# Protagoras' principles, disagreement and the possibility of error

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The paper begins with a discussion of what I call Protagoras' principles: the claim that there always are two divergent views on any topic, his famous thesis that man is the measure of all things and his view about error. Then, they are related to contemporary discussions on the nature and management of rational disagreement, especially between experts or epistemic peers. We discuss the case of a possible underlying error, and its limitations.

KEYWORDS: acceptance, *aesthesis*, belief, disagreement, error, mathematics, perception, Protagoras.

# 1. INTRODUCTION

What should you do when a person, as competent as you, disagrees on a statement about which you think you have convincing evidence? Is a moderation of your epistemic attitude a necessary preliminary requirement to have a rational argument on the point of contention? This kind of question recently raised some interest in social epistemology.<sup>1</sup>

These concerns seem old as Protagoras. Unfortunately we have almost no reliable sources about the old master's thoughts on this topic. Yet, a tension between some of his most famous statements suggests that he was well aware and sensitive to this kind of problem, at the core of his activity of sophist. The first part of the paper is a discussion of Protagoras' views, in connection with the management of disagreement;

 $<sup>^{\</sup>rm 1}$  For an overview see Feldman & Warfield (2010) and Christensen & Lackey(2013).

the second tries to answer our initial questions with a view partly inspired by Protagoras.

#### 2. PROTAGORAS

## 2.1 A leading sophist

Protagoras (c.-490; c-420) and Gorgias (c.-480; c.-375) are held as the two leading figures of a first generation that De Romilly dubbed the Great Sophists of Pericles' time (De Romilly, 1988). Both were contemporary and less than one generation elder than Socrates.

We have no primary source on Protagoras' philosophy. None of his writings has survived although they were numerous if we trust Diogenes Laertius (1925). Today, scholars consider that hardly more than two or three statements ascribed to Protagoras could be authentic. We should not forget it.

According to Laertius, Protagoras came from Abdera and was a disciple of Democritus. Later on, he made several stays in Athens where he became a star if we trust Plato's eponymous dialogue. The character depicted by Laertius seems verbally more pugnacious than the one in Plato's dialogues. He would have organized dialectical arguments, provided fallacies to quibblers and would then deserve Laertius' comment: "he was the father of the whole tribe of eristical disputants, now so much in evidence" (1925, book 9, 52).

Protagoras is mostly known as a sophist, hence as a travelling teacher.<sup>2</sup> But this should not conceal that besides his project of a renewed model of education, he had an important political involvement. He is said to have been a friend of Pericles who even asked him to write laws for the Panhellenic city of Thuroi. This anecdote, if true, highlights a character able to much more than quibbling or playing to contradict his friends or disciples.

Another famous anecdote illustrates both his taste for vigorous arguments and for political action. One of his books, according to Laertius, would have begun by: "As to the gods, I have no means of knowing either that they exist or that they do not exist. For many are the obstacles that impede knowledge, both the obscurity of the question and the shortness of human life" (1925, book 9, 51). This religious agnosticism would have been the reason why the Athenians would have banned Protagoras and burnt his books.

# 2.2 Protagoras' first principle.

The term "principles" may not be the right one to qualify the few statements ascribed to Protagoras. "Maxim" could be more appropriate, but we can take them as principles to try to organize the sparse information we have.

<sup>&</sup>lt;sup>2</sup> For a recent brief introduction to Protagoras' life and works, see Silvermintz (2016).

According to Laertius, "He was the first to assert that on any topic there are two contradictory discourses (*logos*) and the first to put them forward in his own speeches ». (1925, book 9, 51) Laertius adds that this principle – that we will hold as the first – was influential. But what did Protagoras mean? We can only venture conjectures.

As such, this saying could appear trivially true. But its use at Protagoras' time suggests that it was also a manifesto for freedom of speech in the context of the young Athenian democracy. One of its consequences is that there is no last and decisive word coming from a political or religious authority. This nicely matches the anecdote on Protagoras' skepticism about the existence of gods. Furthermore, his first principle suggests that after an agreement, you can always restart the game, in a new direction or not: speech is an endless process. In some sense, Protagoras' (first) principle is a principle of instability, quite conducive to investigation and argument.

From a more pragmatic point of view, you can consider this principle as an advertisement for the new job of advocate or counsellor, as illustrated in Aristophanes's *Clouds*. It can also be a more personal advertising: "I, Protagoras, can help you to win your case at any rate, but also at a quite reasonable price!" This reminds the tricky deal he is said to have made with his student Evathlus about the payment of his teaching.

