

August 27, 2015

Dear Professor Marlow,

Thank you for spending a few minutes on the phone with me, so that I could tell you of the way in which I believe Exponent misrepresented their research to you. Once you verify this, I'm sure you'll want to make some kind of public statement of retraction of your support, and express your disappointment with Exponent for misrepresenting the research.

As you requested, here is a written explanation of the concern.

Exponent knows, and I'm sure you'll agree, that the average pressure of the Patriots' footballs as measured at half-time, in the locker room, was completely appropriate for the average pressure the balls were supposed to have (based on Exponent's simulations) when the balls were still at field-temperature. (If you have doubts, I'll show you how to prove it from the two critical Exponent figures: 39 and 30. This is included the Amicus brief that was offered.)

Therefore, the sole reason for the research not clearing the Patriots of wrongdoing is that Exponent estimated that by the time the balls were measured, the balls had warmed up significantly.

I'm sure you were given the impression that Exponent had done simulations to estimate how much the ball pressure had risen due to the balls warming up at halftime before they were measured. Unfortunately that was a false impression created by a) a presumption that Exponent would be truthful when making their conclusion and b) the simulation description making it sound like the events of half-time had been simulated, even though a careful reading of the description shows the opposite.

Exponent's simulation did not take into account that on the real game day, the Patriot balls remained in the bag until the time each ball was measured. Exponent knew of this difference and knew that the bag could have made enough difference to exonerate the Patriots. I offer conclusive proof of both.

There is one assumption needed to prove this: One must believe it to be common sense that keeping 11 cold, damp footballs in a closed, water-resistant bag could slow their warming noticeably compared to spreading the footballs out in the open.

The Exponent data proves that whatever Exponent did in the "simulation" of the half-time period, the warm-up rates matched that of an earlier test Exponent did on a lab bench, with a single ball by itself, in the open, on a small pedestal on a table. (See amicus brief for proof). Surprisingly and ironically, Exponent even commented on correlation between those two test results, as if that were a good thing. In reality it is damning to Exponent's central conclusion of unexplained pressures in the Patriots' footballs.

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

*-- Exponent page 59.*

The Exponent data shows the correlation to be extreme: it is perfect to within the range of measurement error. (Proof provided in the amicus brief that was offered to the Court)

Exponent's description of the simulation provides a red flag that Exponent went out of their way to disavow, in a very sneaky way, having made any attempt to have their simulation replicate how the balls were really handled on game day at half time.

*The procedure used to generate the halftime measurements during Game Day was replicated. Namely, the Logo and Non-Logo Gauges were used.*

--Source: Bottom of Exponent page 56 (as discussed in my brief on page 35).

Google-search "definition of namely" to see it defined as "which is to say". Therefore, notice how the word "namely" deletes the first sentence and replaces it with a claim only to have used the same gauges as were used on game day. It therefore excludes making sure the balls were in the bag until measured.

Contrast that to how Exponent explicitly documented having paid careful attention to the bags in the parts of their game-day simulation prior to the half-time locker-room warming/measurement part of the simulation:

*"Some remained dry and in ball bags (these bags, provided by Paul, Weiss, are believed to be similar, if not identical, to those used by the Patriots and Colts on Game Day. At the end of 2 hours, the balls were removed from the field and brought back into the simulated Officials Locker Room in the ball bags."*

-- Exponent Page 56 items 3 and 4.

