

General Perspectives

Uncertainty, Confidence, and Trust in Academic and Journalistic Writing: Concepts and Examples¹

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Abstract

This contribution discusses the key concepts uncertainty, confidence, and trust by comparing the breadth of traditional dictionary definitions with more specific definitions over the last fifty years. It illustrates the application of these concepts in a few examples from academic and journalistic writing from the recent Covid-19 pandemic. This discussion from an academic German perspective can be compared to the experience in other parts of the world, who shared a similar traumatic experience of great uncertainty during the Covid-19 pandemic, but may have perceived and digested the uncertainty differently in their different national contexts, since these determine the confidence and trust in academic and journalistic writing. The specific examples from recent discourse between politicians, scientists, and the general public in academic journals, newspaper articles, comments, and social media contributions illustrates interesting differences that are worth more detailed academic research.

Keywords: uncertainty, confidence, trust, Covid-19, media

1. Introduction

In this project, uncertainty is seen as a natural starting point for academic and journalistic writing, which, through detailed work and conscientious presentation, first leads to confidence in oneself and one's own work, and finally fosters trust in the listener or reader. The theme perfectly reflects several uncertain aspects in the Balkans, which the project partners evaluate critically together, to shape a (small) new unified academic community from the Balkans.

During the Covid-19 pandemic, writers used specific stylistic and linguistic devices in their texts to create specific effects in their readers. Different types of writers, of course, pursue different agendas and scientists and journalists obviously do not talk the same language, since they normally do not have the same readership.

¹ I wish to thank all project partners for their interesting contributions to our discussions and our project manager Marina Ivanova for her constant critical awareness and her scrutiny and openness in our work with partners and texts. The German Academic Exchange Service (DAAD) has supported a series of projects annually that resulted in a confident and trustworthy group of partners from the very different national and cultural traditions, who were often surprised to work out more similarities than expected during the project meetings in various parts of South-Eastern Europe.

This is why it is particularly interesting to compare in times of uncertainty when they may write about the same topic but still from different perspectives.

Over the last ten years, the online discourses have centred on a few concepts that are closely related to “crisis” and “uncertainty”. This claim can be substantiated easily nowadays, since we have the News-on-the Web (NoW) Corpus, which documents the developments over the years nicely. This makes it possible to find daily keywords as the NoW database includes now almost 15 billion English words and is growing by about 200-220 million words each month – an impressive and most useful monitor and reference corpus. Thus the search for “crisis” reveals that frequencies have jumped up in 2020 from around 100 to over 200 per one million words – and that in times when politically conscious individuals in Europe (and maybe particularly in South Eastern Europe) have faced a refugee crisis on top of all the other small “usual” crises since 2015. Similarly, the term “uncertainty” is documented as having now higher frequencies than ever in the NoW Corpus. Different internet genres such as web sites (the iWeb Corpus) or simple Google searches confirm these findings, providing examples for the interesting linguistic and journalistic work that can be done easily nowadays when everyone is able use such a popular “big data” approach (Davies/Kim 2019).

2. Development of Key Concepts

The critical approaches applied for the key concept “truth” (in Schmied 2020) can be used for the concepts of “uncertainty”, “confidence” and “trust”: we start with the most general dictionary definitions and continue with recent more scholarly approaches. In all cases, the breadth and overlap of senses is not easy to distinguish, but always revealing when applied to specific academic and journalistic texts.

2.1. Uncertainty

The Oxford English Dictionary online (OED; abridged below) provides us with three useful definitions for “uncertainty”, whereas most other modern digital dictionaries have only two. I only selected the definitions and examples that appear most relevant for academic and journalistic writers today², including a few examples to illustrate the different senses (neglecting the historical depth of the OED entries). Whereas the first sense, a “quality” related to “liability” and “indeterminacy”, seems particularly relevant for journalistic writing (“what do I see and report”), the second sense, an epistemological “state” of “doubtfulness” and “vagueness”, seems to be highly relevant for academic genres (“cogito ergo sum”/ “I doubt, so I am”).

