopf.

Kieserling, André and Simone Rödder (2019): "Misstrauen ohne Folgen. Steckt die Wissenschaft in einer Vertrauenskrise?," *Forschung & Lehre*, Jg. 26, Nr.10, 898–899.

Lipton, Eric, Brooke Williams and Nicholas Confessore (2014): "Foreign Powers Buy Influence at Think Tanks," *The New York Times*, September 7, 2014, Section A, p.1.

Lundqvist Asa and Klaus Petersen (eds) (2010): *In Experts We Trust. Knowledge, Politics and Bureaucracy in Nordic Welfare States,* Odense:University Press of Southern Denmark.

Medvetz, Thomas (2012): *Think Tanks in America*, Chicago: UoC Press.

New York Times (2020): "Medical Expert Who Corrects Trump Is Now a Target of the Far Right," By Davey Alba and Sheera Frenkel, March 28, 2020 New York Times, https://www.nytimes.com/2020/03/28/technology/coronavirus-fauci-trump-conspiracy-target.html.

Nichols, Tom (2017): *The Death of Expertise. The Campaign Against Established Knowledge and Why it Matters*, Oxford: OUP.

Osman, Magda, Norman Fenton, Toby Pilditch, David Lagnado and Martin Neil (2018): "Whom Do We Trust on Social Policy Interventions?," *Basic and Applied Social Psychology*, P. 249–268 | Received 31 Oct 2017, Accepted 24 Apr 2018, Published online: 30 Jul 2018, https://doi.org/10.1080/01973533.2018.1469986.

Pew Research Center (2020a): "Trust in Medical Scientists Has Grown in U.S., but Mainly Among Democrats," May, https://www.pewresearch.org/science/wp-content/uploads/sites/16/2020/05/PS_2020.05.21_trust-in-scientists_REPORT.pdf.

Pew Research Center, (2020b): "Americans' Views of the News Media During the COVID-19 Outbreak," May, https://www.journalism.org/wp-content/uploads/sites/8/2020/05/PJ_2020.05.08_Views-of-Media-Coronavirus_FINAL.pdf.

Pew Research Center (2020c): "Public Holds Broadly Favorable Views of Many Federal Agencies, Including CDC and HHS," April, https://www.people-press.org/2020/04/09/public-holds-broadly-favorable-views-of-many-federal-agencies-including-cdc-and-hhs/.

Pew Research Center (2019a): "Trust and Distrust in America," July, https://www.people-press.org/wp-content/uploads/sites/4/2019/07/PEW-RESEARCH-CENTER_TRUST-DISTRUST-IN-AMERICA-REPORT_2019-07-22-1.pdf.

Pew Research Center (2019b): "Trust and Mistrust in Americans' Views of Scientific Experts," August 2019.

Pew Research Center (2017): "Public Trust in Government Remains Near Historic Lows as Partisan Attitudes Shift," May, https://www.people-press.org/2017/05/03/public-trust-in-government-remains-near-historic-lows-as-partisan-attitudes-shift/.

Quinnipiac University (2020): "Fauci, Governors Get Highest Marks For Response To Coronavirus, Quinnipiac University National Poll Finds; Majority Say Trump's Response Not Aggressive Enough", April 8, 2020 https://poll.qu.edu/national/release-detail?ReleaseID=3658

Rexroth, Frank and Teresa Schröder-Stapper (Eds.) (2018): *Experten, Wissen, Symbole. Performanz und Medialität vormoderner Wissenskulturen*, Berlin/Boston: DeGruyter/Oldenbourg.

Tett, Gillian (2016): "Why we no longer trust the experts," *The Financial Times*, July 1, 2016, https://www.ft.com/content/24035fc2-3e45-11e6-9f2c-36b487ebd80a.

Washington Post (2020a): "Ipsos coronavirus employment survey, April 27–May 4, and May 15, 2020", https://www.washingtonpost.com/context/washington-post-ipsos-coronavirus-employment-survey-april-27-may-4/4bd8dd8b-1257-4d5f-b3c1-0af6c38f060d/?itid=lk_inline_manual_2.

Washington Post (2020b): "May 5–10, 2020 Washington Post-University of Maryland poll," https://www.washingtonpost.com/context/may-5-10-2020-washington-post-university-of-maryland-poll/722b3348-4f59-4b35-9fa0-2f9eb4ac76c0/?itid=lk_inline_manual_2.

YouGov (2017): "Leave voters are less likely to trust any experts – even weather forecasters," https://yougov.co.uk/topics/politics/articles-reports/2017/02/17/leave-voters-are-less-likely-trust-any-experts-eve, full results: https://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/w5uik0fcsy/InternalResults_170215_TrustExpertise_W.pdf