Keith Allan*

Why truth is necessarily pragmatic

https://doi.org/10.1515/ip-2023-3003

Abstract: This essay presents an array of arguments demonstrating that truth is necessarily pragmatic. Evaluations of truth derive from human experience, from the individual’s weltanschauung which molds their point of view and ideological perspective. Consequently, within any community, there exist alternative truths. Traditional takes on truth are reviewed. The fuzziness of many truths is examined. The existence within the community of alternative, sometimes contradictory, truths is explicated and shown to be fairly common in practice, even though it can occasionally lead to social dissension. The essay expatiates on the alleged incontrovertibility of logical, mathematical, and scientific truths (supposedly true in all possible worlds) showing that they are necessarily subject to specific conditions which render the assessment pragmatic. In sum, \( \Phi \) is true resolves into \( \Phi \) functions as true under specific conditions \( a_1 \ldots a_n \). Certainly, a hegemonic group within the community will often assert a preference for one truth over its alternatives, but that does not eliminate the existence of alternative truths within that community. The only way to manage this state of affairs is to admit that truth does not exist independent of human beings but is necessarily evaluated according to the set of perceptions, conceptions, and beliefs that constitute the individual’s weltanschauung at the time the judgment is made, such that different weltanschauungen often give rise to different judgments about what functions as true.

Keywords: alternative truths; context; functions as true; fuzziness; point of view; specific condition; weltanschauung(en)

1 A brief overview

But mortal men imagine that gods are begotten, and that they have human dress and speech and shape. (Fr.14)

If oxen or horses or lions had hands to draw with and to make works of art as men do, then horses would draw the forms of gods like horses, oxen like oxen, and they would make their gods’ bodies similar to the bodily shape that they themselves each had. (Fr.15)

*Corresponding author: Keith Allan, Monash University, Melbourne, Australia, E-mail: keith.allan@monash.edu

Open Access. © 2023 the author(s), published by De Gruyter. This work is licensed under the Creative Commons Attribution 4.0 International License.
The Ethiopians say their gods are snub-nosed and black-skinned, the Thracians that they are blue eyed and red-headed. (Fr.16) (Xenophanes of Colophon 6th BCE (Hussey 1972: 13))

The principal function of this present essay is to offer a somewhat different focus from my article “Truth is what the context makes of it” (Allan 2022) and to explicate additional material which confirms the claim that truth is necessarily pragmatic; in addition I point to the significance of what functions as true under specific conditions. In order to be stand-alone comprehensible, this essay does rehearse a few of the same examples and arguments as its progenitor. Section 2 briefly reviews traditions of truth. Section 3 elaborates the often fuzzy (vague) nature of truths. Section 4 discusses the existence of alternative truths. Section 5 expatiates the supposed incontrovertibility of logical, mathematical, and scientific truths showing that they are necessarily subject to specific conditions defining the particular worlds in which they function as true. Section 6 discusses ways to choose among alternative truths.

2 The tradition

Truth remains for us today, as it was for the Ancient Greek philosophers, an important means of establishing the relationships between things, the recognized path to the drawing of rationally justifiable inferences, the means for distinguishing fact from fiction, reality from myth or mistaken illusion: truth is the instrument to identify what exists or happens from what does not. That is the function of truth.

Aristotle’s account of truth is compatible with the notion that truth is pragmatic.

[O]f one subject we must either affirm or deny any one predicate. This is clear, in the first place, if we define what true and false are. To say of what is that it is not, or what is not that it is, is false, while to say of what is that it is, and of what is not that it is not, is true. (Metaphysics 1011a24–27, Aristotle 1984: 1596)

Not all sentences are statements; only such as have in them either truth or falsity. Thus a prayer is a sentence, but neither true nor false. (On Interpretation 172, Aristotle 1984: 26)

A sentence (logos) is the formal expression of a statement (apophansis). It comprises a subject in the nominative case (hupokeimenon) and a predicate (rhēma + tense) which categorizes or says something about (katēgorein) the subject. Thus, did Aristotle distinguish between the semantics of a sentence and the pragmatics of an utterance, be the latter a statement or some other kind of speech act such as a prayer. In today’s terms, the felicity and success conditions on statements invoke truth, whereas directives, supplications, and expressives are evaluated according to other
felicity and success conditions (Allan 2006; Austin 1962a; Bach and Harnish 1979; Searle 1969). Thus does Aristotle show truth to be pragmatic.