² The contrastive concept of “uncertainty” in science and in politics is discussed in more detail in Schmied (this volume). The example in the OED sense 1 for “uncertainty” is particularly relevant for the discussion there and in Schmied (this volume).

1. 1a. The quality of being uncertain in respect of duration, continuance, occurrence, etc.; liability to chance or accident. Also, the quality of being indeterminate as to magnitude or value; the amount of variation in a numerical result that is consistent with observation.
*“the accuracy is expressed by stating the **uncertainty** of the numerical result, that is, the estimated maximum amount by which the result may differ from the ‘true’ or accepted value”.*
- 1b. With *a* and plural. Something of which the occurrence, result, etc., is uncertain. *“yet my mind is harassed by uncertainties”*
2. 2a. The state of not being definitely known or perfectly clear; doubtfulness or vagueness.
“there were two sources of uncertainty, which rendered his conclusions not altogether to be depended upon.”
- 2c. Something not definitely known or knowable; a doubtful point.
3. The state or character of being uncertain in mind; a state of doubt; want of assurance or confidence; hesitation, irresolution.
“I suppose, he was full of uncertainties.”

The Oxford Advanced Learners’ Dictionary online (OALD) divides the two senses conveniently into the well-known uncountable “state” in contrast to the countable “situation”, but, of course, the restrictions in a learners’ dictionary do not allow a more scholarly definition. The included collocations dictionary consists mainly of general academic lexemes, which clearly points to the academic character of the concept.

The online database WordNet also distinguishes two senses with corresponding “particulars” or subordinate senses: “uncertainty” as “a kind of quality” covering “doubt”, “indefiniteness” or “improbability” vs. “doubt” as “a state of mind” covering “mental reservation”, “mistrust”, disbelief”, or “irresolution”, for instance.

A useful contrastive perspective is provided by the online bilingual database Linguee and here the German alternatives are grouped into the more general “Unsicherheit” (=“uncertainty”) and the more specific “Ungewissheit”/ “Unbestimmtheit” (=“indeterminacy”), an intuitively attractive distinction, which is not so clear in other languages. This differentiation is, however, also visible in the BYU Word-and-Phrase info (now integrated in the COCA database www.english-corpora.org/coca/), which again shows that the concept is mainly used in academic texts (especially expressed in the noun *uncertainty*, less in the adjective *uncertain*) – and this is valid even more for *indeterminacy* and *indeterminate*, of course.

2.2. Confidence

When we look up “confidence” in the OED (10/06/20), we find again a detailed list of senses, from which I only select the most useful ones in our argumentation and a few illustrative examples. The first two senses are more outward related; in contrast, the third sense is more personal subject related (we disregard the remaining two related minor senses, the negative sense 3 and the countable sense 4 and older ones, as usual).

1. The mental attitude of trusting in or relying on a person or thing; firm trust, reliance, faith
“He .. never abused the most implicit confidence.”
2. The feeling sure or certain of a fact or issue; assurance, certitude; assured expectation.
“This story .. I affirm with less confidence.”
3. Assurance, boldness, fearlessness, arising from reliance (on oneself, on circumstances, on divine support, etc.).
4. In a bad sense: Assurance based on insufficient or improper grounds; excess of assurance, overboldness, hardihood, presumption, impudence.
“The French Ambassador had the Confidence to tear out of the Book of Mottos in the Kings Library.” ...
6. The confiding of private or secret matters to another; the relation of intimacy or trust between persons so confiding; confidential intimacy.
“Speaking in confidence, for I should not like to have my words repeated.”

The list of senses is identical in the OALD and in WordNet. The OALD has two excellent collocation examples that illustrate the person-related usage nicely: *inspire confidence* and *lose confidence*.

For the key concept “confidence”, a look at two specific frequent compounds seems particularly useful in our journalistic and academic contexts. A really special construction is “overconfidence”, which does not exist in a similar form for the other related concepts “truth”, “uncertainty” or “trust”. It is directly related to the third sense in the OED and is used often in political contexts (Schmied, this volume).