Did Protagoras think that disagreement has a more fundamental role than truth in human communication? Let us then ask an extra question to Protagoras: why only two opposing views? Why not three or more? Is this a proto version of the principle of bivalence? Other tenets of Protagoras' philosophy suggest he could have accepted a larger pluralism, let us say: "On any topic there are several opposing discourses".

## 2.2 Protagoras' second principle.

This leads to what I will call Protagoras' second principle, the famous "Man is the measure of all things, those that are that they are, and those that are not that they are not » (Quotation from Plato's *Theaetetus* (1961, 152 a)). Let us briefly remind some aspects of the discussion of the status of "Man".

In the *Metaphysics* (1980, K 6 1062b 13-19), Aristotle writes: "He [Protagoras] said that man is the measure of all things, meaning simply that *that which seems to each man also assuredly is ...*". This possible reduction of "man" to "each man", is discussed at length by Socrates in the *Theaetetus*. This individualistic interpretation paved the way to the popular view that Protagoras is the father of the most extreme epistemic relativism. But here again, the principle may have a political flavor leading to an epistemic egalitarianism by holding that any view is as right as the other. However, we shall see that Protagoras did resist this radical view. If he was a relativist, his relativism was mitigated.

Another interpretation takes "man" in a generic sense of which we can distinguish at least two interpretations. The first one is optimistically rationalistic: it grants any man enough cognitive resources to be the measure of all things. The second is less generous but stays optimistic about the global capacity of mankind. It would support something like: "We, humans, are collectively able to measure all things". Yes, but perhaps after an argument.

In harmony with Protagoras' religious agnosticism, the previous interpretations – individualistic or generic – can both have a political side dealing with human freedom: gods do not decide; men do.

A third interpretation is more aristocratic and seems further from Protagoras' rare words. Yet, it can be supported by Protagoras' view on education that I will discuss within a few lines. This last version would amount to: "All things are measured by men, but not by any of them".

## 2.2 Protagoras' epistemology: the third principle.

This principle is not associated with any particular sentence held to be authentic. Yet, this epistemic principle is ascribed to Protagoras by many commentators and has interesting variations. Let us see three famous versions.

Let us come back to the previous quotation from Aristotle's *Metaphysics*: « ... that which seems to each man also assuredly is ... ». It links the Man-measure-of-all-things principle with the broad epistemic (and ontological) one that what appears is. Other translations rather say: "what is believed is". The important point is that Aristotle's quotation specifies neither the type of this "appearance", nor its origin. So, it does not seem unreasonable to interpret Protagoras' point as "any opinion of each man is true". The path to the impossibility of error is now wide open.

A more limited view if offered in Sextus Empiricus' Against the Logicians (1961, VII (1) 389): "One cannot say that every representation (fantasia) is true, because this refutes itself as Democritus and Plato taught in opposing Protagoras ». Here, only a 'representation' (fantasia, aesthesis) would be always true for any man. This leaves open the possibility that, for Protagoras, not any 'belief' is true, but only if 'representations' are not the only 'thoughts' in the human mind. On this point we can only speculate on how radical Protagoras' empiricism was.

A possible source of Sextus is Protagoras' discourse in Plato's *Theaetetus*: "... it is impossible to think that which is not or to think any other thing than those which one feels (fantasmata), and these are always true" (1961, 167a). Two important points are made here. First, you cannot think and say "that which is not", a view close to the Eleats' doctrine. If to make an error amounts to thinking something that is not, i.e a non-being, a false aesthesis (representation, sensation or perception) is impossible, since an aesthesis is about 'some-thing'. The second point answers our question about Protagoras' empiricism: any thought is rooted in sensation. Accordingly, since sensations (aesthesis) are always true and statements are the expression of sensations, a statement cannot be false. This claim about the impossibility of error is also often associated with the sophistic movement. In any case, it sheds a new light on the first principle: none of two contradictory discourses or statements is false. It is sometimes said that Protagoras held contradiction to be impossible; but, in virtue of the first principle, it also seems that he considered it possible. So, a charitable interpretation suggests that what he denied was not that two arguers oppose each other, but the necessary falsity of at least one of the conflicting points of view.

This does not mean that everybody is right, as claimed by the individualistic interpretation of the Man-measure-of-all-things principle. For, if Plato is a reliable source, Protagoras thought that some appearances are better than others and that you can make somebody's mind change. So, he would not have been an epistemic egalitarian, even if, in a weak sense, everybody's is right. Listen to him through Socrates' mouth:

I do not by any means say that wisdom (sophia) and the wise man do not exist. On the contrary, I say that if bad things appear and are to any one of us, precisely that man is wise who causes a change and makes good things appear and be to him (166 d) ....