The quote from Aristotle’s *Metaphysics* is compatible with saying that a proposition is true if it corresponds to the facts (Moore 1902). This is because a proposition equates to a representation of a purported belief, such that the belief is true if it corresponds to the way things are. Tarski (1956) offered a mathematical rendition that can be rendered as (1).

\[
\text{(1) } \phi \text{ is true iff } \phi
\]

(1) asserts correspondence between a proposition $\phi$ in the object language and a metalinguage statement $\phi$ of the way things are, which assigns proposition $\phi$’s meaning. For example, the proposition *the sun is shining* is true if (and only if) the sun is shining in the context in which the proposition is uttered: $C_1$ in terms of Allan (2018, 2022, 2023). $C_1$ is the world and time spoken of by whoever utters the proposition.\(^1\) Because that holds for any occasion of utterance of *the sun is shining*, the truth conditions identify the meaning of the proposition. Note the hypotheticality: the relationship between truth and meaning is complicated and not the topic of the current essay.

Within a community convictions about what constitutes truth are closely bound to human action and belief (Shapin 1994) because they are determined according to a mental model of the world spoken of (whether the ‘real-world’ or a fictional world). Following Aristotle’s hint, there are many kinds of speech act for which the evaluation of truth is either inapplicable or of secondary consideration to aspects of speaker credibility and sincerity, for example, when uttering a prayer or curse, when giving advice, apologizing, thanking, commiserating with or congratulating someone. It is not sufficient to simply utter a truth, the truth also needs to be credible. Furthermore, in some social interactions it is important to ‘tell white lies’, that is, to transmute the truth in order to preserve social harmony. Thus, we emphasize cooperation in social interaction by maintaining what Grice (1975) called ‘the maxim of quality’ enjoining a speaker to ensure his or her credibility by being genuine and sincere (Allan 2001).

---

1 C1 is a mental model of an actual or recalled or imagined world. This model is the content of a mental space which can be readily associated in a variety of ways with other worlds and times occupying other mental spaces. C1 is largely identified from co-text via the semantic frames and scripts (Bartlett 1932; Fillmore 1982; Marslen-Wilson et al. 1982; Mazzone 2011; Minsky 1977; Prince 1981; Sanford and Garrod 1981; Schank 1984; Schank and Abelson 1977). And perhaps by the utterer’s attitude to what is spoken of or to the persons addressed as this is revealed by the locution, contributing to identifying what the utterer’s purpose might be in making the utterance. Constraints on the truth of propositions like *The sun is shining* and *It is raining* have been much discussed, e.g. by Bach (1994), Carston (2010), Perry and Blackburn (1986), and Recanati (2007).
3 Truth is often fuzzy


(2) La France est un hexagone/France is hexagonal.

Austin (1962b: 143) wrote of the statement in (2): “It is a rough description; it is not a true or a false one.” However, most French speakers take it to be true, if only roughly true, of metropolitan France. Austin is being too precious in his notion of truth. For a comparable example, Tasmania is said to be triangular (Google it). These are fuzzy truths. So is a promise like (3).

(3) I’ll see you at seven-thirty.

If the speaker turns up at seven-twenty-five or seven-forty it would be unreasonable to accuse her or him of being a liar. Lasersohn (1999) referred to this fuzziness as “pragmatic halo”; one can label all points within the pragmatic halo as being “functionally true”. Similar is (4):

(4) The distance between London and Moscow is 2,500 kms.

This is only roughly true of the distance by air; by road it is 2,888 kms (https://www.distancecalculator.net). Neither of these distances is completely accurate because the truth on any given occasion depends on the precise points of departure and arrival. However, both statements are truth enough (i.e. function as true) for a majority of practical purposes. The differences depend on the presentation of specific conditions.

