Fragmented Realities

Regaining a Common Understanding of Truth

Background Paper
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Overview

The articles included in this background paper *Fragmented Realities – Regaining a Common Understanding of Truth* have been written in preparation for the 18th Trilogue Salzburg, which focuses on the negative and debilitating effects that arise from existing “parallel realities” while considering how we can regain a common perception of reality.

Truth can be subjective or relative – but is absolute, objective reality not a prerequisite for daily business in the political, economic and cultural spheres? The background paper seeks to promote a discussion of how politics, business and the arts are the main drivers of distorted perceptions of reality as well as what their motives are and which tools and channels are needed to re-establish a common perception so we can regain trust in facts and scientific proof. It addresses the questions of how experiences from the past and the way we deal with historical events affect our perceptions and whether the elite have a realistic view of reality.

The first article, *Fragmented Realities – Searching for a Common Understanding of Truth*, provides an overview of definitions and concepts regarding truth, reality and post-truth. The authors ask why and how realities are fragmented and whether a common understanding regarding truth exists or a (re)gaining of truth is necessary. The article makes a number of recommendations on how to deal with a post-truth world.

The second article focuses on the learnings from a historical perspective. *The Power of the Past – What Makes Us Believe That “Those Were the Days”?* looks at nostalgia and the desire for new narratives. The author uses references from history and myth to show how wishful thinking generates contagion, and how ideas about the world shape the world. He argues that the past was rich and multicolored and explores what must be done now.

The *Failure of Media to Do Their Jobs – Fabricating the Truth Instead of Reporting It* describes the perception of the journalists’ role and the estrangement of journalists from their audience. In 15 theses, the author shows the consequences of the decreasing confidence in media and gives recommendations and possible solutions for producing the truth instead of writing and broadcasting it.

“If I have an opinion or a belief, why would I need facts?” is the main question posed by *Imagined Dystopia – Have Orwell and Huxley Prepared Us for Today’s Reality?* The author argues that utopias and dystopias have long been projected into unknown space, into spaces we know nothing about, but also spaces offering endless opportunities. The essay discusses the process of democratization and the power truth implies.

The fifth article is about *Fact or Fiction – How Much Truth Do We Have in Economics?* and the question of how true economic statements are. The author describes why different assessments of the economic reality exist and what should be done to regain people’s trust.

*It’s the Story, Stupid – Selling the Reality of Products* discusses the changes in consumption between the past and today and the consequences for marketing and leadership. The authors describe and reflect on the conditions impacting consumers’ behavior and why they make decisions, plan forward, manage risks, foster change and solve problems in a certain way. They also consider how we can deal with this situation.
The last article in the background paper addresses the psychological consequences of this topic. *Brain Change: How Is Our Brain Coping with Fake News and Misinformation* gives a short overview of the brain’s basic features and its functions, as well as what the mind can retain and how this information is managed. The author focusses on the importance of an individual’s personal equilibrium and concludes by examining what the consequences for news and information are from a neuropsychological point of view.
Fragmented Realities – Searching for a Common Understanding of Truth

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I Introduction

The search for truth by means of discussions and arguments has always been a constituent part of human interaction. At least since the era of the Enlightenment, it has become the bedrock of society. With the proposal to let the most convincing argument achieve the status of “truth,” society decided to end the tyranny of the strongest. Realities were no longer dictated by those commanding the largest army or holding the longest sword, but were determined by those possessing the most logical argument and utilizing the latest scientific methods.\(^1\)

Since then, day-by-day as well as far-reaching decisions have been based on data, facts and figures in business, culture and politics. Decision makers rely on scientific evidence and argumentation that created a common ground: It has been the assumption of an abstract common “knowledge space” that exists between communication partners – the general agreement on objective facts and scientific proof. The basic model is simple: Fact-based experience or the best available evidence-based knowledge leads to most valid decisions. The irrational alternative includes opinion, hearsay, rhetoric, discourse, advice, self-deception, bias, belief, fallacy, or advocacy – in the extreme case, dogma and lies. As a result, the best basis for decision-making is simply the truth about a situation, an issue, a case, etc. If the truth is unknown, the second-best option is the information that approximates the truth, which is provided by scientific proof, empiricism, etc.

Nevertheless, what happens if there is no common understanding of truth anymore? Or if parts of a society, company or group do not believe in facts or scientific proof anymore? Or if they deny the perceptions of reality or if they insist on different or “parallel” realities?

Therefore, what we call reality can be fragmented and thus offer alternative perspectives for consideration, reflection or effect. Alternatively, Fragmented Realities may focus on different details of a reality. Fragmented Realities

- are fragmented and therefore divided, existing in separate parts or views, and
- are also real because they are the sum or aggregate of all that is real or existent, as opposed to that which is merely imaginary or an illusion or an idealistic or notional idea thereof.

In Fragmented Realities, the consensus about a fact-based reality grows weaker. They can be enhanced by digitalization, for example through Augmented Realities in which objects are an interactive experience and the user’s real-world environment is replaced by a simulated one, where different realities exist. But is there still one existent truth if realities are fragmented? Could truth also be fragmented? Do scientific proof, reality, and truth not demand a link?

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\(^1\) Szalay, Jessie. What was the Enlightenment? https://www.livescience.com/55327-the-enlightenment.html [retrieved July 31, 2019].
Truth can be subjective or relative – but is absolute, objective reality not a prerequisite for daily business in the political, economic and cultural spheres? Do we not need a common perception of reality and a common understanding of truth?

II Reality and Truth

1. Reality
Throughout history, the relationship between truth and reality has always been the main focus of philosophy. Depending on someone’s philosophical preferences reality could be

- something imagined or an illusion (constructivism) or the total opposite
- the sum or aggregate of all that is real or existent (realism).

For (radical) constructivists, reality is a construction. The perceived environment is an illusion. Consequently, this epistemology implies different fragmentations between persons.

The main question for realists is whether reality is recognizable. The practical significance lies in the fact that it is not possible to make unquestionably true statements about things or facts without the assumption of a reality. In order to make statements about reality, one must first recognize them, that is, be able to perceive them.

The main epistemological question seems to be whether an objective reality exists. Objective reality is that which exists outside of perception and independent of the mind. Conversely, subjective reality is dependent on a person’s individual perceptions, mind-set, experiences, etc.

Everyone perceives his or her environment in a different manner and therefore lives in one’s own reality. It is necessary to grasp this reality correctly in order to be able to understand causes, ulterior motives and actions and to avoid misinterpretations. Only if the observer correctly interprets the intended action, a successful communication becomes possible. The importance of this rather simple insight becomes evident in countless misunderstandings that we observe in exchanges within companies, between countries, or within families and circles of friends.

2. Truth
The correspondence of statements or judgments to a fact, case, or reality in the sense of correct reproduction is commonly referred to as truth. This common ground seems to be challenged nowadays. In particular, critics are questioning the connection between empiricism and truth; they are denying the link between knowledge from sensory experience like observation and an existing objective knowledge.

The meaning of truth has been widely discussed by academics. This is not meant to lead to an academic discussion of whether, for example, truth corresponds to the facts and whether an interpretation of facts is correct or not. It is neither a philosophical or epistemological question (see Figure “Different Conceptions of Truth”) nor the question of whether someone is a rationalist, a constructivist, or a realist. Even if various theories and views of truth continue to be debated among

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scholars, philosophers, and theologians, there is a common understanding that truth is the opposite of falsehood, falseness, falsity, untruth, fabrication, or fiction.

At least hundreds of years before the era of the Enlightenment, famous philosophers like Socrates and Plato identified dialectics as a method to establish truth by the exchange of reasoned arguments. In their opinion, it was the conversation between thesis and anti-thesis that would bring humanity closer towards the truth. A decisive characteristic of their idea of the scientific method was that competition for truth was always a competition between ideas of the one truth.

This linear pathway was headed in a clear direction: absolute and objective truth. Ideas of reality compete, therefore society gets closer and closer to the one, objective reality. It allows us to find out who is right and whose ideas are obsolete (see Figure “Absolute Truth”). While most scientists and philosophers accept that absolute truth is unobtainable, there has been intense debate about exactly what constitutes proof.

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If you believe in truth, reality and truth are independent of the subject. With reference to Max Weber it is called “verstehen” or intersubjectivity. This intersubjectivity refers to the common understanding, the shared meanings constructed by people in their interactions with each other and used as an everyday resource to interpret the meaning of elements of social and cultural life. If people share a common understanding, then they share a definition of the situation.

### 3. Someone’s Reality vs. Objective Truth

Something that is perceived as truth by one person could be a “lie” to another person. That means that someone’s sensory input, which transforms a stimulus, and her or his identification with and interpretation of this sensory information in order to represent and understand the situation, or the environment, determine whether something is accepted as truth.

While from one perspective (perception) a cone (objective truth) throws a shadow of a triangle on the wall, the same cone throws a circular area on the wall from another perspective (perception). Therefore, circle and triangle both are true (see Figure “Someone’s Reality”).

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This implies if one truth (absolute and independent of an individual) exists, at the same time different Fragmented Realities (something that someone declares as true) exist, and those form different realities (environments) in turn. Truth becomes context-dependent.

III Searching for a Common Understanding

Defining what is “true” is rather difficult and strongly dependent on various perspectives. A common understanding, however, requires a shared basis. This mutual agreement includes similarity, agreement, convergence, compatibility, commonality, consensus, consistency, and overlap.  

Common understanding could be defined as

“… an ability to coordinate behaviours towards common goals or objectives (“meaning in use” or action perspective) of multiple agents within a group (group level) based on mutual knowledge, beliefs and assumptions (content & structure) on the task, the group, the process or the tools and technologies used (scope/object perspective) which may change through the course of the group work process due to various influence factors and impacts group work processes and outcomes.”

The extent to which such a common understanding has developed depends primarily on the scientific discipline.

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11 Bittner, Eva Alice Christiane and Jan Marco Leimeister: Why shared understanding matters – Engineering a collaboration process for shared understanding to improve collaboration effectiveness in heterogeneous teams. In: 46th Hawaii International Conference on System Sciences (HICSS), Maui, Hawaii, 2013, p. 106. The authors use the comparable term “shared” understanding.
Formal sciences like logic, mathematics, statistics, computer science, etc. are not affected by Fragmented Reality, since their analytic statements persist in all possible conceivable worlds.\textsuperscript{12} Even though this picture has been disturbed by the developments of the last years, the formal sciences are plainly distinguished from the other sciences by their use of proof instead of experiment, measurement, and theorizing.\textsuperscript{13} Therefore, Fragmented Realities are existent only if the formal system (e. g. the logical calculus) is questioned. This implies that usually there is a common understanding in formal sciences:

"One reason why mathematics enjoys special esteem, above all other sciences, is that its laws are absolutely certain and indisputable, while those of other sciences are to some extent debatable and in constant danger of being overthrown by newly discovered facts."\textsuperscript{14}

Natural sciences are defined as disciplines that deal with natural phenomena using scientific methods,\textsuperscript{15} based on empirical evidence from observation and experiments. The empirical methods involve observation, skepticism about the observation – given that cognitive assumptions can distort how one interprets the observation and involve formulating hypotheses, via induction, based on such observations – experimental and measurement-based testing of deductions drawn from the hypotheses, and refinement (or elimination) of the hypotheses based on the experimental findings.\textsuperscript{16} Natural scientists make rational reinterpretation of this empirical evidence and call it timeless realities.\textsuperscript{17} That implies that Fragmented Realities can occur by selecting the focused detail, by using different scientific methods, or by different interpretation of the empirical evidence.

For the natural and technical sciences, practice (e.g. experiment) as practical proof is the primary and sufficient criterion of truth – other theories of truth are not needed.\textsuperscript{18} A common basis regarding the scientific method is that it seeks to objectively explain the natural phenomena in a reproducible way.\textsuperscript{19}

It is more challenging to find a common understanding in the social sciences. The social sciences are concerned with society and the relationships among individuals within a society. They also use empirical methods and must deal with the same deficits as the natural sciences. Often a person’s biographical situation, researchers’ local circumstances and their likely audience are the main influences on how projects proceed and how quality is judged.\textsuperscript{20}

Additionally, new problems have arisen – especially in empirical sciences, which try to answer questions about the real world in an analytical way. These scientific results can be questioned (by

different techniques) and have to be interpreted (by an interpreter) and therefore possibly lead to different conclusions or recommendations. Bias in the interpretation and different use of empirical research or different explanations of findings might be possible. The scientific community has found principles of misconduct which are valid more or less in most academic disciplines (see “Figure “A Rough Guide to Spotting Bad Science”).

That leads to another problem: It is almost always possible to pick and choose from a wide selection of scientific statements about realistic phenomena to produce something which appears to be scientifically proven – in order to create a causal reasoning. If people cannot agree on the underlying techniques, methods, and scientific procedures, the situation becomes even more problematic. A common understanding of how to find truth has not developed, yet.

This implies that regaining a common and shared understanding about the means of finding the truth is of utmost importance to the legitimacy of scientific proof. Searching for a common basis is rather a gaining of a mutual understanding of truth.
IV Living in a Post-Truth Era

A Long History of Distrust

The whole discussion regarding truth, perception, and reality could be seen as a scholarly debate best left to philosophers. But unfortunately, the controversy about truth cannot be reduced to the debate about how to create evidence and proof that serves as a useful effigy of the real world. Deliberate manipulation and distortion of facts are probably as old as human mankind,21 and have always been used to trigger a desired behavior or action by a person or the broader public (see Figure “A Long History of Distrust”).


Fake news has been part of the conversation as far back as the birth of the free press (see Mansky, Jackie. The age-old problem of “fake news.” In: Smithsonian, May 7, 2019. For an overview: Soll, Jacob. The long and brutal history of fake news. In: Politico, December 18, 2016.)
That people are prone to manipulation has been observed early on – and successfully exploited until today.

“... [M]en judge generally more by the eye than by the hand, because it belongs to everybody to see you, to few to come in touch with you. Every one sees what you appear to be, few really know what you are, ... because the vulgar are always taken by what a thing seems to be and by what comes of it; and in the world there are only the vulgar.”

Since Oxford Dictionaries declared “post-truth” its international Word of the Year in 2016, it looks like we have been living in a post-truth, post-factual, post-reality era in which factual rebuttals are ignored. In this situation, personal beliefs are irrefutable and gain in importance through mutual reinforcement.

Post-truth is not synonymous with lying; however, it describes a situation where, when creating or manipulating public opinion, the objective facts have less influence than emotions and personal beliefs. Post-truth consists in the relativization of truth, in the objectivity of data becoming commonplace and in the supremacy of emotional speeches.

Post-truth is defined as “[r]elating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.” In the era of post-truth the importance of facts and experts’ opinions declines and rational discourse no longer functions. “The facts of the matter are of secondary importance to free-floating opinion.”

Several trends and factors have promoted the development of the post-truth era:

- The rise of relativist and postmodernist ideas, whereby people are now more likely to hold contradictory views about the world and adopt relativistic opinions.

- The breakdown of consensus about the truth and dramatic transformations in the structure and economy of information driven by new communication technologies, namely social media and the internet, along with a dramatic expansion (and acceleration) of the available information, leading to “information overload” for the public and a decrease in the authority of traditional sources of information, such as mainstream media outlets, government agencies, and scientific research.

- Qualitatively new levels of dishonesty and deceit on the part of political leaders, who convince their followers that they are responding to their lived experiences and are offering honest solutions to their problems, establishing their legitimacy by presenting themselves as “strongmen” who have the courage to speak their mind against invisible forces of censorship and suppression (polarized political culture).

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The resurgence of populist sentiment in many countries throughout the globe coupled with the collapse of public trust in the political establishment and its dominant institutions caused by chronic economic decline and growing inequality in Europe and the US, which has undermined people’s faith in the neoliberal consensus and in economic and political institutions.

The psychological needs of the audience or followers, making post-truth narratives appealing and enabling people to discard scientific and other evidence in light of their powerful emotional needs, something which is becoming much easier due to algorithms which select the content that appears in social media and search engine rankings based on what users want, need, or wish. Other factors here include marketing, epistemic loops, and the impetus to participate digitally through user-generated content, liking, and sharing – the latter of which is especially associated with controlling societies.28

If the post-truth era starts by destroying current knowledge structures, the ensuing problem is that it could very well lead to authoritarianism.29

V Whom to Believe in a New Post-Truth Era?

People do have a strong desire to make a good impression. This phenomenon has become evident with the increasing failure of pollsters to measure the public pulse: People lie to surveys about their behavior, their charitable givings, their health, their political affiliation. Vanity is a truth killer. Furthermore, manipulation of facts and data has become increasingly sophisticated over time. The infamous methods used by the British consulting company Cambridge Analytica – that is, collecting data and tailoring information according to someone’s preferences – only copied what already has been applied through digital marketing by private companies.

Interestingly enough, Big Data might also be a possible corrective: By means of Google searches scientists have found a much more reliable way to predict e.g. the spread of a disease, attitudes towards same-sex marriage, racism, aggression, etc. The extent of negative attitudes revealed by searches and postings might be disturbing; however, as Seth Stephens-Davidowitz says, “There are potential ways to use search data to learn what causes, or reduces, hate.”30

It looks like we are living in a world where factual rebuttals are ignored. This situation is characterized by personal beliefs being irrefutable and becoming more important through mutual reinforcement. The pervasiveness of online news and social media exponentiates the effects of misleading information, as does the fact that literally everybody from a president to any ordinary citizen can broadcast his or her views to the world.

Fake news, junk news, pseudo-news defined as news that consists of deliberate disinformation or hoaxes spread via traditional or social media,\(^{31}\) or alternative facts,\(^{32}\) which are wrong, occur. Fake news is 1) not true and \textit{explicitly fabricated} by their producers and not simply the result of mistakes, 2) is propagated throughout social media, implying that it targets \textit{large audiences}, 3) is usually \textit{motivated} either by the wish to manipulate people’s beliefs in a polarized political context or for ideological reasons or by the wish to grab attention in order to increase financial gain.\(^{33}\) As a consequence, the \textit{New York Times} has catalogued nearly every outright lie the president of the United States of America has told publicly since taking the oath of office.\(^{34}\) These disinformation strategies can be distinguished based on the intent to deceive:\(^{35}\)

- Satire or parody (no intention to cause harm but with potential to fool)
- Misleading content (misleading use of information to frame an issue or an individual)
- Imposter content (impersonating genuine sources)
- Fabricated content (100% false, designed to deceive and do harm)
- False connection (headlines, visuals, or captions which do not support content)
- False context (genuine content which is shared with false contextual information)
- Manipulated content (genuine information or imagery which is manipulated to deceive)

What makes it so difficult to deal with fake news and disinformation is a certain stubbornness and unreasonableness by the holders of beliefs. Ingrid Brodnig, who does extensive research on social media, admits her surprise when she asked a woman about the misleading headline of an article that wrongly indicated that German Chancellor Angela Merkel hopes to welcome 12 million migrants to Germany. The woman’s answer was, “This information might be wrong now. However, it is something that could happen – if not today, maybe tomorrow or in six months.” How can one counter that?\(^{36}\) Brodnig claims that manipulative headlines and news enhance “ideological reinforcement,” leading to entrenched opinions and convictions.

Another challenge of the post-truth era is the erosion of credibility of traditional authorities, e.g. journalists are no longer unquestioned,\(^{37}\) public trust in the government remains near historic lows.\(^{38}\) While credibility of technical experts is still comparatively high, trust in representatives of business, politics, and media remains very low (see Figure “Voices of Authority Regain Credibility”).


\(^{32}\) A phrase used by Kellyanne Conway, a counselor to the US president, during a Meet the Press interview on January 22, 2017. See e. g. Blake, Aaron. Kellyanne Conway says Donald Trump’s team has “alternative facts.” Which pretty much says it all. The Washington Post, January 22, 2017.


\(^{34}\) Leonardt, David and Stuart A. Thompson. President Trump’s Lies, the Definitive List.


Credibility is a technical, cognitive, and iterative process, by which information is filtered and selected. Credibility refers to the believability of some information and/or its source and is a multifaceted concept with expertise and trustworthiness as primary and e.g. source attractiveness and dynamism as supporting dimensions. The credibility of a source of information is a recipient-based judgment that includes objective assessments of the quality or accuracy of information as well as subjective perceptions of the trustworthiness, expertise, and attractiveness of the source.

That means that trustworthiness is based more on subjective factors, but can also include objective measurements such as established reliability. Expertise can be similarly subjectively perceived, but also includes relatively objective characteristics of the source or message (e.g. credentials, certification, or information quality).


The terms “credibility” and “trust” are used virtually interchangeably. See e.g. Fisher, Caroline. The trouble with “trust” in news media. In: Communication Research and Practice, Vol. 2, No. 4, p. 454.


including trust, reliability, accuracy, reputation, quality, authority, and competence. Credibility is frequently attached to objects of assessment, as in

- source credibility, which considers the trustworthiness of the constructor of a message,
- media credibility, which evaluates the overall credibility of a larger entity, and
- message credibility, reflecting the fact that assessments of these objects differ.

At the same time, however, credibility assessments of sources and messages are fundamentally interlinked and influence one another that is, credible sources are seen as likely to produce credible messages and credible messages are seen as likely to have originated from credible sources.