Here I've marked up Exponent's Figure 30 to illustrate how making even a slight adjustment for balls warming slower in a bag reverses the fundamental assertion: that Exponent couldn't explain the Patriots ball pressures:

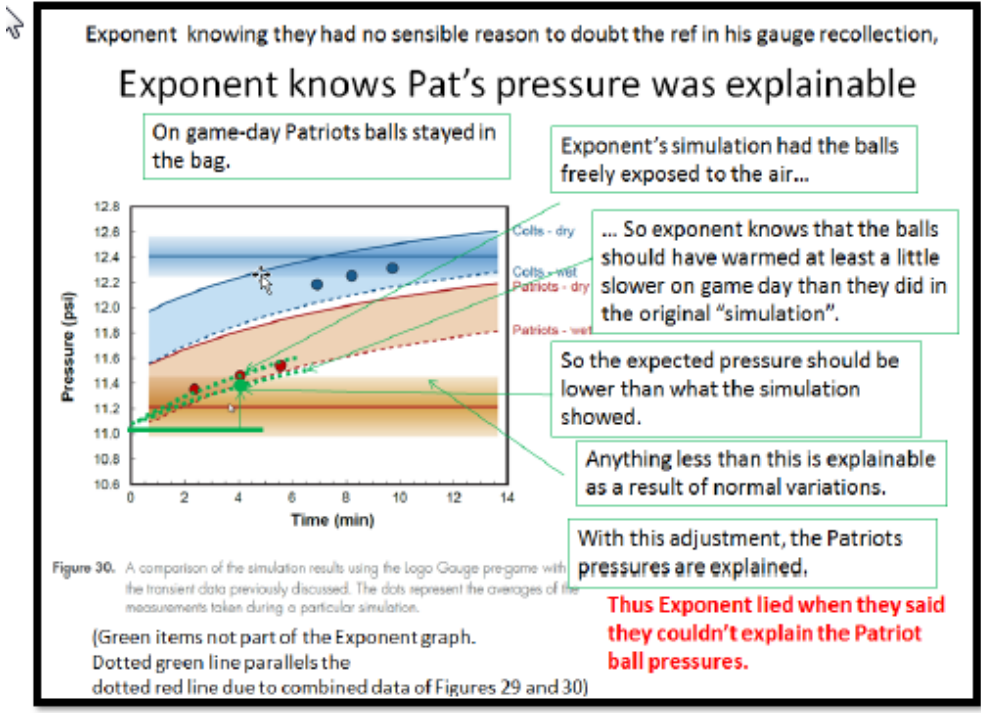


Figure 10 Use of Exponent figure 30 to show that if Exponent believed balls might warm even slightly slower together in a bag, then Exponent lied when they said the Patriots' football pressure was not explained by their research

Data earlier in the amicus brief combining Figures 29 and 30 show that the best fit rate for the warming rate of the balls during the "simulation" parallels the warming rate as depicted in the "Patriots wet" "transient" curve (dotted red line).

If one adjusts for the game-day balls being in the bag by even slightly slowing the predicted warming rate, that brings the predicted ball temperature at 4+ minute (the time Exponent believed was most likely the real timing) into the range of normal measurement uncertainty. Thus the pressure of the Patriots' footballs is explained rather than unexplained.

It further seems unreasonable to think the difference would be only slight. Adjusting the warming-rate to reflect a large slow-down due the bag brings the best-estimate pressure very close to, or even below, the actual game-day measurement.

