

Case No. 15-cv-5916 (RMB)(JCF)

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK**

<p>NATIONAL FOOTBALL LEAGUE MANAGEMENT COUNCIL, Plaintiff, -v.- NATIONAL FOOTBALL LEAGUE PLAYERS ASSOCIATION, Defendant-Counterclaimant</p>	<p>Case No. 15-cv-5916 (RMB)(JCF)</p>
---	---------------------------------------

**ROBERT F. YOUNG'S AMICUS CURIAE IN OPPOSITION TO
THE NFL'S MOTION TO CONFIRM ARBITRATION AWARD**

Contents

Statement of Interest	5
Summary of Argument	6
Argument	11
Understanding the half-time warming deception and how it escaped notice until now.	11
If the simulation was true to game-day conditions, the warming rates should NOT have matched the prior lab-bench testing (the transient curves)	22
As long as you believe Exponent knew the bag could slow warming even a little, then you must believe Exponent lied in their central conclusion.....	25
How far were they from having told the truth? Is there any reasonable evidence that air was even “probably” removed?	29
More evidence that Exponent was aware that their simulation didn’t match the reality:	31
Grammatical sleight-of-hand:	34
More Evidence that Exponent knew their simulation didn’t match reality:	38
Gauge assertion and assumptions: Evidence of deceit:	40
Assertion	40
Impact	40
Proving that Exponent’s final conclusion was a lie	46
Data shows the ref was right about the gauge.....	51
Other uncertainties, unsuitability for “criminal-like” penalties.	52
Proof of non-cheating	53
Perspective on “what if Patriots cheated but by too small an amount to be caught by the testing: impact on motive and game-integrity relevance	54
Conclusion:	56
Sources:.....	58

Figure 1 Short version of why Exponent "says" the Pats cheated 14

Figure 2 Why Exponent "says" Pat's likely cheated, this time explaining it based on the re-warming rates predicted by Exponent's simulation. 15

Figure 3 Exponent Figure 29: Assumes the ref was wrong about which gauge the ref used pre-game 19

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. 21

Figure 5 Exponent equipment used to create the "transient curves" on Exponent's Figures 29 and 30. Found on page 41 of Exponent's report 22

Figure 6 Exponent data from lab-bench testing using the equipment in the earlier figure..... 23

Figure 7 The portions of the lab-bench testing data that Exponent translated onto their Figures 29 and 30 23

Figure 8 Exponent Figure 30, the one Exponent used to assert that the Patriot game-day pressure was (very slightly) to different from the Exponent simulation pressure (the red dot near four minutes) to be explained just by chance. Thus Exponent claimed their work could not explain the Patriot's ball pressure. 24

Figure 9 Picture NOT FROM EXPONENT I found online to give an example of what a ball bag might look like. What I do know is that Exponent believed that whatever bag was used was capable of keeping the balls dry (thus not an open mesh design)..... 25

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 27

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..... 31

Figure 12 Patriot's ball pressures in order of measurement, with best fit line, compared to simulation expected rate of increase, and upper range of 87.5% confidence interval above the best fit line for the game-data data: (over lapping line): Only a 1:8 chance the data fits simulation..... 33

Figure 13 Patriots balls fine, but Exponent claims they can't explain the Colt's ball pressures..... 47

Figure 14 Colts' ball pressures explained by changing the presumed order of testing, to test the Colts' balls last as is widely understood to be what really happened 48

Figure 15 Ref must have been right on his gauge use, because for him being wrong doesn't fit with the Colts' ball pressure measurements at half-time..... 51

Figure 16 No cheating detected, and any cheating too small to be detected would be completely irrelevant..... 54

Statement of Interest

My primary, relevant interests are:

- 1) Promoting a rational and just system *and public confidence therein*.

This motivation is so large as to transcend team favoritism. A notable

Example: New York Law School Professor Robert Blecker writes and speaks on DeflateGate, wishing to see the Patriots/Brady lose on the field but win this case.

- 2) To prevent my local team from being unfairly disadvantaged.

Millions share that interest; sports enrich the lives of many. If hours of increased happiness are assigned even a small value, then the cumulative stakes for the class of persons rooting for the Patriots greatly exceed the stake for the parties in the dispute.

Note: I have prepared this brief without any collusion or support from any party to the conflict.

Summary of Argument

The controversy would have been resolved during the appeal if the league had stayed within the normal range of bias and the normal use of paid experts to support a desired position. Unfortunately, the league went beyond those norms. The lack of due process prevented the earlier detection of deceit central to the entire scandal.

Much good scientific research by the NFL/Exponent provided sufficient data to prove that the Patriots did *not* tamper with footballs. So why, then, did Exponent make essentially the opposite conclusion (basically that cheating is the best explanation for the pressures measured at half-time in the Patriots/Colts game)?

Exponent lied in how they presented the data and lied about the conclusions. The trick that until now has gone unnoticed: in Exponent's "simulation" of the half-time testing, Exponent freely exposed the balls to air, to warm them up more quickly, despite Exponent knowing that on the real game day the balls had remained in a bag on the floor until measured. In reality, the reason the Patriots' footballs had lower pressure than what Exponent has simulated is that the Patriots' footballs hadn't warmed up much (because they each stayed in the bag until the last minute)

Exponent knew that their research indicated that on game day, the Patriots' footballs had, within the normal range of variation, the pressure they should be expected to have at the time they were measured.

This brief proves these points for anyone who believes that keeping cold footballs together in a closed bag can slow their warming even a little compared to spreading them out on a table. Exponent's data and words prove that Exponent freely exposed the "simulation" balls to the air, rather than keeping them in a bag. For those assuming this to be another "crackpot theory", consider how AEI found a key clue but did the wrong thing with it.

The American Enterprise Institute (AEI) noticed the lack of rise in the game-day ball pressures during the four minute assumed measurement period. Because AEI didn't expect that Exponent might be completely lying, AEI challenged whether it really took four minutes to test the balls, instead of whether Exponent had rigged their simulation to falsely re-warm the balls in a most basic and obvious way.

For similar reasons, AEI missed the grammatical sleight-of-hand by Exponent (on their page 56) that could have been a tipoff. First Exponent said "*The procedure used to generate the halftime measurements during Game Day was replicated.*" But the sentence that immediately followed had the effect of retracting that assurance: "*Namely, the Logo and Non-Logo Gauges were used.*"

Exponent has thus sneakily gone out of their way to avoid saying that they handled the balls in their test the way they were handled on game day.

Something that Exponent said that sounded good was actually another tipoff: *“The data sets generated by the two methods (game day simulations and the transient curves) correlate well to one another:”* (page 59). They shouldn’t have correlated so well: the “transient curve” warming rate was for a ball alone on a pedestal on a table. The game day simulation was supposed to be of balls staying in a bag on the floor (likely closed the first two minutes) before then taken out one by one for measurement. This was thus a tipoff that Exponent didn’t simulate what they were supposed to. The lie came from making the conclusion that the Patriots’ ball pressures couldn’t be explained. Even the slightest reduction in warming, as compared to the “ball in the open on a table” moves the pressure that was supposed to be seen down into the normal range of random variation around what was actually measured. Therefore Exponent’s conclusion only holds if Exponent can’t possibly imagine that keeping the cold balls in a bag even slightly slowed their warming. Exponent surely doesn’t believe that, so Exponent surely lied.

Additionally, this brief shows that Exponent is smart enough that surely they believed none of the reasons they gave for setting aside the ref’s recollection about which of his two gauges he used pre-game. The pattern strongly suggests that Goodell played along when he claimed to trust Exponent on this.

This brief shows evidence that the data supports the ref in the ref's recollection of which gauge the ref used. The last remaining chance the NFL had to suggest that there was some evidence of tampering was to assume (for no sensible reason they'd ever provided) that the ref was wrong in his recollection of which gauge was used. That unjustified assumption increased by roughly 0.4 psi the appearance of possible tampering.

With proper use, the Exponent research proves that there was no cheating. By applying any reasonable estimate for how the balls being in a bag slowed their warming, one can use the rest of the quality research to determine whether the Patriots' footballs had the right pressure; they did.

The interpretation of the CBA favored by the plaintiff has the effect of inserting language that the arbitration finding can be "for any reason or no reason". This language is present in some agreements but not the CBA.

The CBA does intend for rapid, imperfect, expedient solutions to empower the league to function against inappropriate player conduct. It is not intended to exempt the League from needing integrity. It is not intended to allow players to be punished to mollify disgruntled owners or make the teams more evenly matched.

The earlier claims of "independent" investigations gave false assurances that the investigative work would fall within the normal bounds of behavior for quasi-independent work. Not expecting the level of deceit, the defense looked for

shading around the edges rather than for gross misrepresentation at the heart of the Exponent conclusion.

Based on the nature and impact of the plaintiff's misbehavior, the Court is free to rule in favor of the defendant without obligating itself to intervene in countless other sports arbitration cases. Very few other cases would contain such outrageous behavior.

The courts benefit when the public uses arbitration instead of the courts to resolve disputes. If the public finds that arbitration can't be trusted, people will not agree to arbitration. This case is the rare example when the strength of the institution of arbitration is strengthened by overruling the arbitrator.

In light of the conduct, had the CBA intended to grant that much leeway to the Commissioner, it would have explicitly stated that he make his decision "for any reason or for no reason," as is contained in other legal agreements.

Argument

Note: some of the points from the summary do not require further elaboration and are not repeated here but are part of the argument.

Sources: see end of brief

Understanding the half-time warming deception and how it escaped notice until now.

Both sides appear to agree that how to apply the “timing” is the most crucial question in the scandal.

- Based on the American Enterprise Institute (AEI) report and the NFL and Exponent report, both sides appear to agree that the pivotal assessment in the scandal is **whether research indicated that there is, or is not, a known, likely explanation for the Patriots’ half-time ball pressures other than tampering.**

Evidence of agreement on this as the central issue: a) the concluding sentence of the summary paragraph atop the American Enterprise Institute Report “On the Wells Report”. b) The concluding paragraph of the body of the Exponent report allegedly relied upon by the NFL Management Committee (item 13 Exponent p68). The Exponent focus on the differential between Patriots and Colts is primarily as evidence to suggest tampering; there was no other need to speculate as to how the Colts’ balls got to be a different pressure.