Finally, the compound “self-confident” is almost equally special, although it has a related concept “self-trust” (you cannot *overtrust*, you only have *misplaced trust*). WordNet places “self-confidence” explicitly and most prominently into the first sense, possibly to show that it is a starting point for “confidence” in others (cf. Pépin in 2.3.2.2 below).

2.3. Trust

Since trust is so central to our argumentation, it is worth going beyond the standard English dictionaries, the usual semantic starting points of students, and add a few recent more academic concepts of “trust” by European scholars that may be applied to situations like the Covid-19 pandemic as the most recent global experience that required a lot of trust, but also led many to reconsider their concept of “trust” in this unexpected, dramatic situation. This academic discourse on “uncertainty”, “confidence”, and “trust” has spread from book publications to much more general applications in digital channels including social media and YouTube. The more discussion, the more awareness ...

2.3.1. “Trust” in Language Reference Works

When we look up “trust” in the OED (10/06/20), we find again a list of senses with examples, but it is relatively short and includes only “firm belief” and “quality or condition” with overlapping synonyms like “loyalty”, “reliability” and “trustworthiness”, both can be more person- or more fact-related. The list of senses in the OALD is identical, but in WordNet it is longer (even if we disregard the prominent economic usage like *cartel* or *corporate trust*).

1. Firm belief in the reliability, truth, or ability of someone or something; confidence or faith in a person or thing, or in an attribute of a person or thing. (+in) (*to take on trust*)
2. The quality or condition of being trustworthy; loyalty; reliability; trustworthiness.
3. Confident expectation of something; hope. Also occasionally: an instance of this.
(+of / that, rare)

Although “trust” is often seen as an absolute value, collocation dictionaries show a long list of related adjectives like *absolute*, *complete*, *blind* and *basic* and *mutual*, which is clearly more than the usual *great*, which can be found in the related entries for confidence and uncertainty discussed above. This makes “trust” parallel to “truth”, which is equally absolute and collocates with *absolute*, *complete*, etc.

2.3.2. Approaches to “Trust” in Academic Works

2.3.2.1. Trust as seen by Luhmann (1968)

The immensely influential book by Niklas Luhmann *Vertrauen. Ein Mechanismus der Reduktion sozialer Komplexität*. was not translated as *Trust. A mechanism for reducing social complexity* but as *Trust and Power*. Luhmann’s concept has been picked up by many international scholars since and the following three applications in social theory, communication and sociology may be sufficient evidence:

One of the best-known early theories by Niklas Luhmann is his theory of trust. In his book, *Vertrauen* (1968), Luhmann presented his basic theses about trust. The function of trust is to reconstruct or to reduce the growing complexity of society.

(*European Journal of Social Theory*, 2003)

For Luhmann, trust is a central issue in *all communication*. He argues that a society that uses language and signs gives rise to the problem of *error* and *deception*, of the *unintentional and intentional abuse of signs*. It is not only that communication occasionally miscarries, goes astray, or takes the wrong track. The problem, since it can occur at *any time*, is *always present*—a sort of universal problem of the type discovered by Hobbes with his example of violence. With this in mind, it is understandable that society morally appreciates sincerity, truthfulness, and the like, and in the communication process it has to rely on trust. (*Theory of Society*, vol 1., p 135)

Trust is considered a social mechanism that bridges knowledge gaps and information gaps, allowing organisations to speed up processes and establish more complex structures. (Seidl/Mormann 2015: 7)

In the Covid-19 pandemic, this concept can obviously be applied to the levels of individuals, (affected or threatened) groups, entire societies and all humankind. Many protective measures simply depended on mutual trust, trust in actors like virologists and politicians and trust in the effectiveness of masks, vaccines, etc. However, societies are rooted in their tradition of mutual trust and this became obvious in many ways during the pandemic.