Specifying the precise context is a crucial element in determining truth. Consider (5):^2

(5) Marilyn Monroe was born June 1, 1926.

“Marilyn Monroe” was not born in 1926 because the name on the referent’s birth certificate is “Norma Jeane Mortenson”. The lady in question did not adopt the name Marilyn Monroe until August 1946. We need to admit that (5) expresses at best a fuzzy truth. Or, preferably, one should say there is often a fuzzy set (Zadeh 1965) of truths such that some so-called truths are less true than others. Truer than (5) is (6).

(6) The woman who became Marilyn Monroe was born Norma Jeane Mortenson on June 1, 1926.

A slightly worse problem is presented by parallel statements about a transgender person in (7) and (8).

---

^2 Similar discussion of examples (5)–(11) appeared in Allan (2022: 18f).
(7) Catherine Elizabeth McGregor was born on 24 May 1956.

(8) Catherine Elizabeth McGregor was born Malcolm Gerard McGregor on 24 May 1956. She transitioned in 2012.

And (9) is a misleading fuzzy truth because (10) is legally true.

(9) Robert Zimmerman wrote “Blowin' in the Wind”.

(10) Bob Dylan wrote “Blowin’ in the Wind”.

(9) can be rectified to something like (11), which nevertheless remains a bit bizarre.

(11) Robert Zimmerman wrote “Blowin' in the Wind” under his stage name Bob Dylan.

Once again, we see that clearly establishing the proper context is crucial, as it is when determining the truth of a mundane report like *It's raining* – the truth of which (cf. Bach 1994; Carston 2010; Perry and Blackburn 1986; Recanati 2007) depends on which location is being spoken/written of, namely C1 in terms of Allan (2018, 2022, 2023).

There is a vast literature on relative truth, e.g. the collection in García-Carpintero and Kölbl (2008), but the standard work is MacFarlane (2014). As is obvious from Allan (2022) and this current essay, my own views on truth are compatible with MacFarlane’s notion of a context of assessment. Where I diverge from MacFarlane is in finding there are no circumstances where this fails to apply. MacFarlane relativizes truth not just to a context of use and an index (a possible situation in which a proposition might be used), but also to where that instance is assessed for propriety of use (which is what was illustrated in the discussion of (5)–(11)).

4 Alternative truths

Which of (12) or (13) is true?

(12) A tomato is a fruit.

(13) A tomato is a vegetable.

Both. In folk belief (13) is true because a tomato counts as a vegetable; however, to a botanist (12) is true. When Battig and Montague (1969) asked people to (separately) list vegetables and fruits they found that a tomato ranked 6th as a vegetable and 15th as a fruit. Using the Battig and Montague figures for salience and frequency, we can
compute the tomato’s degree of membership of the fuzzy set vegetable as 0.68 and of the fuzzy set fruit as only 0.14. Our practice of utilizing tomatoes as if they are vegetables rather than as if they are fruit is what explains these relative rankings. Tomatoes are cultivated for food, not ornamentation. A tomato is vegetable-like because it is eaten, often with other vegetables, as part of an hors d’oeuvre or main course. It is not eaten, alone or with other fruits, for dessert. A tomato is fruit-like because it grows as a fruit well above the ground and not on or below it and is the reproductive seed-bearing part of the tomato plant. Furthermore, it is often eaten raw and the extracted juice is drunk like fruit juices. (12) and (13) demonstrate that different points of view give rise to different truths, each valid under specific conditions that identify the peculiar characteristics of the context modelled in C1.

Not only is truth fuzzy because the boundaries of facts are vague or only clarified by a given context of utterance, but people may adhere to ‘truths’ that contradict one another. I am not talking about logical contradictions such as (14), even though I think a circumstance could be found where the statement could be held to be true if somewhat infelicitous in a similar way to (5), (7), or (9) – for instance, when the speaker has just discovered they had been adopted as a toddler.

(14) My sister is an only child.