- Had Exponent concluded differently, then the headline would be more like “Patriots’ science is right: no evidence of tampering.” One could

still assert tampering in an amount too small to detect, but it would be absurd to suggest sufficient motive for doing it.

- Both sides appear to agree that one potential question of fact that would reverse the assessment is **the timing of the ball measurements at halftime**

Concluding paragraph of the Exponent report (item 13, Exponent p68): particularly regarding the timing and sequencing of the measurements”

These are applied by the reader when using Figure 30 on page 61 of the Exponent report to determine if the Patriots balls pressure were explainable.

I agree that how to apply the time scale is the single most important question of fact in the scandal:

- **Exponent research showed that the average Patriots’ ball pressures measured at half-time were completely appropriate for a ball at field-temperature (in fact, they were a little on the high side).**

The simulation predicted 11.05 psi for a ball at on-field temperature. On game day there was no on-field measurement. By time the time it got taken into the locker room and measured, it was at 11.22 psi; as if the Patriots had snuck air into the balls after the ref inspected them. The patriots didn’t

sneak air into the balls – the balls had warmed up a little, raising their pressure.

- **The entire controversy is based on Exponent asserting that the Patriots' balls had already warmed up quite a bit before they were measured.**

They say the key question to knowing how much they warmed up is how long it was before the refs measured the balls (on average) from the time the balls came off the field.

Exponent's "simulations" (loosely speaking) of the process used in the locker room at half time indicated that the balls **would have warmed up by about 0.42psi**, so they should have been at about 11.47psi. The Patriots' footballs were only at 11.22 psi or so. That's just slightly too much different from Exponent's prediction to explain the difference by random chance alone, so there must something unexplained happening (like cheating).

Short version of why Exponent "says" Pat's likely cheated

even if you believe the ref about which gauge he used

This solid, horizontal red line is the average pressure of the Patriots balls, measured at halftime in the locker room. We don't know exactly when – that's why it's graphed as a line

If our simulation comes this close to the actual, then the actual can be explained by our science plus random variation

The longer the balls were in the locker room to warm up, the higher their pressure would be. We did three simulations of games with "simulations" (loosely speaking) of the half-time measurement process. These dots show our results. Each simulation picked different timing.

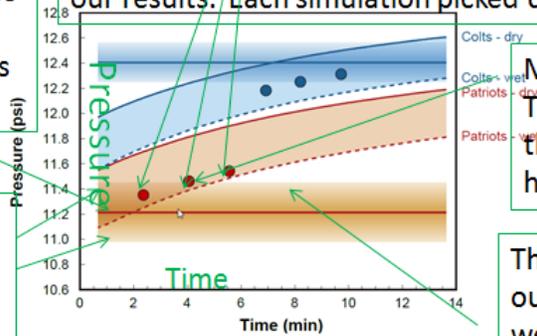


Figure 30. A comparison of the simulation results using the Logo Gauge pre-game with the transient data previously discussed. The dots represent the averages of the measurements taken during a particular simulation.

Most likely time here. The simulation said the pressure should have been this high,

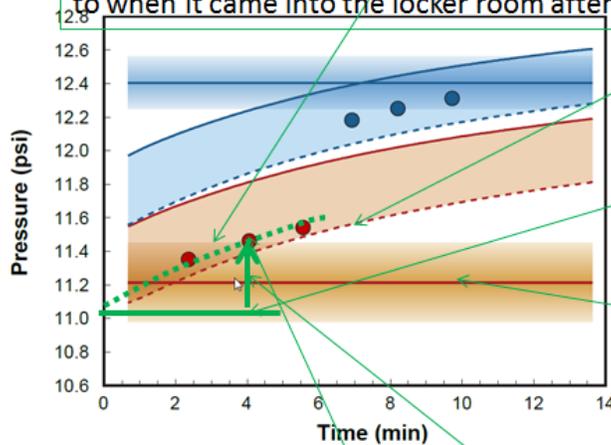
That's just barely outside the band that we can explain away as being by chance. Must be some other cause (i.e the patriots took air out illegally)

"We" = Exponent. Exponent's Figure 30 shown. Mark-ups in green.

Figure 1 Short version of why Exponent "says" the Pats cheated

Pressure vs. time according to Exponent

Based on simulated games at Exponent, followed by “simulating” (loosely speaking) the measurement process in the locker room at half time, dotted green line shows how what the Patriots’ ball pressure “should be” depends on when you measure it, relative to when it came into the locker room after the first half.



In our earlier lab experiment unrelated to the simulation, a wet ball, by itself, on a table, increased pressure at this rate as it warmed up.

Simulation: Balls should be 11.05 psi at field temperature (time=0)

At the game, Patriots’ balls measured 11.22 psi avg. (we think most likely at 4 minutes, but we don’t know, so we show it as a line) That’s actually MORE pressure than it was “supposed to have on the field.

Figure 30. A comparison of the simulation results using the Logo Gauge during the transient data previously discussed. The dots represent the averages of the measurements taken during a particular simulation.

Simulation result: : balls warm up by 0.42 psi in those four minutes.

Due to the re-warming, our simulation expected about 11.5 psi – just barely too much to allow us to explain the lower Patriot measurement based on random chance, so we can’t explain it. (thus likely cheating)

Figure 2 Why Exponent "says" Pat's likely cheated, this time explaining it based on the re-warming rates predicted by Exponent's' simulation.

Proof that the solid red line on the chart is the game-day average pressure actually measured for the Patriots’ balls. (Note: it’s not known at what time those measurements were made. Exponent thinks it was at four minutes):

We can further refine this construct by overlaying a representation of the average pressures observed on Game Day for each team, as measured by the Non-Logo Gauge. The result of this is shown in Figure 25.

- Exponent report, bottom of page 50. The convention from Figure 25 is carried forward to figures 29 and 30.

Proof that anything within the horizontal shaded area would be considered to within the normal range of variation based on the sample data, as Exponent indicated here:

For a given team, the overlap between the shaded area of that team's Game Day average and the shaded area of that team's transient curves represents the window in which the Game Day measurements can be theoretically explained by a physically plausible combination of environmental variables as well as a possible range of average measuring times

--Exponent page 51, just below figure 25. The same convention is carried forward to Figures 29 and 30.

AEI "On the Wells Report" noted that the balls didn't seem to be warming during the game-day half-time measurement process, but drew the wrong lesson from it.

- **The critical clue for AEI was that the balls were not showing evidence of warming up during the testing.**

AEI used that clue that to question whether the balls were measured at the average times claimed by the NFL, both for the Patriots' balls and especially for the Colts' balls.

“The coefficient on the count variable for the order in which the balls were tested in our regression (N_k) varies in precisely the way that one would expect to observe if the individual Patriots’ balls were tested in rapid succession”

--AEI report: “On the Wells Report”, page 9, bottom left

“The fact that the officials ran out of time is highly material: it implies that the Colts’ balls were inside a warm room for almost the entire halftime before they were measured and thus had a chance to warm up.”

--AEI report “On the Wells Report,” page 7, right side

Given AEI’s conclusion that testing was very rapid, AEI suggests that Colts testing began and completed all at the very last minute.

- What AEI failed to consider was **the other most-likely explanation: that Exponent’s half-time simulation was significantly mismatched to the game-day events.** Maybe Exponent warmed the footballs faster than happened on game day. The reason why the Patriots’ footballs weren’t warming up during the half-time measurement was that they were in the bag on the floor. There’s no reason to doubt that the testing took four minutes. AEI should have doubted why the pressures in Exponent’s simulation rose so fast, instead of why the Patriots’ balls rose so slowly or not at all.

Had then NFL not given false assurances of some “independence”, AEI would have been looking to see if Exponent cheated. The false assurances served to prevent the defense from finding the issue in time to raise it in the appeal.

AEI would have expected that the Exponent report would have bias applied to any input Exponent had leeway over. However, especially in light of the claims of independence, AEI would expect that there would be some boundaries Exponent would not cross. AEI would have no reason to expect outright lying, and thus no reason to focus their time on looking for evidence of lying.

You'd think that repeating the process of taking balls one by one out of a bag on the floor and measuring them would be so straightforward that you wouldn't need to question it. AEI thus focused on areas where there is more likely to be mere error or bias. The additional misrepresentation Exponent made (about purporting to have a reason to think the Colts' balls were measured immediately after the Patriots) further served to throw AEI off the track.

- **The critical clue that AEI missed is, ironically, that the Exponent game-day simulation points' relative rate of pressure rise was too *much* in agreement with the other Exponent experiments on ball warm-up rates that were done in the lab on a single ball (not a simulation of a game).** Earlier in their work, Exponent did lab-bench testing of a lone football on a small pedestal on a table to explore how fast the pressure rises as the ball warms up. This work created the "transient curves" shown in the Exponent Figures 29 and 30. The rising pattern of the "simulation" dots in those figures runs parallel to the

transient curves. The rates of rise between “game-day” simulation and the prior “transient curve” lab work were identical to within the maximum sensitivity of the simulation points to discern.