The practical consequence of this development is startling: If trust in traditional authorities or gatekeepers of information (such as media, science or politicians) is dwindling, sometimes unexpected “ambassadors of the truth” appear. The currently most famous example is the young Swedish activist Greta Thunberg, who initiated a “school strike for climate” movement that spread globally. Thunberg, who has been diagnosed with Asperger syndrome, obsessive-compulsive disorder and selective mutism, regards her disease as an advantage in her perception of reality “as almost everything is black or white.”

While Greta Thunberg or the German YouTube-influencer Rezo might be the most recent celebrity activists, they follow the pattern of artists turned activists, sometimes even turned politicians, such as Bono, Bob Geldof, and Arnold Schwarzenegger. While most people will not argue the facts of poverty or climate change, it obviously does make a difference who tells the facts and makes the call to action.

**VI  Recommendations**

The erosion of a common understanding with regards to facts, reality, and truth; the erosion of trust in elected representatives and media; the denying of empirical evidence and scientific facts; the polarization within our societies enhanced by analogue and digital echo chambers are a rather toxic and explosive mixture. It might result in an erosion of democratic foundations, such as the ability to find a consensus through the exchange of arguments; respect for different opinions and arguments (as a basis for peaceful coexistence in a diverse population); the possibility to form one’s opinion based on a free flow of valid information.

Possible remedies need to address various aspects of these possible dire consequences. Hans Rosling offers a useful guideline for this effort:

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“People often call me an optimist, because I show them the enormous progress they didn’t know about. That makes me angry. I’m not an optimist. That makes me sound naive. I’m a very serious “possibilist”. That’s something I made up. It means someone who neither hopes without reason, nor fears without reason, someone who constantly resists the overdramatic worldview. As a possibilist, I see all this progress, and it fills me with conviction and hope that further progress is possible. This is not optimistic. It is having a clear and reasonable idea about how things are. It is having a worldview that is constructive and useful.”

In this spirit, the following recommendations shall serve as a starting point, not necessarily a final destination.

- **Learn and teach to distinguish.** Since 2014, Finland has started an initiative to teach citizens of all ages how to detect fake news or even deep fakes. The program is also directed at teachers, civil servants, and public officials and an integral part of the syllabus at public schools. This program definitely serves as a best practice example for all EU member states.

- **Use Big Data to understand better.** Experts can harness Google searches and postings in a positive way by helping to better understand the mood and attitude of people. The European Union is keeping track of the public mood using surveys (so-called Eurobarometer). However, the EU might consider integrating modern tools such as Big Data analysis in order to get a more detailed picture.

- **Encourage and practice debate.** We need to practice (political) discourse. Currently, various initiatives are evolving such as StrategieDialog21 in Switzerland and Demokratie21 in Austria aiming at offering spaces for open discussion and exchange of arguments. More spaces like these are needed in order to involve interested citizens in a discourse.

- **Involve artists.** Artists not only have a special sensorium to feel transformations and change, they could and should be involved to address challenges or problems. They often enjoy higher credibility and can help to create awareness and a willingness for change and reforms.

- **Foster smart regulation in the digital space.** The EU lacks big players such as Facebook or Google but it obviously has smart lawyers. The value of personal data is unquestioned; legal protection offered by laws such as the General Data Protection Regulation have received acclamation in countries such as the US and China.

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VII References


Harold James

I Tyranny of the Past

Of course we turn to the past when we’re worried about the future. The more uncertain we are about what will come, the more we cling to what has been. The less we know about the future, the more convinced we are that we really understand and believe what once we were. Colossal forces – above all in the world of IT and artificial intelligence – are shaping a revolutionary transformation of almost every aspect of human life. The result is a deep uncertainty.

The tyranny of the past over contemporary life has two principal pillars. Both are anchored deeply in human psychology. These mental posts are so firmly fixed that they cannot simply be eradicated. The result is a prison from which escape is an impossibility. They relate to elemental human experience. First, the most comfortable place we all ever were in was the mother’s womb. Everything after that is exposed, uncertain, insecure. No wonder that we are nostalgic and crave a level of security that we can never again attain. Appropriately we howl when we come into the world. Therapy sessions try to reenact that primal scream, so that we can break out of the prison. Or we can be much more restrained about our nostalgia. In Japan, there is a business around Emperor Akhito’s abdication of canning air “from a previous era” to resell.

A second fundamental drive, almost as powerful, is the way that the human mind is hardwired to be receptive to stories. An old Hassidic saying quoted by Kafka explains that “God created man in order to tell stories.” A new feature of academic analysis over recent years is simply the extent of discussion of and reflection on the human addiction to narratives. It has recently been given a grounding in the dynamics of human evolution. The narrative form is satisfying, according to contemporary neuroscience, because we have evolved designed to assess other people’s minds and motives, and only that sort of explanation consequently gives a psychological satisfaction. That was an adaptive response to humans’ very early need to act persuasively in group settings. The downside is that in this interpretation of mind the results in today’s social universe may be completely misleading: it served humans well when they wanted to chase and hunt animals, but is a handicap in a more complex world. Narrative becomes hopelessly confused with an explanation of causation, when it was evolved to deal with a completely different demand. Because the explanations superficially but erroneously produced by narrative are so intuitively graspable, they prevent a deeper understanding of what may cause social and political phenomena. In consequence, the narrative addiction frustrates attempts to produce reasonable solutions to the dilemmas thrown up by our modern group behavior.

It has by now become a cliché of business and politico chitchat to say that we need a new narrative. International assemblies such as World Economic Forum or the IMF and World Bank Annual Meetings now resound with a litany that the old “narrative” of neo-liberalism is broken, and that a new “narrative” is needed. But then narratives are used in a sloppy way to replace the analysis of cause and effect. Thus, Meg Whitman at Davos: “We are in a unique point of time. We need to create a new narrative and restore hope for people who have been economically dislocated, especially from

Economists are now shifting to the analysis of “Narrative Economics.” Others refer to the “subjectivist turn.” We can demonstrate how wishful thinking generates contagion, and how ideas about the world shape the world. But the supremacy of narrative can also mean the justification for tall stories, for the “fake it till you make it” approach of Elizabeth Holmes (of the Theranos fraud) or the pretend German-Russian heiress Anna Sorokin/Delvey, the truck driver’s daughter who fooled New York high society.

Narratives in fact often stand in the way of concrete and effective solutions. The most compelling and comprehensive ones are so fundamental that they lock us in a mental prison. Many of the new causal narratives go back a long way, and trace bad outcomes to fundamental problems that cannot easily be fixed: to basic emotions (greed), or to institutional features that originated hundreds of years ago. Thus the 2007–2008 financial crisis is widely attributed simply to human greed; or bad governance structures in today’s Europe to the powerful legacy of early modern bureaucratic monarchies in Spain or the Kingdom of Naples. And what can we today do about either of those basic facts? These are in fact not really new narratives: they go back to the serpent in the Garden of Eden.

The immediate recognizability of stories is the key to their success and their emotional and dramatic power. They create an “aha” effect because of the way our minds work. That dramatic recognizability requires taking elements out of the past and weaving them in a way that is appealing because it is familiar and at the same time strange. The narrative captures the imagination and brings it into dangerous and uncharted areas.

We should acknowledge that this development is not simply a product of very recent communications developments, or of the new social media that have flourished since the 2007 introduction of the iPhone. Fake news is a notoriously old phenomenon. It was a major element in making the French Revolution. The 1989 revolution in Romania was set off by vastly exaggerated accounts of a massacre in Timisoara, that then led to claims that the whole affair had been made up. When a character – Deirdre Rachid – in a popular British television soap opera (Coronation Street) was sentenced to prison in 1998, a mass campaign for her release began and a Member of Parliament urged the Home Secretary to act. Gullibility is endless. The last age of globalization one century ago had its spectacular frauds and deceptions too – think of the drifter Wilhelm Voigt who as the Hauptmann (Captain) of Köpenick took over the city treasury. All that the new media has done is to make the deluge of fake news appear more uncontrollable, or to create the narrative that it is controlled by someone powerful and sinister. But was the flow of stories ever really controllable?

II A Case Study: Brexit

Nostalgia and a lust for narrative combine today in a powerful brew. Take Brexit. On the face of it, it looks like a crazy collective choice that has sent politics, society and perhaps the economy into an almost unrecoverable meltdown. Social scientists have found it hard to explain where it came from. The UK was, according to social surveys, a rather happy and contented place in comparison

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with the rest of the European Union (see Figure “Country Results”, with survey results indicating increasing levels of satisfaction (this seems to have been a general trend in northern Europe, but not on the southern and eastern periphery).

**Country Results**

**Question:** On the whole, how satisfied or not are you with the life you lead? Are you...?

**Answers:** Satisfied

![Country Results Map](image)

Source: Special Eurobarometer 333, Social climate: Fullreport, January 2018, p.10 (Fieldwork May-June 2009).

Brexit is thus hard to explain. Some think it is a reaction to globalization, and that the Brexit vote is tied to a China import shock. Some explain it in terms of a reaction against immigration. Some hold it is a consequence of the austerity policy pursued by the British government since 2010. Some explain it as the outcome of the manipulation of social media and networks, perhaps or probably by a sinister foreign power. (Indeed, there has been no public inquiry into the financing of the Brexit campaign, into the source of the funds that a not very rich businessman, Arron Banks, poured into the Leave campaign.) All these explanations have some plausibility, but they cannot account for the emotional force of the movement to sever Britain’s links with Europe. Narratives kicked in.
The first is the passion for English history, especially for the story of the Tudors. That obsession is hardwired into the English consciousness because it has shaped the English language itself: Shakespeare and the English bible translation created the modern language with a set of views about England’s role in the world embedded in it.

It’s obviously not that anyone thinks that life was actually better under the Tudors. Almost every experience was more uncomfortable – even for the very rich – and often acutely and dangerously so. Attempts to put people back into a historical setting rapidly produce the realization that it is simple everyday features that are the most difficult to do without. For instance, the most common complaint of those who volunteer for long-term experiments in historical living is the absence of shampoo. They might not worry so much about the absence of antibiotics because in the case of serious illness they are simply taken out of their historical recreation.

So why the fascination? There is obviously plenty of drama in the Tudor era, especially about the two monarchs who really molded the English national pageant, Henry VIII and Queen Elizabeth. Their lives are, in the first place, intense family dramas. Henry VIII’s increasingly urgent need to produce a male heir in order to ensure political stability led to the six wives. His daughter Elizabeth needed to escape an impossible commitment in marriage, because that would bring diplomatic ties that would alienate the parties not chosen. The result was a bewildering swirl of rumors and scandals. These are compelling narratives, just as human interest. Modern people appear to find voyeurism about the love lives of Anne Boleyn and Elizabeth compulsively appealing.

The Tudor family dramas have another deeper appeal: they constituted the occasion when England defined itself against Europe. Above all, the famous preamble to the 1532 Act of Appeals, limiting
judicial authority outside the Kingdom (because the King did not trust the Pope to annul the marriage to Catherine of Aragon), began with the first declaration of a modern notion of sovereignty.

History and Myth References

The preamble to the statute makes its points by referring to history: “Where by divers sundry old authentic histories and chronicles, it is manifestly declared and expressed that this realm of England is an Empire, and so hath been accepted in the world, governed by one Supreme Head and King having the dignity and royal estate of the imperial Crown of the same, unto whom a body politic compact of all sorts and degrees of people divided in terms and by names of Spirituality and Temporality, be bounden and owe to bear next to God a natural and humble obedience: he being also institute and furnished, by the goodness and sufferance of Almighty God, with plenary, whole, and entire power, pre-eminence, authority.” Here was a use of history, the “divers sundry old authentic” narratives, to enforce a new politics. So this was the age when people turned to narrative.

The last years of Elizabeth’s reign then produced its own obsession with history, in which history plays – above all Christopher Marlowe’s Edward II and William Shakespeare’s Richard II – were used as a way of intervening in the factional struggles of the court, and justifying the removal of rulers who broke conventions. The torments and rebellions of Elizabeth’s favorites, Robert Dudley, Earl of Leicester, and then Robert Devereux, Earl of Essex, were seen through a retrospective lens. And, of course, that story has come to us today, via Friedrich Schiller and then nineteenth century Italian opera (notably Donizetti), to Margot Robbie’s reenactment on film of Queen Elizabeth. The greatest actress of every generation simply has to play Elizabeth: from Sarah Bernhardt in 1912, through Flora Robson, Bette Davis, Jean Simmons, Judy Dench, Glenda Jackson, Helen Mirren, Cate Blanchett, etc., etc. Thus, modern Britons live in a Tudor imaginative world.

The second driver of modern British politics is a revived passion for made-up narrative. In particular one work of fiction has become a mirror to the zero-sum politics of the modern world. A remarkable feature of both Brexit and the Trump experiment in the United States, which treated Brexit as an experimental or trial run, is the degree of reference and allusion to the multi-season television series Game of Thrones (GOT). The fiction has its origins in Shakespeare’s history plays on the rivalry of the houses of Lancaster and York, and in Maurice Druon’s narrative cycle of medieval French kings, Les rois maudits. GOT has become the ubiquitous way of talking about politics around the world. At the 2018 World Bank and IMF meetings, Indonesia’s President Joko Widodo (Jokowi) started
with the announcement that everyone knows from GOT: “Winter Is Coming.” One of the key drivers of Brexit in the UK, Michael Gove (once the Education Secretary, now the Environment Secretary) explained his deep addiction to the series – a passion that he shared with David Cameron. He recorded a video in which he explained, “My favorite character in Game of Thrones is undoubtedly Tyrion Lannister. [...] And you see there this misshapen dwarf, reviled throughout this life, thought in the eyes of some of his followers to be a toxic figure, can at last rally a small band of loyal followers.”5 In this imagination, politics is both about sustained suspicion and continual conflict.

Donald Trump has his own GOT addiction. The dramatic image of challenge and struggle has become an integral part of his own visual self-presentation (see Figure “Tweet President Donald J Trump”).

The maker of GOT, HBO, complained about this abuse of its intellectual property, issuing a statement: “We were not aware of this messaging and would prefer our trademark not be misappropriated for political purposes.”6

These debates about stories and their use and abuse are not at all new. Narratives have constantly created a sort of echo chamber, in which strong emotions bounce around. That’s how English and British history have worked. Many of the developments of today in which history and historical myth becomes a template to shape contemporary reality look like a replay of the interwar era: an alarming point brilliantly conjured up by the German TV series Babylon Berlin. At that time, there was also a worry about living standards, and some people contrasted the decline and deterioration of incomes with the solid prosperity of the Kaiser’s Germany. But that was not the main focus of historicizing narratives. They went back farther into the past, and deeper into the psyche. It was

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the story of the Nibelungs (memorably depicted in cinema by Fritz Lang in silent movies in 1924). The stab in the back of Siegfried was used to depict Germany’s national humiliation as the outcome of an illegitimate act. Since the 1930s, a debate has raged about the extent to which Hitler was the consequence of the music and mythology of Richard Wagner. It’s clear that Wagner did not provide specific content: what his music generated was feeling. The narration could be filled with all kinds of new content.

### III Facts, Data and History

Is it possible that “facts” have the potential to disturb certainties about the “good old days” and are therefore refused and seen as means of “political manipulation”? Objectively, we are becoming richer, healthier (for the most part) and happier (again, for the most part). But also more anxious. It’s also easy to link narratives about personal situations and traumas with stories of national decline: hence the appeal of Make America Great Again. MAGA might even be a sort of therapy session. Income growth of the US population rose 58 percent between 1978 and 2015, but the bottom half fell by 1 percent. Is that slight decline really measurable or noticeable? But it has produced a powerful narrative about being left behind, and about the “forgotten man,” again a narrative from the 1930s.

Migration and the way it is debated offer a fine example of the problem. Migration concerns constitute narratives that fit easily into a framework of national myths – and then are very easily racialized and used as propaganda. If populism is about identifying only a part or a sub-section of the population as the “true people,” it depends on explaining why others are illegitimate intruders. Social science seems to have an answer. In the abstract, migration is good. An inflow of skilled people raises general skill levels and thus everyone’s prosperity. Low-skilled labor may undertake tasks for which it is impossible to recruit domestic workers. Emigration allows individuals to realize their potential, and generates flows of remittances to the home country. Everything in this world vision conjured up by social science is rosy. But then there are alternative visions: even highly paid professionals may see new and well-qualified immigrants as undesirable competition. Low-skilled workers worry about pressure on wage levels. Emigration societies think about brain drain. These arguments get power when they are presented in a world of examples and cases. There is a tendency to think of all people from one area as fundamentally similar. Thus, in 2015 in Germany, in the initial enthusiasm about a welcoming culture (Willkommenskultur), Syrian migrants were depicted as doctors, dentists and teachers. Then as Germans started to speak about a migration challenge, the migrants were reassessed and now visualized as poorly educated and mostly illiterate. And then, as the migration challenge morphed into a migration crisis, they were violent and disturbed individuals who would steal and harass and rape.

It is common to think that there is an easy answer to incendiary narrative: people who are worried about immigration should be informed that the share of the immigrant population (almost exactly 10 percent in both the EU and the US, as a matter of chance) is much less than they think. In the US, the average perceived share is 36 percent, in Italy 26 percent. There is a similar persistent overestimation of the share of Muslim immigrants, as well as of the cost of immigration to the welfare state, and a parallel significant underestimation of the level of education of immigrants.

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Incorrect information is spawned by worry and fear, but better information (which is easily available) doesn’t seem to help the worried to feel more secure.

Misperceptions of this kind lead many liberals to see today’s political contestations as a struggle between irrational ideas and hard science. Economics warns of the harmful consequences of Brexit or trade wars or restrictions on migration, natural science tells us about the dangers of climate change. But then all of the scientific argumentation and evidence can be effectively countered by cases and stories of the harm done by foreign competition or alien workers.

Again, this debate is not a new one. The contemporary turn to narrative is quite a break with almost a century over which policy makers tried to use social science to improve the world. Especially in the middle of the twentieth century, social science tried to evolve more and more compelling presentations and analyses of causes – creating brilliant simplifications. Addressing the fundamental causes – of poverty, of disease or of violence – would be the first and essential step to eliminating them, and thus correcting the problem.

The most powerful version of the scientific approach was shaped since the 1930s by economists who used national income accounting to steer the management of the macroeconomy. The conceptual tools were provided by John Maynard Keynes, and the causal mechanism was inherently straightforward: underemployment and the waste of resources were caused by deficient demand. Another version of economic science linked monetary growth to inflation. Here again the causal mechanism was simple, and the solution obvious.

After the financial crisis of 2008, conventional economics looked like a failure. The Queen of England memorably asked British economists why they had failed to predict the crisis. The Brexit debate became an attack on experts and technocrats.

Maybe the crisis led to a call for a new social science expertise. Keynes’ biographer Robert Skidelsky saw a “return of the master.” But oddly, the movement for a new Keynesianism gained little traction, and instead the world embarked on a gigantic experiment in monetary easing. That move to monetary solutions was combined with a deep ambivalence towards fiscal deficits: on the one hand, they seemed to be producing unsustainably high levels of debt; on the other, it was easy to make the simple arithmetic calculation that if the easy-money world continued, anything was possible and anything could be financed.

The financial crisis had many causes and thus no obvious answer. It inspired a profound and challenging uncertainty. The only way to travel through the thicket of complexity was to tell a story. Over the past fifty years, we can see how the use of the word “narrative” increases (in the relative measure of the Google N-gram analysis of every printed book, in this case in the English language), while “social science” becomes less popular (see Figure “Frequency of Words”).
The modern policy confusion recalls the experience of Soviet planners in the 1920s and 1930s. They were not supposed to take into account any interest rate, so there was no time preference and no reason why the most expensive project should not be the best. So railroads were given very wide curves, and engineers proposed multiple tunnels to take goods through mountains and avoid gradients. Anything became possible. But then the reality caught up, and the planners noted that projects were simply not being completed because they had been planned on such impossibly generous terms. At that point, the only way that they could justify themselves was by a simple and mendacious narrative of success.

Many people in consequence believe that 2008 discredited conventional economists and their economic advice. That judgment is over-stated: the problem of much of conventional economics was that it neglected money and finance; but the older economic models still have an enormous value in assessing the impact of policy. What was discredited was an approach that relied on rather short runs of data to formulate much larger calculations of probability and risk. The simple story about causation had broken down.

**IV  Dealing with Myths: Narratives about Narratives**

Historians have set themselves up for their own pratfall when they construct their own narratives about narratives. Its signs are manifest in many countries, as people struggle over which narrative should win out. The combination of large-scale political and economic uncertainty in the aftermath of the global financial crisis with the return of narrative had an unfortunate consequence. It turned historians into pundits, and made the critics of conventional social science over-dependent on an approach that simply isolated random narratives. Many historians have turned themselves into providers of an expertise that is proving to be much more problematical than the simple policy prescriptions of pre- and post-crisis economists. A number of prominent British historians have played a devastating role in pushing Brexit, based on fallacious notions about the centrality of sovereignty to the British constitutional tradition. It is surely just as crazy and limiting to think about Brexit in terms of Henry VIII formulating doctrines of sovereignty in opposition to the jurisdiction of ecclesiastical courts subject to the authority of the Roman pontiff.