I am thinking of such contradictory ideological statements as (15) and (16).

(15) God exists.

(16) There is no God.

There is a long tradition which claims such statements are statements of belief not of known facts. But ideologues such as priests, imams, and rabbis will assert that they KNOW that (15) is true, in other words it functions as a true proposition.3 This is significant because in many jurisdictions, heresy is severely punished by fine, imprisonment, even death. Atheists like Richard Dawkins FRS, FRSL of New College, Oxford would claim they KNOW (16) to state a true proposition. There is no indisputable basis for anyone to claim that only one of the alternative truths in (15) and (16) is the absolute truth. Allan (2022: 23) defines ‘alternative truths’ as “viable truths under different points of view (weltanschauungen)”. The term of art alternative truth is preferred to what should be its synonym, alternative fact, because the latter has the negative connotation “false claim” after being coined by Kellyanne Conway, then Counsellor to 45th POTUS Donald J. Trump, in a “Meet the Press”

3 My invocation of the verb know here aligns with MacFarlane’s uncontroversial semantics for it (MacFarlane 2014: 188–189): the proposition is true (i.e. functions as true) if the speaker believes it to be true and will refute every possibility that it is false.
interview on January 22, 2017 and much used and abused by her boss and his supporters. Before further discussing alternative truths, a brief aside on the terms “point of view” and “weltanschauung”. The English point of view is “the perspective from which a subject or event is perceived” which is less precise for my purpose than the borrowed weltanschauung meaning “a person’s conception, philosophy or view of the world” which is what shapes that person’s point of view.

Challenged in a New York Magazine interview, Kellyanne Conway gave reasonable examples of her “alternative facts”:

Two plus two is four. Three plus one is four. Partly cloudy, partly sunny. Glass half full, glass half empty. Those are alternative facts. (https://nymag.com/intelligencer/2017/03/kellyanne-conway-trumps-first-lady.html)

She thus asserts that from her and the Trump administration’s point of view, so-called ‘alternative facts’ function as true from the point of view preferred by their particular world view. And there are significant consequences. Tens of millions of US citizens believe Donald J. Trump won the 2020 election and believe to be true Trump’s claim in (17), made January 6, 2021 on the Ellipse outside the White House:

(17) “We won. We won in a landslide.”

According to a Washington Post report “Do Republicans really believe Trump won the 2020 election? Our research suggests that they do” of January 7, 2022:

the vast majority of Republican voters say they agree with Trump’s unsubstantiated claims that the election was stolen. In our most recent University of Massachusetts at Amherst poll, fielded online Dec. 14–20 [2021] by YouGov among a nationally representative sample of the U.S. voting-age population, only 21% of Republicans say Joe Biden’s victory was legitimate. This is nearly identical to what we found in our April poll, in which just 19% of Republicans said Biden was legitimately elected. Other universities, media outlets and polling firms have found nearly identical results.

[...]

While it is difficult to firmly establish what respondents truly believe, clues suggest this is a genuine belief. One piece of evidence is that the result is nearly identical in phone surveys and online surveys. (https://www.washingtonpost.com/politics/2022/01/07/republicans-big-lie-trump)

For many such Republicans, “genuine belief” equates to knowing it to be true that Joe Biden’s victory was illegitimate and knowing that Trump’s claim in (17) is true. To hold such a view has led to the potential downfall of democracy in the USA and to conflict with fatal consequences in, for instance, the January 6, 2021 attack on the United States Capitol Building in Washington, DC. The alternative truth is that Biden
won with 306 Electoral College votes, to Trump’s 232; Biden also won the popular vote by about seven million votes. Moeschler (2021: 430) writes:

> truth cannot be defined as a predicate under the scope of a belief-clause: for instance, “Biden won” cannot be false because Trump’s supporters believe that “Biden won” is false; in an asymmetrical way, if “Trump won” is false for a “defender of truth”, it is not because he believes that “Trump won” is false, but because the proposition “Trump won” is a false proposition as regards how the world is. In both cases, we have to make the difference between what people believe and what the facts are: it is a true fact that Biden won, making the proposition “Trump won” false and the proposition “Biden won” true.