Exponent also noticed this correlation, and mentioned it as if it were a good thing:

“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

To see just how well they correlated (too well!), consider the following:

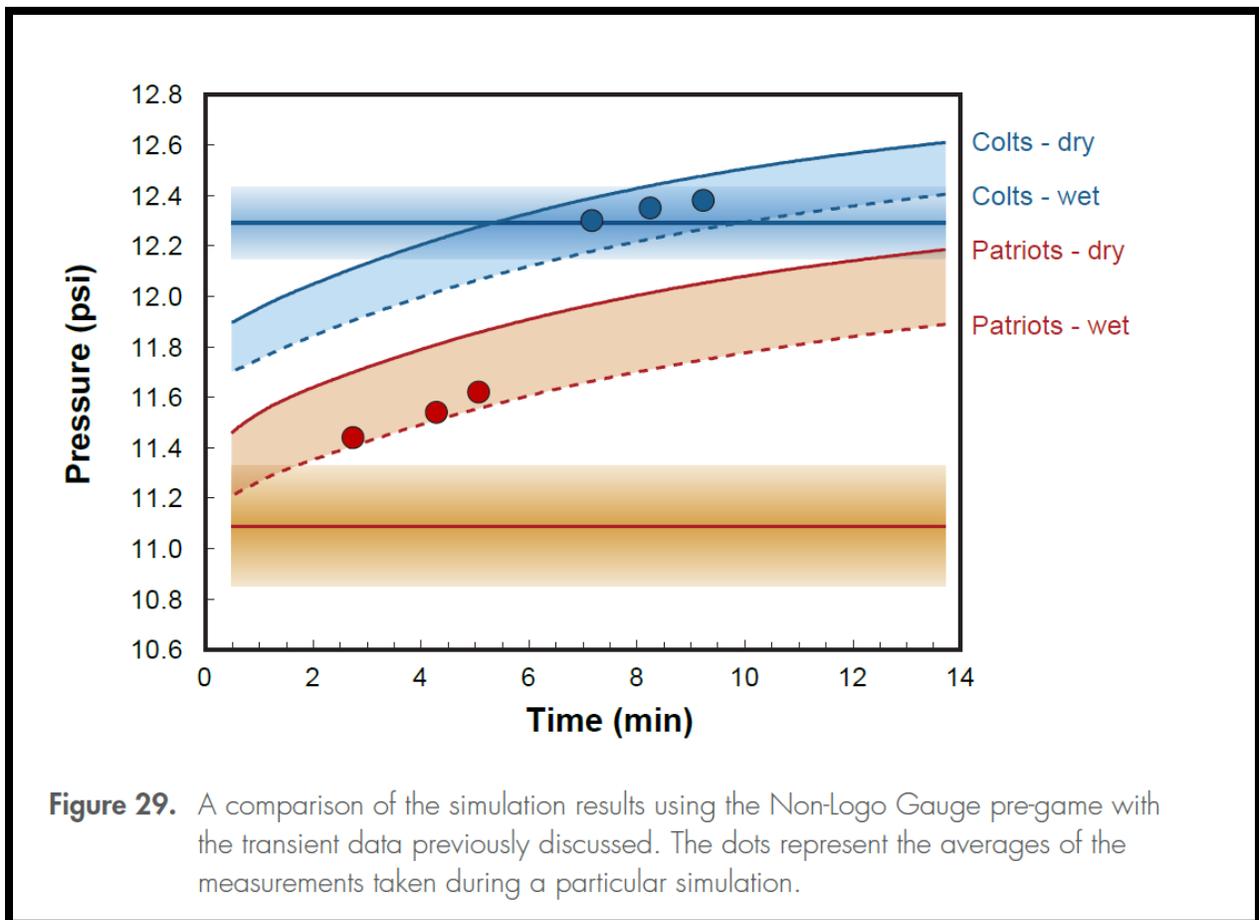


Figure 3 Exponent Figure 29: Assumes the ref was wrong about which gauge the ref used pre-game

Reading left to right, notice that the rate of rise of the large red dots matches the slope of the red dotted curve. Notice the same thing for the blue dots and line. That shows that the warming rate of the simulation very nicely matched the warming rate in the lab-bench test that was used to create the dotted curves.

There is a slight extra upward ripple for the red dots in the previous figure when reading left to right. That is due to experimental accuracy limitations rather than evidence of an actual trend difference. Figure 30 describes the same simulation, using measurement taken a few seconds apart from the above, and any trend seems to go the other way, even though it was the same balls measured at almost the same time. With just this data it's not clear how exactly the simulation rise matches the smooth curve rise.

To provide more clarity as to whether the trends really match, I combined the data measured from Figures 29 and 30 onto one chart. The key question is the slope at which data rises, rather than the absolute level. I shifted what was the "transient" curves up to make it easier to see how exactly the rate of rise of the simulation data points are following the curve.

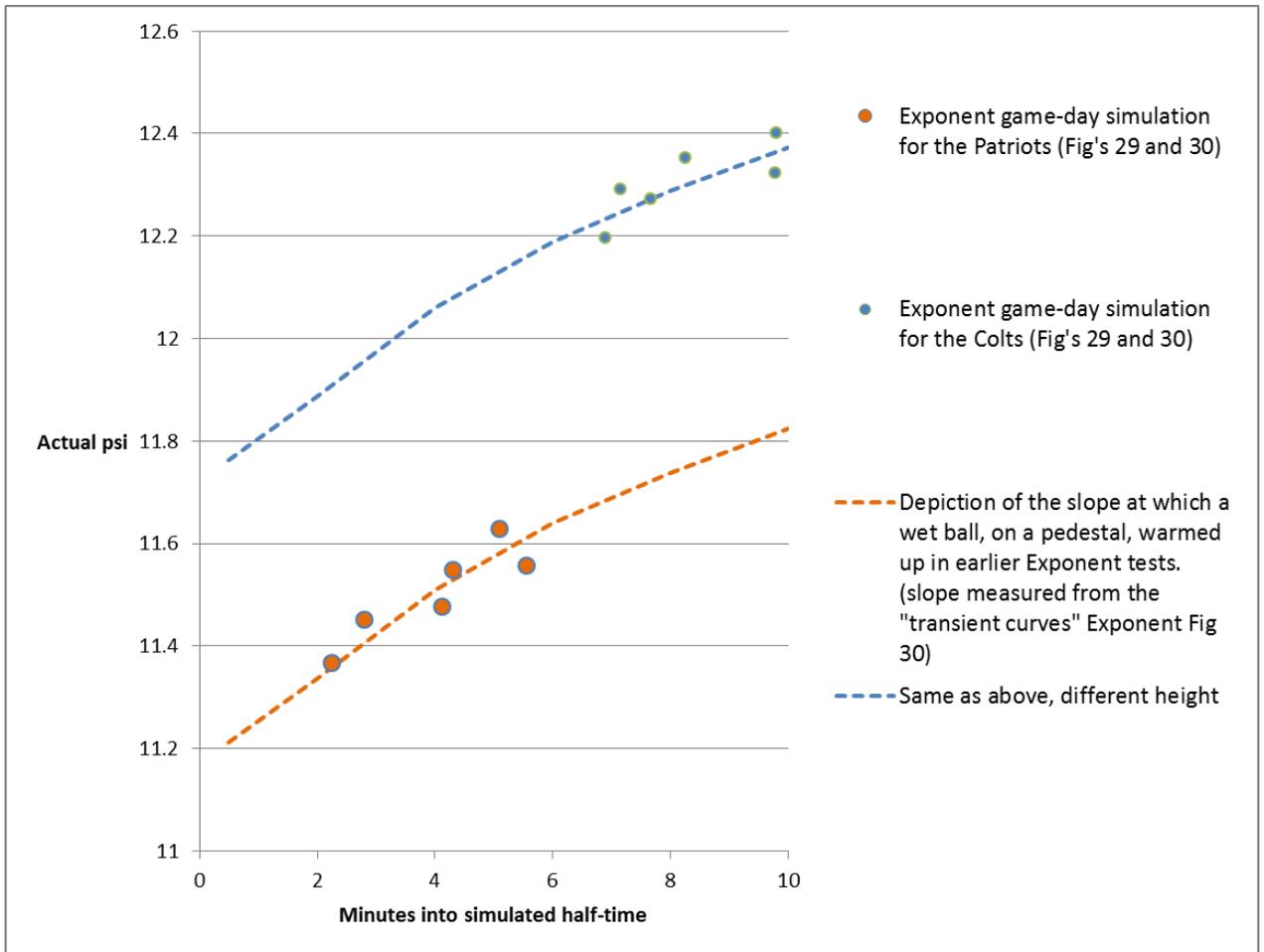


Figure 4 Rate of rise of simulation data in Exponent figures 29 and 30 as compared to "transient" curves based on Exponent lab-bench testing of a lone ball on a small pedestal on a table, which was done prior to the simulations.

The key take-away is that the balls in the simulation were rising essentially at the same rate as in the earlier lab-bench experiments.

It shows that in the simulation, the balls warmed up at the same rate they had in the lab-bench testing that produced the "transient curves." The slope of that "transient curve" is shown. It corresponded to a wet ball, on a pedestal on a table, being measured continuously as it warmed up.

If the simulation was true to game-day conditions, the warming rates should NOT have matched the prior lab-bench testing (the transient curves)

- The rate of rise of the curves was based on testing of a ball alone on a small pedestal on a table.

The test setup shown in Exponent Figure 20 showed a lone ball on small pedestal on table. This was the setup for the lab testing that resulted in the curves shown in Figure 21, which were expanded in Figure 22. Figure 22 shows the “locker room” portion that was carried into the pivotal Figures in the report: 29 and 30.

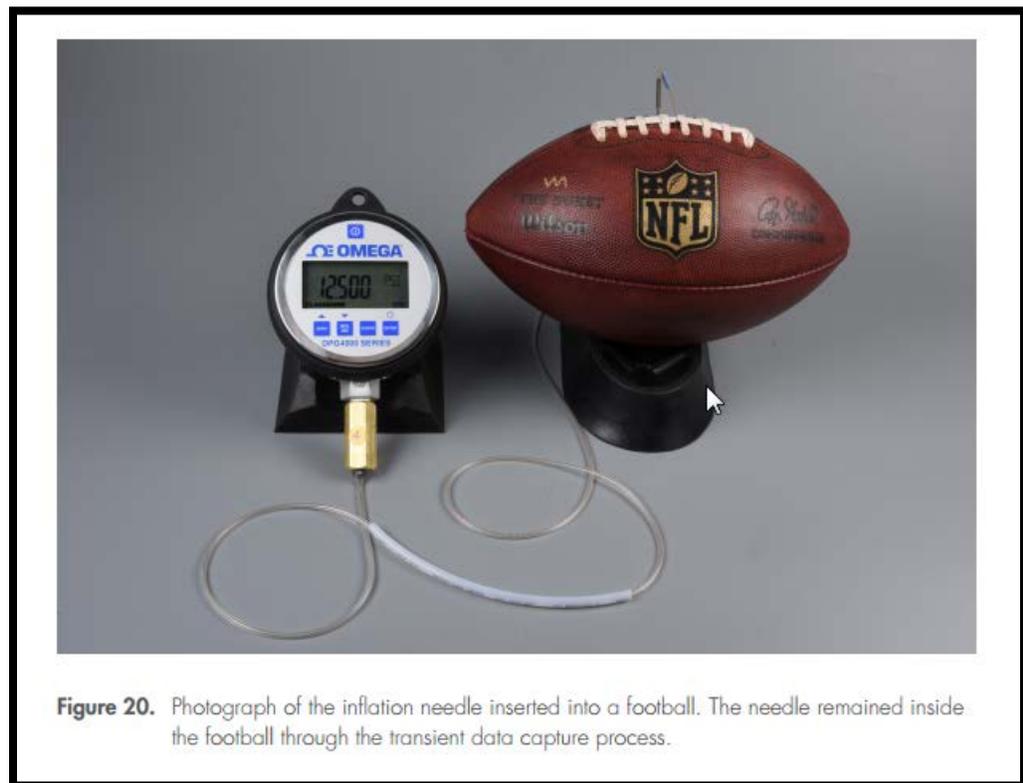


Figure 5 Exponent equipment used to create the "transient curves" on Exponent's Figures 29 and 30. Found on page 41 of Exponent's report