History is now biting back, in a nasty way. Reflecting on the legacy of the Great War has also been an occasion for reviving the mentalities of a hundred years ago, and not for warning about the
dangers of conflict. Michael Gove as British Education Secretary launched a polemic against those historians who emphasized the futility of the war and called it a “just war” directed against the “ruthless social darwinism of the German elites.” This looks like a thinly veiled allusion to the power struggles of contemporary Europe. But 1914 is not the only possible or attractive point of comparison in interpreting the English past. After 2014, there came 2015, the two hundredth anniversary of the battle of Waterloo and the final defeat of Napoleon. Some British politicians go back to the Hundred Years War (1337 to 1453). The British conservative politician Enoch Powell used to explain that the European Common Market was nothing more than the revenge that the Germans and the French imposed for the defeats that Britain inflicted on them. The celebrations and commemorations were full of symbolism related to contemporary disputes.

On the other edge of the European continent, evocative historical dates are being used or abused in a similar way, to conjure up images of the enemy that resonate in contemporary political debates. A few years ago, a Russian film simply entitled 1612 evoked the Time of Troubles, when weak leadership meant that Russia was invaded and subverted by insidious Polish aristocrats and capitalists. The film’s director, Vladimir Khotinenko, said that his audience “didn’t regard it as something that happened in ancient history but as a recent event. That they felt the link between what happened four hundred years ago and today.” As Russia struggles to bring Ukraine into its orbit, another ancient date looms large: 1709, when Tsar Peter the Great crushed the Swedish and Cossack armies at the battle of Poltava (in Ukraine). That battle was also the subject of another recent Russian film, The Sovereign’s Servant. Russian television commentators describe the countries most engaged in supporting a western or European-oriented Ukraine as seeking revenge for Poltava: Sweden, but also Poland and Lithuania, which had been brought into the Swedish orbit. The western and eastern fringes of Europe obsess about dates that recall the struggles with the core of Europe: 1914, 1815, 1709, 1612, 1532, 1337.

By contrast, the European core is obsessed with overcoming or transcending history, with working out institutional mechanisms for overcoming the conflicts that scarred Europe in the first half of the twentieth century. Europe and the European idea are a method of escape from the pressures and constraints of the past: a sort of liberation.

Charles de Gaulle evolved a complicated metaphysics in order to explain his and his country’s relationship with the problematic past. Every European country had been betrayed. “France suffered most because France was more betrayed than the others. That is why it is she who must make the gesture of pardon. […] It is only I who can reconcile France and Germany, because only I can raise Germany from her decadence.”8 Winston Churchill (a direct descendant of the victor of Blenheim) had a rather similar vision, in which he thought of a way of overcoming past divisions and nationalistic quarrels. After the Second World War, he explained that “this noble continent is the fountain of Christian faith and Christian ethics. If Europe were once united in the sharing of its common inheritance, there would be no limit to the happiness, to the prosperity and glory which its three or four hundred million people would enjoy.”9 De Gaulle and Churchill were master story tellers – that indeed was the key to their political success. De Gaulle started his memoirs with an evocation of France as “the princess in the fairy stories or the Madonna of the frescoes, bound for

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9 Churchill, Winston. Speech delivered at the University of Zurich, 19 September 1946.
a destiny eminent and exceptional.”¹⁰ And Churchill – Isaiah Berlin rightly summed up his talent, his genius: the “single central, organizing principle of his moral and intellectual universe was an historical imagination so strong, so comprehensive, as to encase the whole of the present and the whole of the future in a framework of a rich and multi-coloured past.”¹¹

V What Is to Be Done?

We need to see how rich and multi-colored our past is. How it goes beyond nostalgia. The development of such a sensibility is only possible through dialogue in which there is a diversity of participants.

We should NOT press for public authority or government to lay down a line on how history should be interpreted. That is fatuous. The strategy always backfires. A now famous memorandum prepared for David Cameron’s Conservative government laid down strict rules about the appropriate ways of conducting Remembrance Sunday: “We must ensure that our commemoration does not give any support to the myth that European integration was the result of the two World Wars.”¹² “Myth” here is simply a way of dismissing one particular narrative about a complex story that the authority disagrees with.

The ultimate success of important stories is that they can be told in several ways. Take the Wagnerian Ring cycle. Some people saw it as providing a myth about the heroic warrior qualities needed to shape a German nation. Some people believed it was a tale about the necessity of socialist society that would overcome the laws of capitalism. Some thought of it as a drama of the individual psyche. All are plausible. What is not plausible is the telling of a story in one way.

We need a culture in which multiple and ambiguous narratives are presented. The first necessity is to find ways of breaking down the carapaces of internet “bubbles.” Create more links. Randomize. Pre-modern societies had a notion of carnival and charivari (skimmington ride, Katzenmusik), when the existing order was stood on its head. What about a social media platform that randomizes interactions, and occasionally or regularly gives the opposite of what the user is seeking? Cafes and restaurants that seat strangers together? Parliaments with randomly selected individuals?

That new institutional setting might also find a way to promote respectful communication. The modern world needs anger management. The British Parliament, once the epitome of civilized debate, has become a forum for boorishness. Rage is the fuel of social disintegration, and it is weaponized by social media. In medieval theology, St. Bonaventure set against the vice of anger or wrath (ira) the virtue of science or knowledge (sapientia). That is one answer, but it may seem a dull one. Another possible candidate is humor as a way of binding strangers in a community of the imagination. A Talmudic tradition holds that a lesson taught with humor is remembered.

We need a culture in which the best weapon against one-sided myths is laughter and ridicule. The comedian Stewart Lee brilliantly took on the narrative of the then UKIP leader Paul Nuttall that

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immigration was damaging the UK, and that immigrants would be better staying at home and improving the societies from which they came. Lee’s monologue thus started by complaining of the waves of Poles who come in to fix plumbing and other features that the British had broken and didn’t know how to fix. Then Lee went back in time, and back and back. Before the Poles there were the Indians, reinventing British national cooking, and before that French Huguenots, with odd ideas about transubstantiation, and before that Anglo-Saxons, with ship burials, and the beaker folk, with drinking vessels, and the Neolithic people and pictograms, and fish crawling up on to land who should properly have stayed where they were, in the sea, and made the sea better.13 We wail when we come into the world because we have lost security. We need to laugh in order to regain our souls.

Let’s be clear. It’s not a good idea to elect comedians as political leaders. Bepe Grillo has not solved any Italian problems. The German comedian Jan Böhmermann has helped to bring down the Austrian coalition government but is not an obvious replacement. Donald Trump is properly an entertainment figure and should not have been in politics: the only business that he really succeeded in, real estate, simply produced four bankruptcies. Ukraine’s Volodymyr Zelenskiy is likely to be another national embarrassment. David Cameron’s 2006 description of UKIP voters as “fruitcakes and loonies” looks more and more like an accurate description of the range of pro-Brexit candidates for the European Parliament. But it is a good idea to use all the weapons intelligence can muster against a pervasive anger that is making for collective stupidity. Instead of whipping up passion, humor allows us a distanced vision in which we might become self-critical as we realize an underlying futility. An example of a trivial everyday implication: just put up many videos of road rage to let people see that they are being clowns and fools.

Finally, please notice what I have done in this essay. The organizers – the Bertelsmann Stiftung – asked me to tackle the question, “Has the quantity or quality of the urge to return to the ‘good old days’ actually changed in the last years? Why is that so?” According to my mandate, I should underpin the answer to this social science investigation through “the use of visual illustrations (graphs, flowcharts, maps).” What did I do instead? I started with the social science and then gave up and tried to tell a story – a convincing narrative.

13 https://www.youtube.com/watch?v=Zw9qN6_eXOg
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The Failure of Media to Do Its Job – Fabricating the Truth Instead of Reporting It

Hans Mathias Kepplinger

I Preliminary Notes

Each day, German media provide detailed and reliable reports on current affairs. They also publish a wide range of comments, often with sophisticated analysis. Normally, the coverage is good and deserves trust. This does not apply to reporting of spectacular events like migration in 2015 and spectacular coverage of trivial topics like emissions from diesel engines in 2018.

Public confidence in media coverage has decreased and the number of newspaper readers has declined. Most observers attribute this to the Internet. Is this explanation valid? In Germany, trust in the media has declined only slightly and trust in journalists has remained rather stable. In contrast, trust in the objectivity of reporting has steadily declined since the 1970s (see Figure “Objectivity of Reporting Assessed by Readers, Listeners and Viewers”).

Objectivity of Reporting Assessed by Readers, Listeners and Viewers

Statement: "... reports truthfully and always gives things the way they really happened"

Thesis 1: The image people have of the mass media and the one they have of journalists are not in danger. They remain quite stable at a rather high and low level, respectively. Nevertheless, images do not really matter. In contrast, opinions about the objectivity of media coverage in general and about controversial topics are relevant, because they reflect concrete impressions. These opinions have become increasingly negative. This is a long-lasting trend. Image campaigns will probably not stop it.

The loss of readers, listeners and viewers does not have the same causes as the dwindling confidence in objectivity. Nevertheless, the two relate to each other. In 2014, all types of German print media had fewer readers than in the 1970s (see Figure “Reach of Daily Newspapers”).
Thesis 2: The decline in trust in the objectivity of media coverage and the decline in readership began long before the Internet came into being. The Internet might have accelerated the declines; nevertheless, it is not a major cause. Blaming the Internet does not solve the problems but hides them instead. What are these problems?

II Perception of Journalists’ Role

In post-war Germany, Anglo-American journalism became the model: separating opinions of journalists from information, unadulterated reproduction of information, etc. These and some other aspects formed the core of objectivity. Representatives of publishers and journalists summarized them in the German Press Codex (Publizistische Grundsätze). Beyond public confessions, even in the 1970s many journalists followed the German tradition of opinion journalism, which claims superior insights. First breaks in the public commitment to objectivity emerged as prominent nuclear energy opponent Franz Alt, who had headed the TV magazine Report for 20 years, claimed: “There is no objectivity.” Alt interpreted objectivity as a transcendent truth (“only God is objective”) and mixed it with the demand for objective representation of facts. Following the intellectual zeitgeist, Alt and some of his colleagues laid the ax to the root of journalism’s credibility.

The career of radical constructivism pushed forward the deconstruction of objectivity in journalism and social sciences. According to these critiques, there is no objective reality. All perspectives are bound to individual conditions, characterized by social influences. This is not completely wrong but fails to specify conditions of different degrees of objectivity. Instead, it opens the door to morally


inflated subjectivism, euphemistically called “Haltungsjournalismus”⁴ (attitude journalism). Thus, journalists are “positioned to give shape to the news in a way the descriptive style does not allow”.⁵ The new self-image of many journalists changed the character of media coverage. From 1960 to 2007, in the US, UK and Germany the index for a “hard-facts-first structure” declined substantially. In contrast, the index for “direct and indirect speech” increased remarkably.⁶

In the 1970s, top German journalists and politicians agreed that politics had more power than the media.⁷ In 2008, correspondents in Berlin and members of the Bundestag agreed that the media have more power over politics than politics over the media. Over the decades, the power relations perceived by politicians and journalists have reversed. Recognizing the imbalance of power, in 2008 politicians were satisfied if both had similar power, whereas journalists wanted to increase the superiority of the media.⁸ A synthesis of power and attitude claims is “impact journalism.” Its goal is the strategically planned dissemination of articles to preselected, influential people, who “can make decisions in order ... to generate appropriate solutions.” If the contacted do not act in the expected way, the next “report loop will discuss the causes of blockages.” In addition, unfulfilled expectations of social groups are “to turn into impact actions,” which become the subject of new reports, etc.⁹ In former times, journalists were proud to be distanced observers of society. Now, many are dedicated actors trying to change society. They transferred Marx’s argument that “philosophers have only interpreted the world, it is necessary to change it” to journalists.

### III Estrangement of Journalists from Their Audience

#### 1. Social Milieus

For decades, journalists have been “adapted outsiders”¹⁰ – adapted to their closer social environment, outsiders in relation to society at large. In 1989, 39 percent of the generation of “grandfathers” among German journalists had political beliefs similar to most of their audience; of the generation of “fathers” it was 33 percent, of the generation of “grandchildren” 30 percent. The generations moved apart from their audience. In the same period, the proportion of journalists who held beliefs similar to most of their colleagues rose from 39 percent to 44 percent. The individuals moved towards each other.¹¹ In the following years, journalists cultivated a negative image of their audience. Compared to 1993, in 2005 German journalists considered their audience to be more right-wing,

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uneducated, politically disinterested and ineffective.\textsuperscript{12} Had the audience changed or had German journalists? Did German journalists have more prejudices in 2005 than in 1993? In any case, in 2005 they looked down on an audience that they viewed as intellectually limited.

The derogatory distancing of many journalists from their audience reflects their social distance: they live in different social and mental environments. In Bavaria in 1999, 43 percent of journalists, but only 10 percent of the population belonged to the “liberal-intellectual milieu”; 22 percent of journalists, but only 5 percent of the population to the “postmodern milieu.” As a consequence of this, the social milieus of the vast majority were barely represented by journalists. The imbalance mentioned was stronger in public broadcasting (TV and radio) than in the private press, more pronounced in departments for local/regional and cultural/social affairs than in the departments for politics and economics.\textsuperscript{13} (see Figure “Social Milieus in Society and Journalism”).

2. Co-orientation and Convictions

Members of all professions orient themselves to their colleagues. In no profession, however, does this happen so quickly and intensively as in journalism. Journalists track the weighting and evaluation of current events by colleagues in organization they work for and in other media. This rapidly connects individuals and collectives with each other and accelerates the formation of opinions in newsrooms and in journalism in general. Because of the intensive and rapid co-orientation, common convictions emerge, which confirm each other and condense to claims of truth, against which the population must justify their opinions. For many journalists it is not about opinions, but about facts. Anyone who does not recognize this cannot or does not want to perceive reality as it is. Two commissions responsible for testing nuclear power plants and their consequences found that the


accident in Fukushima was of no relevance to German nuclear power plants,\textsuperscript{14} and that the accident in Japan posed no severe risks to the health and life expectancy of the Japanese.\textsuperscript{15} Nevertheless, in 2015 more than two-thirds of German journalists agreed with the thesis that Fukushima provided “conclusive proof” that the risks of nuclear energy are unacceptable.\textsuperscript{16}

A quasi-experimental survey of German journalists points to a consequence of their co-orientation. All read the following description: “The only doctor in a small town made a deadly mistake. If a journalist reports about it, the doctor must leave the place and the inhabitants have no doctor. If he does not report about it, the doctor might make a similar mistake. Both decisions can have negative consequences. Is a journalist morally responsible for these consequences or not?” Half learned that the journalist’s colleagues disagreed with the action he took. In this case, the majority believed the journalist was responsible for the negative consequences of his decision. The other half learned that he acted in consensus with his colleagues. In this case, the majority believed the journalist was not responsible. Such mechanisms foster the adaptation to prevailing opinions, protect against criticism from colleagues, and encourage journalists to exaggerate because it might enhance their reputation as a “critical” journalist (see below) and thus promote their careers (see Figure “Impact of Colleagues’ Opinions on Journalists’ Responsibility”).

\textbf{Thesis 3:} The distribution of journalists’ opinions and milieu affiliations might have always differed from the distribution of these opinions and affiliations in society at large. Nevertheless, it has developed into a serious problem. As long as journalists had relatively limited contacts with their colleagues, acted as neutral observers and regarded their coverage as a service for their audience, their social position had limited impact on their reporting. There are two reasons why these conditions no longer exist. One is the new perceptions many journalists have of their role; another is the

\textsuperscript{14} RSK Anlagenspezifische Sicherheitsprüfung (RSK-SÜ) deutscher Kernkraftwerke unter Berücksichtigung der Ereignisse in Fukushima-I, 2011.
extended and accelerated co-orientation between them. Both factors promote the willingness to adapt to prevailing opinions in editorial departments, reduce the variety of perspectives at publications, bind media outlets to the expectations of social milieus and increase the mental and social distance to the rest of society.

IV Critical Journalism

Criticism rests on a rational weighing of data and arguments for and against facts, opinions, decisions or actions. In the past, a critical journalist was one who did not publish a report until he had solid evidence.¹⁷ Today, journalists believe themselves to be critical when they combat grievances of all kinds. In news and comments by the media, a general objection has supplanted judicious presentations of pros and cons.

1. Negativism

In the period from 1979 to 1985, a major German public radio station (HR) published almost twice as much negative news as in the period from 1955 to 1959. It culminated in the 1970s (see Figure "Negative News from Public Radio Station").

In the decades following this analysis, the focus on negative events continued to increase. From 1984 to 2014, the proportion of negative news published by a major newspaper (Süddeutsche Zeitung) about politics and business rose from 38 to 44 percent. From 1989 to 2014, the proportion of negative news broadcasted by a major TV news show (Tagesschau) rose from 41 to 59 percent.¹⁸ The degree of negativism in German mass media is not unique. In 2012, 53 percent of the reports on politics appearing in German media were negative; in Austrian media the figure was 69


percent, and in Swiss media 49 percent. In the United States, the preference for negative news also significantly increased. The increased number of scandals is probably a consequence of the trend to push negative news.

**Thesis 4:** The equation of criticism with the focus on negative events and opinions rests on a fundamental error. It spread for several reasons: the new self-image of journalists; the augmented opportunities to present themselves as critical; the disruptive potential of negative news; and last but not least, the public’s interest in negative news. As a consequence, the gap between “reality covered” and “coverage of reality” increased.

### 2. Problems and Solutions

Beginning in 1950, the living standard in Germany increased, the housing shortage decreased, people could take holidays in foreign countries, etc. Fifteen years later, there was an economic crisis. However, compared to the 1950s, the progress was obvious. Nevertheless, starting in the early 1960s, three quality newspapers, *Süddeutsche Zeitung*, *Frankfurter Allgemeine Zeitung* and *Welt* published an increasing number of news stories on domestic problems while the number of reports on solutions slightly declined. This development was particularly evident in reports on politics and society. By contrast, the slightly negative coverage on foreign policy changed little (see Figure “Coverage of Newspapers on Problems and Solutions in Germany”).

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Thesis 5: From news reports about domestic events and topics, readers of respected national papers could get the impression that the government was increasingly failing to solve the growing number of national problems. Fortunately, readers cannot remember all the negative messages over a long period. However, this type of coverage might have contributed to the decline in trust in public institutions. Assuming that all newspapers presented solid and reliable evidence, one has to conclude that news media can create a false impression by focusing on factually correct reports. It follows that the objectivity of reporting depends not only on the correctness of individual contributions, but also on the weighting of positive and negative news of problems.

3. Purposes and Unintended Consequences

The economic success of the Federal Republic and the growing prosperity of the population resulted from technological developments and the performance of its industry. However, technologies of all kinds – refrigerators, cars, medicines, nuclear power plants, etc. – have unintended negative consequences in addition to their intended positive purposes. From 1965 to 1979, four respected German daily newspapers and three respected weekly papers covered – with some deviations, but in about the same intensity – the purposes and negative consequences of a very wide range of technologies. After that, reports on the unintended consequences determined the image of technologies. This development was followed by a second one: from 1974 to 1986, the papers more often covered the potential damage from technology than the potential benefits. To put it differently: the coverage of risks dominated the coverage of opportunities\(^\text{24}\) (see Figure “Coverage of Purposes and Unintended Consequences of Technologies”).

Thesis 6: Concentrating on undesirable implications of intentional behavior has become a typical feature of reporting on many issues – decisions on laws and regulations, economic innovations, sporting events, etc. These posts create negative frames, which guide the perception not only of technologies. Therefore, rational public discussions of important decisions – the construction of a new railroad station in Stuttgart, the phasing out of nuclear energy, the safeguarding of European external borders and the avoidance of fossil fuels – are hardly taking place. Social institutions appear as cause of problems, opponents of decisions by elected bodies receive much publicity and significant veto power.

4. Instrumentalizing Experts

Opinions of journalists influence the coverage of major conflicts and scandals.25 Since the mid-1970s, this has been a common practice in Germany.26 Similar data are available from the US.27 A recent German example is the coverage of nuclear energy. One year before the accident near Fukushima, 85 percent of German journalists were against extending the life span of nuclear power plants.28 After the accident, many newspapers and magazines reported primarily on experts confirming the views of journalists.29 There was only one significant exception (NZZ). Not surprisingly,

of ten German papers analyzed, six significantly preferred negative statements from experts, which confirmed negative statements of journalists (see Figure “Instrumentalizing Experts”).

**Instrumentalizing Experts**

(a/b = Statements in News / Statements in Comments)

Thesis 7: Journalists have no professional competence for most events and topics they report on. However, they gain quasi-competence gathering information from competent experts. Therefore, they should let the most competent experts have their say. If they preliminarily cite experts who confirm their own opinions, they are failing to do their job. This approach does not provide the public with the best information available and thus hinders the development of well-informed opinions.