...in education a change has to be made from a worse to a better condition; but the physician cause the change by means of drugs, and the professor of wisdom (*sophist*) by means of words. And yet, in fact, no one ever made anyone think truly of who previously thought falsely, since it is impossible to think that which is not or to think any of the things than those which one feels (*fantasmata*) and these are always true... I call some appearances better than the others, but in no wise truer. (167a)

Protagoras likely thought he was a wise man, able to change the *fantasmata* of people less gifted than him. This aristocratic attitude probably protected him from Socrates' argument that he should acknowledge that his own opinion is false because some people think it is and nobody is wrong (171 d). But Socrates also stresses that Protagoras' opinions are often badly presented, so that you should be very careful when you criticize ideas ascribed to him. And Socrates also grants that there may be some truth in the sophist's view on the infallibility of *fantasmata*. Socrates is now speaking for himself:

... not every opinion of every person is true ... but it is much more difficult to prove that opinions are not true in regard to the momentary states of feeling of every person, from which our perceptions and the opinions concerning them arise. But perhaps I am quite wrong; for it may be impossible to prove that they are not true, and those who say that they are manifest and are forms of knowledge may perhaps be right ... (179 c)

But this is not relevant to identify *episteme* that is somewhere else, beyond sensorial *aesthesis*:

Knowledge is not in the sensations, but in the process of reasoning about them; for it is possible, apparently, to apprehend being and truth by reasoning, but not by sensation. (186d)

This clearly goes against Theaetetus' proposal to identify knowledge and *aesthesis*. But this may also be not so far from Protagoras whose principles show a tension between the passive stability of individual opinion and the endless possibility to use discourse to move people's opinions. Unfortunately textual evidence about Protagoras' epistemology is too rare and sparse to clarify this point.

#### 3. THE MANAGEMENT OF DISAGREEMENT

## 3.1 From Protagoras to social epistemology.

In harmony with his first principle, Protagoras claimed to be able to argue for or against any thesis. However, we may wonder whether he thought he could be a good advocate of a view he disagreed with? Today, to be able to argue against one's own convictions seems a common requirement in contemporary legal practice, perhaps in politics and certainly in classroom debates organized to train students to argue.

Protagoras' claim that some views are better than others, suggests that he also acknowledged that a defense can be better than another and a fair evaluative comparison between rival arguments is always possible. But would he have granted that he should agree with his opponents, as suggested by Socrates' ironical conclusion based on the individualistic interpretation of his second principle?

If Protagoras really was a proponent of a strict epistemic egalitarianism, the answer should have been 'yes'. But this has weird consequences, for he should not only have granted that his opponents are right when they say he is wrong, but also that his proponents are right when they say he is right. Then, would he have been ready to acknowledge anybody's authority? Believe that he is stupid because an epistemic peer says so? To grant anything anybody asserts leads to fairly uncomfortable positions. This is especially dreadful for an orator who claimed to be expert at persuasion and ready to assume a political leadership.

I have used the term 'epistemic peer' to stress an analogy with a contemporary debate in social epistemology about disagreement. The concept of disagreement is not that clear, even limited to the paradigmatic case of two parties, A and B, who disagree about a single proposition<sup>3</sup>. A much discussed question bears on the epistemic attitude one should adopt when you disagree with an 'epistemic peer'. An epistemic peer of A in domain D can be roughly defined as someone who has more or less the same competence as A in domain D and is approximately as reliable as A about the truth of a proposition relevant to D. Some people could complain that this definition remains a bit vague – at least because of the "approximately". Furthermore, the concept of epistemic peer seems highly relative and it is often in front of non-expert people that you get the status of experts and epistemic peers. Like authority and expertise, epistemic equivalence appears more salient when seen from far away.

You may require that A and B have exactly the same competence (in D) and are exactly as reliable as the other; but, in practice, you can doubt the plausibility of such a situation. Strict epistemic equality seems a very rare bird, if it ever happened. By the way, this suggests that the embarrassment we had with Protagoras' epistemology depends on how strictly is interpreted the individualistic version of his second principle making of each man an epistemic peer of any other. In any case, the concept of 'epistemic peer' reminds familiar situations, for instance physicians can easily have the status of epistemic peers

<sup>&</sup>lt;sup>3</sup> MacFarlane (2007) has a general discussion on disagreement and relativism.

in front of their patients, or professors (in the same field) in front of their students.