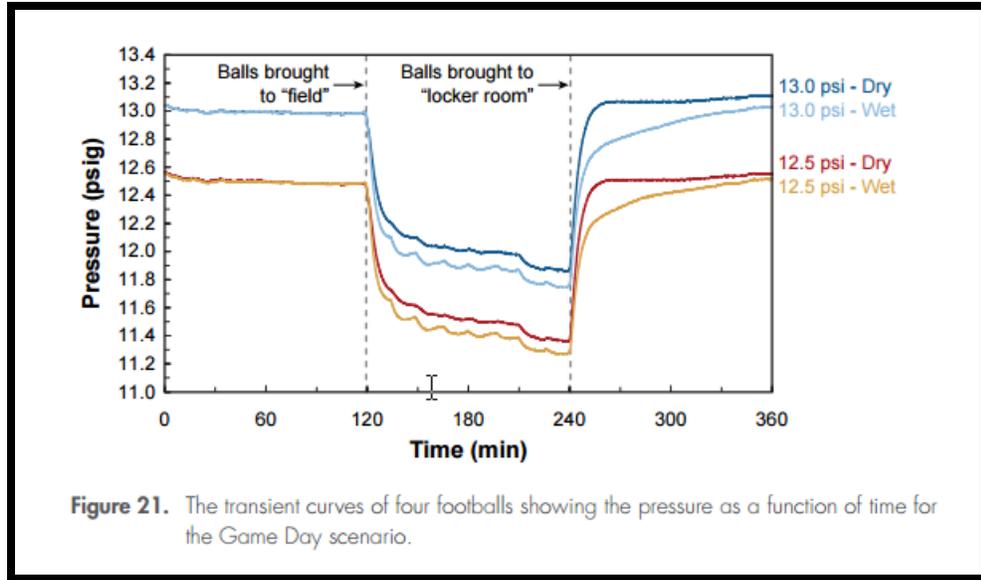


Figure 6 Exponent data from lab-bench testing using the equipment in the earlier figure.

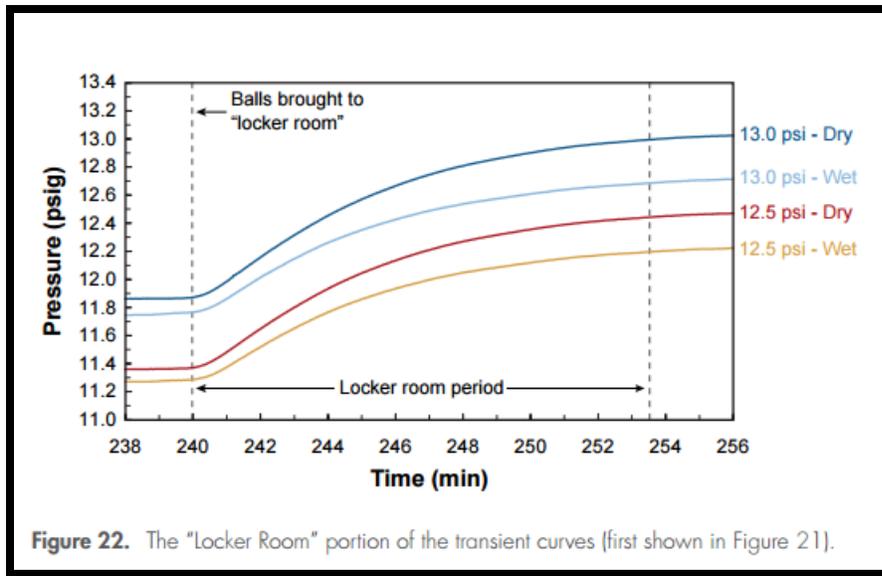


Figure 7 The portions of the lab-bench testing data that Exponent translated onto their Figures 29 and 30

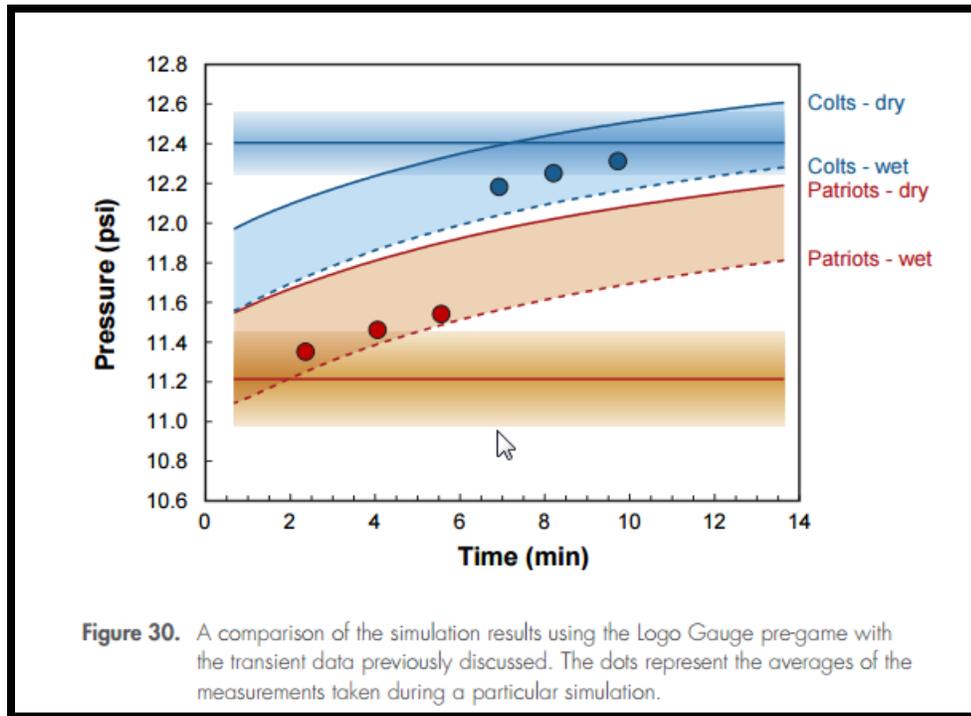


Figure 8 Exponent Figure 30, the one Exponent used to assert that the Patriot game-day pressure was (very slightly) to different from the Exponent simulation pressure (the red dot near four minutes) to be explained just by chance. Thus Exponent claimed their work could not explain the Patriot’s ball pressure.

- In contrast, on game-day each Patriots’ ball stayed in the ball bag until immediately before measurement

“4. The next ball was removed from the equipment bag and the process repeated from Step 1”.

--Page 5, describing what happen on game day



Figure 9 Picture NOT FROM EXPONENT I found online to give an example of what a ball bag might look like. What I do know is that Exponent believed that whatever bag was used was capable of keeping the balls dry (thus not an open mesh design).

“According to information collected during witness interviews conducted by Paul, Weiss, the Patriots ballboys attempted to keep the balls as dry as possible during the first half”
-- Exponent report, Page 54:

Taking that into account, Exponent knew there was no reason to suggest possible cheating by the Patriots. This is because even the tiniest reduction in the expected rate of warming brings the “simulated” expectation down to within the normal variation range of the actual game-day measurements.

As long as you believe Exponent knew the bag could slow warming even a little, then you must believe Exponent lied in their central conclusion.

Exponent’s central conclusion is that regardless of which gauge the ref used, the Patriots’ ball pressure was still too low to be explainable by natural causes. The customary confidence level for making such statements as I if they were absolute fact is 95%. That way there is only a 5% or less chance that natural causes plus

dumb luck in the random sampling could have resulted in the observed measurement.

The center point of their estimate of the timing, the center red dot in Figure 30, is ever so slightly outside the 95% confidence range. The slightest revision downward would put Exponent's best estimate in that confidence range.

Exponent reported that the Patriots' balls were in the bag on the floor until measured. Their simulation had them fully exposed to air.

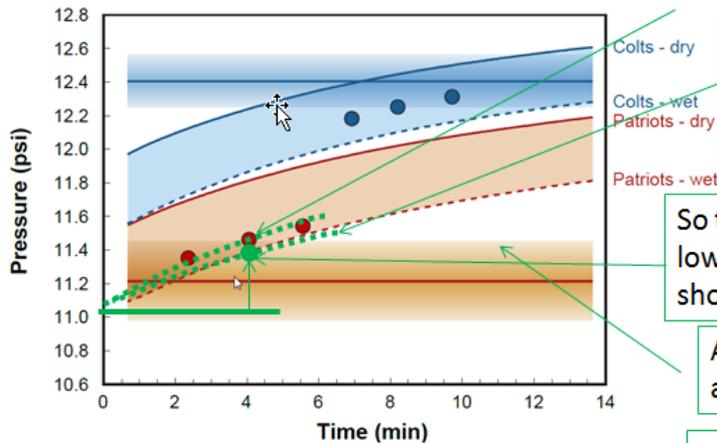
Anyone who's brought home a bag of refrigerated groceries would expect that the ball's being in the bag slowed their warming by at least some.

Exponent knowing they had no sensible reason to doubt the ref in his gauge recollection,

Exponent knows Pat's pressure was explainable

On game-day Patriots balls stayed in the bag.