5. **Framing Relevance**

There are two possibilities to convince people of the relevance of an issue: solid facts combined with value arguments and the extensive presentation of (seemingly) neutral information about negative events or developments. This procedure is called framing. Framing events is effective because the audience believes they are personally drawing conclusions. However, this might be a fallacy. Based on the facts provided, they sometimes draw the only conclusion, wish is reasonable. The effectiveness of frames depends not on the factual accuracy of the information, but on its credibility. Credibility is high when mass media repetitively present similar views. An example is the framing of the nuclear accident in Japan as a domestic problem. German journalists framed the accident in Japan as evidence of the unreliability of nuclear energy and created a direct link to German nuclear power plants. Three days after the accident, two respected German papers published more than 10 articles dealing with nuclear energy in Germany, three days later 24. This created the impression that the accident in Japan, caused by a tsunami, is highly relevant for Germany’s nuclear industry. In contrast, journalists working for comparative newspapers in France and the UK rarely depicted domestic nuclear power plants in the context of the accident in Japan.
In the UK, the Office for Nuclear Regulation concluded in 2011 that “in considering the direct causes of the Fukushima accident, we see no reason for curtailing the operation of nuclear power plants.” In France, in 2013 the government decided to extend the operational life of 58 nuclear reactors from 40 to 50 years. In Germany, the parliament (Bundestag) decided to close down all nuclear power plants by 2022\(^{30}\) (see Figure “Framing Nuclear Energy as Domestic Problem”).\(^{31}\)

![Framing Nuclear Energy as Domestic Problem](image.png)

**Thesis 8:** Framing guides recipients’ processing of information. It prevents information overload and often allows own considerations. However, as a manipulative technique, framing can be precarious, since recipients’ views can be influenced in a way that goes far beyond the information provided. A recent example is the framing of emissions from diesel engines as an important problem by the heaped claim that they would cause 140,000 “premature” deaths. The result was outrage, though no one knew what “premature” means – one day, one week, one month, several years?

6. **Withholding Information**

Mass media claim to provide all information needed to understand facts. This is especially relevant in reports on possible damages, usually called risks. An example is global warming. The IPCC’s

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\(^{31}\) The following comparable newspapers were included in the analysis depicted in Figure “Framing Nuclear Energy as Domestic Problem”: Germany, *Süddeutsche Zeitung, Frankfurter Allgemeine Zeitung*; Switzerland, *Neue Zürcher Zeitung, Tagesanzeiger*; France, *Le Monde, Le Figaro*; United Kingdom, *Times, Guardian*. 
World Climate Reports contain summaries for policymakers, which provide information on the likelihood of the causes, characteristics and consequences of climate change. One week before and after the presentation of the IPCC reports, 15 German offline media and their online editions, four TV channels (public and private) and the online portal web.de mentioned just under half of the references in the IPCC reports at least once. Thus, readers and viewers did not get most information relevant for assessing the results.

What information did the media provide? Most frequently, they reported the reliability of the results if they were almost certain, quite often they reported the reliability if they were not at all certain. Relative seldom did so if the results were only likely. Thus, the media provided two dominating frames: there are results you must believe and some others that you can forget – and they withheld the information that many other results could be put into question. Thus, they blocked off possible doubts (see Figure “Accurate Media Representation of Uncertainty in the News of the IPCC Report”).

The lack of information about the low reliability of the statements was probably not accidental. There are other examples. Although German media focused to an extreme extent on the Fukushima reactor accident, almost all hushed up the UN’s extensive UNSCEAR report documenting the accident’s limited impact on the Japanese people. Similarly, after German news media urged President Christian Wulff to resign, almost all hushed up information that the trigger for his resignation was a hoax.

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Thesis 9: It is relatively seldom for mass media to hush up important information when it contradicts journalists’ basic beliefs. Nevertheless, there is evidence for this practice and its justification by journalists. In contrast to concealment of unwanted information, neglecting important information about risks is common practice. For example, in 2001 German newspapers and magazines provided sufficient information about the extent of risks from Lipobay/Baycol in only 5 percent of their reports on possible side effects; comparable papers in the US did a little better, but they, too, did not really provide adequate information. Reports that do not indicate the likelihood of harm unsettle people and can cause irrational anxiety, because after reading or seeing reports on major potential damages, most people assume intuitively that those damages are almost certain to occur. Therefore, the deliberate withholding and unintentional lack of information may lead readers or viewers astray and may cause false and harmful reactions.

7. Justified Exaggerations

Journalists aspire to portray reality as it is, and they apply even stricter standards than scientists do. Nonetheless, many journalists believe it is permissible for them to “portray problems occasionally more exaggeratedly than the problems are when carefully considered”. One-quarter of German journalists generally accept exaggerations; just over half consider them acceptable in exceptional cases. The rest reject them. Most of the hesitant journalists feel they are justified in one instance: to eliminate a social malady. In this case, 72 percent of all journalists accept exaggerations. All scandals attack social maladies. Most journalists probably know their colleagues’ opinions about justified exaggerations. This may motivate some to exaggerate unimportant grievances. This, too, could be a cause of the increasing number of scandals (see Figure “Justified Exaggerations to Eliminate Social Malady”).

Thesis 10: There are several unspoken conditions for the use of exaggerations to eliminate a social malady: all people or at least most must assess the case as a social malady; the social malady must be as great as journalists actually perceive it; their exaggerations must reach the intended goal; and they must not cause unintended side effects. In many cases, none of these requirements is given. For example, exaggerations can have severe negative side effects. These include misleading the population, material and immaterial damage, and wrong decisions affecting uninvolved people and companies.\(^\text{38}\)

V Defending Questionable Practices

Many scandals are based on questionable practices by a few journalists whose colleagues are willing to take their frames, spread them further and thus make them meaningful and credible.\(^\text{39}\) From 2011 to 2015, in Germany violations of the German Press Code cause or reinforced five major scandals.\(^\text{40}\) The five scandals were

- caused by a constructed quote by Minister of Finance Wolfgang Schäuble insinuating a comparison of Vladimir Putin with Adolf Hitler;
- caused by the concealment of the main theme of Sybille Lewitscharoff’s speech on ethical problems of surrogate mothers connected with attacks on a few provocative concepts;


• reinforced because of the withholding of important information provided by Bishop Franz-Peter Tebartz-van Elst connected with a misleading interpretation of a quote;
• caused by misleading descriptions of the instigators of violence at public marches organized by Pegida;\(^{41}\)
• caused by speculation about a possible similar catastrophe in Germany after the accident at the nuclear reactor in Japan, whose unique conditions were rarely discussed.

In an online survey, 334 German journalists expressed their opinions – not on the scandals in general, but on questionable practices described in detail.\(^ {42}\) Based on their opinions, one can identify opponents and advocates of such practices and those indifferent to them. The relative majority are opponents: they consistently found them more or less unacceptable. A small minority are advocates: they consistently found them more or less acceptable. A large minority are indifferent: they found some violations of norms acceptable, others not acceptable, or they did not express an opinion (see Figure “Opponents and Advocates of Questionable Practices”).

In a second step, the journalists indicated their opinions on three statements justifying the questionable practices and three arguments criticizing them. All statements related to the individual cases. They represent six arguments. Significant links between statements and the acceptance of practices outlined were identified using complex statistics. A second analysis presents a vivid overview based on percentages. It highlights differences between opponents and advocates. The most relevant argument justifying questionable practices was the claim to privileged insight. For example, 26 percent of opponents but 70 percent of advocates supported the argument: “It’s not about what (Schäuble) said but what he meant”. The most relevant argument defending questionable practices...

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\(^{41}\) Pegida: Patriotische Europäer gegen die Islamisierung des Abendlandes (Patriotic Europeans against the Islamization of the West).

\(^{42}\) The journalists gave their opinions on whether the practices in question are acceptable on the basis of five-point scales.
practices was the rejection of responsibility (see Figure “Opinions about Statements Defending and Criticizing Questionable Practices”).

<table>
<thead>
<tr>
<th>Opinions about Statements Defending and Criticizing Questionable Practices</th>
<th>Opponents</th>
<th>Indifferent</th>
<th>Advocates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claiming privileged insights:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>„It’s not about what (Schäuble) said, but what he meant“</td>
<td>26</td>
<td>39</td>
<td>70</td>
</tr>
<tr>
<td>„Fukushima gives conclusive proof that the risks of nuclear energy are unacceptably high“</td>
<td>39</td>
<td>27</td>
<td>88</td>
</tr>
<tr>
<td>„Lewitscharoff is discriminating against minorities with her polemic statements – media should not take part in this“</td>
<td>29</td>
<td>29</td>
<td>71</td>
</tr>
<tr>
<td>Neglecting responsibility:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>„Pegida supporters have the right to a fair reporting of their rallies“</td>
<td>85</td>
<td>27</td>
<td>75</td>
</tr>
<tr>
<td>„Spiegel online had an obligation to present both interpretations“ (Tebartz-van Elst)</td>
<td>96</td>
<td>55</td>
<td>57</td>
</tr>
<tr>
<td>„Concentrating on polemic terms (Lewitscharoff used, gave a false impression of her position on existential questions“</td>
<td>69</td>
<td>50</td>
<td>43</td>
</tr>
<tr>
<td>„Concentrating on the causes of the catastrophe in Japan could have reduce unfounded fear“ (nuclear energy)</td>
<td>45</td>
<td>18</td>
<td>17</td>
</tr>
</tbody>
</table>


**Thesis 11:** The presumptuous self–image of some journalists – their claim to special insights and their rejection of responsibility – corresponds to the self–perception many journalists have and their ambition to hold power. Arguments by journalists justifying questionable practices and defending them against criticism form a protective shield around the very few who use dubious methods to initiate or promote scandals.

**VI Reasonable Frustration and Distrust**

Milieu matters. In a representative online survey of 1,488 Germans, 76 percent of the “critically engaged” milieu believe there are “media that express” what they mean “on the issues.” This milieu accounts for 6 percent of the population and feels well represented by media coverage. The similarly small milieu of “skeptical individualists” sees it differently. Only 47 percent feel there are “media that express” what they mean “on the issues.” Obviously, members of this milieu and of many others do not feel well represented by media coverage. They are losers as a result of the shrunken worldview of many editorial departments.43 The impression of large sections of society that the media do not present their point of view is probably a reason for their doubts about the objectivity of reporting. Another survey underlines this. In winter 2007/2008, 61 percent of 1,054 interviewees said they believe a journalist with a negative view of nuclear energy would not publish a physicist’s statement that nuclear energy was environmentally friendly.44 This corresponds to results from a

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systematic analysis of reporting which indicate that the coverage of controversial issues, among them nuclear energy, is heavily biased\(^4\) (see Figure “Reasonable Distrust”).

Reasonable Distrust

Description of case: „A journalist interviews a physicist on nuclear energy, which shows that he considers nuclear energy very environmentally friendly. That contradicts the journalist’s opinion, so he does not publish the interview.”

Questions:
1. „Acceptable or unreasonable?”
2. „Do you think that happens frequently ...or rarely/never?”

\[ \begin{array}{c|c|c|c}
   & \text{happens} & \text{frequently} & \text{is} \\
\hline
\text{rarely/never} & 35\% & 61\% & 65\%
\end{array} \]

Thesis 12: Distrust in media coverage correlates with the level of formal education and with individual attitudes. These findings are correct but distract from the problem: the quality of reporting and the relationship of reports to reported reality. Many people who doubt the objectivity of media reports may not belong to the middle or upper class. It does not follow, however, that their doubts are unfounded. Even if in the unlikely case that each of their assessments also reflects a prejudice, one could not conclude that the assessment is not at all based on facts. There are several empirical analyses indicating that media coverage of controversial issues often provides misleading impressions of facts, hopes and fears.

VII Control Waiver

In the US, the Clinton-Lewinski scandal marked the end of traditional media as sovereign gatekeepers. Journalists working for traditional offline media adopted accusations published on Internet platforms that in the past they had refused to publish because they did not meet their traditional code of ethics or contradicted their collective ethical standards. Meanwhile, the interplay between journalists and pseudo-journalists in search of quick and cheap information is undermining journalists’ skills. Quantitative evidence is provided by a study of reporting of the EHEC (a type of E. coli)

epidemic in Germany in 2011. Eleven wide-reaching German, Swiss and Austrian online news media\textsuperscript{46} reported on May 23 about first instances of the outbreak. In the following days, the number of searches for Wikipedia posts about EHEC and related topics increased dramatically. The great interest heaped traditional media coverage. They reported extremely often about EHEC, as the interest in background information from Wikipedia had already declined.\textsuperscript{47} At first glance, one could regard the development as proof of the mass media’s ability to provide reliable information. However, there was no reliable information. Most media published speculation and much of the public became extremely frightened. Tens of thousands of people stopped eating vegetables, the market for the suspected products collapsed and farmers whose existence was threatened were paid €227 million by the EU in compensation. Instead of doing their job, most media pushed emotions (see Figure “Searches for Wikipedia Entry on EHEC and Coverage of EHEC by Online News Media”).

\textbf{Thesis 13:} The Internet is an important source of information and opinions, and can indicate growing interest in current issues. Nevertheless, it is not the task of journalists to incite the need for information through speculation and warnings. Rather, their job is to inform people by providing carefully researched, reliable data. Substance is more important than speed.

\textsuperscript{46} bild.de, spiegel-online.de, focus.de, welt.de, sueddeutsche.de, n-tv.de, zeit.de, stern.de, faz.de, nzz.ch, der-standard.at.

VIII Conclusions

1. Normally, German mass media inform the public well. Nevertheless, reporting on controversial issues is often one-sided and uncritical. These are exceptions in the flow of daily reports. Reasons for these exceptions are general changes in journalism.

2. Changes include the self-image of journalists and their claim to power; their affiliation with a few small social milieus; their alienation from the mass of their audience; and their uncritical readiness to participate in any campaign that allegedly prevents or eliminates serious problems.

3. A few journalists are prepared to use questionable methods. Many of their colleagues follow them, turning a personal failure into a professional one. Therefore, there are two problems – the behavior of few breakers and of many followers.

IX Recommendations

1. Reduction of Consonance

Journalists and scientists recruit their younger colleagues through co-optation. In science, a prerequisite for joining the profession is a performance test. A comparable examination does not exist in journalism for good reason. That is why in journalism the field of study and the process of selecting the next generation are particularly important. Two-thirds of German journalists studied linguistics, social sciences or related fields, only 10 percent natural sciences, 8 percent economics, 8 percent history, and 4 percent law. Nearly 70 percent of German journalists first did an internship.48

Most interns are likely to apply to media and editorial teams whose reports express their own views. Presumably, most editorial departments consider those interns particularly gifted who think very much as they do themselves. If the applicants and editors behave this way for several decades, journalists’ attitudes and role perceptions will become more and more homogeneous. That is what one survey indicates: most journalists believe that the colleagues in their own department share the same opinions that they hold. That is, they are the more dissimilar the farther they are from each other. The greatest distance they perceive is between themselves and their audience (see Figure “Journalists’ View of Political Attitudes of Colleagues and Audiences”).

Especially during coverage of controversial issues, journalists may agree without sufficient discussion of opposing views, and premature agreement can endanger the objectivity of reporting.

Therefore, when recruiting young journalists, publishers and broadcasters should actively seek out young people who study subjects that few active journalists have studied: law, economics and natural sciences. In addition, they should look for potential journalists who come from previously underrepresented social milieus, or have worked in other professions.

Publishers and broadcasters should also think about arranging periodic exchanges of journalists with comparable media in other countries. For example, each week a French, Polish, Italian or Swedish journalist could write about a controversial issue, such as securing the external borders of Europe, causes of the euro crisis, the relationship to China, etc. Conversely, German journalists could provide contributions on the same issues for the guest authors’ newspapers. This would enhance the plurality of views and objectivity of reporting on conflicting issues. It could also promote mutual understanding in Europe.

2. Preserve Objectivity

The German Press Code lists a remarkable number of professional rules, supplemented by examples and decisions by the German Press Council. They form a solid basis for assessing the objectivity of reports. However, there are many journalists who do not take violations of the press code seriously and occasionally cover for the behavior of their colleagues. Despite its benefits, the press code cannot provide a foundation for a discussion of objectivity in journalism.

General discussions of objectivity in journalism miss the point, because they inflate the problem. The term “objectivity” refers to something called “essential” and “irrefutable.” Theologians and philosophers use the term in this sense. It also refers to something called “intersubjective” and “reliable.” In this sense, it is common in the natural and social sciences. This type of objectivity can and should be achieved by journalists. Assessing the objectivity of a report, one has to distinguish between at least three aspects: the reported occurrences (single events, event series and statistics of events); their history (causes, motives); and their further development (prognoses). In addition, one has to check the degree of reliability of statements about these aspects (proof, evidence, assumptions). Most likely, the reliability of statements about a single event is higher than the reliability of statements about a complex of related events; and the reliability of descriptive statements about an occurrence is higher than the reliability of statements about its future, etc. News stories and news reports often include two further aspects: assessments (of the event, the history, the evolution) and demands (on the actors involved). In these cases, one has to check the degrees of reliability of the assessments and demands (derived from facts, substantiated with reasons, asserted). Because of the reasons mentioned, as in the sciences, a fixed degree of objectivity does not exist. Instead, the degree of objectivity in journalism depends on several criteria. A simple model may present an idea of the complexity of the problem and possibilities for a rational discussion of its different aspects (see Figure “Criteria of Objectivity of News and News Reports”).
Assessing the objectivity of reporting in a period or in a country poses a different problem. One has to compare the number (or length, or placement) of news stories with the number of events known from independent external sources. Among them are document centers, official statistics, technical measures, etc. Of course, journalists are not obliged to reflect the changing number of certain events. However, if the number of news reports over a longer period significantly deviates from the number of known events, it presents an inadequate and misleading picture of reality – by under-stating or exaggerating certain events or topics.

**Thesis 14:** Objectivity is not a categorical property that a report has or does not have, but a property that it has more or less. Therefore, it is necessary to identify relevant aspects to check the degree of objectivity of a news story or news report. The audience can at least expect a high degree of reliability of information about aspects presented in the lower left side of the model presented above. Journalists should be aware of the degrees of reliability of their information and they should disclose limitations as far as possible. Certainly, the majority of journalists act according to these rules – but a minority neglects them and many of their colleagues protect them, justifying their questionable practices.

### 3. Assurance of Quality

When photographer Juan Moreno provided evidence that Claas Relotius, a top reporter from the German news magazine *Spiegel*, had invented parts of his reportage on a vigilante in the US, he

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came up against a brick wall. Only when Moreno demonstrated how easy it is to fake e-mail documents did the magazine’s editors abandon their resistance (Süddeutsche.de December 20, 2018). Thirty years before Relotius’ forgery, editors of the news magazine Stern published a photo of a bookshelf taken in a small room as part of the first story on “Hitler’s diaries” (April 28, 1983). In the photo, they had inserted an arrow. The sub-line read: “His diary was always there (arrow).” Despite an important commonality, the two cases differ. Relotius betrayed readers (and colleagues) because he knew he had faked some of his evidence; the relevant employees of Stern probably led their readers astray because they considered Hitler’s diaries to be genuine. They were not liars, but uncritical believers. Journalists who lie to their audience have no place in the profession. Journalists who deceive their audience by being uncritical should be criticized in public by name, and given a second chance.

Both cases have one thing in common: the lack of willingness to publicly criticize mistakes made by colleagues. In the case of Relotius, colleagues tried to prevent criticism of a prominent colleague, which would have become public knowledge; in the case of Stern, every journalist was able to see the photo’s misleading caption. Nevertheless, they did not criticize in public their colleagues who had manipulated the photo. Cross-case information is provided by a quasi-experimental survey of journalists and scientists/engineers. Almost all journalists expected engineers/scientists to criticize colleagues by name in public who endangered lives out of self-interest (risky dismantling of a roof). Almost all scientists/engineers expected journalists to criticize colleagues who endangered lives (during the Gladbeck hostage drama). In contrast, only a minority of both professions considered it necessary to criticize their own colleague after mistakes. However, there was a remarkable difference between the professions: nearly half of scientists/engineers agreed such criticism is necessary, while less than one-fifth of journalists felt the same way (see Figure “Criticism of Colleagues and Members of other Professions”). The extremely low willingness of journalists to criticize their colleagues also becomes evident in their responses to questions about criticizing colleagues after a factual error, after deliberately one-sided reporting and after the deception of the public out of self-interest.51

Thesis 15: The reputation of journalists rests almost entirely on what they publish. Because all are aware of that, renouncing public criticism of colleagues is understandable. Nevertheless, journalism lacks an important corrective mechanism. As a result, journalism does not achieve the level of quality that it could. In the future, the willingness to criticize colleagues in public for violating important professional rules will be indispensable. Otherwise amateurs will blame them: even without the courageous activities of Moreno, Relotius would have been unmasked because two residents of Fergus Falls, a small town in the United States, documented another faked report by Relotius on the Internet. Thus, two alleged “backwoodsmen” struck a heart-rending blow to a major magazine.

4. Regain Trust

In former times, when journalists still had a major influence on the flow of information, they tended to suppress criticism of their own profession. In today’s digitalized news environment, journalists have lost control over their image and must find ways to cope with this. An online survey of 579 journalists working for newspapers and their online editions indicates that 18 percent had been victims of cyberbullying, and 51 percent had been publicly targeted in a more conventional manner.52

There are important discrepancies between journalists’ short–term responses to public attacks and long-term behavior. During public attacks, most journalists react offensively or aggressively. Every second says, when attacked, he or she “backed up his or her position in another article.” Almost as many say they “decisively rejected the attackers’ position.” Only very few say they “judged events on the subject more cautiously than usual.” These findings indicate that during public attacks, most feel comfortable with their traditional role. However, after asking if they “have ever thought while working on a post that they could be publicly attacked,” most respond defensively or thoughtfully.