2.3.2.2. Confidence and Trust as seen by Pépin (2019)

A most recent concept by Charles Pépin (2019) in *La Confiance en soi*. obviously takes *self-confidence* as a starting point that must be based on *trust*:

We will always find, to varying degrees and in various forms, these three components of self-confidence: confidence in others, confidence in one's abilities and confidence in life. It may be all of the above, by the way: you have to approach it with a child's anger, trusting without even knowing what. (translated by DeepL from the original French)

In French academic tradition, Pépin includes practical slogans like “cultivate the right connections”, “listen to yourself”, “be amazed”, “stay true to your desire”, etc. No wonder that the book was widely read during the pandemic and is discussed in the media, even on YouTube ...

2.3.2.3. Trust as seen by Hartmann (2020)

The most recent book by Hartmann (2020) *Vertrauen*. has an interesting subtitle: *Die unsichtbare Macht*, i.e. *The invisible power*, because he sees it everywhere:

Everyone wants it - banks, politics, science, the Internet and love: our trust! But trust is in crisis, many feel betrayed, by the media, parties, companies.

During the pandemic, the book was advertised as:

In an inspiring diagnosis of the present, the philosopher Martin Hartmann analyses what is true about the crisis. And discovers a fundamental dilemma: we praise trust, we miss it and we mourn its loss. But many are afraid of the vulnerability that goes hand in hand with trust. New forms of surveillance are being accepted, holding on to seemingly confirmed opinions. This leads to conflict, uncertainty and stagnation. Reason enough for confidence-building measures! (translated by DeepL from the original German)

In many interviews during the pandemic, Hartmann explained crucial issues like the relationship between facts and trust and ways how politicians may regain trust (cf. Schmied, this volume), for instance:

ZEIT Campus ONLINE: Are knowledge and facts not enough to gain trust?

Hartmann: No, that is a big misunderstanding in our society. You can't establish trust simply by listing facts. That is, just explaining to people on a scientific basis that this virus is dangerous, the measures are appropriate and the risk is high - that is not enough. Because facts are filtered through our value system and this often leads to a conflict of trust. [...]

ZEIT Campus ONLINE: How can trust be restored - or even better: how can loss be prevented beforehand?

Hartmann: In terms of the dynamics between politics and people, better error communication would be important. We have to meet each other more as people again. That means: politicians must admit mistakes, they must make omissions, difficulties or failures transparent. At the same time, however, the people must judge the government more fairly, which means that some mistakes must be forgiven or should fuel learning processes. And very fundamentally: we must become aware of our vulnerability and dependence. Anyone who moves in a social system must be able to live with the fact that they will be hurt - nevertheless, the fear of this must not prevent them from trusting. I always say: everyone wants trust, everyone complains about the loss of trust, but no one wants to trust. That has to change.

Tomšić, ZEIT 10.3.21 (translated by DeepL from the original German)

This is a direct application of the concepts introduced above – and this needs more discussion based on concrete examples ...

3. Examples from the Covid-19 Pandemic

3.1. Indeterminacy and Tentativeness in Academic Journals

The article below was published in a high-ranking international journal. Its beginning and abstract show some clear examples from the academic wordlist, but also some clear critical author metalanguage in *not representative*, *estimate*, *specific event* and *unexpectedly*. Despite the very practical consequences in the first wave of the pandemic, the article was received 04 June 2020, accepted 14 October 2020 and published only 17 November 2020, i.e., in the second wave in Germany.

Infection fatality rate of SARS-CoV-2 infection in a German community with a super-spreading event

Hendrik Streeck¹, Bianca Schulte¹, Beate M. Kümmerer¹, Enrico Richter¹, Tobias Höller⁵, Christine Fuhrmann⁵, Eva Bartok⁴, Ramona Dolscheid⁴, Moritz Berger³, Lukas Wessendorf¹, Monika Eschbach-Bludau¹, Angelika Kellings⁵, Astrid Schwaiger⁶, Martin Coenen⁵, Per Hoffmann⁷, Birgit Stoffel-Wagner⁴, Markus M. Nöthen⁷, Anna-Maria Eis-Hübinger¹, Martin Exner², Ricarda Maria Schmithausen², Matthias Schmid³ and Gunther Hartmann⁴

While the number of infections in this high prevalence community is not representative for other parts of the world, the IFR calculated on the basis of the infection rate in this community can be utilized to estimate the percentage of infected based on the number of reported fatalities in other places with similar population characteristics. Whether the specific circumstances of a super-spreading event not only have an impact on the infection rate and number of symptoms but also on the IFR requires further investigation. The unexpectedly low secondary infection risk among persons living in the same household has important implications for measures installed to contain the SARS-CoV-2 virus pandemic.

