

EULATHUS AND PROTAGORAS

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1. *Outline and Summary.* This paper presents a general solution to the ancient paradox concerning Eulathus and Protagoras, both from the logical and legal viewpoints. The problem, though it has no great foundational importance, is nevertheless richer in its ramifications than may be apparent.

The basic solution is that Protagoras' suit has no grounds in the literal agreement made, and in the absence of other grounds, should be denied. On denial, however, Eulathus then owes Protagoras the teaching fee, as agreed. Provided Eulathus defends himself, the strategy of Protagoras is sound.

However, various legal considerations result in varied resolutions. Moreover, the problem of Eulathus and Protagoras brings out an interesting logical feature of court rulings — their past-looking viewpoint.

2. *The Classical Problem.* Eulathus wishes to have Protagoras train him as a lawyer, but cannot afford the usual teaching fee. He therefore strikes the following bargain with Protagoras: he will pay Protagoras when and only when he first wins a case. Protagoras trains Eulathus, but Eulathus delays in taking up legal practice. Protagoras sues Eulathus for the teaching fee, and in court each pleads his own case.

Protagoras reasons that regardless of what happens, Eulathus will owe him the fee. For, if the suit is upheld, then by the very content of the suit, Eulathus owes him. But if the suit is denied, then Eulathus has won a case, and by the terms of the agreement, Eulathus then owes him.

Eulathus reasons that, on the contrary, regardless of what happens, he will not owe Protagoras. For, in the case that the suit is upheld, he has lost this — his only — case, and, by the terms of the agreement, he would pay only if he had won a case. But if the suit is denied, then the content of the ruling is that he does not owe Protagoras.

3. *The Impossible-Contract Solution.* There are two aspects of the problem that have to be considered. One is the legal question of what the court should rule. The other is the logical question of how to resolve the paradoxical situation that both arguments seem cogent, yet have contradictory conclusions.

There is one standard (modern classical) solution to this paradox, which runs as follows ⁽¹⁾. Crucial to the arguments of Protagoras and Eulathus is the content of the agreement and suit. Let A and S stand for the agreement and suit respectively, or that the agreement is kept, the suit upheld. The content of these concerns the debt of Eulathus and his record as a lawyer. Let P stand for «Eulathus owes Protagoras» (i.e. he should pay), and W stand for «Eulathus has won a case». The the content of A and S would be

$$(1) A \leftrightarrow (P \leftrightarrow W)$$

$$(2) S \leftrightarrow P$$

Protagoras' argument is then simply

$$\begin{array}{ll} (3) S \rightarrow P & \text{by the suit} \\ (4) \sim S \rightarrow W & \text{since Eulathus pleads his case} \\ (5) W \rightarrow P & \text{by the agreement} \\ \therefore P & \end{array}$$

Eulathus' counterargument is

$$\begin{array}{ll} (6) S \rightarrow \sim W & \text{since this case is Eulathus' first} \\ (7) \sim W \rightarrow \sim P & \text{by the agreement} \\ (8) \sim S \rightarrow \sim P & \text{by the suit} \\ \therefore \sim P & \end{array}$$

Each argument, as represented, is flawless in its inferences. The conclusion deductively follows from the stated premises ((3) - (5), (6) - (8)). Hence at least one of (3) - (8) must be false.

⁽¹⁾ I owe to James Cargile — a student of every paradox — the information that the Eulathus-Protagoras problem is usually dealt with in this way.

In the context of the problem, (4) and (6) are contingently true. Since Eulathus is defending his own case, whether or not he has won a case (W) will depend on the ruling (S). Likewise, (3) and (8) simply describe the content of the suit, as embodied in (2). The trouble therefore, lies in (5) and (7).

Notice that the conjunction of (5) and (7) is equivalent to $(P \leftrightarrow W)$, which, by (1), amounts to A . To get both (5) and (7), one must presuppose that the agreement is kept. Else there is no basis in the situation (embodied in (1) and (2)) for asserting (5) or (7). The way out of the paradox is then clear. The agreement cannot be kept. Indeed, (1), (2), (4) and (6) together entail $\sim A$. In the context of the problem, then, the assumption that the agreement would be kept makes the premises inconsistent. No wonder then, that both P and $\sim P$ can be deduced!

While this solution is well known, the legal ramifications must also be considered. Circumstances have come about in which it is logically impossible for the argument to be kept. Accepting the principle that men cannot be held accountable for the impossible, the agreement would then seem to be legally voided.

However, this does *not* settle the suit. All that follows is that the agreement, being void, becomes legally irrelevant. There may or may not be other grounds for the suit.

Notice one further consequence of this solution. Protagoras was most likely foolish to bring forward the suit, and Eulathus was clever to defend himself. For the content of the agreement concerns Eulathus as the lawyer advocate. What it is for Eulathus to win a case is for one to be decided in favor of the party Eulathus represents. Thus the terms of the agreement are not invoked merely if a suit in which Eulathus is the *defendent* is decided in his favor. Eulathus must be the lawyer of the *defendent*.