They consider whether they can differentiate their “representation more” and question their “point of view more than usual.” Significantly fewer say that they “directly target the suspected wasp nest” (see Figure “Long-term Consequences of Public Attacks”).

**Long-term Consequences of Public Attacks**

<table>
<thead>
<tr>
<th>Question: „How did you act in the situation?”</th>
<th>Cyber-bullying (n=77) %</th>
<th>Conventional criticism* (n=274) %</th>
<th>No criticism (n=130) %</th>
<th>AJ (n=501) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defensive, self-critical</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>„I questioned my view more than I usually do”</td>
<td>47</td>
<td>46</td>
<td>53</td>
<td>48</td>
</tr>
<tr>
<td>„I checked if I can stronger differentiate my presentation”</td>
<td>50</td>
<td>46</td>
<td>53</td>
<td>48</td>
</tr>
<tr>
<td>„I tried to formulate delicate issues as careful as possible”</td>
<td>17</td>
<td>18</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Offensive, self-assured</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>„I have sharpened my point of views as clear as possible”</td>
<td>31</td>
<td>23</td>
<td>33</td>
<td>27</td>
</tr>
<tr>
<td>„I showed anticipating how unbelievable that attacker argue or how damaging their demands are”</td>
<td>29</td>
<td>27</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>„I tried to stir up the hornists’ nest”</td>
<td>34</td>
<td>25</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

* remembering earlier attacks:


**Thesis 16:** In the past, the reputation of all professions was supported by the concealment, cover-up and glossing over of professional errors. This has changed since the 1960s, as more and more insiders have shared their knowledge with the media. Some of the insiders and some media became successful in presenting themselves as consumer advocates. Many of the affected companies, scientific institutes and individuals found some of the critical reports completely erroneous or exaggerated, and many assumed journalists had injurious intentions. However, over time, they learned that the practice of concealing or downplaying no longer promotes their reputation, but endangers it. Since the advent of Web 2.0, journalists and media outlets have experienced similar conditions. Their confrontation with personal attacks, criticism and denigration has hit them unprepared. However, the long-term consequences of attacks on journalists indicate that many have learned the new rules of public communication, now common to all players, including journalists and mass media. Therefore, the Internet is not a major cause of the loss of trust in journalists, but a chance to overcome it. Journalists, like chemists, engineers, physicists and physicians long before them, should prepare to cope with public attacks and take reasonable criticism seriously – even if it comes in a disagreeable manner.
References


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Imagined Dystopia – Have Orwell and Huxley Prepared Us for Today's Reality?

Marc Elsberg

“Executed rebel alive again, three days after his death!”

Let’s imagine that type of announcement in a tweet or on the front page of today’s newspaper. With the tweet, we’d assume click-baiting, and with the newspaper we’d assume some degree of sensationalism. The article would proceed to provide some background information, report on torture and execution and the burial, and then relate with some skepticism the supposed eye-witness accounts of some fellow rebels. Perhaps a few experts would be asked whether the story could be true. Depending on their affiliations, these experts would give a range of answers. Religious experts might offer the concept of resurrection. Scientists would have to take recourse to considerations of apparent-death phenomena. Based on all the scientific facts that have been collected, falsified and verified in the past centuries, it is impossible for a person who was actually dead for three days to begin to live again. This story definitely does not scientifically prove a case of life after death.

However, contrary to these scientific facts, billions of people still believe today that these events were reality 2,000 years ago.

And why not? It is a wonderful story that has been offering boundless hope for two millennia. So why destroy it with scientific facts? Or, to put it a different way: If I have an opinion (or a belief), why would I need facts?

I Lying and Trust

Denying facts, or even claiming the opposite is true, i.e. lying, is considered objectionable in almost all philosophies, religions and worldviews. Mainly because lies are viewed as making coexistence more difficult, destroying society and thus ultimately hurting us all.

And people who continue today, contrary to all scientific fact, to claim that dead people can come back to life, that there is life – according to the scientific definition – after death, would be described as lying. But that doesn’t make believers lose their trust in their faith, in the religious representatives of that faith or in society. (Of course, they certainly may lose that trust for other reasons.)

At the same time, many worldviews occasionally look the other way when it comes to various forms of lying, such as when a lie serves to help people coexist more successfully. If we really want to, we could classify the crucifixion story as this type of “white lie.” Still, in many cases, we have to ask: Whose successful coexistence is really served here?

In any case, the example illustrates a number of things. For instance, how the definition of reality and truth changes over time. And what influence stories have on history. After all, the narrative of the New Testament was without a doubt one of the most influential stories of the last 2,000 years. We see that stories about the unimaginable have been inspiring people for millennia. Regardless of how real or true they are.
II  Edible or Poisonous?

Is that a lion approaching us, or a gazelle? Are these berries edible or poisonous? Facts determine whether we live or die. It is therefore advantageous to know the truth and stick to reality.

So why do we often not do so? Why do we often prefer to believe stories that have little or nothing to do with reality? And sometimes even though we know better?

There are various theories about this, but we still know very little about the physical and chemical processes involved in what we call consciousness and the formation of consciousness. We cannot even begin to talk about understanding these processes. That is, if we assume that there are just physical and chemical processes, and that there is no form of body-mind dualism involved.

There has, on the other hand, been more observation and research in recent decades about the fact that people do form views and opinions in a certain way, and about how they behave.

As a rule, the observations have led to various assumptions and models about the formation of consciousness and of people’s opinions. These have made it possible to describe phenomena quite well, whereas the models’ predictive abilities are often limited. Today, therefore, we only have partial knowledge and techniques for addressing the resulting human conduct.

It has also been observed that the opinions and conduct of homo sapiens (framing! – but we’ll get to that) often deviate from what we describe as rational or “reasonable.” Which really just means that the underlying model assumes a fundamentally reasonable being is involved. Which may be a problematic way of modeling the situation. The problem could lie either in the assumption that people are reasonable, or in the model’s definition of reasonable.

An interesting example of this is the subject of my most recent novel, Gier (which means “greed,” or “voracity”). The real work of the likewise real scientists at the London Mathematical Laboratory, which plays an important role in Gier, models human decision-making processes in a mathematically different way than does the dominant economic doctrine, with its focus on the utility function. If we use the conventional utility function as a human decision-making model, a number of human behaviors, such as aversion to loss and inexplicable assessments of risk, appear to be “irrational.” For example, the behavior displayed by some people of choosing 10 euros right away over 100 euros in three months. The London scientists’ model, on the other hand, can explain these (and other “irrational”) behaviors – or the behaviors may suddenly seem completely rational according to this model. The model thus explains the empirical observations better than the previous one did. As a consequence, all models that are based on the conventional utility principle would thus need to be called into question. This may also include the model for the formation of consciousness.

In principle, however, this example is simply meant to illustrate the diffuse scientific basis with which we have to work. Here, we make do without the well-known discussions about the advantages and disadvantages of models. Lacking better knowledge, we are only able to use these models as the basis for our work.

Bearing this in mind, we must, in the final analysis, view the interpretations below conditionally.

Nevertheless, it is possible to work with observations that have been made. Therefore, here are just a few examples from among them. (Considering all of them in a comprehensive way would go far beyond the scope of our discussion.)
One known factor in this context would be, for example, what is known as confirmation bias or confirmation error: the fact that most people often, more or less unconsciously, seek information in order to confirm their existing opinion rather than in order to form an initial opinion. They give less weight, or no weight at all, to information that contradicts their opinion. This even holds true for people who would describe themselves as very rational, neutral and balanced. And they rarely change this behavior when it is pointed out to them. Other interventions are needed in order to dissuade them from behaving in this way. Observe yourself while you read this article (and all the background information). What did you think about what you have read thus far? What will you think about what’s to come?

We can apply the phenomenon of confirmation bias directly to our present theme: “Imagined Dystopia: Have Orwell and Huxley Prepared Us for Today’s Reality?”

In light of today’s reality, it is essential that we ask why we are discussing Orwell and Huxley and their dystopias. Why not utopias that perhaps describe worlds with more equality and prosperity than existed when the narratives were written – and some aspects which have likewise become reality?

The answer has to do with the nature of the imagined worlds, but also with that of the worlds in which they came to be.

III Spaces of Not Knowing

Utopias and dystopias, imaginings of ideal or catastrophic worlds, have long been projected into unknown or unattainable space, into spaces we know nothing about, spaces of not knowing, of unknowing, of faith, hope, desire, fear, but also of endless possibilities.

Sometimes, this has been the past, generally a long-ago era in which, perhaps, a natural, harmonious “state of nature” is thought to have existed – a kind of backward-looking utopia. An example of such projections is the Christian idea of paradise. Or these imaginings may describe dramatic, conflict-ridden circumstances, the equivalent of dystopias, as we find around the world in many sagas of heroes and gods, in fairy tales and legends.

Likewise, many people continue to project such imaginings into a belief in their own life after death, as we find in many religious views: heaven (utopia), hell (dystopia), reincarnation (depending), etc.

As long as every square inch of the world had not been explored, it was possible to displace such imaginings into unknown realms, usually mysterious islands, sometimes the interior of the earth, in which a lost traveler became stranded and which, upon their return, was then described. Today, the focus has shifted to a different as-yet-unexplored realm: the universe and distant planets, or even parallel worlds and other dimensions, favorite settings for science fiction and fantasy.

And finally, there is also the realm that many people first think of for projections of other worlds: the future.

Essentially, there are two kinds of imagined worlds. One may describe the present in a somewhat cryptic way, or imagine a linear continuation of the present. Therefore, works of this kind can often be described more as critiques of the present than as utopias or dystopias. The most well-known examples of this type from recent centuries include George Orwell’s 1984. As in his Animal Farm
allegory as well, he is concerned primarily with critiquing totalitarian systems like the former Soviet Union under Stalin.

Another kind of imagined world attempts the opposite: to overcome the present by proposing a counter-world, or alternative version. Both kinds can be instrumentalized in particular ways and have been used accordingly.

Ultimately, this is a critical point only for those projections that can at some point be tested. That is, for which opinion, attitude or belief can and must be measured against facts and knowledge.

With the past, this is often difficult because its tracks and traces have disappeared. For life after death, it is impossible. (Although many would, as indicated above, deny this, and then the discussion starts all over again...) The remote locations were never found during the narrators’ lifetimes, and they therefore did not experience the embarrassment of having their visions tested. That left the future. Which at some point, arrives. And as we can see from the many imaginings that were created once upon a time and then often forgotten and sometimes unearthed again, almost none of the visions became reality just as their authors described them. Not even the great classics, from Jules Verne to H.G. Wells to Huxley or Orwell.

After all, the same thing happens to them as happens today with shorter-term prognoses: If something is asserted long enough, it is considered prophetic as soon as the circumstances of conditions arise. Which brings us back to confirmation bias. At least as long as less value is placed on other information.

Cui Bono?

So far, I have purposefully not differentiated between utopias and dystopias. After all, they are two sides of the same coin. Projects of a different life, sometimes more positive and sometimes more negative. (And even that depends on one’s perspective. For example, not all readers welcomed the ideas described in Sir Thomas More’s novel *Utopia*, which gave the genre its name).

Therefore, the real question to be asked is why dystopias are currently so much more en vogue than utopias, or why they are viewed as more correct descriptions of our world (which, by the way, has definitely not always been the case, for example if we think about Jules Verne’s technologically optimistic utopias).

Perhaps it is just the mere-exposure effect, one of the most important psychological effects in communication and thus in the formation of consciousness or reality: More frequent observation causes things that were originally viewed as foreign or neutral to become familiar and be assessed (more) positively over time. In other words, you can get used to anything.

Maybe we’ve just been offered certain dystopias for a long enough period of time. But, cui bono?

Of course, there are different assumptions about the current popularity of dystopias, which we can choose to accept or reject. However, that doesn’t really play a role in our question here, because – as mentioned earlier – we can only draw on partial aspects of past dystopias and utopias to describe our current reality. Or, to put it differently, reality is a mix of past dystopias and utopias, mixed with a lot of unpredicted circumstances as well.
Some utopias and dystopias, like *1984* or *Brave New World*, were disseminated so broadly in part because they were, at the time of their publication, also especially well suited for propagating particular ideas – or for countering certain ideas such as dictatorship, in the case of *1984*, which appeared during the Cold War. In the right place at the right time, a narrative will find suitably motivated fans. For example, without Peter and Paul as its great disseminators, what would have become of the story of one obscure sectarian among many in the Middle East?

V  What Is Truth?

When searching for the truth, we quickly stumble across obstacles; the truth is that we don’t even agree on just what the term means. The same applies for associated concepts like actuality, reality, certainties and facts. The attempt succeeds best for facts and certainties. Maybe that’s why we especially like to refer to facts today – because we are most likely to be able to agree on what the term means.

That also constitutes the big advantage and thus the success of the scientific approach as the foundation of our modern interpretation of the world.

Even if I, as a layperson, have to believe scientists’ claims, I could myself know what they do, if I had the time needed to conduct all the experiments that many of them have conducted over centuries in order to disprove or prove hypotheses. I could – at least, if I had enough time – view and read the documentation of those experiments in order to understand them.

Developing scientific understanding gives me a foundation for at least a possibility of learning the truth. It was this approach that first made progress possible, as we have experienced it since about the time of the Enlightenment.

The spiritual experiences of individuals represent the opposite of this. Information about such experiences remains a claim, whether it is (subjectively) true or not, and must remain so, because scientific methods cannot be used to experimentally reproduce it in a neutral fashion or to experimentally prove or refute it. Such claims are therefore difficult to distinguish from lies.

With the scientific method, we are in any case on more solid ground.

And facts don’t change just because people cling to false ideas despite the presence of those facts, or because people lie about them.

The facts of a case can be demonstrated and proven. Thus, if a case involves particular facts, it doesn’t involve others (better here not to consider the particle/wave question from quantum physics). Thus, there cannot be any “alternative” facts. Or “false” facts. If there really are additional facts, then it’s because the case was not comprehensively described by the original facts. It’s like the analogy of the blind people and the elephant: A person who touches only the leg describes the animal as a column, one who touches only the tail says it’s a rope, one who touches the trunk calls it a snake, and so on.

Language is simultaneously traitorous, treacherous and useful here. The “alternative facts” formulation at first glance creates the impression that the other side has so far only described the elephant’s trunk – even if the “alternative fact” is a total lie. And, on the other hand, anyone who can demonstrate that their interlocutor has told such a lie should call it that, and not describe it as
“alternative” or “false facts,” since those phrases still acknowledge the existence of facts – i.e. of a truth.

Which also applies for other, newer phenomena, such as “virtual reality.” Although it is called reality, the object of the description will, for the foreseeable future, remain merely virtual, not more – a copy or image. And people know and recognize that it is not reality, as is also the case with painting, newspapers, television and computer games. There is nothing new under the sun.

Modern methods of counterfeiting are to a certain extent problematic: Software can be used to put faces of celebrities into pornographic and other videos, or a politician’s gestures and speech can be imitated in a video in such a way that the human senses cannot perceive the deception; these methods are described as “deep fakes.” However, counterfeiting is nothing new. Sooner or later, there will be mechanisms to correct and shed light on such forgery. The question here is just whether “later” will be too late.

One of the biggest challenges remains, as it always has been, the trustworthiness of an information source, or how trustworthy people deem that source to be (two aspects that are certainly not always equivalent).

As the “alternative facts” or “virtual reality” examples show, all formulations and stories necessarily place their communication, unconsciously or intentionally, in a particular context, a framework; they supply certain prerequisites and influences for the interpretation of the (alleged) facts that are provided. Depending on the phenomenon, terms like “priming” and “framing” are used. (This is, after all, exactly what Orwell’s “newspeak” term from 1984 meant: conscious changes to the meaning of language, or the creation of new words, a technique we ourselves are also using the moment we accuse others of “newspeak” in a conversation). These are techniques that have also long been intentionally used to shape consciousness and opinion, for example “nudging,” a term that has likewise become relatively well known in recent years.

The debate about these techniques points, as the title of the Trilogue Salzburg also implicitly does, to the heart of the matter: What resources can we use, and what possibilities do we have, for (re)gaining a shared understanding of reality and truth? And this leads us to an important question: Was there ever a shared understanding of truth?

VI The Democratization of Truth

For a very long time, interpretive authority in the discourse about “truth” was reserved for a select few: the Church, rulers, nobility, philosophers. Whoever had power defined the truth.

The earth is the center of the universe.

The societal order is determined by God.

Even within 20th-century democracies, for a long time only a select few had this authority, primarily the mass media and those who could use the media as a megaphone or who were used by those media. In dictatorships it is still the ruling groups, now using means that make Orwell’s 1984 look like a birthday party. Think, for example, of the surveillance and “social credit” system that is arising in China.
In Western democracies, all that changed with the Internet. Here, interpretive authority has been jettisoned, at least superficially. Today, almost anyone is permitted and able to say and disseminate almost anything without being penalized. We are experiencing “the democratization of truth.”

This circumstance makes it clear that truth and reality are far from being perceived as having such clear definitions as they appeared to have in the past, when other voices simply were not heard. That of course irritates, above all, the past holders of interpretive authority, who see their power disappearing. This is no different from what has often happened before, for example when the Church lost its interpretive authority within society to science during the Enlightenment, or the nobility to the bourgeoisie.

The new agents of power in this process are the enablers of this cacophony that have emerged in recent years – and become its moderators. Ultimately, the form of the discourse depends on their moderation.

Which makes it all the worse for those who once held all the power. After all, these new possibilities allow the former interpreters of the truth to be caught more often than ever as they themselves fail to adhere to the truth demanded of others, and even to be confronted with their own Machiavellian and narcissistic lies. As in the past, the examples today are still innumerable, ranging from decades-long, often deadly propaganda lies by various companies in industries such as tobacco, oil and pharmaceuticals, to ongoing incidents in the financial industry (money-laundering, interest-rate manipulation, etc.), to fraudulent emissions software, to corruption, to illicit funds in business and politics or alleged weapons of mass destruction in order to instigate a war, to demanding respect for human rights while torturing and doing business with despots oneself (preferably – careful, language and framing again! – under headings like “realpolitik,” as if the particular decision were the only one to be anchored in general reality and, thus, possibly true, and not subject to certain very specific interests), to lies about sexual and other violence. To name just a few.

VII The Power of Truth

So, is this discussion even about truth or reality, or even about a shared understanding thereof? Or is it simply about power? And is the appeal to the lost shared understanding of truth and reality just the helpless complaint of those who have been stripped of their power because their interpretations and their lies are no longer dominant?

Tellingly, the new holders of power do not join in that complaint. At most, they may take occasional small pretend measures against lies, false reports, etc. (e.g. deleting fake accounts, calling out lies).

As the lies of those who were stripped of power became clearer and clearer, there was a drastic loss of trust in traditional societal, political and economic institutions. Thus, what happened was exactly the reason why most religions, philosophies, doctrines and worldviews condemn lies.

This circumstance is made even worse because individuals who become witnesses of this unmasking and victims of the loss of trust often do not trust the new authorities either. And rightly so, when we consider the increasing number of scandals and the scope of their influence (secret surveillance, data theft, manipulation, fraud, etc.).
Which is why it doesn’t matter at all whether the new holders of power tell the truth or not. On the contrary, to a certain extent, with all their lies, half-truths and contradictions they are actually more truthful than their predecessors. Which does not, however, make them authentic or honest.

The solution to the problem, if there is one, may thus lie less in complex communicative, discursive and manipulative techniques with which all the observed psychological phenomena – from mere exposure to confirmation bias to framing, nudging and all the others – can be leveraged or instrumentalized in order to bring the great majority of people back to a (supposedly) shared picture of the truth, or reality. In a diverse, open society, at least, this desired homogeneous picture of truth will be impossible to create, and may not even be desirable at all in light of the idea of openness and diversity.

The actual focus in such a society is probably more on agreeing on discursive forms of talking about truth finding in order to begin to approximate the necessary shared understandings.

However, the solution may even be something that is much easier, that people have long known of and asked for, something that requires no special skills: Those who demand the truth must strive for it themselves and deliver it themselves when possible. Ultimately, that may help us live more easily even with a few lies.
Fact or Fiction – How Much Truth Do We Have in Economics?

Thieß Petersen

The field of economics has its own fair share of disputes regarding the validity of research-based policy recommendations. Ultimately, however, there is no objectively "correct" answer to the question of which economic responses to unemployment, trade deficits, public debt and other phenomena are the right ones. There are many reasons for this: They range from issues with assessments and unclear causalities to the confounding of factual claims and value judgments. For this reason, it is impossible for economists to deliver statements or recommendations that are objectively and indisputably true and correct.

I How True Are Economic Statements?

Disagreements about the veracity of economic theories have dogged the field of economics since its inception. If you pose one question to two economists, chances are you will get three answers – or maybe more. Even economic theories that are considered established knowledge are often challenged or criticized.

