

Corrections policy not followed re: Science Against Patriots

Dear Department of Journalistic Integrity (Public@NYTimes.com),

Several weeks ago, from my other email account #####, I asked The Times to make several important corrections to "[In the End, Science Works Against the Patriots](#)" (May 6, 2015). That includes the need to reverse the headline of the article.

The New York Times has not adhered to its corrections policy on this matter. The policy calls for The Times to provide reasons for why corrections were unnecessary. That never happened.

Introduction:

The Times' article *took a position* that the science proved that the Patriots almost certainly cheated, something even the NFL never claimed, rather than merely reporting that others were making that claim. That position was contingent upon the Times' erroneous claim about what the NFL's report has to say about how the footballs were handled during halftime.

To prove likelihood of cheating, the NFL's report would have had to establish that the Patriots balls had been out of the bag, so they had a decent chance to warm up before they were measured. The Times claims that such warming was proven, and had the effect of "puncturing" the previous view that science exonerated the Patriots, a view not considering such warming.

There is no way to get from the descriptions in the report of the game-day events to the conclusion that the most of the Patriots balls were out of the bag while they awaited measurement. If anything, the descriptions say the opposite. Had The Times vetted the Times' claim that the NFL's report established that the two teams balls were handled similarly, it would have seen that a critical link that in the logic The Times attributed to the NFL's report was broken. Applying common sense to what is known about what was going on at half-time also indicates the opposite; there's just no reason to believe all the balls were immediately emptied out of the bags, then put back in the bags again just before measurement. Therefore, the balls didn't warm much, therefore science worked for the Patriots rather than against them.

Specific issues:

The New York Times has not honored this part of its stated corrections policy:

If we decide that a correction is not necessary, an editor will be in touch to explain our reasons.

The response I received did not meet that criterion. I presume that Ken Plutnicki is "an editor." If not then there's a bigger problem: no editor response at all. My follow-up to Ken and my follow up to the corrections department both went unanswered.

Ken Plutnicki's several-sentence response was in reality only a denial that there were any problems with the article; he provided no facts or reasoning to refute any of the errors I pointed out.

- 1) Correction needed: The Times' article incorrectly claims that The Wells Report "notes" that the teams' game balls were "handled in a similar way and did not show the same pressure drop"

"The Colts' game balls were handled in a similar way and did not show the same pressure drop that the Patriots' footballs did, the report notes".

Source: [In the End, Science Works Against the Patriots](#), The New York Times (online), May 6, 2015. The "report" referred to in the above quote from The Times is the NFL's "Wells" report, which can be found here:

<http://static.nfl.com/static/content/public/photo/2015/05/06/0ap3000000491381.pdf>

Whether or not the report has indications that the balls were handled similarly is a different question entirely from whether the report "notes" that the balls were handled similarly. Whether or not the balls were handled similarly, the Wells report makes no direct statement that the balls were handled similarly, let alone a direct statement combining the alleged similarity of the handling with an observation about the pressure drop as The Times reported above.

The only way to provide a "reason" for defending the article's claim that the report "notes" that is to identify words in the report that "note" that. Mr. Plutnicki provided me another copy of over-230-page Wells Report, even though I had implicitly shown that that I had already read it. Providing another copy of the whole report does not provide a "reason" for how The Times could possibly have concluded that the report noted anything in particular about similarity of ball handling. Perhaps if a simple text search for the word "similar" had led directly to such a note then it would have been sufficient to provide the document without further elaboration. It doesn't.

The only response I received related in any way to that point was this from Ken Plutnicki:

I would say "they were handled in a similar way" is accurate, given the description in the report

The above shows that Mr. Plutnicki has reached the conclusion that the handling was similar based on his analysis of the description in the report, **rather** than because the report comes right out and says this directly.

Therefore Mr. Plutnicki has essentially admitted that the article was wrong to claim that the report "notes" that.

Status: The Times has essentially concurred that article was in error in using the word "noted" and has thus violated its corrections policy by not issuing a correction.

Mr. Plutnicki's response to me also made this point: *"[the report] does note several times and does conclude that Exponent could not identify environmental or physical factors that account*

for the Patriots halftime measurements or for the additional loss in air pressure exhibited by the Patriots game balls, as compared to the loss in air pressure exhibited by the Colts game balls. “

Had The Times merely reported that the NFL report claimed that the science works against the Patriots, then Mr. Plutnicki's response would be reasonable. But The Times made its own conclusion that the report was valid and made in good faith. The Times made its own stronger conclusion that the Patriots almost certainly cheated – something the Wells report did not say.