Exponent's simulation had the balls freely exposed to the air...



... So exponent knows that the balls should have warmed at least a little slower on game day than they did in the original "simulation".

So the expected pressure should be lower than what the simulation showed.

Anything less than this is explainable as a result of normal variations.

With this adjustment, the Patriots pressures are explained.

Figure 30. A comparison of the simulation results using the Logo Gauge pre-game with the transient data previously discussed. The dots represent the averages of the measurements taken during a particular simulation.

(Green items not part of the Exponent graph.
Dotted green line parallels the
dotted red line due to combined data of Figures 29 and 30)

Thus Exponent lied when they said they couldn't explain the Patriot 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

The most relevant conclusion in the Exponent report:

The real question is not how Patriots and Colts' balls compare but rather did the Patriots let air out of the ball. Therefore this conclusion from Exponent is the most relevant:

Therefore, 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, Experimental simulations conclusion.

Exponent cannot possibly be unaware that having a ball be in a bag could slow its warming a little bit, relative to it being on a table. Thus by stating that conclusion, they lied.

- **Special significance of the above relative to an assurance of “independent” investigation.** AEI had every reason to expect that should the results indicate something to unlikely, Exponent would have undertaken further research to investigate it and would have been open about how they went about it.

Special significance to lack of access by the Patriots and NFLPA to communications between Exponent and the NFL: Just as the NFL asserts that it would be unlikely for the ball-boy to cheat if he didn't strongly believe it was desired, it seems unlikely that Exponent would have acted this way without strong reason to believe the NFL wanted this. The NFL complains that Tom didn't hand over communication that might have shown such conspiracy between him and the ball boy. But then the NFL refused to give the NFLPA and Patriots the NFL's

communication that might have shown their conspiracy with Exponent.

How far were they from having told the truth? Is there any reasonable evidence that air was even “probably” removed?

That depends on how much being in a bag slows down the warming.

Exponent indicated the bag was impervious enough to keep balls dry under damp conditions

“According to information collected during witness interviews conducted by Paul, Weiss, the Patriots ballboys attempted to keep the balls as dry as possible during the first half”

-- Exponent report, Page 54:

The bag must have been closed to carry the balls to the locker room.

There’s no reason to expect anyone opened the bag until they sat down to measure.

Estimating the effect of being in a bag:

This site <http://hyperphysics.phy-astr.gsu.edu/hbase/tables/rvalue.html>

indicates that the air layer touching an object has an R value of 0.17. Most of the mass of the ball is the leather and the bladder layer. The inside has little thermal mass, so it needs little heat transfer to warm up.

Except where the bag touches the surface of the ball, adding a bag adds two additional air layers (on either side of the bag). Thus even with one football, assuming the bag is not contacting a high percent of the surface area, putting one

ball in a bag triples the thermal resistance between the ball and the open room air. Thus the ball would warm three times slower.

If the balls average 2 layers deep, so there are not many places where a ball is alone but not many where a ball is sandwiched between two other balls, then is twice as much ball to warm up. At two layers deep, it's as if each ball must get all hits heat from one side (because the ball on the other side is soaking up the heat from the other side of the bag. Twice as much heat must flow through the bag surface area as in the one-ball scenario. So, in addition to there being 3x more R value, you have to wait for 2x as much heat to move. So based on that estimate, balls in a bag would warm 6 times lower than a single ball, alone on a pedestal. That's ignoring that when you make the bag bigger to hold a second layer, the ends and sides get bigger. Accounting for that, the higher surface area partially makes up for there being more balls to soak up heat. Whatever the exact math, the bag should greatly slow the warming as compared to the ball in the open.

Perhaps Exponent would estimate that the bag makes less difference than above, but clearly they have the science to make some estimate, and the bag does make a significant difference, especially when closed.

The graph depicts about 4x slower warming. One side of the bag was likely partially open during minutes 2-6 after.

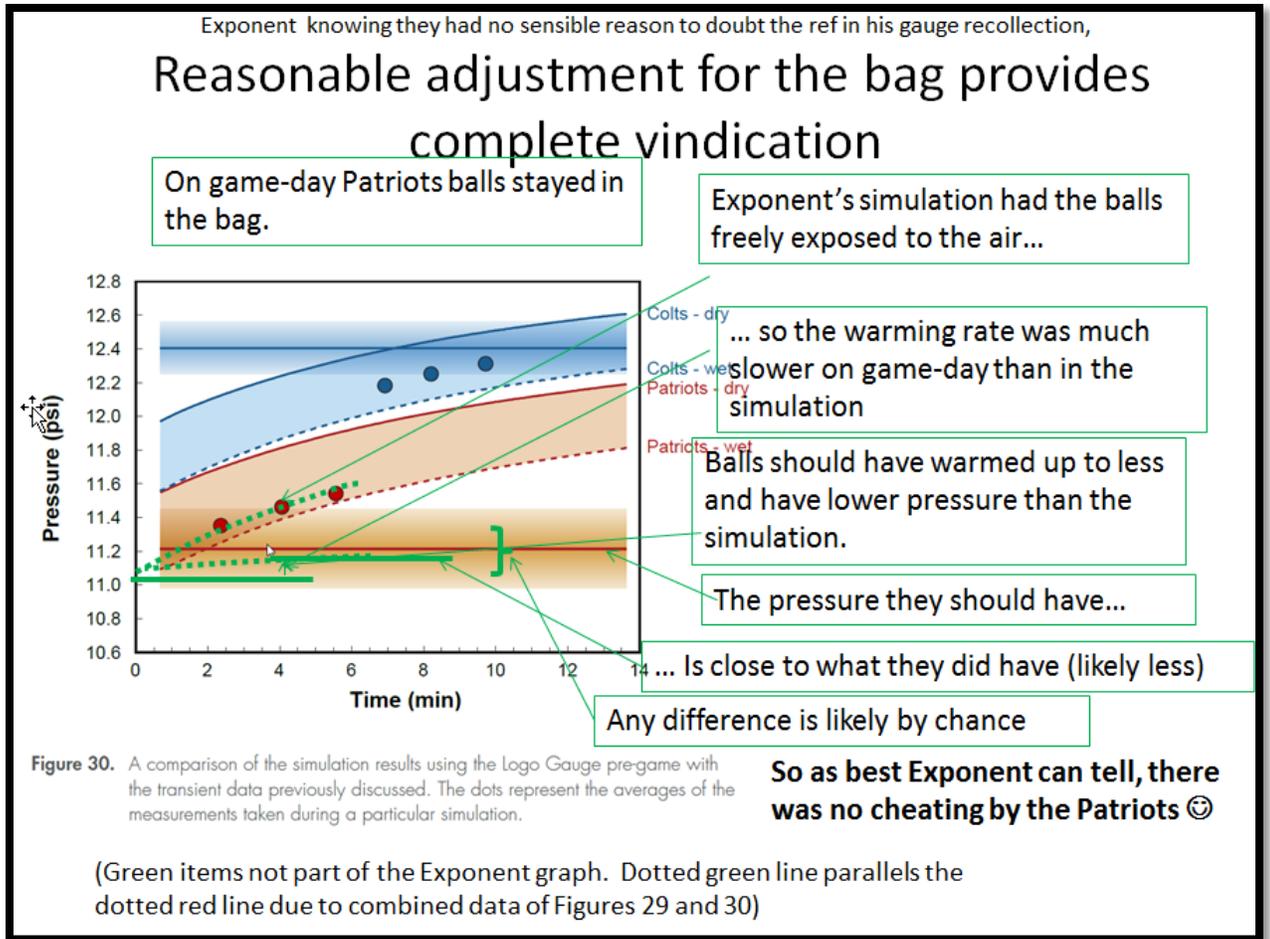


Figure 11 Using Exponent's data, together with knowledge that being together in a bag slows ball warming a lot, the Patriots' ball pressure was right where it was supposed to be

This puts expected simulated pressure almost exactly on top of the actual pressure – which was likely just good luck that it would match that well.

More evidence that Exponent was aware that their simulation didn't match the reality:

Recall that Exponent's central conclusion in the case is that no factors known to them can explain the ball pressures.

Based on the transient curve matching the simulation, the simulation suggests that the pressure should rise 0.35psi during the four minute measurement period. The game-day data does not match that well at all. Based on the Microsoft Excel regression function, there is roughly a 1 in 8 chance that the game-day observations could be trending down so much if the population of footballs being measured on game day was really rising like the simulations predicted. This is not "proof" that the simulations are wrong, but it casts a lot of doubt on the simulations. It suggests that the simulations were over-estimated how fast the balls were warming in the real half-time period.

Whether not Exponent graphed it or not, Exponent had a table indicating that they were studying the data. The last four samples averaged lower than the first four samples.