Reality is a mental model derived via perception and belief: Moeschler’s reality (and mine for that matter) have it that Biden won; the reality for Trumpers is the opposite, for them Trump won on votes cast and the total number of votes was manipulated to make him lose.

The COVID-19 pandemic led to conflict between health workers, who mostly supported mass vaccination to constrain the spread and severity of COVID-19 infection, and antivaxxers, most of whom believe one or the other of the following to be true: if the vaccine was effective only one dose would be needed; the vaccine was causing COVID-19 variants; vaccination resulted in more fatalities than the disease; vaccination caused autism spectrum disorders in children; vaccine can be shed from one person to another; vaccination makes one susceptible to electronic surveillance thorough Bluetooth, 5G, or by inserting a microchip; vaccination supports big pharma, you can instead protect yourself with bleach or ivermectin (remedies that have caused fatalities); etc. I am personally acquainted with several individuals whose acceptance of the truth of such bizarre consequences of COVID-19 vaccination led to occasional severe disruption of their lives that would have been avoided had they been vaccinated.

The only way to cope with such contradictory and often socially divisive states of affairs is to allow that adherents of conflicting ideologies interpret the world in terms of alternative truths according to their conflicting points of view based upon divergent mental models arising from their differing weltanschauungen. If people are convinced of the truth of their beliefs, no argument, rational or irrational, will convince them that their belief is false. That is why I stated earlier ‘It is not sufficient to simply utter a truth, the truth also needs to be credible.’ What determines credibility is dependent on one’s weltanschauung. Before commenting further on this situation let’s consider some truths that some people think should be incontrovertible, that is, true in all possible worlds.
5 Problems with logical, mathematical, and scientific truths

In conflict with my assertions about truth in this essay so far is the notion that truth is independent of human action and belief, untrammeled by mental models of so-called reality. For instance, consider (18)–(23).

(18) $1 + 1 = 2$

(19) $1 + 1 + 1 = 3$

(20) The sum of the angles in a triangle is 180 degrees.

(21) A cat is an animal.

(22) Water freezes at 0 °C and boils at 100 °C.

(23) A meter is 1.093614 yards.

Are (18)–(23) not true in all possible worlds? The short answer is “No” and a longer answer “They function as true only under specific conditions.”

In our default decimal-based system (18) and (19) are true, but in a binary-based system (24) and (25) are true. These constraints constitute specific conditions governing the truth of each example.

(24) $1 + 1 = 10$

(25) $1 + 1 + 1 = 11$

Furthermore, 2, is also known as two, zwei, dos, II in Roman, duo, 二 in Chinese, ēr, ٦ in Arabic, aithnayn (اثنين). One might reasonably claim that both (18) and (24) can be spelled out in English (a specific condition) as *The sum of one and one is two*, in Italian (another specific condition) as *La somma di uno e uno fa due* and in Farsi (yet another specific condition) as مجموع یک و یک دو می‌شود. These specific conditions are by no means independent of human action and belief.

‘2’ does not exist in a binary system, though the concept two does (it is ‘10’). Recourse to concepts strikes the same problem we have just encountered. Suppose that the words in SMALL CAPITALS in (26) represent concepts, does it not state a truth? It does, but note the specific condition.

(26) **ONE + ONE = TWO**
We cannot talk about concepts without recourse to one or another language (and in written discourse, script), not to mention having to invoke some convention (such as the use of small capitals) in order to represent concepts. This is a problem that has plagued postulations of semantic primitives (or primes) since at least the eighteenth century, see Allan (2008, 2010, 2020) for discussion. Perhaps some individual can think about concepts without these constraints, but that individual is unable to communicate this unconstrained thought to another human (or AI program).

Allan (2022: 21–22) discussed the truth of the final proposition in (27) allowing that the woman is in the first trimester of pregnancy.

(27) There is a man in the sitting room and a woman walks in, so there are now two people in the sitting room, a man and a woman.