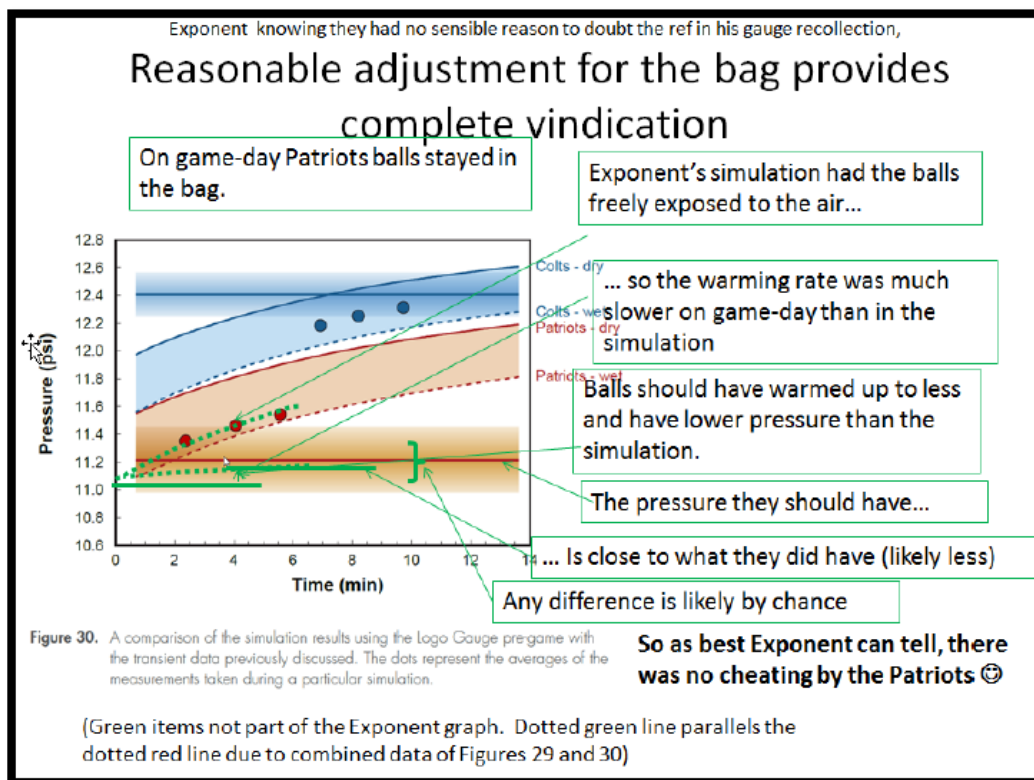


Figure 11 Using Exponent's data, together with knowledge that being together in a bag slows ball warming a lot, the Patriots' ball pressure was right where it was supposed to be

By all indications, that bag remained closed for half the average time the balls were in the locker room. Common sense would expect much slower warming. How much slower is uncertain, but any reasonable estimate puts the "expectation" for ball pressure quite close to the actual pressure observed.

The talk of the Colts' balls is irrelevant to the central question: was there a problem with the Patriots' balls. There's no account from game-day of how the Colts balls were handled. The only accounts from game day also suggest that the Colts balls were measured at the list minute, as time ran out, rather than much earlier as Exponent assumed. There's much uncertainty around the circumstances for the Colts balls. Therefore the question of how to explain their pressure had no bearing on whether the Patriots' footballs were at the pressure they were supposed to be at if no air were removed.

The central conclusion of the Exponent report was this:

*In both the Non-Logo Gauge and Logo Gauge simulations, ... subject to the discovery of an as yet unidentified and unexamined factor, the measurements recorded for the Patriots footballs on Game Day do not appear to be completely explainable based on natural causes alone -- Exponent report, page 61.*

**As you can see, Exponent knew this to be false. Your good name was used to add credibility to this lie.**

You can find beyond-a-reasonable-doubt proof of the Exponent deceit in the Amicus brief that was offered, found here at: <http://betterdialogue.com/amicus-brief-offered/>

You might also find it interesting how the brief illustrates that Exponent could not have believed any of the reasons Exponent gave for disbelieving the ref. It is also noted by Professor Robert Blecker, who roots against the Patriots, that Exponent appears to have gone out of their way to sweep under the rug that the gauges are enough different that the ref's recollection had considerable weight.  
<http://www.robertblecker.com/deflategate-the-smoking-gun/>

If the world knew that Exponent knew that the Patriots' ball pressures were explained just fine by Exponent's research, the whole scandal would have died down, or at least ceased to be about the Patriots.

Tom Brady's hearing is Tuesday, so it's important to address this Monday for the benefit of the defense.

Please let me know if there is anything further I can do to bring clarity to this and to any other related information. Call any time at xxx xxx xxxx.

Given the work that has gone into proving this and calling this to light, and given the strength of the argument evident here, please inform me of any specific aspects in which you think the proof is not sufficiently tight.

Thank you for your willingness to consider this matter.

Sincerely,

Robert F. Young