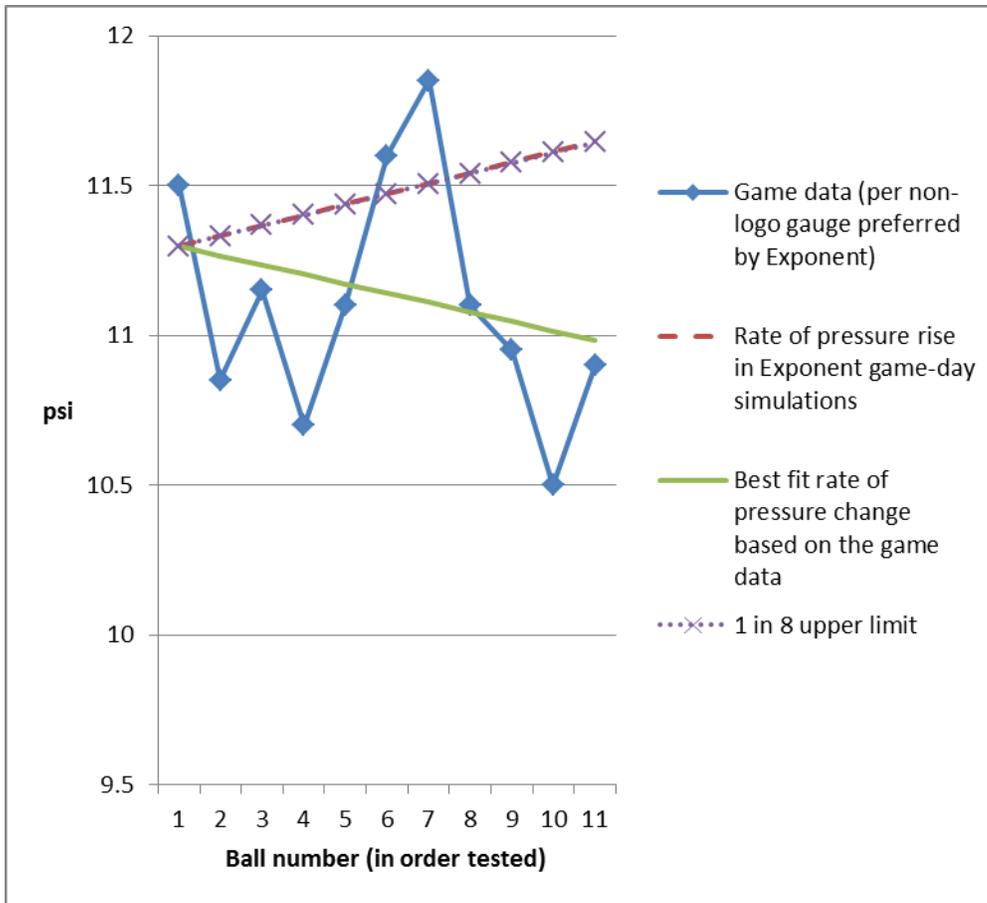


Figure 12 Patriot's ball pressures in order of measurement, with best fit line, compared to simulation expected rate of increase, and upper range of 87.5% confidence interval above the best fit line for the game-data data: (over lapping line): Only a 1:8 chance the data fits simulation

There is ample evidence that Exponent was aware of the significance but did not attempt to replicate the same ball handling in their tests.

Exponent commented on the bags being similar to the ones in their test and made multiple referenced to the role of the bag on game-day and in their simulation.

“Some remained dry and in ball bags (these bags, provided by Paul, Weiss (sic), 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 item 3 and 4.

Exponent indicated the bag was impervious enough to keep balls dry under damp conditions

“According to information collected during witness interviews conducted by Paul, Weiss, the Patriots ballboys (sic) attempted to keep the balls as dry as possible during the first half”

-- Exponent report Page 54:

Grammatical sleight-of-hand:

There was no actual intention to make the half-time simulation match game-day warming rates.

Exponents’ test description appears at first to assure that that critical simulation was matched to game-day conditions to the best of Exponent’s ability:

The procedure used to generate the halftime measurements during Game Day was replicated.

--Source: Bottom of Exponent page 56.

Perhaps AEI found this assuring, and also figured this was true because of faith that Exponent, biased as they may be, would stay within some expected bounds.

Perhaps not accustomed to clever lawyering, AEI missed the special significance of the sentence immediately following the above quotation:

Namely, the Logo and Non-Logo Gauges were used.

Source: Bottom of page 56. (Bold emphasis added),

According to Google, “Namely” means “that is to say.” Thus the entire paragraph reads:

The procedure used to generate the halftime measurements during Game Day was replicated. [That is to say], the Logo and Non-Logo Gauges were used.

Thus the meaning of “the same procedure was replicated” is transformed into only a claim that the two gauges were used.

Had Exponent intended that their use of bags in the locker room simulation matched that of the game day, Exponent would have mentioned the bags to follow the same pattern of repeatedly mentioning the ball bags in describing the other test steps. Evidence of the pattern:

“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.”

-- Page 56 items 3 and 4.

Alternatively, if Exponent believed they had made best reasonable efforts to simulate the half-time period, they could have stopped at “The procedure used to generate the halftime measurements during Game Day was replicated”. Or said that and added “the best ability we knew.” There was no data from the NFL

describing whether the Colts' balls stayed in the bag, whether it was open, whether only the top balls were pulled out, etc. Given the criticality of this issue, Exponent would have known that they should have disclosed what assumptions were made on the Colts' balls. Because they didn't do this, it shows that they were trying to avoid calling attention to the issue. In fact, they didn't discuss these because they made no attempt to simulate them.

In light of the warm-up data, the two sentences were created to create an impression of having simulated accurately even though they knew they had not. The balls may well have been sitting freely exposed to airflow in the simulation rather than in the bag on the floor. Whatever their actual location, the results showed it to be equivalent to the balls being on their own pedestals on a table, something Exponent would have sense enough to know was quite potentially very different from game-day.

If pressed, I would expect that Exponent would say this: if they had simulated with the balls in the bags, then the Colts' balls wouldn't have warmed up enough to match the game-day measurements. They might falsely argue that in order to be fair, they had to treat the Colts' balls the same as the Patriots' balls. However, there is direct witness testimony that the Patriots' ball remained in the bag on the floor but no witness comment on whether Colts' balls might have been handled a while first, or whether the Colts' balls might have been from the top of a

bag that had been open for a long time. There was noted confusion about the Colts' balls and the timing.

There is no testimony to suggest the Patriots' and Colts' balls were handled the same. The fact that the handling could have been different must be known by Exponent from their thought into simulating the events.

Differences in ball handling are a factor undoubtedly known by Exponent to be sufficient to explain the difference between the Colts' Balls and the Patriots' balls. Exponent feigned ignorance in order to indict the Patriots by claiming lack of any explanation.

Special significance of this lawyerly wording of the Exponent report as it relates to NFL/Exponent communication and collaboration: Scientists and truly independent investigators tend to prefer direct communication. When the truth is "we did not replicated the most vital questions of halftime, it would be unlike a scientist to open with a sentence to the contrary, only to then retract it in the next sentence. Had there been access to the kinds of edits worked on with Exponent, it quite likely would have exposed the efforts to make as unnoticeable as possible the fundamental issue.

Technically there was no lie in the above suspiciously worded description of the half-time simulation process. The lie was created by Exponent asserting that they knew of no likely explanation for how the Patriots' ball pressures were

different than the Colts' ball pressures. That is the lie central to why there remains much of a scandal.

Special significance to the question of whether the Roger Goodell can arbitrate in good faith: Having established behavior this egregious and central to the case, of the kind that would only occur with the plaintiff's consent, it becomes untenable that the arbitration process could have been anything but a sham. Not a bona fide arbitration, and this a violation of the CBA.

More Evidence that Exponent knew their simulation didn't match reality:

First red flag: smooth curves on the graph, but no continuous testing of balls in a bag every second.

Anyone familiar with the testing would know that at no point did Exponent measure simultaneously and every few seconds the pressure of multiple footballs in a bag. That would have been very impractical and did not match what took place. Therefore they know the transient curves were based on a single ball being tested at a time, out on the table.

Given that the warming rate is the central question to be addressed, multiple factors had to be considered, each of which could make a vital difference in the evidence of lack of evidence against the Patriots.

- Was the bag open or closed?

- On a table?
- In a draft (that would help air move between the balls) or not?
- Was the bag really identical to the game bags? What common bags are out there and what difference would it make?
- Was the bag itself damp (as it may likely have been on game-day)?

While it's not necessary to address the Colts' balls to prove the Patriots' balls were where they were supposed to be, there was no data provided to assure that the four Colts' balls that were measured didn't have much better opportunity to warm up than the 11 Patriots' balls measured.

Regardless of what Exponent did or did not do in their simulation, it's clear that they knew that there were plenty of physical factors that could cause their simulation to not match reality. Most of them favor adjusting the warming rate in the Patriots' favor.

Exponent made some suggestion their simulation data was biased downward because they dampened all of the balls slightly (spray then wipe off), whereas they presume that perhaps a few balls weren't used on game and were dry. However, the difference between "wet" and misted-and-wiped off was a very small one. A little moisture made a big difference.

There's no reason to believe that any of the balls had remained perfectly dry

in the bag with the other balls. There were other variables known to Exponent that could have helped offset or reverse this.

Gauge assertion and assumptions: Evidence of deceit:

Assertion

Exponent dismissed the ref's recollection of which gauge was used pre-game. As will be shown, **Exponent believed none of the reasons they gave for over-ruling the ref's testimony of which gauge he used.**

Impact

Everything else being equal, this adverse assumption makes it look like the Patriots took (another?) 0.37 psi out. The larger the pressure difference, the greater the statistical proof, the greater the implied motive, and the greater justification to claim that the Patriots violated the integrity of the game.

Even, with that adverse assumption, if you take into account balls warming slowly (especially in a closed bag), then there's not too much difference left between predicted and measured? The observed difference could still be modestly bad luck in measurement and other variables as seen in the testing, rather than some unknown factor.

Even if the warming was a bit faster, there are still other factors identified to Exponent and researched in part that could account for the remaining difference.

It seems that Exponent was unduly over-confident disbelieving that any would make a difference. A separate section is devoted to that.

Impact on whether the NFL violated the CBA by not attempting to arbitrate in good faith:

It indicates that Exponent, Wells, and the Commissioner **likely colluded to provide plausible deniability** to pick the gauge assumption most damaging to the Patriots. One party advances reasons they know don't pass scrutiny, and the other, colluding party either fails to scrutinize or plays dumb.

Given the centrality of this issue to fueling the speculation that Tom Brady would be motivated to engage in a conspiracy, this deserved special attention and Goodell was unfair to not question the reasons. He knew the report was not-independent.

The complete list of reasons Exponent cited.

because we found the Logo Gauge to read at least 0.35 psig high in our experiments, while the Non-Logo Gauge reads closer to a calibrated gauge and most of the other gauges tested during the investigation, and because we found during our testing that the Non-Logo Gauge never produced a reading higher than the Logo Gauge, we conclude that it is more likely that the Non-Logo Gauge was used to measure the balls prior to the game. This conclusion is based on data provided to us by Paul, Weiss and data generated by our experiments. It also is consistent with the pressure readings reported by the Patriots, the Colts, and Walt Anderson.
--(Exponent page 65)

The data provided by Paul Weiss as referenced above:

According to information provided by Paul, Weiss, personnel from both the Patriots and the Colts recall gauging the footballs for their teams to pressures at or near 12.5 psig and 13.0 psig, respectively, prior to providing the balls to Walt Anderson. Each team used its own gauge to adjust the final pressures before presenting the balls to the referee, who used a gauge different from either used by the two teams to measure the pressure in the footballs. Walt Anderson recalled that according to the gauge he used (which is either the Logo or Non-Logo Gauge), all of the Patriots and Colts footballs measured at or near 12.5 psig and 13.0 psig, respectively, when he first tested them (with two Patriots balls slightly below 12.5 psig). This means that the gauges used by the Patriots and the Colts each read similarly to the gauge used by Walt Anderson during his pregame inspection --Exponent Page 44).