Streeck, H., Schulte, B., Kümmerer, B.M. *et al.* Infection fatality rate of SARS-CoV2 in a super-spreading event in Germany. *Nat Commun* **11**, 5829 (2020). <https://doi.org/10.1038/s41467-020-19509-y>

A similar Covid-19 paper was published by the arguably most respected Covid-19 research group in a similarly prestigious journal. Again, the project results are important when politicians are asked to act immediately (and close schools because of the high infection risks, for instance). The tentative character of the text is signalled by the language including the *no significant difference* (twice) and the *may* when the practical recommendations (*caution*) are given at the very end.

An analysis of SARS-CoV-2 viral load by patient age

Terry C. Jones 1,2 , Barbara Mühlemann 1,3 , Talitha Veith 1,3 , Marta Zuchowski 4 , Jörg Hofmann 4, Angela Stein 4 , Anke Edelmann 4 , Victor Max Corman 1,3 , Christian Drosten 1,3

Data on viral load, as estimated by real-time RT-PCR threshold cycle values from 3,712 COVID-19 patients were analysed to examine the relationship between patient age and SARS-CoV-2 viral load. Analysis of variance of viral loads in patients of different age categories found no significant difference between any pair of age categories including children. In particular, these data indicate that viral loads in the very young do not differ significantly from those of adults. Based on these results, we have to caution against an unlimited re-opening of schools and kindergartens in the present situation. Children may be as infectious as adults.

T. C. Jones et al., Science 10.1126/science.abi5273 (2021).

Both these studies were widely discussed in public before their official acceptance in the international academic journals quoted here – and these discussions show not only a completely different style of publication (the first project presented interim results at a political press conference, the second stayed in more academic circles and was put on a pre-publication server) and public discourse (cf. below), but also different views of our key concepts.

3.2. Discussion in Readers' Comments Online

Whereas newspaper writers have traditionally been viewed as objective reporters, letters-to-the-editor may have been more “radical” – but then they were simply not printed. Today online newspapers have to moderate their comment section carefully, since (anonymous) contributions may be well beyond moral and legal limits. Social media comments, by contrast, are mainly moderated by artificial intelligence, but it is impossible to filter out hate speech automatically (ElSherief et al. 2018), so there is always a danger of frustration and overconfidence leading to undesirable language – to put it mildly.

The second study mentioned above (by Jones et al.) is discussed in an influential Berlin-based national newspaper and this drew (again) hundreds of comments, many of which had to be deleted, but some contained serious argumentations based on our concepts “uncertainty” and “trust”:

TagesSpiegel 28.05.2020, 13:45

Alexander Kekulé misjudges the medial dimension and saws at the branch on which he himself sits [undermines/discredits his own argumentation/reputation] together with all medical research. When Kekulé criticizes the Charité study in detail in this article, but

only deals with the role of the "BILD" [the hugely influential German tabloid] in a subordinate clause, he indirectly even agrees with the "BILD", according to the motto: Look, there was something to it. But the problem is the tone that "BILD" has struck, which questions the credibility of medical research in principle.

In his speeches so far in recent weeks, Kekulé has mostly been among the less "liberal", admonishing voices. If Kekulé now indirectly agrees with the "BILD", he is promoting a populist discreditation of medical research.

If Kekulé hopes for popularity, he is doing research a disservice. An internal scientific debate is usually fruitful and serves to find the truth. But where the road leads to when medical research is discredited in principle can currently be observed frighteningly clearly in several populist governed countries of North and South America.