Since the forefather of economics, Adam Smith (1723–1790), published the first standard reference work on economics entitled An Inquiry into the Nature and Causes of the Wealth of Nations in 1776, the international division of labor and associated global trade have been viewed as the source of material wealth for the national economies that participate in the economic system. In recent years, this conviction – hardly questioned for more than 200 years – has increasingly come under scrutiny. For example, Donald Trump is of the opinion that many other countries are exploiting the USA by undercutting wages, manipulating the exchange rate and erecting unfair trade barriers. Critics of globalization in industrialized western countries are convinced that economic globalization only benefits company owners, not the working population. Consequently, they are in favor of economically isolating their country, which contradicts the principle of the international division of labor.

There is also disagreement regarding the question of how to reduce unemployment in a given country, for instance. There are demands to reduce wages, on the one hand, and to increase wages, on the other – and the list of these types of contradictory recommendations could continue ad infinitum.

II Why Are There Different Assessments of the Economic Reality?

In my view, there are essentially two reasons for the differences of opinion among economists regarding the assessment of the economic reality and the political responses potentially required: disagreements about the data and about causal economic relationships.

1. Disagreements about the Data

Even when it comes to how to describe the current economic situation, economists don’t always agree. This became particularly clear in summer 2018, when the question arose as to whether or not the USA had a current account deficit with Europe. Donald Trump was convinced that his country had a trade deficit with the European Union (EU). He primarily based his assertion on trade in material goods: In 2017, the USA had a deficit of hundreds of billions in bilateral trade with the EU in this area. Trump took this as an opportunity to impose punitive tariffs on products from the EU.
However, if we consider all the economic transactions between the USA and the EU (they are reported in the current account), the figures look very different. The US government agency Bureau of Economic Analysis reported that the USA maintained a current account surplus of approximately $14 billion against the EU in 2017.¹ The EU came up with quite a different calculation, however: The European Statistical Office determined that the EU maintained a current account surplus of approximately $180 billion against the USA in 2017. The discrepancy between the two figures is far from trivial: The difference is equivalent to the economy of Romania. As to the question of which figures are correct, professor of economics Jens Südekum came to a sobering result. The honest answer is: No one knows.²

The actual unemployment rate in a given country is also frequently a subject of debate. In Germany, the Bundesagentur für Arbeit (Federal Employment Agency) is the official source for unemployment figures. The definition of an “unemployed” person in a statistical sense is defined by law.³ The only people statistically categorized as unemployed are those who have registered as unemployed with an official government agency, who are seeking employment of at least 15 hours per week, and who are actually available to the labor market (meaning that they are willing and able to work and have permission to do so). Consequently, many people are left out of the statistics: for example, people who never register with the authorities because they have no claim to unemployment benefits or do not expect the Bundesagentur für Arbeit to help them find a job. People who do not have a job but are currently participating in measures to help them return to the labor market (further education or training, for example) also are not included in the statistics. The same holds true for people who only want to work for less than 15 hours per week or are only capable of working less than 15 hours per week, and for people 58 years of age or older who have been receiving unemployment benefits for 12 months or longer. Finally, people who hamper their own return to the labor market are not included in the statistics, either: people who do not report to the Bundesagentur für Arbeit as requested, people who refuse to participate in recommended training programs, and people who are unwilling to accept a reasonable job when it is offered to them, for example.

These sorts of differences in the definition of macroeconomic indicators and the impact they have on the associated data generally result in disagreements regarding the assessment of the current economic situation and whether policy measures are required as a response to the status quo.

2. Disagreements about Causal Economic Relationships

While such serious discrepancies in the data generally only occur rarely, there are numerous fundamental differences among economists when it comes to the search for causal relationships to explain certain undesirable economic developments. Here are two examples of highly relevant societal phenomena impacted by these differences: trade deficits and unemployment.

A country is said to have a trade deficit when it exports less than it imports. There are a number of different explanations as to why this occurs:

1. As previously mentioned, Donald Trump believes that unfair competitive practices by foreign countries are primarily responsible for the American trade deficit. He is convinced

that low wages abroad, exchange rate manipulation and discriminatory tariffs on US products are the main culprits. As a result, the USA can export fewer goods and services to the rest of the world and, consequently, the USA imports more than it exports.

2. The USA’s excessive consumption is equally relevant here. The USA consumes more goods and services than it produces. In that sense, American society is living beyond its means and has to import what it needs from the rest of the world – as a result, the country imports more than it exports.

These different explanations for the existence of a trade deficit are decisive in shaping the economic policy responses to the deficit. If we follow Trump’s argumentation, punitive tariffs and tariffs preventing the undercutting of wages are an appropriate response to unfair competitive practices by foreign countries. However, if high domestic demand is responsible for the US trade deficit, tariffs will be ineffective. As long as American demand remains $500 billion higher than the total volume of goods and services produced in the USA, the products the country lacks will have to be imported from abroad, leading to an American trade deficit of $500 billion (cf. Petersen 2016).

Likewise, there is no consensus among economists regarding the causes of unemployment.

1. On the one hand, some economists believe that higher wages are a primary cause of unemployment. When companies pay high wages, they have high production costs, which leads to high prices for their products. As a result, the companies become less competitive, and there is less demand for the products they produce. The companies adapt to this lower demand for goods, meaning that they have a lower demand for workers – and the consequence is high unemployment (the so-called classical or neoclassical approach).

2. Economists with close ties to trade unions, on the other hand, believe that lower wages are the cause of high unemployment, not the solution. If workers are paid low wages, they only have minimal purchasing power, which, in turn, suppresses consumer demand. The result is that domestic companies produce less and need fewer workers (the so-called Keynesian approach).
The consequence of these different explanations is obvious: diametrically opposed approaches to reducing unemployment (see Figure “Disagreement on the Impact of Wage Cuts on Employment Levels”).

III Why Can’t Economists Agree on Causal Economic Relationships?

Experts disagreeing about causality is a phenomenon that is not unique to the field of economics. In most academic and scientific fields, disagreements about causal relationships are generally resolved by developing theoretical models and subsequently subjecting them to empirical testing.

A scientific model is a concept for presenting a simplified version of a segment of reality (for the following statements. The objective of a model is to describe and explain complex phenomena that occur in the real world. The associated causal relationships are then used as the basis for making projections about the future behavior of the modeled object. Examples include models of the solar system for predicting the paths of planets, atomic models in physics, modeling of ecosystems in biology, and business cycle and growth models for predicting future economic development.

All of these models operate based on assumed causal relationships between different variables. These relationships are fleshed out using observed data and mathematical methods. If, for example, a model compares the data on real wage increases in a country (real wages are wages adjusted for inflation) with the amount of labor required by companies over the course of many years, econometric estimates might come to the following conclusion: Between 1995 and 2015, real wages in Germany (measured in euros per hour of work) increased by five percent, which led companies’ demand for workers (volume of work measured in hours of work per year) to decrease by an average of two percent. Assuming that the relationship between wage levels and employment levels calculated in the past will remain valid in the future, the model can predict how companies’ demand for labor will change if wages increase by three percent. This method can also be applied to the labor supply behavior of the working-age population.

If companies’ expected reaction to a wage increase is combined with the predicted behavior of private households, estimates can be made regarding the resulting unemployment rate if certain wage increases are implemented. The quality of the model can be assessed after the fact, based on whether the resulting unemployment rate is as predicted or not. However, it is precisely this type of empirical assessment of models that poses severe problems in economics.

In the natural sciences, it is possible to test the causal relationships posed by various models in the context of laboratory experiments under consistent conditions (known as “ceteris paribus” conditions). However, this approach is impossible to apply to economic phenomena that occur in the context of a constantly changing society. For example, in order to empirically test whether reducing wages would also reduce unemployment in Germany, wages would need to be reduced while ALL other factors remained constant: the size of the working-age population; prices for oil, steel, energy, etc.; the exchange rate of the euro against all other currencies; all other countries’ demand for German products; and so on.

Of course, it is impossible to set up an experiment of this nature. A reduction in wages is always accompanied by a range of other changes in the economic environment. In that sense, a change

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in the unemployment rate cannot be solely or directly traced back to a reduction in wages. Even if an econometric calculation indicates a clearly quantifiable connection, the possibility of a spurious correlation cannot be ruled out – other factors could in fact be responsible for the reduction in unemployment. A statistically significant correlation between wage levels and the unemployment rate does not indicate causality.

The fundamental problem with economic analyses and the policy recommendations based on them is that economics is not an exact science – in the sense that it is impossible to test economic hypotheses in the context of experiments under “ceteris paribus” conditions. These conditions are the heart and soul of laboratory experiments. The consequences of this shortcoming are far-reaching: It is impossible to clearly prove whether a hypothesized causal economic relationship actually exists or not. Consequently, economists work with a range of hypothesis-based theoretical models that come to different conclusions. And again, it is impossible to prove which model is the correct one. By implication, economists cannot agree on the empirical validity of theoretically based causal economic relationships and, accordingly, on how the economy functions. Because of this shortcoming, multiple empirical studies focusing on the same issue may come to entirely different results.

In fact, contradictory research findings are part of the standard practice in economic research (cf. Müller 2019). One subject currently under heated discussion is whether high or rising income inequality is a boon or a hindrance to a country’s economic growth. The empirical research on this subject is comprehensive – and contradictory.

1. Especially in the 1950s and 1960s, the prevailing opinion was that rising income inequality would have a range of incentivizing effects, triggering economic growth. Economists like Kristin Forbes looked at 45 countries in the period between 1966 and 1995 and came to the conclusion that there was a positive correlation between the level of income inequality in a country and that country’s economic growth.\(^5\)

2. However, as early as the 1990s, there were studies that came to the opposite conclusion. For example, Markus Knell evaluated his own studies and studies conducted by other experts and determined that between 1960 and 1985, rising income inequality reduced the long-term annual economic growth rate in a given country.\(^6\)

3. The OECD and the International Monetary Fund (IMF) published two studies in 2014 that generated a great deal of attention. They found that income inequality had a negative impact on economic growth.\(^7\) These findings triggered a heated debate around the world. In Germany, for example, Marcel Fratzscher, president of the German Institute for Economic Research in Berlin, supported the findings of the OECD and IMF. He also shared in their assessment that, as a result of increased income inequality since the 1990s,

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German economic performance is six percent lower today than it would be if income inequality had remained stable.⁸

4. Other authors took this study as an opportunity to conduct their own research on this causal relationship. Some of these studies came to conclusions that directly contradicted the OECD and IMF studies. Galina Kolev and Judith Niehues from the German Economic Institute in Cologne found that their research clearly contradicted the conclusion that income inequality in Germany is a negative growth driver.⁹ A report from the ifo Institute for Economic Research in Munich also used empirical analysis to demonstrate that there is a positive correlation between inequality and growth in high-income countries.¹⁰

Given this wide range of extremely different results, it is ultimately impossible to use these economic studies as a reliable basis for making economic policy recommendations. Additionally, rather than providing clarification, these sorts of results only further complicate the public discourse.

IV Value Judgements Exacerbate Economic Discourse

The vehemence with which politicians and the public discuss or argue about economic issues is only exacerbated by the fact that every economic decision automatically produces winners and losers. Here are just two examples of this phenomenon:

1. When the government of a country increases child benefits, it helps families with children. However, financing these benefits either means that some form of tax will need to be raised, or that the government will have to cut expenditures somewhere else.

2. Imposing punitive tariffs on steel imported to the USA helps US steel companies and the people they employ. However, this tariff harms all companies in the USA that use steel in their manufacturing processes. They are paying to protect domestic steel companies by seeing their own production costs increase and, consequently, losing some of their global competitiveness. This also decreases the employment opportunities of the affected employees. Additionally, all American consumers who purchase products that require steel to produce will have to pay higher prices for those products.

Given these conflicts over economic distribution, it is understandable that the potential winners and losers of planned political decisions would look for academic experts whose models support their position. And since neither side can claim to possess the one true and universally accepted economic model, there are no clear winners in the resulting debates between experts. Both sides have evidence-based recommendations to back up their arguments that cannot be disproven by other research.

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The situation becomes particularly problematic when empirically proven assertions are intermingled with value-based policy recommendations. By way of an example, we can look at the question of whether a rising inflation rate should be combated or not.\textsuperscript{11}

1. The question of whether the inflation rate in a country is increasing can be answered by taking a look at official statistics – as long as there are no doubts about the methodology that the government agencies used to record price development statistics.

2. However, whether diagnosed inflation (fact-finding) should be combated or not depends on value judgments and subjective interests. And there can be major differences here: Someone who is saving money in a bank account would prefer a lower inflation rate, because it would secure the purchasing power of his or her savings. A property owner who has taken out a loan to purchase a house, however, would prefer a higher inflation rate. It would increase the value of his or her property and reduce the real value of the borrowing costs (repayment of the principal and interest payments). Each of these economic actors has a different answer to the question of whether measures to reduce inflation are necessary.

**V What Should Be Done?**

First, despite all the valid criticism of economic analyses, we must note that there are many causal relationships in economics that are not in doubt, or about which there are only very minimal doubts. On the whole, consumers in a country respond to a price hike for a given product with lower demand for that product. People also generally respond to other monetary incentives. If, for example, doing extra work or expanding employment would not pay off because the available income people earned would not increase, people generally will not work harder.

However, there are also the uncertainties and contradictory causal relationships previously mentioned. They complicate the public discourse and political discussions. This makes it easier for economic policy recommendations based on faulty information to still earn majority support, particularly in an age of rising populism.\textsuperscript{12} And even given all the uncertainty surrounding the subject, it is generally undeniable that while punitive tariffs can help a protected industry, this assistance comes at the expense of the entire economy. Both theoretical models and historical experience prove this point.\textsuperscript{13} And yet, this has not prevented the USA from taking a protectionist approach recently.

So how can economic policy and economics as an academic field respond to the insecurity and disagreement regarding causal economic relationships? There are three approaches that I believe are particularly promising:

1. In terms of disagreements about the data, **international standards providing consistent definitions of central economic parameters** would be a step in the right direction. They

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\textsuperscript{11} The following example is taken from Wagner, Gert G.. Effektive Politikberatung. Wirtschaftsdienst, 2011, Vol. 91, p. 150–151.


\textsuperscript{13} e.g. Petersen 2016 and the examples listed there.
would lead to greater agreement regarding the question of how high a given country’s trade
deficit or unemployment rate actually is.

2. When we talk about causal economic relationships, it is important not to overstate the reliability of the correlations involved. Any findings or statements that support a possible causal relationship are just one possible explanation, but they are not the one and only true explanation. Economists should also exercise a certain degree of humility regarding the relevance of their own research findings. A greater variety of methods would be helpful, as well. If various analyses apply different models and methods and still come to more or less the same conclusion (or the causal relationships discovered seem to generally point in the same direction), it is an indicator that the findings are reliable. Approaches have already existed in this area for some time; it is now important to expand on them. For example, numerical models are now being applied alongside the traditional static models, as are surveys and laboratory and field experiments.14

3. The value judgments underpinning economic policy recommendations must be disclosed when the policy recommendations are drawn up. This means, for example, that economic advisers who generally give the market preference over the state would need to disclose this preference. Naturally, the same also holds true for experts who have ideological reservations about the free market.15 Acknowledging these ideological stances makes it easier to classify economic policy recommendations, even when they are based on empirical evidence.

These three measures cannot solve the underlying problem that a country’s economy does not deterministically follow a path defined by the laws of nature, however. As understandable as the desire for clear, irrefutable economic truths might be, it is a desire that must go unfulfilled. Economists, politicians, and society as a whole will have to learn to live with this uncertainty.

14 Bachmann, Rudi. Erkennen, was Quatsch ist. brand eins, Vol. 17, No. 11, 2015. 86–89.
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“It’s the Story, Stupid” – Selling the Reality of Products

Merlin Koene | Sue Masterman

In 1966, Robert F. Kennedy delivered a speech which included the following passage:

There is a Chinese curse which says “May he live in interesting times.” Like it or not, we live in interesting times. They are times of danger and uncertainty; but they are also the most creative of any time in the history of mankind.

Little did he know then what interesting times the future held in store. The computer that steered the moon landing a few years later had less processing capacity than an average smart phone today. The Cold War, which dominated the political and cultural activities of the time, did, however, have similarities to today’s challenges when it comes to regaining a common understanding of the truth. The fragmentation of world influence was quite simply split in three: the US and the Capitalist influence, the Soviet Union and Communism, and the Non-Aligned Movement. But the situation started to change at the end of the 1960s with the protests against the Vietnam war, the Prague Spring uprising and student rebellion across Western Europe, best remembered for the 1968 insurrection in Paris, which marked the first signs of fundamental change in Europe.

It also marked the beginning of changes in consumption. After World War II, people had been looking for the security of branded goods as a reassurance of quality and safety. Advertising of the time tells the story of the perfect housewife in the perfect kitchen with the perfect appliances. It was about keeping up appearances. If your neighbor had it, you were meant to want it. The same applied to cars and cigarettes.

Then the younger generation started to change its view of consumption, not wanting to follow the austerity-governed rules, regulations and regimented approach their parents had set up. Their reality was different. As Robert F. Kennedy asserts, this uncertainty can be seen as the fertile ground for creativity.

Change will never be as slow again.

What distinguishes then from now is the speed of that change. Digitalization based on the technical development of hardware is increasing our possibilities manifold. From newspapers and magazines, progressing through billboards, advertising pillars, radio, black-and-white TV and then color TV to the first website advertisement – it took nearly a century to change fundamentally the communication of products and services.

The latest 5G mobile data technology, much debated in 2019, will make the use of augmented reality and virtual reality commonplace. Entertainment, knowledge transfer from education to product information and marketing will take new shapes. Storytelling will also change dramatically. The message has to move with the medium. That movement is ever faster and shows no sign of slowing down.

I VUCA World – Ambiguity Fatigue

The pace at which change is currently happening is putting people under pressure emotionally. The overarching issue is that we live in a VUCA world. The expression is said to have been created
by the US Army War College\(^1\) to describe the situation after the end of the Cold War. VUCA\(^2\) stands for:

- Volatile,
- Uncertain,
- Complex and
- Ambiguous.

It also very accurately describes the world in which consumers live.

Global politics, whether it involves Brexit or trade wars between the US and China, has led to considerable volatility accompanied by uncertainty about the near future. Decisions, meanwhile, have become very complex, especially due to digitalization – just try finding the right mobile phone contract. More recently, a growing awareness of environmental issues and climate change is leading to a seismic shift in consumer demand.

One of the most impactful aspects of VUCA is ambiguity. The development of products used to be set up over the long term. On average, it used to take a big FMCG (Fast Moving Consumer Goods) company around three years to get a product to market. The main reason behind this extended run-up was to reduce all risk as far as possible, but in the end this approach also often failed to create the next blockbuster.

As Philip Kotler states in the book *Marketing 4.0:* “The flow of innovation that was once vertical (from companies to market) has become horizontal. In the past companies believed that innovation should come from within; thus, they have built a strong research and development infrastructure. Eventually, they realized that the rate of innovation was never fast enough for them to be competitive in the ever-changing market.”\(^3\)

Today the approach to creating new products has changed dramatically and become far more complex. Small start-ups approach their product through processes such as Design Thinking\(^4\) or Scrum\(^5\), giving them the option of developing products very quickly by focusing specifically on consumer needs and co-creation. However, the secret to success is very often found through experimentation.

Most major companies now create homes for such start-ups, for example as incubators, providing knowledge of markets and sales channels in exchange for a stake in the start-up.

The “test and pivot” approach, however, goes hand in hand with ambiguity. Deciding whether to go either left or right is always linked to an emotional impact, because you don’t know which is the

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\(^1\) US Army Heritage and Education Center (February 16, 2018). "Who first originated the term VUCA (Volatility, Uncertainty, Complexity and Ambiguity)?" USAHEC Ask Us a Question. The United States Army War College.


\(^3\) Philip Kotler, Hermawan Kartajaya, Iwan Setiawan. *Marketing 4.0: Moving from Traditional to Digital.* 2017.

\(^4\) https://www.ideou.com/blogs/inspiration/what-is-design-thinking.

\(^5\) https://www.scrum.org/resources/what-is-scrum.
right direction. This continuous need to take fast decisions without knowing their long-term effect leads to a new phenomenon called ambiguity fatigue.

II  Looking for Stability and Answers

Taking it as a given that this set of VUCA factors is having an effect on consumers, the latter are starting to look for help. Many feel they have lost the big picture due to the bewildering array of choices. They are losing the thread of their own story. At the same time, companies and marketers are becoming increasingly aware of this problem and are aiming to provide answers.

But the effects of VUCA can be seen even more clearly when it comes to communication via social media (Owned). Parallel to the normal channels of communication for brands, such as the brand’s own website, it has become increasingly important for companies to reflect the conversations happening online. This does not only include Facebook, which is seen to have become an “old people’s forum,” but is now extending into other established channels such as Instagram (with its focus on the visual, through photos and so-called stories), Twitter, WhatsApp (which now offers advertising) and even the latest online craze for the younger generation called TikTok.

As brands become less and less trusted, third-party endorsement (Earned) in these channels becomes more important than the promises that brands make on their official channels or via straightforward advertising (Paid). A new way of storytelling – the influencer – has taken to the digital stage. Think Kardashian. However, this is a two-edged sword. It also means that negative comments on these channels can have an immediate effect on sales. Crisis management has become a major part of the communications job.