When confronted with the suit of Protagoras, Eulathus has the option to defend himself or not. If he chooses not to, he has then never been a lawyer in a case. There would be no grounds in the literal agreement that would require him to pay. In so far as the only grounds Protagoras has in the agree-

ment, the suit would have to be denied. Thus, by not defending himself, Eulathus would not have to pay on either the suit or the agreement.

But Eulathus can do better by defending himself! He thereby voids the agreement. While this too undercuts the agreement as a grounds for the suit, the difference concerns what happens after the suit if Eulathus takes up law and wins a case. If he did not defend himself, the agreement is still binding, and therefore Protagoras could claim his fee. But a void agreement would mean he would never have to pay Protagoras for winning a case.

Thus — unless there are grounds other than the agreement (which were there all the time and would be there even if the agreement were voided) — Protagoras cannot win the suit, and moreover, makes it possible for Eulathus to void the agreement by acting as his own lawyer.

4. *The Impossible-Contract Solution Criticized.* The above solution treats the Eulathus-Protagoras problem as a case where a contradiction is derived, but from a contradiction. The structure of this paradox is then essentially the same as the crocodile-baby problem⁽²⁾, where a tricky agreement turns out to be impossible to keep.

Like the arguments of Protagoras and Eulathus, the inference made by the impossible-contract solution is deductively

(2) This problem runs as follows. A crocodile, in possession of a mother's baby, agrees to return the baby if and only if the mother successfully predicts whether or not he will return the baby. If the baby is not returned, the crocodile will devour the baby. The mother predicts he will devour the baby.

The crocodile reasons he cannot return the baby. For then the mother's prediction would be wrong, and the agreement was that if the prediction was wrong, he would not return it.

The mother reasons that the baby must be returned. For if not, then the prediction was right, and a correct prediction requires that the baby be returned.

The resolution of this paradox is easily shown to be that the agreement cannot be kept, regardless of what the crocodile does. (Moreover, if the prediction had been that the baby would be returned, then there is no way for the crocodile to break the agreement.)

valid. Given the analysis of the problem in (1) - (8), the agreement cannot be kept. But when certain logical niceties about the legal situation are considered, the impossible-contract solution can be seen to be dead wrong. The Eulathus-Protagoras problem is fundamentally dis-analogous to be crocodile-baby problem.

The trouble centers on the ruling of the court — part (2) in the analysis — as both an in-the-world event and a judgment with content. What exactly is ruled by the court?

We have already noted how if Eulathus does not defend himself, the suit would be denied on the grounds of the agreement. But in ruling that Eulathus does not owe Protagoras, the court is not rendering a decision that binds past, present, and future. The ruling would in no way free Eulathus from having to pay Protagoras after winning a case in the future.

A court judgment is based on what *has happened*. There is a time at which the prosecution and defense rest their cases, after which a verdict is rendered. The judgment is based on those cases. Essentially, court judgment is past-looking.

Now, consider the legal case purely on the grounds of the literal agreement. The arguments are over. The terms of the agreement are clear. Has Eulathus ever won a case? No. True enough, he is engaged in a case which he may win. But he will have won or lost a case only when the verdict of this case is rendered. So *now* the terms of the agreement clearly fall on the side of Eulathus. Because he has not yet won a case, the ruling of the court is that there is in the agreement no basis for upholding the suit. The suit is therefore denied.

At the moment in which the verdict is rendered — but at no time before — Eulathus has won a case. Thus, by the terms of the agreement, he then at that instant owes Protagoras. *There is no instant of time at which the agreement has been broken*. Before the verdict, he does not owe Protagoras. At the time of the verdict and thereafter, he owes Protagoras. The agreement therefore has not been broken.

If Eulathus then refuses to pay, Protagoras can turn around and file a second suit — which on the basis of the agreement he would win. Only one thing has changed in the second suit

from the first, but that is enough. Now Eulathus has won a case.

Thus, the conclusion of the impossible-contract agreement is just false. Given the agreement, the suit, and that Eulathus defends himself, it is possible for the agreement to be upheld. Since the steps of reasoning in the standard solution are not fallacious, its premises must be false.

Formally, the failure is in the representation of the agreement and suit in (1) and (2), and concerns the nature of P. In (1), P is understood in a time-dependent way. *As long as W remains false, P remains false. And whenever W becomes true, P becomes true.* But now, P as involved in the suit is quite different. The judgment of the suit is whether or not anything *has happened* to legally justify P.

Ordinarily, the court ruling itself as an in-the-world event in no way affects the status of any obligations of the parties. Thus, if the judgment in a suit is that X owes Z to Y, then ordinarily X can turn to Y after the judgment to obtain Z. This, however, cannot be done in the case of Eulathus and Protagoras. The judgment of the suit that Eulathus does not owe Protagoras must be understood in a way that does not contradict Eulathus' then legally owing Protagoras. There is nothing legally or logically wrong in this situation, only something unusual.