The ongoing discussion in epistemology of disagreement is centered on the kind of questions we have just asked about Protagoras' attitude about his opponents' views and his ability to argue against his own beliefs. What should you do when you disagree with an epistemic peer when you share the same evidence and reasoning abilities? Should you stick to your view and your own reasons, as suggested by Socrates advising not to go and listen to Protagoras if it is true that he claims that your opinion is a good as his (161e)? Should you suspend your judgment? Should you adopt your peer's position, as suggested again by Socrates with the very example of Protagoras who should agree with his opponents? Should you shift only to the « equal weight view », i.e. the view that you should give no epistemic privilege to one or the other, when you disagree with an epistemic peer? Should you opt for another solution?

I doubt that there is a single general normative solution to the management of one's own attitude in case of disagreement, even with an epistemic peer. Here are two main objections to an a priori systematic attitude. First, the disagreement may be spurious. To this, you may object that you are only interested in genuine disagreements. Second, one or several errors or misunderstandings are possible on both sides and you may not know where they lie. Furthermore, to solve a disagreement, changing the initial positions and motives is not a necessary condition. To decide who is right or not and to explain the emergence of the disagreement are two different issues; but the understanding of its origin is often an epistemic benefit to make this decision. Hence, you should at least keep score of the original situation. I hold this benefit to be an epistemic intrinsic virtue of Protagoras' first principle – if you don't disagree only for fun -, because a disagreement (and/or a doubt) stimulates a revision of the truth of any statement. Even if you and your epistemic peer now agree, you may still be wrong. On the contrary, a disagreement - old or new - challenges your positions and their reasons and, strictly speaking, calls to think twice about the whole process that led to your point. To illustrate this, let us examine two cases.

### 3.2 Aesthetic disagreement

It is no surprise that in the *Theatetus*, Protagoras' view about disagreement and error is discussed about *aesthetic* judgements. They are often considered as 'subjective', in the sense that the subject who utters them is presumed to have a privileged and authoritative access to their truth. This privilege makes this case extremely supportive to the individualistic interpretation of Protagoras' principle that each man is the measure of all things. In such a case, when a disagreement occurs each subject is supposed to be the most competent to decide for oneself. Accordingly, it suggests that one should stick to one's own opinion and stay unmoved by diverging opinions.

Yet, you can doubt that the disagreement is genuine, because of a possible equivocation. Suppose that, speaking of the ambient temperature in the room where we are, I say "It's cold" and you reply "No, it's not cold". We usually think

that people are competent and reliable about ambient temperature, so that you and I can consider each other as an epistemic peer. But do we disagree? The answer is not obvious, because in some languages statements about taste and perception are indifferently expressed by first or third-person expressions, then held as synonymous. In practice, "It's cold" often means "I'm cold". So, if my "It's cold" only means "I am cold", or your "It's not cold" only means "I am not cold", we may not disagree but only speak at cross purposes. The disagreement is spurious.

You could say that this is just a consequence of equivocal expressions and does not answer the question of the epistemic attitude to adopt in face of an authentic disagreement. A genuine one would occur if I would say "I am cold" and you would reply "You are not cold". But this can hardly seem an argument between epistemic peers, for even if I may be victim of sensory illusions, I am generally held in a better epistemic position than anybody else on these personal matters. So, even if I seem to shift towards your position by granting that I might be misled in my feeling of coldness, I may still stick to my initial statement. 'Belief' being an equivocal term, you can both stick to a first belief but think that something goes wrong somewhere and so, start an inquiry fed by the dissatisfaction induced by your opponent's opinion. The options offered when you disagree with epistemic peers are not exclusive.

In some sense, this kind of ambivalent or pluralistic position in a disagreement seems more plausible than a deliberate management of a single belief about the point at issue, either by sticking to an initial position or shifting towards the opponent's view. It also has the advantage to take into account our lack of command on our beliefs or, at least, on most of them. Catherine Elgin (2010) discusses this point by calling to Jonathan Cohen's distinction between belief and acceptance (Cohen 1989, 1992). Contrary to authors who consider that you can "shift", "move" or "abandon" your beliefs or your confidence (see, among others, Kelly 2013, Elga 2010) - formulations that are common in normative approaches of disagreement -, Elgin stresses this lack of direct command on our beliefs. This reminds us of Protagoras' thesis about the infallibility of aesthesis and the impossibility to err in this field. Following Cohen, Elgin makes a distinction between involuntary beliefs and propositions we accept, that is propositions we are ready to use in a reasoning. According to me, a reasoning can sometimes be stimulated by a disagreement, beyond and independently of our belief about the issue at stake.