As an example, Greenpeace’s activities in 2010 against Nestlé in connection with the palm-oil issue were already mainly online-based. The alleged “wrong reaction” at the time by Nestlé’s Corporate Communications department is even said to have accelerated the issue, transforming it from an environmental campaign to a digital communications disaster.

What companies have to do is create the right content and messaging with a storyline that will lead to brand love, reinforcing the positive, feel-good factor. This type of content marketing linked with classical PR and transferred to the social networking channels has become the main way to communicate.

III  Storytelling: The Basics

As the saying in Hollywood goes: “There is no good story without a great script.” The goal is to use the content created through text, pictures, animation, video, GIF’s, etc., to reach the mind and heart of the recipients. With hundreds of media imprints taking place every day, it has become more difficult to reach the individual.

There is a strong, proven link between a story being told and the physical reaction a person experiences when that story has an impact. Why is good storytelling so powerful?

In a TEDX presentation in 2017, David JP Phillips shared key neurological findings on storytelling and the release of neurotransmitters. He distinguished between two types of “cocktail.” The first is the Angel’s Cocktail, which builds suspense, launches a cliff-hanger feeling and a cycle of waiting and expecting. The cocktail’s first ingredient, dopamine, provides focus, motivation and memory, while creating empathy for whatever character you build in your story. The next, oxytocin, gives rise to generosity, trust and bonding. The third, endorphins, makes you laugh. On the other end of the spectrum is the Devil’s Cocktail. It creates an atmosphere of uncertainty and volatility due to the release of cortisol and adrenalin. A high concentration of these hormones leads to intolerance, irritability, a lack of creativity, criticism, memory impairment and bad decisions.

IV Purpose vs. Attitude

Companies are investing in giving their brands purpose in order to create bonding and trust and therefore an “outpouring” of oxytocin. One example is Unilever, which has been seen as the global leader on sustainability eight years in a row, according to Globescan, a survey of 800 experts in nearly 80 countries. It is, however, important to be aware of what “purpose” really means. There is a lot of talk today about brands with purpose, or sustainable brands, or meaningful brands. The number of descriptions people use is exceeded only by the different interpretations they give them. Some simply mean brands that support a charity or use “natural” ingredients. At the other extreme, people set up whole companies whose sole purpose is to “do good.” With so many terms in use, clarifying the definitions behind the terminology can help.

At Unilever, they say they are in the business of “helping people to live well and live within the natural limits of the planet.” They speak about “sustainable living” and “sustainable living brands.” The focus lies on improving health, nutrition and wellbeing, reducing the environmental impact of products and helping consumers choose products that are better for them, society and the environment.

The concept of “purpose-driven” brands is not new. Among the Unilever brands, Ben & Jerry’s is the strongest example. The company has had a social or environmental purpose at its heart since it was founded on May 5, 1978 in Burlington, Vermont, in the US. The company’s “sustainable living purpose” has always been about fairness and equality and has evolved over the years to cover issues of social justice. As Ben & Jerry’s grew internationally, so have its campaigns, which included supporting same-sex marriage, protecting threatened voting rights, social inclusion and racial equality.

In 2002, Ben & Jerry’s spoke out about climate justice and this has become a key pillar of its campaigning work. The company says: “Climate change is real and it’s happening now and, just like Ben & Jerry’s ice cream, if it’s melted it’s ruined.”

But in today’s complex and interconnected world, having a powerful purpose is not enough. Brands must look at their impacts up and down the value chain and across the public domain. For example,

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they cannot do social good while harming the planet or improve the lives of consumers while ignoring the working conditions of the people who make their products.

That is why at Unilever a sustainable living brand is defined as one with the clear purpose of helping to tackle a social or environmental issue over time, or which produces products that reduce the environmental footprint and/or improve health and wellbeing or livelihoods.

Doing good has a positive business impact. The Unilever sustainable living brands, for example, grew 50% faster than the rest of the business and accounted for more than 60% of the company’s growth in 2016. This underlines studies by the Harvard Business School which indicate that purpose-driven brands generally grow faster than others.9

Other surveys, notably by Nielsen and the Boston Consulting Group (BCG), have measured sales. An analysis of products in the United States in 2014 showed that 16.5% of US consumer goods were what BCG called “responsible products” and that they were growing by 9% each year, outpacing the market. Furthermore, research by KantarFutures shows that this trend is expected to increase over time. It becomes even more important for the younger age groups, commonly known as Millenials and Centennials, that brands have a clear point of view. The percentage is much higher compared to the older generations. Support through school strikes for the movement Fridays for Future, led by Greta Thunberg, underlines this.

Brands, even those with a well-founded purpose, are facing major challenges from other stakeholders. Sometimes it is an NGO saying publicly that what is being done is not enough. Sometimes it is politicians using public criticism, whether rightly or wrongly, to achieve their own goals instead of trying to change things for the better. That debate often results in a tit-for-tat situation best described as the fight between claims of “greenwashing” and “greenbashing.” When criticism is

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9 https://hbr.org/2014/05/from-purpose-to-impact.
levelled at a product, it may be based on facts, disputed or otherwise, or on “public opinion,” however this might be interpreted. Often difficult to challenge, as it is purportedly “for the greater good,” the criticism creates an environment of uncertainty (about what is really better) and intolerance (you should not buy this product).

V From Crisis Management to Crisis Leadership

A very good example of such a debate is the one about palm oil, which companies are being criticized for using. The straightforward version of the criticism is that palm oil kills wildlife. Attempts to improve the situation, through the Round Table for Sustainable Palm Oil (RSPO), were deemed by NGOs to be not good or fast enough. A boycott, however, would put tens of thousands of people out of work, pushing them into poverty, and wide-ranging substitution would need far more land, as palm oil is much more efficient than soy or sunflower, according to WWF.¹⁰

Comparison of Global Oil Yields by Crop Plant Oil Yields
In Tonnes per Hectare (t/ha)

In this VUCA setting, the attitude (“this product slaughters orangutans”) will kill the purpose (“we are trying to convert the market to certified segregated sustainable palm oil”) every time.

Simplified answers in the form of an attitude (“taking back control” by Brexiteers or Trump’s putting “America First”) win out over complex answers (what it means to be part of the EU / multilateralism takes longer but can be much stronger). In a VUCA world, it’s the simple slogan that succeeds. “Truth” becomes relative and fragmented. People respond to the one-line summary rather than read the book. The story has been reduced to a catchphrase. In this situation it is hard, but not impossible, to move from crisis management to crisis leadership.

The palm-oil debate in Germany, which started as a fierce and emotional discussion, has become a normal, result-oriented conversation among different stakeholders. One outcome of the crisis was the foundation of the German Forum for Sustainable Palm Oil (FONAP),¹¹ a joint effort by companies, NGOs and the German government to challenge the status quo and aim for such high standards that all stakeholders are satisfied.

VI From Truth Management to Truth Leadership

Setting up a collaborative institution like FONAP was not only a business question, but also an instrument to de-emotionalize the public debate and the fight for the public truth. NGOs were in the clear lead when it came to public opinion and there was only one way out of this cul-de-sac: collaboration with other companies, a public-private partnership, underpinned with a clear purpose and strong KPIs (key performance indicators), which allowed the voices of the other views and truths to begin being heard. From a communications point of view, the expectation is not that everything has already been achieved; the main message is that the journey has begun. The overarching goal of FONAP – reaching a pivotal point in volume demand and having all market players order 100% segregated, sustainable palm oil and palm kernel oil – still has to be achieved.

VII Channels and Echo Chambers (Bubbles)

A differentiation through the product as such is no longer possible. Product communication as such no longer works. A copy of the product can be on the market before the first communication even takes place. Innovation cycles have also become much faster.

What used to be a 1-2-1 communication at the local store became mass media-orientated (TV/radio/print) and has currently culminated in digital communication. Smartphones mean that we are reachable at any time anywhere (24/7 User).

In addition, linear media usage has developed into parallel communication leading to higher complexity and challenges to reach the target groups along the different points of contact. Digital marketing experts estimate that most Americans are exposed to around 4,000 to 10,000 advertisements each day. People thus filter for what they want to engage with and start ignoring brands and advertising messages unless it’s something of personal interest. The statistics for other areas around the world undoubtedly do not vary much from the above. As a reaction to this, even more content is being produced, leading to what is referred to as content graveyards.

Under these circumstances, is it important not only to understand the messaging as such, but also to be aware what channels are being used. This is where big data and personas come into play. As much as marketeers are trying to create the perfect story, the perfect consumer journey to enable conversation/sales, there are also disruptors that will try to interfere. This can be communication by governments (by announcing new legislation), competitors, NGOs or employees, but also consumers themselves. All are fighting for ownership of the truth. Examples are Dieselgate or Bayer/Monsanto in the glyphosate debate, which has become a litigation battle.

What once used to be a debate among stakeholders in the general media has now become a street battle for the truth on countless channels. What started in the commentaries on normal websites first transferred to Facebook, Twitter and Instagram, and now can also be found on TikTok or YouTube.

Big data, however, working on the basis of selective algorithms, will only feed people with information they believe they are interested in and which mirrors their opinion. This so-called internet bubble or echo chamber distorts and falsifies the perception of the truth. However, having the

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knowledge about so-called personas gives companies the possibility of shaping their communications and marketing them in such a way that the presumed and supposed truth is used to create a “bonding” experience with the consumer. The story can be tailored to fit the potential consumer. In the pure sense of the word, the communication becomes a “chemistry” meeting – or a work of alchemy. Tools to define personas are now widely available to companies and agencies, making it easy to identify the points of contact. Opinion polls or personality quizzes on Facebook are used to establish, for example, the political leanings of users.

**VIII Cambridge Analytica**

A personality quiz involving 120 personal questions was the entry tool to which Cambridge Analytica owes its fame (or notoriety). The survey was used to profile people along five axes, the “five factors” or “OCEAN” model: openness to experience, conscientiousness, extraversion, agreeableness and neuroticism. Collated with the personal data of these people, their real name, location, Facebook friends, likes and a whole lot of computer power, it became possible to extrapolate the data of around 300,000 people to that of around 100 million, making them fully transparent.

The way this was used to manipulate the use of social media during the Brexit campaign, with all the consequences, became a wakeup call for people in the United Kingdom, one that has continued to echo through the years since then. People are learning to analyze and criticize the story rather than swallow it whole.

Cambridge Analytica’s activities copied what is done through digital marketing. Here, methods such as search engine optimization (SEO), search engine marketing (SEM), content marketing, influencer marketing, content automation, campaign marketing, data-driven marketing, e-commerce marketing, social media marketing, social media optimization, e-mail direct marketing, display advertising, e-books, and optical disks and games are used every day.

With so many channels at hand and knowing that there are countless personas to be identified, we see a clear segmentation in marketing, mainly supported by performance marketing.

Through mathematical models, the fragmentation of information and therefore the truth can be manipulated. What works and what doesn’t can be identified in real time, for example, through a simple A/B test: If more time is spent engaging with information A and leads to more clicks than with B, the marketing budget will be put behind version A and B will be relegated to the graveyard of marketing content.

This, however, is only the first part of the journey. Digital communication has led to a shift in what is perceived as truth.

In the pre-digitalization era, an individual consumer determined his or her own attitude toward a brand. In times of digitalization, the initial appeal of a brand is influenced by the community surrounding the customer, determining the final attitude towards the brand. What seems to be an individual decision is, ultimately, at its core, a social decision. Hence, social influence is rising in

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the digital consumer journey. Brand loyalty in the pre-digital era was defined by retention and re-purchase. Today, however, the ultimate goal is the willingness to advocate a brand. The framework that describes this road to advocacy is called the 5 A’s.

Its steps are:

1. **AWARE**: The consumer is exposed to a brand or related information for the first time. (I know)

2. **APPEAL**: Key messages or cues create attraction. (I like)

3. **ASK**: Prompted by curiosity, consumers will research more information online about the brand or ask family and friends. (I'm convinced)

4. **ACT**: Supported by this information they will pivot into action and decide to buy a particular brand. (I'm buying)

5. **ADVOCATE**: After a while the consumer will develop a strong sense of loyalty, which ultimately is reflected in advocacy. (I'm promoting)

This means that there is a close connection between consumption and one’s own identity, the “authentic self.” While identity used to be mainly defined by where you came from, today it is defined by what you consume. The zeitgeist has also become more international in regard to fashion, music, sports and digital influence. In a world of “influencers” whose whole purpose is to persuade

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15 Philip Kotler, Hermawan Kartajaya, Iwan Setiawan. Marketing 4.0: Moving from Traditional to Digital, 2017, p. 64.
people to identify with them and thus with the products that they promote, it has become increas-
ingly difficult for a younger generation to escape the manipulation of the commercial storytellers. Theirs is the ultimate fragmented reality – for now. There are, however, clear signs that increasing numbers are waking up to this and rebelling against it. The “authentic self” is being reclaimed and the whole nature of authenticity challenged. This in itself presents a new challenge for communicators.

Marketing, by its very nature, mirrors society while also trying to shape it. The “Me Too” movement, for example, has had a clear effect on how women are being portrayed. Official watchdogs are even starting to intervene, moving to ban, for example, the use of stereotypes. The new rule follows a review of gender stereotyping in adverts, carried out by the UK Advertising Standards Authority (ASA) – the organization that administers the UK Advertising Codes. These codes cover both broadcast and non-broadcast adverts, including online and social media. Some columnists, however, are criticizing the rule, saying that society has become oversensitive and that this is yet another symptom of the “nanny state.” But it is not only columnists who are reacting to this. Political parties and individual politicians are using authorities’ involvement in the way communication takes place and the drive for political correctness by media as proof of wanting “control back again” or of media being leftist in its views. It is a classic battle for control of the story.

Global warming is one of the most contested areas. However, Fox News isn’t needed to make a right-wing party big, when a Trump Tweet becomes breaking news around the world.

Ben & Jerry’s, on the other hand, created a specific ice cream in the context of the fight against global warming, called “Save Our Swirled – if it’s melted, it’s ruined,” and actively called for climate change action.  

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In this paper, we have looked briefly at what it means to live in a VUCA world, how marketing and social media have evolved, and how very complex the high-speed world of digital communications has become.

There are signs, however, that after a generation of unabashed consumerism, increasing awareness of the fragility of the environment and the threat of climate change is starting to cause the pendulum to swing. For companies that have already committed to sustainability, this is no surprise. It is part and parcel of their story. For others, such as the manufacturers of throwaway plastic goods or cheap fashion, for whom built-in obsolescence is their modus vivendi, it is bad news.

The students and schoolchildren who are walking out of their classrooms and demanding that we pay attention to what matters to them, the British youngsters who were too young to vote on Brexit who are marching to demand another referendum, German YouTuber Rezzo, who received millions of views when he broadcast about politics for the first time, the young citizens of Hong Kong demonstrating day after day – they are the heirs to the 1968 revolution that changed the approach to communications. They don’t want their identity to be defined by algorithms. They are reclaiming their authentic selves.

IX Conclusions and Solutions

Yuval Noah Harari, the often-quoted author of the book *21 Lessons for the 21st Century*, put it simply in a podcast on the subject of truth: “Truth today is defined by the top results of the Google search.”

What can we do in this VUCA world with algorithms activating our emotions towards brands?

The answer lies in focusing on VUCA and the tools that are needed to survive in a VUCA world, both personally and professionally. Leadership seminars train managers on how to lead in this world. In that context, the acronym SLAC (sense-making, learning, agility and creativity) was developed in response to the elements that make up VUCA:

**Volatility**, which refers to the increasing pace of change in communication and the fragmentation of truth. It can be countered by embracing learning and supporting education. The whole key to reclaiming control of a person’s identity, both political and personal, lies in education. Not just at school, but as a continuous, lifelong process. Through understanding, it becomes much easier to adapt to a new environment or novel situation – the communication situation in general, not just in commercial contexts.

**Uncertainty**, which is mainly based on the lack of reliable information concerning the future and is countered by creativity. Very often there are no textbook answers and one has to find creative ways of constructing one’s own truth. Again, education holds the key. Encouraging the development of creative and critical talents all through life gives people the tools. Some of the most creative eras such as the fin-de-siècle were the result of periods of great uncertainty.

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19 https://www.youtube.com/watch?v=4Y1lZQsyuSQ.
**Complexity**, which means that the truth has many interconnected parts and variables. The information that is available might be overwhelming in nature and volume. It can be countered by employing agility, one of the most used words when it comes to working and living in a digitalized world. It means not being afraid to explore beyond the digitally-imposed boundaries. It means remaining open-minded with regard to the information one receives and not immediately forming an opinion, but also considering other information and views. It means learning how to get the best out of digital resources – again a lifelong learning curve.

As Angela Merkel put it in a speech at Harvard University in early 2018, referring to finding answers to the questions that new technologies bring:

> I have learned that answers to difficult questions can be found if we always see the world through the eyes of others; if we respect the history, tradition, religion and identity of others; if we firmly stand by our inalienable values and act accordingly; and if we do not always follow our initial impulses, even with all the pressure to make snap decisions, but instead stop for a moment, keep quiet, think, take a break.

**Ambiguity**, which means that what used to be taken for granted needs re-thinking. It can be countered by taking time and effort to make sense of things or by the ability to interpret and see the potential of new technologies, and unleashing the imagination to envisage what the world will be like as emerging change unfolds.

## Recommendations

The answer to the VUCA world of truth could be SLAC. To counter volatility, uncertainty, complexity and ambiguity, you need to promote sense-making, learning, agility and creativity.

How can we support SLAC?

One of the main factors is and continues to lie in education. Education, that is, in the broadest sense of helping people to understand the modern world of communication and giving them access to the knowledge that can allow them to make sense of it all. In our modern world of schooling and further education, however, one of the main factors making this difficult is the loss of creativity that often goes hand-in-hand with the focus on facts and figures. Current curricula are warped and need reforming and expanding, so that learning prepares people not just for an agile working life, but also an open-minded cultural future. Learning is for life.

As the creativity expert Ken Robinson says in his TEDTalk from 2006 (one of the most viewed TEDTalks with around 60 million views), we have to radically rethink our school system in order to cultivate creativity and acknowledge multiple types of intelligence. Beyond multiple types of intelligence, it is even more important to look at the different levels of media savvy of the generations which will follow the centennials and millennials. Of course, the younger generations are very much aware of what is happening around the net and in social media. They also, however, live in their own echo chamber. Everyone needs the capability to think outside the box. Tools such as virtual reality and whatever other technical wonders which are still to come should be used to expand horizons, broaden perspective, inspire creativity and promote tolerance.

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23 [https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity/up_next](https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity/up_next).
Creativity goes hand in hand with being able to understand and look at the perspective of the other person. The so-called “end of liberalism,” proclaimed by Vladimir Putin in an interview with the Financial Times ahead of the G-20 meeting in Japan in June 2019, would also drastically reduce the scope of creativity. Putin also proclaimed the “end of multiculturalism,” a cornerstone of western society. Liberalism should not just be seen as a trend in western culture that has dominated since World War II, but also a much broader attitude which creates space for other views.

Knowledge is power. Any attempt to limit it amounts to disempowerment. Having knowledge and attitude and an open mind to other people’s views will give you the possibility to take in all the factors that will influence the truth. In the end, there might be several “truths” to choose among. People must be given the tools that enable them to make these informed choices.

As Terry Pratchett, author of the book Interesting Times and a man who could tell a story like few others, once said:  

> The phrase “may you live in interesting times” is the lowest in a trilogy of Chinese curses that continue “may you come to the attention of those in authority” and finish with “may the gods give you everything you ask for.” I have no idea about its authenticity.

It’s another case where the truth, like beauty, is in the eye of the beholder. The truth can be inconvenient. It can be hard to find. But truth will find you out and “alternate truths” eventually will be exposed for what they are – convenient lies.

The job is to work, through sense-making, learning, agility and creativity, towards an informed consensus to define a particular truth. If a story is told based on lies, the realities sold will crumble to dust. The product or policy may soar like Icarus for a brief period, but the glare of scrutiny will bring it crashing down, and its reputation with it.

Google can’t distinguish between truth and lies. Wikipedia just might.

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XI References


Brain Change – How Is Our Brain Coping with Fake News and Misinformation

Ernst Pöppel

I  Preamble: To Avoid Misunderstandings

In case the reader is convinced that the brain and the mind are fundamentally different “things”, or “substances”, as some philosophers believe, in case “dualism” is considered to be the only acceptable epistemological position with respect to the so-called “mind-body-problem”, it is not necessary to continue to read. The reader would only waste time. Whatever will be described here by somebody who is a representative of a “pragmatic monism” with respect to the “mind-body problem” will appear to be rather questionable, even meaningless; the conclusions concerning psychological mechanisms, for instance a strong belief in fake news, would appear most likely far-fetched. The reasoning of a brain scientist with such a monistic position is conceptually far away from a dualistic understanding of how the human mind functions.