The Paul Weiss data's significance:

The result of the above is to indicate that whatever gauges Patriots and Colts used and the ref used must have read similarly for the pre-game measurements to match the testimony. They all had about the same bias if any.

That is good logic. **The problem is that none of the reasons given above are ones Exponent would actually believe to dictate which kind they were like:**

whether they were all like the one the ref said he used or all like the ref's less preferred gauge. All we know is that they were all alike.

Here is why the separate reasons have no bearing on the question and why Exponent knew that.

“Reason” Tested many gauges, all like the one not used.

because we found the Logo Gauge to read ... closer to ... most of the other gauges tested during the investigation,

There is a sneaky reason for this: all the gauges Exponent bought were the same model as the one the ref denied using.

Exemplar Gauge: A gauge that is thought to be nearly identical to the Non-Logo Gauge. Specifically, Model CJ-01 with the description “Electronic Ball Pressure Gauge.” Exponent obtained multiple dozens of Exemplar Gauges from both Wilson Sporting Goods (via Paul, Weiss) and other sports equipment retailers.

-Exponent report, Page 13

The above creates a superficial appearance that much good test work and logic went into the decision to reject the ref’s recollection. Exponent must know this to be a smokescreen for their decision to overrule the ref for no real reason other than to make the Patriots look guilty. It provides the plausible deniability Goodell needs to pretend to have overruled the Patriots (and the ref’s opinion) in the appeal.

Rather than providing evidence that the gauges like the ref said he used are unusual, the testing helped indicated the opposite: it found that gauges of a given model tend to share the same bias and be very consistent. Thus if the ref’s preferred model over-reads by 3%, that’s likely because that design over-reads by 3%. Thus it’s not that individual gauges tend to vary. It’s not like the ref’s gauge was likely an outlier.

“Reason”: teams would shun gauges that are 3% biased.

In contrast to this assumption, other filings have established that there was no such intense focus on minor variations in pressure across the league, so no reason to believe teams favored accurate gauges over 3% biased gauges.

There’s no reason to believe basketball or soccer teams or other markets for such gauges care that much about 3%. Therefore there no reason to believe a manufacturer would withhold from production an inexpensive, sports-store gauge that happens to have a 3% bias.

“Reasons” related to one gauge reading too high (rather than too low):

because we found the Logo Gauge to read at least 0.35 psig high in our experiments, while the Non-Logo Gauge reads closer to a

calibrated gauge ... and because we found during our testing that the Non-Logo Gauge never produced a reading higher than the Logo Gauge

What’s the most bizarre is to suggest that people pay special attention to the direction of the measurement bias in their gauge. Even more strangely, Exponent’s assumption means that Exponent thinks teams are especially careful to avoid gauges that would allow them to get away with making the ball too soft if someone used them unaware of the 3% error. Only the Packers’ star quarterback, Aaron Rogers, is on the record as preferring to have the football harder rather than softer. Had the Patriots been playing the Packers on that day, then at least the assertion

wouldn't be nonsense. But as it is, the assertion contradicts the NFL's claim that teams might want underinflated footballs.

The evidence is that Exponent preferred to assume the ref was wrong because that allowed them to make a better case against Tom Brady.

Reasons to believe the ref:

- He always travels with the two; he's bound to have a favorite
- One has a much longer needle than the other:
 - He's bound to have a favorite length
 - Makes it easier to remember because this affects how it feels in use.
 - If you think the Patriots want to cheat, you'd think the Patriots would use a gauge that over-reads (like the one the ref said he used), so you can make the ball look fine on the gauge while putting less air in it. Whatever bias the gauges had, it was the same for both the ref and the Patriots. Therefore the ref must also have used the gauge that over reads.
 - If under heavy questioning, the ref had not been pretty confident, you'd have gotten a stronger indication of lack of confidence than merely "certainly possible" he was wrong.

Proving that Exponent's final conclusion was a lie

The last conclusion in the report was this:

*...based on all of the information provided to us, particularly regarding the timing and sequencing of the measurements conducted by the game officials at halftime, and on our testing **and analyses**, we conclude that within the range of game characteristics most likely to have occurred on Game Day, we have identified **no set of credible environmental or physical factors** that completely accounts 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*

-Exponent concluding paragraph (item 13 on page 68) Emphasis added.

The Patriots' pressures are understood and fully explained. By assuming for no good reason that the Colts' measurements were made before the Patriots balls were re-inflated, Exponent made it look like the Colts' pressures weren't explained adequately. Then they used that to cast innuendo on the Patriots, knowing that most readers would assume there to be no uncertainty about the Colts' balls.

Exponent knowing they had no sensible reason to doubt the ref in his gauge recollection,
**Patriots fine – but Exponent says this chart can't
 account for the Colts balls**

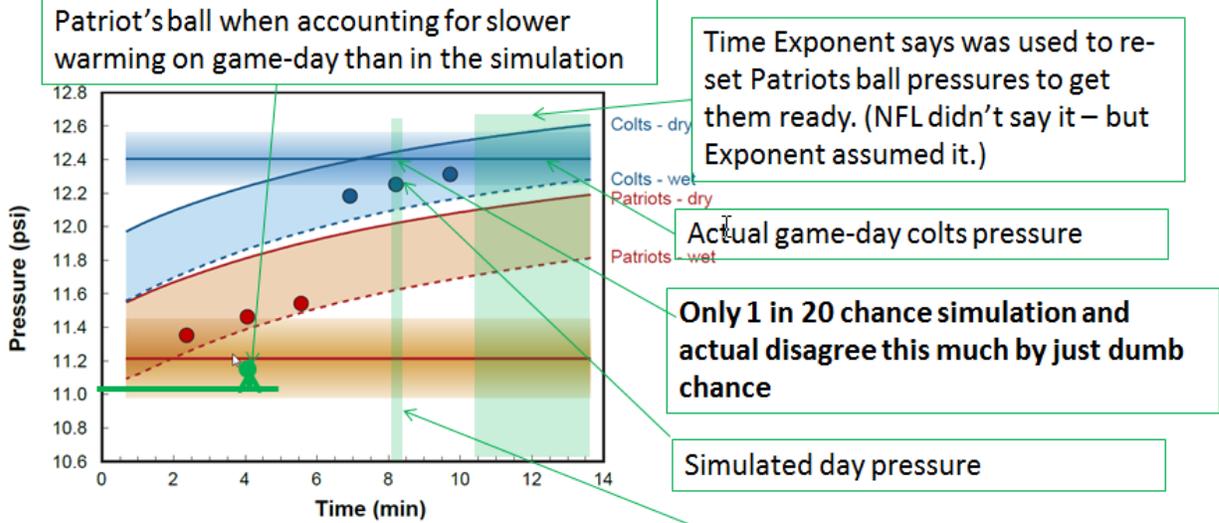


Figure 30. A comparison of the simulation results using the Logo Gauge pre-game with the transient data previously discussed. The dots represent the averages of the measurements taken during a particular simulation.

(Green items not part of the Exponent graph)

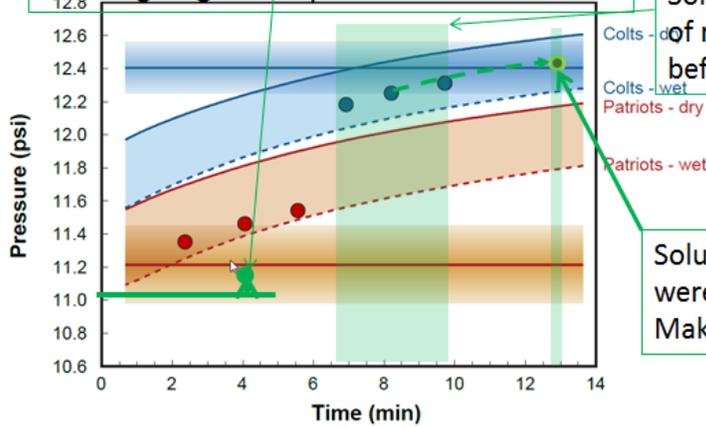
Figure 13 Patriots balls fine, but Exponent claims they can't explain the Colt's ball pressures

Exponent knowing they had no sensible reason to doubt the ref in his gauge recollection,

Solution: change time order assumption

Patriots and Colts balls both explained

Patriot's ball when accounting for slower warming on game-day than in the simulation



Solution: Recognize that the process of re-setting Patriots balls was done before measuring Colts balls

Solution: Recognize that Colts balls were only measured last second. Makes the pressure prediction go up

Figure 30. A comparison of the simulation results using the Logo Gauge pre-game with the transient data previously discussed. The dots represent the averages of the measurements taken during a particular simulation.

(Green items not part of the Exponent graph)

Figure 14 Colts' ball pressures explained by changing the presumed order of testing, to test the Colts' balls last as is widely understood to be what really happened

It makes much more sense to figure that the Colts' balls were measured only at the last minute,

- Explains how the officials ended up switching which gauge they used between the Patriots test (then the re-inflation) and the Colts test
- Consistent with how important it was to make sure Patriot balls were re-prepared for the 2nd half.
- Explains why only 4 Colts' balls were measured: the measurements were cut short to get back to field.
- Exponent's simulation tested the four balls in a 26-second span (p. 58 table 13 middle row, 2x the time span from start to average.) Thus the remaining 8 could have been tested in another minute. If there were plenty of time, why would the break protocol by not following through with their original intention to test them all? Why panic and stop testing them unless there was something really urgent?