The claim is that there are alternative truths: either (a) there are two people in the room or, alternatively, (b) the fetus constitutes a third person. This hypothetical dilemma had a real life counterpart when, on June 29, 2022, Brandy Bottone of Plano, Texas, was driving in the high-occupancy vehicle (HOV) lane on US Highway 75 when she was pulled over for being alone in the car. Her unsuccessful defense was that she was 34 weeks pregnant and the fetus counts as a second person. Is the unborn fetus a person? An antiabortionist says yes, and if the woman were murdered the murderer could be charged with two deaths in certain jurisdictions: “The Unborn Victims of Violence Act of 2004 (Public Law 108–212) is a United States law which recognizes an embryo or fetus in utero as a legal victim, if they are injured or killed during the commission of any of over 60 listed federal crimes of violence” (https://en.wikipedia.org/wiki/Unborn_Victims_of_Violence_Act). Ms. Bottone’s downfall was that, while the Texas penal code recognizes an unborn baby as a person (thereby criminalizing abortion), current transportation law in the state does not. These alternative truths were in legal conflict, but was the judgment fair? Evaluations are discussed in Section 6 below.

What is the quibble over (20), The sum of the angles in a triangle is 180 degrees? This proposition is true on the specific condition that the triangle is on a flat surface, but not if it is on a convex surface (where the sum of the angles is greater than 180 degrees) or on a concave surface (where the sum of the angles is less than 180 degrees). So once again, truth is dependent on the recognition of specific conditions that properly characterize C1, the world spoken of (Allan 2018, 2022, 2023).

What about the analytic proposition in (21), A cat is an animal which is true by virtue of the meaning of the predicate BEING AN ANIMAL being included within the meaning of its argument BEING A CAT? Well, consider Hilary Putnam’s notion (Putnam

4 This discussion is to be found in Allan (2022: 28).
that cats may turn out to be alien automata that we humans (and our dogs) have
been hoodwinked into believing are animals:

(28) A cat is an automaton.

In a Putnam world, (28) is true by definition. In the real world (21) is true by
definition. It is the differing definitions of the world being spoken of (C1) that
constitute the specific conditions on what functions as true.

Water is essential to human life which is perhaps why the centigrade or Celsius
scale is calibrated from its freezing point of 0 °C as per (22). The thing is, that the
truth of (22) is conditional on the purity of the water and the ambient atmospheric
pressure: in real life laboratory experiments, the freezing point of water will vary
through a fuzzy set of temperatures slightly above and below 0 °C (273.15° Kelvin, 32°
Fahrenheit).

There is a similar problem with (23). What counts as a meter? The measurement
was fixed by a specific condition in 1875 as the length between marks on a platinum
iridium bar at normal atmospheric pressure at 0 °C. A meter is also defined as
1,553,164.13 wave lengths of red cadmium light, as well as 1.093614 of a yard. For the
average lay person, it is a length identified by whatever ruler or tape-measure is to
hand. All these are some of the many ways of fixing the reference of meter, and so the
functional truth of (23) is also subject to specific conditions.

Epimenes of Knossos, Crete, reputedly uttered the proposition around 600 BCE
that All Cretans are liars. This is a paradox, because if he was speaking truthfully the
statement is false (he being a Cretan). The self-contradiction is comparable with
Bertrand Russell’s set theory paradox of 1901 (Russell 1903): the set R of all sets that do
not contain themselves. If R is a member of itself, then it does not belong to R, and if R
is not a member of itself, then it does belong to R. Russell’s paradox led to the
development of Zermelo-Fraenkel set theory. Zermelo-Fraenkel set theory postulates
several axioms, i.e. specific conditions, such as the Axiom of Regularity, which states
that every non-empty set A contains an element that is disjoint from A (Suppes 1960:
245ff.). So in set theory, truth is dependent on specific conditions.