As you'll see below, the NFL's report was not made in good faith. Numerous examples have come to light, a few of which are evident below. Had The Times properly examined the question of how the balls were handled, and thus how much opportunity they had to warm up, the Times would have reached the opposite conclusion.

- 2) Correction needed: The Times' article incorrectly asserts that The Wells Report indicates that the balls for the two teams were handled in a similar way with respect to the opportunities the balls had to warm before being measured.

Mr. Plutnicki says he believes the description indicates they were handled similarly (thus that he disagrees with me about the need for correction) but **he did not give reasons for his belief. Thus he violated the corrections policy.**

If the balls had different opportunities to warm, then the argument the Times made about the Colts-Patriots pressure difference being not explainable by science fails. The Times' argument that the testing proved that the Patriots balls had warmed enough that they should have had more pressure than they did fails because the Patriots balls didn't have the claimed opportunity to warm, whereas the Colt's balls did.

The “description in the report” is silent about how the balls were handled most of the time, **unless** you read into it the assumption that the silence about where the balls were most of the time means that the balls had remained in the bag most of the time, between the two points in time that the description covers: when they entered the room (balls in the bag) and later immediately before each ball was measured (balls in the bag)

The Wells Report descriptions, which I provide below, establish that each ball was in a bag at two points in time, but not where the balls were in between those two points in time. Each ball started out in the bag upon entering the locker room and was in the bag immediately before being measured. Proof:

First, the report says at the top of page 5 of the Exponent report (which is Appendix 1 in the Wells report):

At the start of halftime, the game balls from each team were brought into the Officials Locker Room, each team's balls in their own respective bags

Second, at the bottom of the same page:

1. *A ball was removed from the respective team's equipment bag.*
2. *This ball was measured by the first official with his gauge and the pressure reading was recorded.*
3. *The same ball was handed to the next official, who made a second pressure reading with the second gauge, which was then also recorded*
4. *The next ball was removed from the equipment bag and the process repeated from 1.*

It takes an errant leap of faith in the integrity of the Wells Report to assume that had anything relevant happened to the balls between those times, the report would have noted it.

If they remained in the damp bag most of the time, then they didn't warm up much. The Times' conclusion is that they had warmed up significantly, enough to, as the Times claimed, "puncture" the view that the balls were still about as cold as they had been on the field, and thus "puncture" the view that the cold temperature on the field explains the ball temperature.

If the Times is right about the description implying that the balls were handled similarly (i.e. both remained in the bag), then they didn't warm much, so the Time's conclusion (and the NFL's Well's report conclusion) is exactly opposite to the truth that Science vindicates the Patriots.

If you believe the NFL's report was produced carefully and in good faith, then you must believe that their simulation would have accounted for how the balls were handled. Whether they warmed much or not at half time is, as The Times so helpfully shows, *the* central question in determining whether Science convicts or exonerates the Patriots. It was already known that if they didn't warm, they had the right pressure. The whole question of tampering or non-tampering depends on warming or lack of warming.

Therefore, if the report is good science in good faith and you believe that the description indicates similar ball handling, then you must believe that the simulations were of balls in the bag, such that the simulations would have proved that even accounting for the bag, the balls would still have warmed up significantly. Unfortunately, this was not the case. The simulations were of the opposite.

The simulations were of balls out in the open, not in a bag. The report doesn't come out and say that, but the report's data proves it because the warming rates observed in the simulations matched so well the warming rates seen in earlier lab tests the scientists did of balls out in the open by themselves. Common sense, and publicly viewable test results, both show that keeping balls in a bag (even a dry one) dramatically slows their warming. See the Wikipedia page on DeflateGate, scroll or jump to the section on reactions to the Wells report, and consult the resources referenced there and linked to (via footnotes). It's helpful to see the graphics, which can be seen in the latest

version of the amicus brief referenced in the Wikipedia article, which can be found at <http://betterdialogue.com/amicus-brief-offered/>

Here's a graphic showing just how well the simulation rate of pressure rise matched the earlier experiments rate of pressure rise for balls NOT in a bag:

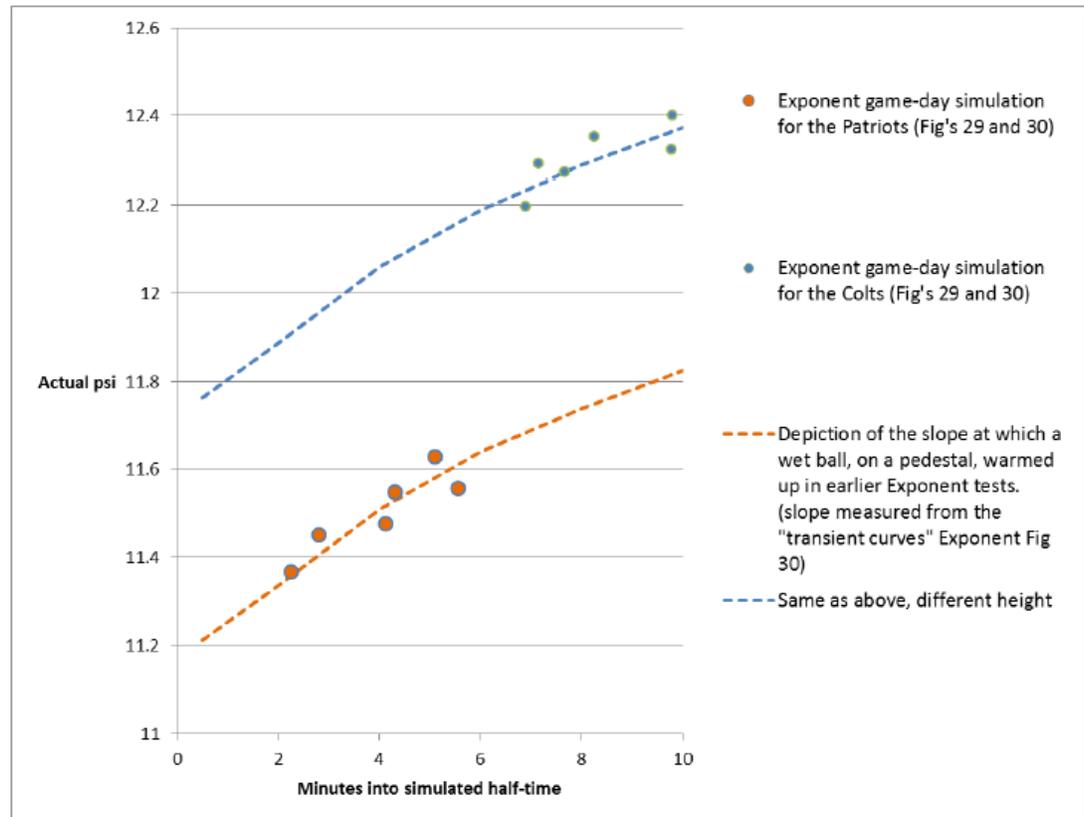


Figure 4 Rate of rise of simulation data in Exponent figures 29 and 30 as compared to "transient" curves based on Exponent lab-bench testing of a lone ball on a small pedestal on a table, which was done prior to the simulations.

Source of graphic: [Amicus brief of Robert F. Young](#), which explains it in more detail.

Here is where the NFL even goes so far as to comment, as if it were a good thing, that the simulation correlates so well with the earlier, not-in-a-bag experiment:

"The data sets generated by the two methods (game day simulations and the transient curves) correlate well to one another:"

Exponent, Page 59, last paragraph

The report did provide evidence that the four Colts balls measured on game-day were out of the bag. It is thus a glaring omission for the description of the simulations to not call this out given that the description of game-day events has mention only of balls being in the bag.

The report provided no reason to believe that most of the 11 Patriots balls measured had similarly been out of the bag most of the time. Having established through experiment that the four Colts balls (out of the 12 total) that got tested must have been out of the bag, the most reasonable inference is that a few balls for both teams must have been taken out of the bags for curiosity and for preliminary testing that was used to develop the final test plan. There's no reason to infer that officials would have emptied from the bag all 11 (or 12) of the balls off both teams immediately upon entering the locker room at half time, and then put back in the bag later, and then made no mention of it in their description of what transpired.

At best, the NFL's "scientists" made an assumption that the balls were all emptied out of the bag and then put back in later at the last second, but omitted to mention that their entire conclusion depended on this assumption. That would still be a show of bad faith, as well as an indication that it was an arbitrary assumption, rather than the science, that lead to the conclusion that the patriots more likely than not cheated (the NFL's position) or "almost certainly cheated" (the NYTimes' position)

If Times is wrong about the description, then The Time's conclusion is invalid: the Science only establishes that guilt or innocence depends on one's point of view about how the balls might have been handled.

The only way for the Times to have been right about both The Times' conclusion and The Times' understanding of the description of the ball handling is the description to indicate that for both teams the balls were all removed from the bag immediately upon entering the locker room, before being put back in the bag immediately before testing. There's just no reading of the description that says that.