Translated from the German original using DeepL (adapted, 16/06/20)

Another example is the critical reader's opinion below. Here we find a discussion of overconfidence of individual specialists (e.g., the leader of the project that lead to the journal article 1 above!), but confidence in the academic review process, which was perceived as too slow in the Corona pandemic.

McBudaTea #2.2

Streeck is a very interesting example: on one hand is a solid scientist who has also actively researched coronavirus. His most important contribution is that based on his findings his hint of the importance of loss of smell and taste as a symptom of covid-19.

In my eyes, his problem is that he overestimates the significance of his own results. In normal science this is actually not a problem because such things are corrected within a normal scientific process. Usually, one will discuss one's results in advance at conferences with other scientists and point out errors/problems, in order to publish them, a paper goes through a peer-review process where other researchers check the data and interpretations. But even then, the results only become truly "valid" when other groups with different approaches come to similar/complementary results. This process is (necessarily) partially hijacked with regard to Corona, so that many results move forward unfiltered.

Translated from the German original using DeepL (adapted, 16/06/20)

3.3. Presidential Addresses during Covid-19

A good example of presidential confidence is the French reaction to the Covid-19 pandemic in spring 2020. The French president's martial "declaration of war" is contrasted further down in the same article with the German Chancellor's personal plea to stay at home. As such important political events are most effective when the entire multimodal perspective (at central broadcasting times in the most important national television channels) is considered, the completely different styles on the television were particularly striking, portraying the full spectrum including over- and self-confidence. The completely different speech acts reflect not only personal attitudes, but also national expectancies in the two different political systems.

Macron Declares France ‘at War’ With Virus, as E.U. Proposes 30-Day Travel Ban

President Emmanuel Macron commanded the French to stay at home for at least 15 days, joining other European leaders who are taking measures never before seen in the postwar West.

The New York Times By Steven Erlanger, March 16, 2020

BRUSSELS — Adopting martial language, President Emmanuel Macron ordered the French to stay at home for at least the next 15 days, as France put in place some of the most severe measures in Europe to try to curb the raging coronavirus.

The aggressive move by France came as other countries in the region introduced measures that their leaders described as unprecedented in postwar Europe, and as the European Union proposed a 30-day shutdown of all nonessential travel into the bloc from other countries. [...]

Even if some criticized Germany’s response as slow, Ms. Merkel said that the measures were wide-reaching and an infringement on personal freedoms implemented only reluctantly. “In the 70-year history of the German Federal Republic, we have never had to do what we must do now,” the chancellor said.

Despite the seriousness of the situation, Merkel’s speech is much more based on all forms of “trust” and “solidarity”, although “combat the Corona crisis” is much less “pragmatic” and “sober” than the rest of her speech. It was also felt as “characteristic” when she emphasised that “science leads politics” in deciding on protective measures.

Hoping for insight from all

The Chancellor intervened late in the Corona crisis. Now she warns that the yardstick for restrictions is science - not the wishes of the individual.

By Lisa Caspari

ZEIT 16 March 2020

It was a historic 20 minutes in which Chancellor Angela Merkel addressed the citizens on Monday evening. During her short press conference at the Chancellery, Merkel appeared outwardly as usual, her appearance pragmatic-sober and sorted. However, she called the guidelines she had adopted at noon together with all the prime ministers to combat the Corona crisis "extraordinary", "incisive" and "measures that have never been seen before in our country".

Translated from the German original using DeepL (adapted, 16/06/20)

The difference in “rhetorical grandeur” and “calm confidence” was commented on frequently by the international press, e.g.:

Angela Merkel draws on science background in Covid-19 explainer

The Guardian, 16 April 2020

German chancellor excels in describing epidemiological basis of lockdown exit strategy

In her 14 years as Germany’s chancellor, Angela Merkel’s straight delivery and aversion to rhetorical grandeur has been a frequent bugbear for journalists and party colleagues longing for a more passionate line of communication between the head of government and the public. [...]