For one final example in this Section, consider a problem arising from Werner
Heisenberg's uncertainty principle in quantum mechanics: it is impossible to
determine both the position and the momentum of a particle with absolute certainty
at the same time (Heisenberg 1927). In the double-slit experiment, it is possible for a
particle to go through two slits simultaneously. When the particle passes through the
two slits, it creates an interference pattern on the screen behind the slits, which can
only be explained as the result of wave-like behavior. However, when the position of
the particle is measured, it is found to be a definite point, showing its particle-like
behavior. This experiment demonstrates the wave-particle duality of matter, as the
particle behaves as both a wave and a particle simultaneously. The specific condition of the uncertainty principle determines the precision with which we can know the physical properties of a particle.

6 Choosing among alternative truths

It has long been accepted that there are specific conditions on evaluative, hypothetical, and predictive judgments; for example, (29)–(33).

(29) The addition of anchovies will improve any pizza.
(30) In 1961, Brigitte Bardot was a very beautiful woman.
(31) There might be some ice-cream in the freezer.
(32) Rain is forecast for tomorrow.
(33) If kangaroos had no tails, they would topple over.

Being a matter of personal taste, (29) will be true for some individuals and false for others. Perception of beauty is also a matter of individual variability (see Hume 1760: 368), so the truth of (30) is open to differing opinions of, say, the woman in Bert Stern’s photos of that year, https://www.bertstern.com/the-work. If (31) is felicitously uttered, the speaker believes it is possibly, though not necessarily, true. It may be literally true that (32), but the accuracy of the forecast will not be known until tomorrow comes. (33) is discussed by Lewis (1973: 8ff). In the real-world, kangaroos do have tails; but in a counterfactual world they might not and Lewis predicts they would therefore topple over (though the truth of that assumption is disputable). No matter: for our purposes, counterfactuals present alternative truths in different worlds.

As we have seen, alternative truths (also) exist in the everyday real-world. The fact that alternative truths exist is not a problem for human beings. As pointed out in Allan (2022: 29), the existence of contradictory alternative truths within a community is by no means outlandish. Speakers and writers and their audiences regularly operate using a word or phrase with contrary meanings because they can rely on the specific conditions of the context to disambiguate. This is clearly witnessed by the existence of many contronyms in the vocabulary of English, e.g. bound “fastened to a spot” versus “heading for somewhere”; cleave “adhere to” versus “separate”;

5 I am reminded on the duality of a tomato: as fruit and vegetable.
sanction “approve” versus “boycott”; trim “decorate” versus “remove excess from”. Essentially what obtains with contronyms, as with assessing the truth of any proposition, is captured by John MacFarlane’s ‘Circumstance of evaluation’:

Let a circumstance of evaluation be a triple <w,t,s>, where w is a world, t a time, and s a set of relevant possibilities. (MacFarlane 2014: 189)

MacFarlane’s world and time correlate with one or more of the categories of context identified as C1, C2, and C3 in Allan (2018, 2022, 2023). MacFarlane’s ‘set of relevant possibilities’ is the perspective that the evaluator’s weltanschauung affords the proposition in its context. It is reasonable to judge that this necessarily involves taking what amounts to an ideological perspective on what is perceived and accepted as the preferred truth. In other words, it is biased. The prevailing weltanschauung makes it socially acceptable to adopt a particular ideological stance, but it needs to be recognized that there exist different weltanschauungen that favor alternative stances recognizing alternative truths.

We have seen that alternative truths are widespread and that, even when they create dissension, conflicting truths can co-exist within a community. These weltanschauungen constitute the context that determines the alternative truths (i.e. what functions as true for a given population) – hence, truth is pragmatic. Within a conglomeration of communities with differing weltanschauungen, a hegemonic group will assert a preference for one truth over its alternatives; but that does not eliminate the existence of the alternatives within the wider community. Isn’t this situation unscientific? Well, great scientists like Albert Einstein, Henri Poincaré, and Stephen Hawking seem to support my contention. As Einstein recognized, theoretically, there is

any number of possible systems [= models] of theoretical physics, all equally well justified.
(Principles of research [1918] Einstein 1973: 221)