Thus, right or wrong on what the description means, the Times' conclusion and headline is wrong either way.

- 3) Correction needed: The Times' article incorrectly asserts that The Wells Report (and in particular the Exponent report appendix to it) "punctured" the key assertion of physicists that claimed the science supported the Patriots.

Because the Wells Report did not establish that the Patriots footballs on game day had the opportunity to warm significantly before being measured (see above), the following assertion made by The Times needs to be retracted:

The report punctured a key assertion of some physicists around the country who believed that the temperature difference between the locker room, where the balls were inflated, and the playing field could provide an innocent explanation for the pressure drop.

As shown above, the simulation was of balls out of a bag, warming significantly, but the report did not establish that on game-day the actual footballs were out of the bag.

If most Patriot footballs had indeed remained together in the damp bag, then their warming would be dramatically slowed. Therefore, the Wells report does not actually “puncture” the view that the science fully explained the Patriots ball pressure.

Even the slightest slow-down in warming, relative to Exponent’s out-of-the-bag simulation, drops the middle “simulation” point into the range of measurement uncertainty, making the observed pressure difference entirely explainable by science, thus contradicting The Times assertions that the science showed that the Patriots almost certainly cheated. Below is a graphic illustration of that point, taken from my amicus brief which can be found on district court docket.

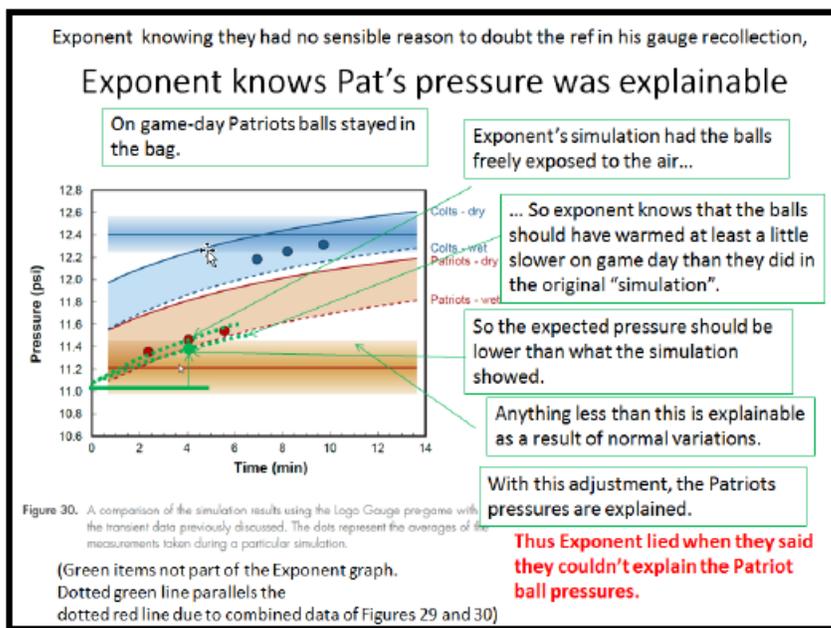


Figure 10 Use of Exponent figure 30 to show that if Exponent believed balls might warm even slightly slower together in a bag, then Exponent lied when they said the Patriots' football pressure was not explained by their research

Source of graphic: [Amicus brief of Robert F. Young](#), which justifies it in more detail.

- 4) Correction needed: Contrary to The Times' claim, the data does not show that the Patriots almost certainly cheated.

This assertion by The Times is wrong for the same reasons that The Times' “punctured” assertion discussed above is wrong.

- 5) Correction needed: Contrary to The Times' claim, science did not work against the Patriots. (It worked for the Patriots)

Even using the flawed Figure 30 (the grand finale of the conclusion that science didn't explain the Patriots pressure, adjusting for the damp bag dramatically slowing warming (shown in the below figure 11) is sufficient to show that science supports the Patriots:

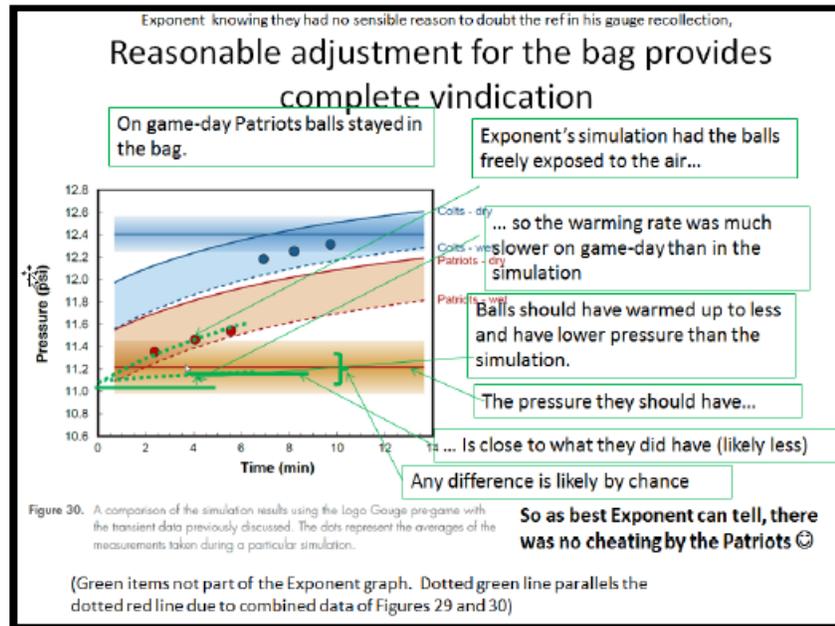


Figure 11 Using Exponent's data, together with knowledge that being together in a bag slows ball warming a lot, the Patriots' ball pressure was right where it was supposed to be

Source of graphic: [Amicus brief of Robert F. Young](#), which justifies it in more detail.

Making matters worse, the simulation depicted above in Exponent's figure 30 were based on an assumption that the pre-game locker-room temperature was 67, even though Exponent knew that it was physically impossible for the air to have been that cold in the locker room on game day. (They selected the coldest indoor reading they could find on a cold day – despite that game-day was mild in comparison, a fact that would not have been lost on Exponent.) Also, the balls would not have been able to reach equilibrium at the coldest temperature in the room – that would have taken too long compared to how long the balls were in the room – something Exponent's extensive testing also proved.

Having established that the simulation was made in bad faith using a temperature that is too low, one then needs to adjust expectations. As Exponent showed, the warmer the air in the pre-game locker room, the lower the resulting half-time pressure. Exponent's data shows that even a couple degrees make a 0.1 PSI difference. Thus a good faith simulation would have resulted in the red dots being 0.1 PSI lower, and thus the green dotted lines also being 0.1psi lower. With that adjustment, there's just no way to explain the average Patriots ball pressure OTHER than to conclude that no air was removed from them. And thus the Science supports the Patriots.

As for the notion that the ref misremembered which gauge was used, that is not a matter of science but of flawed logic. Exponent's implicit suggestion that teams would want to avoid a gauge that

over-reads more than a gauge that is merely inaccurate is laughable. Central to the cheating hypothesis is the idea that teams want to find ways to get away with putting less air in the ball. A gauge that over-reads helps that alleged goal rather than hinders it. Exponent's implicit suggestion that teams were especially concerned with gauge accuracy such that they would have calibrated their gauges and thus avoided imprecise ones is laughable. The "testing" claimed by Exponent to indicate that it was highly unlikely the ref used the gauge he said he did is based on the decision by Exponent to procure for testing *only* gauges identical to the one the ref said he did *not* use. Had Exponent done the opposite, their "testing" would have indicated that the gauge the ref said was *not* used was the unusual one.

If The Times wished to assert that it was almost certain that the ref was wrong about which gauge was used, the Times would be responsible for examining and commenting on that question. Had The Times put much effort into that, the Times would know that Exponent could not possibly have actually believed the reasons they advanced for why the ref would be wrong about which gauge the ref used.

- 6) Correction needed: Disclose professor Marlow's lack of independence: he was paid by the NFL.

The Times article puts great weight on the opinion of Professor Marlow. The article did not disclose that Professor Marlow was paid by the NFL to render his opinion. With the NFL having paid millions for the report, and invested PR in attacking the Patriots, the NFL is clearly motivated to defend the report. Journalistic integrity seems to require reporters to note if experts relied upon in their article have been paid by a party that has motivation to have a particular opinion supported. I asserted that the article erred in not disclosing that the NFL paid Professor Marlow. **I've received no response from The Times that makes any reference, direct or indirect, to this issue.**

Conclusion:

Through misreporting about what The NFL's report said about ball handling, The Times implies that information about the Colt's balls sheds some light on the question whether the Patriots balls did or did not warm significantly between entering the locker room at cold-field temperature and later being measured. This misreporting drives The Times to the opposite conclusion to what it should have made.