Perhaps an analogy will help. Suppose X brings suit against Y for Z over some past contract, and the suit is denied. Does it follow that Y does not then legally owe Z to X? Not at all! Suppose X makes a written (and legal) bet over Z with Y that the suit will be denied. It is denied, so now Y does owe Z to X. The court ruled that Y didn't owe Z to X, but as a result of the ruling Y owes Z to X. There is no contradiction.

Two aspects of the ruling have to be distinguished — the content of the ruling, the ruling as an in-the-world event. The content of the ruling in no way considers the consequences of it as an in-the-world event. The content of the ruling is based on the state of the world prior to the ruling. If you like, here the ruling is over a past contract. The bet itself — another contract — in no way affects the court's ruling, even if the

court knew of it. The court ruling in no way overrides the bet. X could bring suit for Z on the basis of the previous denial that Y owed Z to X.

The case of Eulathus and Protagoras is just a special case of the above situation, with the twist that the two contracts are the same! It so happens that the ruling of the court as an in-the-world event is relevant to the conditions of the contract⁽³⁾. Nevertheless, this consequence in no way affects the ruling itself.

The correct solution to the problem is then that as far as the literal agreement alone, the suit must be denied, and, as a result of the ruling (as an in-the-world event), Eulathus owes Protagoras.

Contrary to the impossible contract solution, then, Protagoras gets his money if Eulathus defends himself. If Eulathus does not defend himself, then, as before, the agreement provides no basis for upholding the suit. As far as the literal agreement, the best Eulathus can do is not to defend himself and thus to continue deferral of payment until he wins a case. There is no way within the agreement he can void it.

5. Further Legal Considerations. The impossible-contract solution argues that it is a matter of logic to show that the agreement cannot be upheld. As has been shown, this position is mistaken. Given that the possibility of maintaining the agreement is a live one, what does keeping the agreement entail

⁽³⁾ Carney and Scheer, in their textbook *Fundamentals of Logic* (Macmillan, 1974) consider the agreement, but come up with the wrong solution: «One possible solution is to argue that the trial is *about* the payment arrangement — whether the arrangement has been violated. Thus *this* case, the one being tried, should not be considered as one falling under the terms of the arrangement... thus Eulathus need not pay» (p. 143).

Given that the trial is actually about whether or not the agreement *has* been violated the answer is that it has not. As shown, this consideration in no way entails that the current case is excepted from the agreement. Indeed, that the case falls under the literal agreement is an analytical truth! The only way that Eulathus can win the case and not owe Protagoras is for part of the court ruling to lay aside as irrelevant this violation of the agreement: which the court could do.

as far as the debt and suit? The answer is that the suit is denied and the debt is incurred.

However, the legal question of what the court should rule goes beyond the assumption that the agreement is the only consideration. In fact, the practicality of court decisions overrides the logical niceties of the problem. The plain truth as far as any legal debt is concerned is that the court decision determines all the consequences.

The court has full power to make a definitive ruling on whether or not Eulathus owes Protagoras — by which I mean simply a ruling that takes precedence over the contract. The reason for this is that court rulings usually involve multiple rulings. For example, in denying a particular pornography suit, the Supreme Court may rule what pornography is under the law. In Protagoras' suit, the court would consider all legally relevant factors. Whether or not the suit itself is legally binding could be a part of the ruling. For example, there may be a fair compensation law that requires that all services be recompensed within a time period. The suit may be granted on this basis. If so, Eulathus may protest that the agreement is violated, but the grounds for the decision make the contract irrelevant. Eulathus then legally owes Protagoras. Likewise, if the court rules that Eulathus doesn't owe Protagoras because the contract is legally void, Protagoras' protest that Eulathus then owes him by the terms of the contract is fruitless and beside the point.

Similarly, the court has the power to rule if the literal wording of the agreement is the agreement actually made. Consider the question of intent.

Eulathus and Protagoras could have clearly understood that part of the agreement was that Eulathus would practice law, but they inadvertently omitted this from a written contract signed by both. Noticing the disparity, could Eulathus take advantage of it? Or Eulathus could have presented himself as uncertain if he would take up law, and Protagoras could have taken him as a student with the understanding that payment would involve the gamble that he took up law. Or, neither might have had any intentions when striking a bar-

gain about the case where Eulathus failed to take up law. The role intention has will vary with the legal system. At any rate, the court has the prerogative of ruling what the legally binding contract is, so as to make it irrelevant if the literal agreement is met.

There is one general logical feature of court rulings that the Eulathus-Protagoras problem brings out — what we have called its *past-looking* viewpoint. Everyone realizes that court decisions (e.g. legally X does not owe Y) are temporally contingent in a way that may be not be contradicted by later events (e.g. X incurs a debt to Y). But what about the time at which the judgment is made? Is a court ruling about what is legal *at the time of the ruling*? Per se, not even that. The very instant at which a ruling is made, what is legal can change. Legal rulings have this logical feature: they rule what is legal given all that *precedes* the ruling itself. *Almost always*, the ruling carries legal force for the present and into the future. But, as the case of Eulathus and Protagoras shows, *not always*.

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