---

6 C1 was described in note 1 above. C2, ‘the world spoken in’, is the situation from the utterer’s point of view (POV), where the POV derives from the utterer’s weltanschauung. C2 captures who does the saying/writing/signing to whom, and where and when this takes place. C2 normally determines the social relationships and conventions that the utterer is expected to follow and, in consequence, sets the standard for the psycho-social appropriateness of what is said. C3 is a corresponding situation of interpretation in which the audience seeks to understand the meaning of the utterance in C1 + C2. C3 is the context from the audience’s POV/weltanschauung. Where C3 is very different from C2 such that the audience does not share some of the utterer’s system of beliefs and assumptions, the context is potentially disparate from the utterer’s presumed common ground.
And:

The concepts and fundamental principles which underlie [a scientific theory] are free
inventions of the human intellect which cannot be justified either by the nature of that intellect
or in any other fashion a priori. (On the method of theoretical physics [1934] Einstein 1973: 266)

Notice the pragmatic human input: the concepts and fundamental principles are not
out there waiting to be discovered; they are invented by human intellect to model the
‘real-world’.

The liberty of choice […] is of a special kind; it is not in any way similar to the liberty of a writer
of fiction. Rather, it is similar to that of a man engaged in solving a well-designed word puzzle.
He may, it is true, propose any word as a solution; but there is only one word which really solves
the puzzle in all its parts. It is a matter of faith that nature – as she is perceptible to our five
senses – takes the character of such a well-formulated puzzle. The successes reaped up to now
by science do, it is true, give a certain encouragement for this faith. (‘Physics and reality’ [1936]
Einstein 1973: 287)

Hawking makes a very similar argument:

A theory is just a model of the universe, or a restricted part of it, and a set of rules that relate
quantities in the model to observations that we make. It exists only in our minds and does not
have any other reality (whatever that might mean). A theory is a good theory if it satisfies two
requirements: It must accurately describe a large class of observations on the basis of a model
that contains only a few arbitrary elements, and it must make definite predictions about the
results of future observations. (Hawking 1988: 9)

Truths are constrained by the characteristics of the natural phenomenon being
modelled. However, the harmony between perceived truths and the natural phe-
nomena they model is filtered through the perceiver’s weltanschauung. Hence,
Einstein’s confidence that ‘there is only one word which really solves the puzzle in all
its parts’ is only true for a given weltanschauung.

Poincaré made similar points in respect of mathematical truths:

Pure logic could never lead us to anything but tautologies; it could create nothing new; not from
it alone can any science issue. […] To make arithmetic, as to make geometry, or to make any
science, something else than pure logic is necessary. To designate this something else we have
no word other than intuition.

[…] 

Thus logic and intuition have each their necessary role. Each is indispensable. Logic, which
alone can give certainty, is the instrument of demonstration; intuition is the instrument of
invention. (Poincaré 1946: 214f, 219)
The intuition that Poincaré refers to is molded by a person’s weltanschauung. And alternative weltanschauungen need to be managed somehow. The recognition that alternative truths exist is one step in their management.

Given that each model is evaluated for true application to the data modelled, there is an unbounded number of truths. So how does any individual choose among them? In the light of all I have said in this essay, it has to be according to the set of perceptions, conceptions, and beliefs that constitute the individual’s weltanschauung at the time the judgment is made, and different weltanschauungen often give rise to different judgments about what functions as true. This being so, I expect my arguments in this essay to be rejected by some, perhaps many, worthy scholars. Nonetheless, I am right.

References


Allan, Keith. 2022. Truth is what the context makes of it (La verdad es lo que el contexto hace de ella). *Claridades: Revista de Filosofía* 14(2). 15–33.


---

7 This line of thinking is reminiscent not only of Xenophanes of Colophon, but also of linguistic relativity: see Allan (2010) Chapter 10 for an extensive review of contributions to that topic from Condillac, von Humboldt, Whitney, Boas, Sapir, Whorf, and Slobin, among others.


**Bionote**

**Keith Allan**  
Monash University, Melbourne, Australia  
keith.allan@monash.edu