Notice a similar ambivalent epistemic attitude about doubt. A nonexclusive distinction can be made between a passive doubt, a doubt that affects us, and an active doubt, like the Cartesian methodological doubt. The first amounts to an acknowledgement of ignorance or powerlessness, while the second chooses to wait for reasons or better reasons.

# 3.2 Disagreement in Mathematics

To support the view that in face of a contradiction expressed by an epistemic peer I should lower my confidence in my initial position, David Christensen (2007) designed the following case. I go out to dinner with a friend (let us call him Protagoras). We have decided to share the check. When the time to pay has

come, each of us makes his own calculation. We are not experts at math, but we have reached the same level at school, so that we consider ourselves as epistemic peers. According to me, our shares amount to  $43 \in$ ; according to Protagoras they amount to  $45 \in$ . Christensen suggests that in such a case you should lower your confidence into your own position.

The punch of this example relies on the implicit idea that there must be a mistake somewhere. Arithmetic has the reputation not to be governed by subjective feelings or preferences: in this field truth is commonly held to be exclusive. Therefore, one of us is likely to be wrong and should weaken his confidence in his calculation or his result. Since we are epistemic peers, there is no *a priori* reason to think that you, rather than I, have made the mistake. Hence Christensen's point: each of us should weaken his confidence into his result. Unfortunately, both of our calculations may be right. The discrepancy of our results may come from a non-mathematical mistake. We may wrongly assume that we share the same data: one of us may have misread a price or forgotten an item. And none of us may be responsible for our diverging calculations: for instance, the waiter may have given to each of us different tickets. Even expert epistemic peers may reach diverging results.

Finally, this example is not very telling, because we consider that our diverging results are incompatible because we grant as "normal" that a restaurant check has a single value. So, (at least) one mistake must have been made. At least for practical reasons, it has to be discovered. Does this requires that each of us drops or moderate his faith into his own result or in the correctness of his own calculation? I do not think so, even if it would be better for sake of politeness or friendship. Here is another example to stress that in front of a disagreement a rational agent does not always have to moderate her first conclusion.

Our friend Zeno wrote the equation  $X^4 = 1$  and asked Protagoras and me to find the solution. After one second I say: "X = 1, I can prove it". A few seconds later, Protagoras, who loves contradiction, shouts: "No, X = -1, I can prove it". Protagoras is wrong to say "No", since both solutions are true. You could however say that there is no real disagreement here: Protagoras was perhaps badly inspired by Zeno's tricky expression about "the" solution of the equation. In any case, from a mathematical point of view, Protagoras and I should not lower our credence in our own results. Yet, each of us should also agree with the other answer. Our results are not exclusive.

We are epistemic peers, therefore we are as reliable as each other. But at least one of us may be wrong. In a new version of the same story I say "X=1 and I can prove it" and Protagoras, who knows that there can be more than two solutions to this kind of equation says "No, X=-1 and X=2 are the two solutions". What should each of us do? Again, it seems to me that both of us should take into account that the other has reached a different result and the value of this result. But I still doubt that although we are epistemic peers, we should weaken our belief in our own result. This is not a rational requirement to safely proceed into our investigation. In any case, it is not the authority of the other that should move our opinions, but mathematical rules.

Now, imagine that after putting forwards two couples of false results, we finally agree that the solution of the equation is the couple X=1 and X=-1. We are quite certain of our result and announce to Zeno that we have the solution. He disagrees: "No, you don't have the solution yet". What should we do? He kindly

goes on: "Have you ever heard of imaginary numbers?" He explains that there is a strange number "j", that mathematicians more expert than us call an imaginary number, such that  $j^2=-1$ . Thus,  $X^4=1$  has four solutions (1, -1, j, -j). Zeno likes the idea that a fourth order equation has four solutions, whereas Protagoras and I find all this rather puzzling. But we finally accept the quasi-existence of that mysterious j. Finally, Zeno is right: the equation has four solutions, even if we do not really believe that j really exists.

Many examples in the literature on disagreement with epistemic peers are based on more familiar situations where it is commonly assumed that the core question has a correct answer and even a single one. Incompatible opinions then suggest that at least one mistake or confusion has been made. But as shown by the disagreements between Protagoras and me (and Zeno), this may be too hasty a conclusion. If the initial question is still on the agenda, an option that could be fruitful is to take our disagreement and its reasons as data to be explained. Unless we and our opinions are part of the problem, their fate becomes a secondary issue. When Protagoras stated his first principle, he perhaps intended to make a similar point by stressing the normative possibility to prolong or reopen a debate, even if it challenges the most stubborn of our beliefs.

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