What could be the basis of a monistic position? The reasoning is rather simple. Whatever can be defined as a psychological phenomenon, whatever is represented in consciousness, whatever has a subjective reality (seeing, hearing, tasting, feeling, loving, remembering, believing, talking, deciding, wanting, thinking, etc.) can be lost or disrupted because of an injury or a disease of the brain. On that basis the conclusion is: The loss of a function is a proof of its existence. Common sense dictates: If psychological phenomena would not be based in the brain, they could not be lost after structural damage or disease of the brain. The monistic reasoning is also reflected in a famous statement in the life sciences by the biologist Theodosius Dobzhansky: “Nothing makes sense in biology (which includes brain science) except in the light of evolution”. It should, however, be noted that such a statement about our evolutionary heritage or the epistemological position of a “pragmatic monism” cannot be proven in a mathematical sense. This is an expression of a scientific attitude about how the human mind functions, and how the mind can be explained on the basis of neural mechanisms in the brain. This scientific attitude is the consequence of a consistency of observations, the results of many experiments, and of theoretical reasoning; it is not claimed to communicate “absolute truth”. Brain scientists as any scientists are (or should be) modest.

II  Short Overview on Basic Features of the Brain and its Functions on the Cellular Level with Some Surprising Consequences

Before making some statements about the human psychological repertoire, it appears to be useful to get an understanding about some basic mechanisms and structural features of the brain. In Figure 1, the principle structure of the brain is shown on the cellular level. This is an abstract representation of fundamental principles that are shared by all organisms which have brains. This universal principle of “sharing” indicates also that humans within the evolutionary history are part of a “universe of all living beings” on this globe. That nerve cells are separate elements has been an important discovery in brain science (being honoured with a Nobel Prize). This fact, (and it is a fact), leads to one of the great questions and challenges in brain science: how such distinct and separate elements work together to give rise to experiences or to consciousness.
There are basically only three types of nerve cells:

1. Receptors (or sensory cells); these are the “antenna” that provide information from the world around us and also the world within us (like receptors in the eyes, the ears, or sensory cells that signal pain). Humans have several hundred million such receptors. Although this is a big number, it has to be stressed that we do not have “antenna” for everything. The sense organs are specific adaptations to properties of the physical world that are extremely limited. It is counter-intuitive, but it is a fact: We are blind and deaf to most regions of the physical environment. One task of research is (and always has been) to expand our access to the world by the invention of microscopes and telescopes, i.e. to go beyond what “mother nature” has given us. This is a recent development in science (compared to the many million years of evolution) going back a few hundred years only. Indeed, believing in the “truth” or correctness of what we observe in telescopes and microscopes has been a major revolution. Can something still represent “reality” if it is accessible only indirectly by technological means?

2. The other type of cells is “motor neurons” (a few million in humans) which represent the output of what has been processed in the brain. These motor neurons make movements possible, like walking, talking or facial expressions, and they control the internal organs. Although we have much fewer motor neurons than receptors, they represent the active link to the world. We scan the world with eye movements, we pick up information by reading. And motor neurons create the structural basis for social contacts as certain muscles in the face signal emotional states like happiness, sadness, or anger. If motor neurons can no longer control muscles, we are “frozen”, and the link to the world around is disrupted.
3. The third type of nerve cells is the Great Intermediate Net (GIN), and we have more than 100 billion of those. This GIN represents nerve cells between the input (receptors) and the output (motor neurons). During evolution, the GIN has expanded, particularly in higher mammals like humans. So-called “primitive” life forms have a much smaller GIN, and some have actually none, i.e. only receptors and motor neurons. For the GIN, three aspects are important for a basic understanding of information processing in our brain and our experiences:

a) Each nerve cell sends information to some 10,000 other nerve cells: “divergence of projection”. In a complementary way, each nerve cell receives information from some 10,000 other nerve cells: “convergence”. This fact, (and it is a fact), invites a little mathematical calculation. If one assumes that of the 10,000 inputs, 100 are independent of each other (which would imply a substantial complexity reduction in information processing which happens all the time in the brain), then each nerve cell would have 2 to the power of 100 (minus 1) potential functional states, which is 10 to the power of 30, i.e. a “1” with 30 zeros. Our life expectancy is much less than 10 to the power of 10 seconds. This means that the richness of potential functional states of one nerve cell during our lifetime can never be exhausted. This also means that, in principle, functional states of nerve cells are not predictable as they are not computable; even the most powerful computers dealing with Big Data cannot solve this problem. Thus, unpredictability is an essence of life; the question is whether the principle of unpredictability on this cellular level of information processing is “cured” on the organismic and behavioural level. The answer is an energetic “no”, although this is not a welcome answer.

b) How do nerve cells talk to each other? The language of the brain is “excitation” and “inhibition”. Chemical transmitters at “synapses” (the contacts between nerve cells) are responsible for influencing nerve cells either by increasing or decreasing their level of activity. This phenomenon, which has been another great invention of “mother nature”, adds to unpredictability. Apparently, it has become an advantage in the evolutionary process that others cannot anticipate exactly what one is going to do. But unpredictability applies also to ourselves in spite of all attempts to control our behaviour. How can I know what is in my mind in a minute? The balance between excitation and inhibition in circumscribed regions of the brain is another essential feature of information processing. If the equilibrium is broken, i.e. if in a certain area of the brain excitation is too high or inhibition is too low, specific diseases may be the consequence – one example being epilepsy, another one Parkinson’s disease. It is important to note that “inhibition” is an overriding principle in the brain, and that “disinhibition” (inhibition of inhibition) releases activity patterns like controlled movements and also thinking. All behaviour patterns (being genetically pre-programmed or learned) are represented by neural algorithms in the brain, but they are inhibited, and they are only released given a specific situation, for instance by drawing the attention by inhibiting the inhibition and focusing the mind on a new content of interest.

c) The third characteristic of the GIN may at first sight be unbelievable, but it is also a fact. When one asks the question how far away any nerve cell in the brain is from any other nerve cell to express its influence, one gets an amazingly small number: It is only 4 steps “in between”. Thus, one nerve cell inhibits or excites a next one, which excites or inhibits the next next one, and so on, and in only 4 steps any nerve cell in the brain can be reached and, thus, express its influence. Of course, longer ways are possible, as “every road leads to Rome”, but the shortest connection is extremely short. This architectural principle (which
has been named “Nauta’s Law” after an eminent neuroanatomist at MIT in Cambridge) has fundamental psychological consequences. It indicates the high inter-dependence of all functions in the brain and, thus, the intrinsic connectedness of all psychological phenomena. It follows for instance that it would be an illusion to claim that a decision can be only “rational”. Decisions are necessarily embedded in a frame of emotional evaluations. Words are misleading; there is nothing like a pure decision, but there is also nothing like a pure emotion or a pure belief. Seeing, hearing or any other sensory activity is always linked also to memory functions; any thinking or any belief is never free from emotional evaluations. The way “mother nature” has created humans invites modesty; pure rationality or being free from prejudices is structurally impossible. We are victims of evolutionary processes, and we better know about it.

III Short Overview of Our Psychological Repertoire: What Can Be in the Mind, and How is this Managed

The sketch in Figure 2 represents on an abstract level a taxonomy or classification of psychological phenomena or subjective experiences. The key element of this taxonomy is the distinction between “content functions” (“what” is represented in the mind) and “logistical functions” (“how” the “what” in the mind is managed). “What-functions” refer to what we perceive in seeing, hearing or tasting, to what we remember as facts or images, to what we feel, like pain or pleasure, joy or anger, to what we think about, to what we talk about, to what we anticipate and want to happen. “How-functions” refer to the activation of the brain, i.e. the necessary power-supply, to attentional control, i.e. which content is moved into the focus of the conscious mind, and to temporal organization and synchronization of the distributed neural activities of the brain, like what is “now” in the mind.

The big rectangle with the many squares inside represents the “what-functions”. The different letters A to D refer to the different domains of mental content like perception (A), functions of memory and learning (B), emotional evaluations (C), and actions as reflected for instance in talking or thinking (D). Each little square within the different domains symbolizes a module or area in the brain that represents a specific function. Such a modular representation of functions can be derived from observations using for instance imaging technologies (like functional magnetic resonance imaging, fMRI), from the loss of functions in brain-injured patients, and also from experiments with animal models. If for instance in the visual domain a special module in a circumscribed area of the brain is lost, it may happen that this patient no longer can see colours; the world has become black and white. If another module is lost, a patient no longer may be able to recognize individual faces; he may not even recognize himself in a mirror. If another module is lost, a patient no longer may be able to see that something is moving; the world views become temporally disconnected, and he can no longer cross a street as the movement of a car cannot be recognized.
In other psychological domains, a specific lesion of the brain may result in the loss of storing information in memory; the understanding of speech may suffer; emotional experiences may disappear; thought processes may lose their continuity. On the basis of such observations that cover the psychological repertoire, one can conclude that the integrity of local modules in the brain is the necessary condition for subjective experiences, (and it supports the general position of a pragmatic monism mentioned in the preamble that the loss of a function proves its existence). But is it also a sufficient condition for subjective experiences? The answer is “no” for at least two reasons; one reason being that the activity of one module is always connected with the activity of other modules, which is symbolized with the inter-connected squares in grey in Figure “Temporal Organization”; the other reason being that logistic functions are necessary to create experiences and a subjective representation of the world around us and also system states within is.

What is referred to as “representation” (R on the right) is the consequence of information processing within all interconnected domains of the brain, and of course also of the processing of stimuli in the different sensory stimuli (S on the left, and Figure 2). As can be seen, the arrow of the three indicated sensory channels for visual (Sv), auditory (Sa) and tactile (St) point in two directions. This indicates that sensory information is necessary, and this is symbolized by the arrow pointing to the right; a classical statement in philosophy says that “nothing is in the mind which has not been before in the senses”. But the arrows point also to the left, which symbolizes that stimuli are selected by our attentional machinery. We are not passively processing information, but we are selecting according to personal importance. We see and hear what we want to see and hear. Information is processed within a frame of expectations and anticipations. What applies here is the “law of economy” in neural processing of the brain. Thus, our attentional machinery serves also our prejudices. Quite often, we are looking only for a confirmation of what we already see, feel, believe. This brain strategy is indeed very economical and saves energy.
Energy management is a big challenge for the body. The volume of the brain is just 2% of the body, but the brain uses 20% of the energy. Because of the energy demand, it is in the interest of the brain to spend as little energy as possible, but without a power supply, without activation, no content on the psychological level would be available. As is indicated, all domains from A to D get input from the activation system which itself is modulated for instance by the 24-hour (or “circadian”) rhythm. A reduction of activation as for instance observed during “burnout” or depression results in typical changes on the level of “what-functions”; emotions can get flat, activity is reduced, thinking is slowed down, and it becomes difficult to remember. Thus, a functional attentional system and a power supply by activation are necessary “how-functions” for the human mind.

The third logistic function refers to temporal organization as sketched by the clock in Figure “Temporal Organization”. As different functions are represented in different areas of the brain, and as any mental act is characterized by the simultaneous activity of many modules indicated in the grey squares and the arrows connecting them, the brain is confronted with the problem with distributed activities and the temporal availability of information. What has “mother nature” done to overcome this problem? The solution at first sight sounds strange: The neural machinery steps out of the continuity of time as it has been defined in classical physics, and it creates “time windows” of finite duration within which time in the normal physical sense does not exist. Technically the brain uses oscillations to manage the distributed activities in local modules, and it has been found that the period of some 30 to 50 milliseconds defines such time windows within which all information is treated as co-temporal, and on that level distributed activities can be synchronized and united. These time windows represent a subconscious neural machinery that is used to create content of the mind, i.e. it provides the elementary building blocks of consciousness. One becomes only aware of this neural mechanism if something goes wrong. After specific brain injuries, information processing can be slowed down, i.e. falling out of the frame we consider to be “normal”.

Another time window has a duration of some 3 seconds, and this time window is crucial for subjective experiences, for decision processes, for communication, or in general for the creation and maintenance of identity of percepts or thoughts in our mind. One can also refer to this time window as the “subjective present” or the “experienced now”. Thus, from the viewpoint of brain science, the present or the now is not a durationless point between past and future, but it has a duration of approximately 3 seconds in humans. This is an operative range and not a physical constant. This time window can be looked at as a temporal stage to represent what goes on in the mind. When we make a decision, it happens within this time window. But what does this mean with respect to the parameters that have to be considered when making a decision? They cannot be consciously available in the moment of a decision. Thus, because of temporal constraints a decision cannot include everything on an explicit level that contributes to the decision. If one believes to have made a pure rational decision, this is an illusion. Because of our evolutionary heritage we are also victims of implicit information processing going on all the time in the brain. But implicit or unconscious information processing is not irrational; it prepares the next conscious representations in the time window of 3 seconds. In certain forms of schizophrenia or after the consumption of too much alcohol, this continuity may break down.

IV A Hierarchical E-pyramid about What Perhaps to Do and What to Consider

Sometimes trivial statements cannot be avoided: One of the basic characteristics of all organisms including humans is to maintain an equilibrium, and if the equilibrium has been lost to regain it as fast as possible. Needs that we experience are the signals that an equilibrium on the physiological
or psychological level has been violated. In such a moment, the motivation machinery is switched on to switch off the needs. This striving for an equilibrium is implemented both on an explicit and an implicit level, i.e. regaining an internal balance may be consciously controlled, or it is regulated on an unconscious level automatically. “Homeostatic regulation” (to use a medical term) as the strategic goal for our psychological and bodily needs is thus at the top of the E-pyramid. It just so happens that an equilibrium, more precisely a dynamic equilibrium, (or “allostasis”), is also the strategic goal of groups or organized social systems. To reach and maintain an equilibrium, “energy” is necessary; as shown in Figure “E-Pyramid”, without power supply or activation, without energy, a personal equilibrium cannot be maintained, and this applies of course also to social systems. It should not be concealed that for some individuals or institutions the strategic goal is “excellence”, but this never can override the basic principle of a physiological or psychological equilibrium.

For all of us (with only rare exceptions) it is necessary to be embedded in a social environment, and this embedding creates emotional stability. If one looks at the main motivational systems that guide human behaviour, it has been discovered that there are basically just three dominant motivational domains: It is 1) indeed the social embedding or the belongingness to a group; it is 2) the expression of power and control, and it is 3) the need for achievement. The latter relates to “emergent creativity” on the second level of the pyramid. Every human is driven by curiosity, and it is the task of societies on all levels of education to support such emergence for achievements (which sometimes is frustrated in educational processes).

The third level of the pyramid refers to characteristics of information processing as consequences of our brain machinery. One essential feature of brains is to invest as little energy as possible. “Easy access” to information is thus a consequence and, even more so, “effortless processing” to allow for “efficient action”. The operational advantage of “prejudices” is primarily that one does not have to reflect any more; thinking is not necessary. Without effort, fast decisions can be made and presumably efficient actions can be initiated. Together with emotional embedding in a social environment, quick and unreflected actions allow circumventing rational conjecture. At this operational
level, together with the desire to belong to a group that promises safety, and with the brain machinery to create and maintain an equilibrium, we humans are victims of our evolutionary heritage.

How can one deal with the potentially negative effects of our evolutionary endowment? The only way is to know about it, and knowledge as a key control element can obviously be provided by "education" — another "e-term". Interestingly, the most important educational targets in some advanced societies focus on STEM: Science, Technology, Engineering, Mathematics. It is strongly recommended to move from the stationary stem to the dynamic STEAM, i.e. to include the Arts as an element of education. This is recommended not only because the "aesthetic sense" should be an important argument also for "environmental responsibility" (which it is usually not). New results in brain science show that the aesthetic sense is also fundamental for moral as well as economic judgments. Again, we observe the inter-dependence of mental operations. Furthermore, without some basic "economic understanding" both on the personal and the level of a society, everything would be in vain anyway.

At the basic level, future perspectives become key elements of human behaviour which are confronted with our past endowments by "mother nature", the evolutionary heritage. How can a future be envisioned and structured combining environmental responsibility with economic understanding and applying ethical principles? The answer is again to foster knowledge about ourselves by education. But one has to be realistic: A new "enlightenment" is far away, and possibly even disappearing. Immanuel Kant wrote "Was ist Aufklärung?" (What Is Enlightenment?) in 1794, and he said "aude sapere" — dare to think; today we should add "aude agere" — dare to act. But how could that happen on a global level? If one is realistic, i.e. given the constraints dictated by human nature, given the challenges concerning the global environment, observing the different ethical principles (or their neglect), and accepting the different economic interests, an optimistic attitude is difficult to defend. One has to deal with humans not as they should be, but as they are.

Some Ambiguous Statements: News is Always Fake News, Information is Always Misinformation

The brain cannot be changed, at least not within short time scales, unless one is willing to accept genetic engineering for humans. This has already been tried. However, in that case the outcome could not be predicted because of the complexity of the brain; the interconnectivity of different brain areas and the billions of neurons result in unpredictability and are beyond control. The intention to improve genetically intelligence, to get rid of all diseases, to increase our life span, to make humans more peaceful, or whatever a political program would be, could have also unwelcome consequences.

The brain can be changed, at least partly, if we accept open or hidden dictatorship. We enter the world with genetic programs of possibilities. During the first years of life specific neuronal programs or algorithms are selected by imprinting within the physical and cultural environment. This imprinting is not absolute as anthropological universals; the "how-functions" of the brain like temporal processing are very conservative, but the "what-functions" can be modified. Different value systems or religions are the consequence of such imprinting, and if one wants to have all humans equal, global dictatorship would be necessary.

The real challenge for any human is to create and maintain personal identity. This may be the source of accepting fake news and "enjoying" misinformation. The reinterpretation of facts begins with ourselves when we construct retrospectively our identity. Every autobiography is full of lies.
We create a “narrative” about ourselves that simulates consistency throughout life. This allows personal face saving, and it is the basis for playing roles towards others. Nobody can be completely honest with himself or herself and even saints are not completely “clean”. We are our own story.

Another reason to be a grateful victim of misinformation is the need to belong to a social group. Belongingness provides safety. Responsibility is delegated to leadership. Information is always processed within a social frame of reference. Prejudices allow fast orientation by looking for medial confirmation of what one believes anyway. Alternative perspectives would disrupt the effortless flow of daily life. In fact, “fake news” is not fake news at all, but is located within a frame of expectations; our fake news is appreciated as support of our personal worldview.

Everybody produces fake news by re-interpreting information to support or even create personal identity. Matters become more complicated when information is intentionally modified or traditionally verified in social systems to create specific frames of subjective realities. Do people in power within such systems, be it in the political or religious domain, be it in the economic or cultural sphere, do these people actually know that they are re-interpreting facts, that they select and modify information, that in some cases they are lying, for the purpose of creating stability in the system and providing a frame of cultural identity for everybody? Do they (we) believe indeed that they (we) are telling the truth?
### About the Authors

<table>
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| **Merlin KOENE**              | Partner at the strategic consultancy fischerAppelt advisors. Before joining, he was Executive Vice President Communications of ProSiebenSat.1 Media SE and headed Global Media Relations and Financial Communications for Unilever in London. He started his professional career as a journalist, including working as a reporter for Reuters, BBC, CNN, 3sat, ORF and Spiegel-TV. After working at the |
global strategic communications consultancy Kekst CNC, he moved into the field of corporate communications. At Unilever, he was also Director for Sustainable Business & Communications and member of the management board, and was responsible for external and internal communications as well as public affairs in Germany, Austria and Switzerland.

| Sue MASTERMAN | Veteran writer and broadcaster. Her CV includes East European correspondent of The Times (London) and Head of the Vienna-based Balkan Bureau and Middle East monitor for ABC News (New York). Her long career has encompassed print, radio and television with regular contributions to Time magazine, Maclean’s, CBC Radio (Toronto) and the Evening Standard (London), with more recent forays into creative writing, editing and translating. |
| Verena NOWOTNY | Partner at Gaisberg Consulting, a communications agency based in Vienna. With more than 20 years of international experience in the areas of strategic communications and public affairs, she supports corporate business, start-ups and institutions with positioning and with acute and preventative crisis communications. Verena Nowotny worked for many years as the foreign policy press spokesperson for former Austrian Federal Chancellor Wolfgang Schüssel. Thereafter she lived and worked in Shanghai, then moved on to New York where she served as spokesperson for Austria's non-permanent membership in the UN Security Council. She holds a Master's degree in political management from the George Washington University (Washington, D.C.). |
| Dr. Thieß PETERSEN | Senior Advisor at the Bertelsmann Stiftung, Gütersloh. He joined the Bertelsmann Stiftung in 2004 and specializes in macroeconomic studies and economics. He studied economics in Paderborn and Kiel before joining the Institute for Theoretical Economics at Christian Albrechts University in Kiel as a research assistant. He then became a research assistant and lecturer in economics at the University of Applied Sciences in Heide. After that he was a project adviser at the DAG Forum Schleswig-Holstein in Kiel, later becoming the forum's managing director. In addition to his work for the Bertelsmann Stiftung, he is a lecturer at the European University Viadrina in Frankfurt (Oder), where he specializes in macroeconomics, economic growth and public finance. |
Chairman, Human Science Center and Director Emeritus of the Institute of Medical Psychology, Ludwig-Maximilian-University Munich; Guest Professor at Peking University and the Chinese Academy of Sciences (Beijing); Director of the Parmenides Center of Art and Science (Munich and Pullach); Member of the National Academy of Sciences Leopoldina (Halle), the Academia Europaea (London), the European Academy of Sciences and Arts (Salzburg), the Russian Academy of Education (Moscow). His personal motto is: "Scientists are natural ambassadors".
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