Robert Blecker, of New York Law School, pointed out to me this passage on Page 2 of the Exponent report, which indicating to him that it was Exponent, rather than the NFL, that made the decision to assume that the Colts' balls were measured in the middle, after the Patriots ball tests, before the refs pumped more air into the Patriots' footballs:

According to information provided by Paul, Weiss, it is clear that of the three events listed above, the measuring of the Patriots balls occurred first. Although there remains some uncertainty about the exact order and timing of the other two events, it appears likely the reinflation and regauging occurred last.

--Exponent report, page 2.

Exponent gave no reason for saying that “it appears likely.” The flow of the quote does not indicate that the “it appears likely” assumption came to the “according to information provided by Paul”. It seems to be Exponent deciding that “it appears likely”, and for no good reason, and against other contrary reasons known to Exponent.

The real reasoning seems apparent: Something incriminating was sought, and only by making the illogical assumption could Exponent impugn the Patriots.

Data shows the ref was right about the gauge.

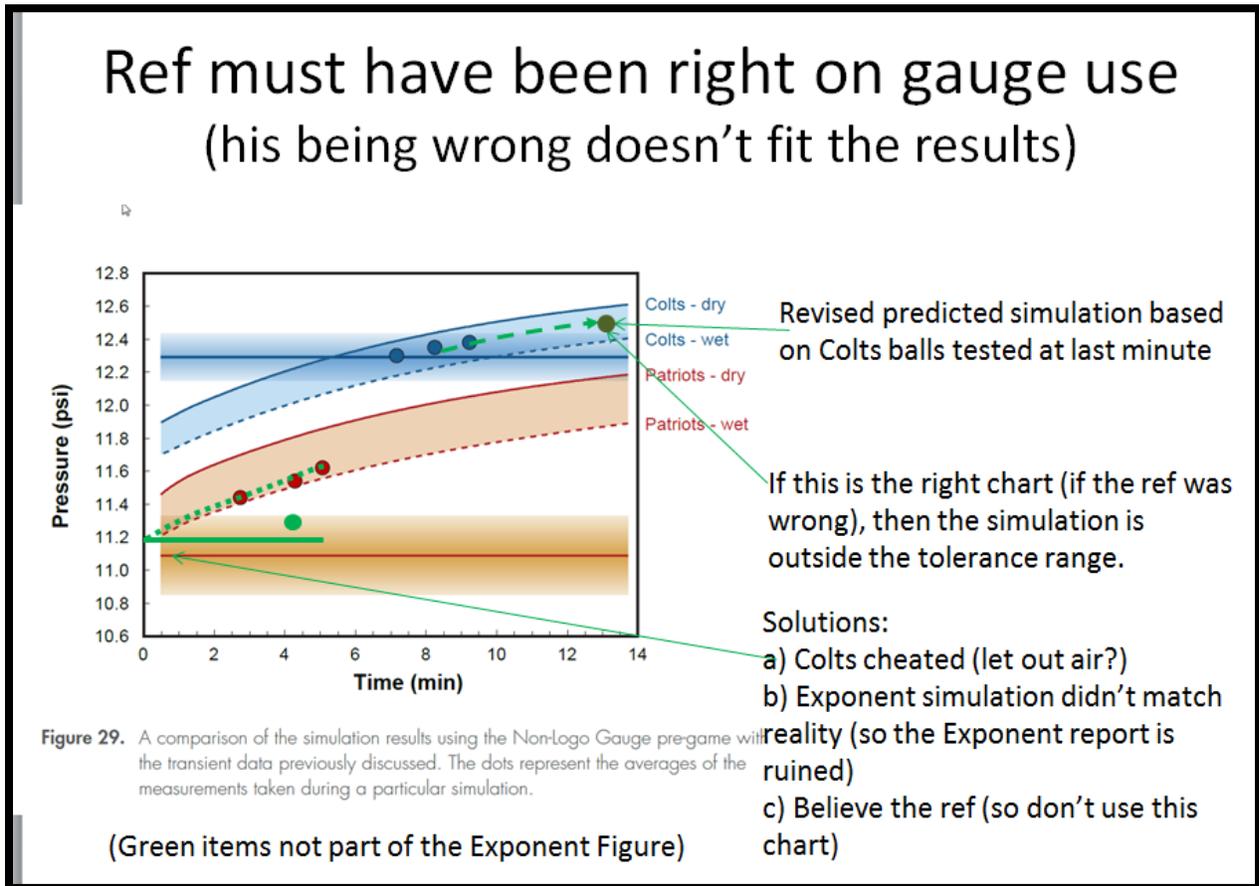


Figure 15 Ref must have been right on his gauge use, because for him being wrong doesn't fit with the Colts' ball pressure measurements at half-time

Therefore the Colts' ball pressure is properly explained fully within the information supplied by the NFL to Exponent,

The Exponent research, when used without bogus assumptions applied to it, proves that the ref was right about which gauge was used, and that the Patriots ball pressure was what it was supposed to be.

Therefore, whatever you believe about the text messages, no air was removed. There was no cheating (unless it was by 0.1 psi – which would be silly and pointless and of no value).

Other uncertainties, unsuitability for “criminal-like” penalties.

Whatever benefit the Patriots got from the simulation making all balls a little damp (whereas a few balls may have been dryer but not bone dry), there were other factors that, if fully simulated, would have counter-acted that effect.

If one side’s expert says “more likely than not, but not conclusive”, then there’s a good chance that there’s enough extra dimension of uncertainty outside the statistics to give pause so as to not frequently dole out excessive, undeserved punishment: How expert are they? Does their model perfectly match reality? Has bias influenced their judgment calls? By this point it’s clear that Exponent had some biases. It’s inappropriate to take their other judgments at face value with no range of uncertainty. Some clues that Exponent testing didn’t cover some of the factors Exponent was aware of, factors that had been identified, that could have resulted in lower pressures:

- Since they contend that most balls were damp, why didn’t they use a damp ball in their test where they pressed on a ball with a piston?

Anyone who’s worn athletic shoes knows that the same flexing causes

more stretch when there's moisture. Note: Exponent testing found that leather, rather than the bladder, determines ball pressure.

Exponent buried this in footnote 33.

- Kickers try to flex the ball by pushing on the ends. Nobody pushes on the center.

If it made good sense to impose criminal-like penalties for more “more likely than not” suspicion, then society wouldn't have a “beyond a reasonable doubt” standard and a unanimous jury requirement.

Given how close some of the numbers are on the non-ref gauge at low warming rates, even a 0.05psi difference (well under 1%) can tip the scale from “no particular evidence” to “more likely than not”. It seems evident that Exponent biased their results a bit by pretending that things don't make a difference.

Proof of non-cheating

Based on my estimate that being in a bag, closed for the first two minutes, greatly slows warming, there is very little room for even undetected cheating.

No cheating detected Undetected cheating would be tiny

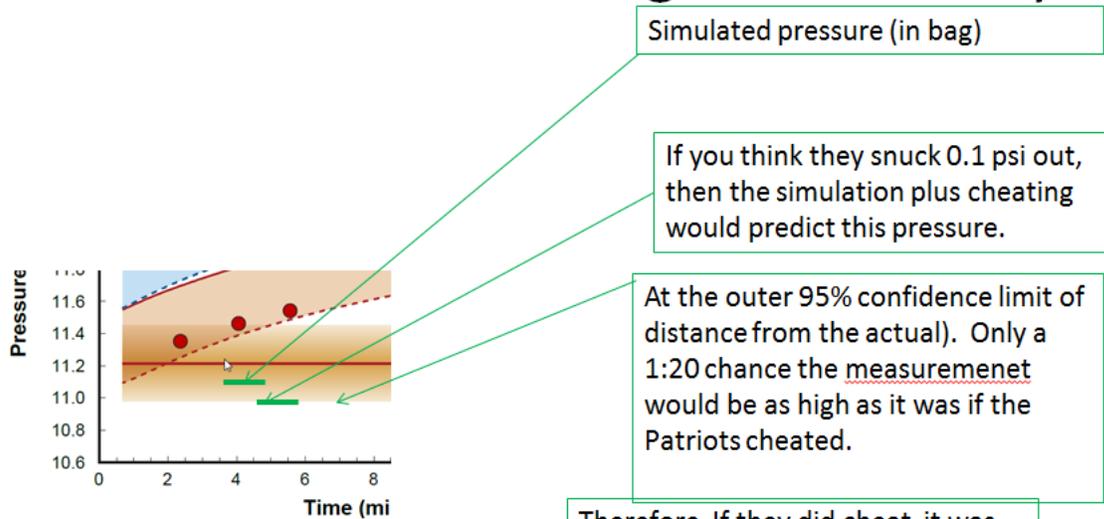


Figure 30. A comparison of the simulation results us the transient data previously discussed. 1 measurements taken during a particular .

(Green items not part of the Exponent graph.)

Therefore, If they did cheat, it was by no more than 0.1psi

For all practical purposes, the data proves they did *not* cheat 😊😊

Figure 16 No cheating detected, and any cheating too small to be detected would be completely irrelevant

Perspective on “what if Patriots cheated but by too small an amount to be caught by the testing: impact on motive and game-integrity relevance

Based on the ill-seeming texting data, some may be inclined to assume that the Patriots must have cheated, and that the data just wasn't sufficiently precise to catch them.

If one took a hundredth of a psi out, no one would ever know.

But why would you?

With a little lower pressure to due to a better simulation of the game-day conditions, the pressure prediction drops to closer to the game day measurement, In other words, the balls had close to exactly the pressure they were supposed to. Therefore the evidence is that there was no cheating.

At most, the amount by which the most-likely predicted pressure and the measured pressure are very small. That means very little motivation to cheat by any amount not detected and very little effect on the game.

If you assume a 50% decrease in warming rate (especially given that the bag was likely closed for the first two minutes, Exponents' Figure 30 should be read at 2 minute, at which simulation data suggests the balls were off by a statistically completely insignificant 0.1 psi. If you think that ref gave the Patriots a break by not using the gauge he thinks he did (the one he probably uses first everywhere he goes), the difference the Patriots "got away with" would be 0.47psi (adding the game-day difference of the two gauges, 0.37, to the 0.1).

How much of an advantage is that and how much does it affect integrity of the game? Such a 0.1psi difference is:

- Less than 1% of the ball pressure
- 5 times more the amount of *extra* air the Colts legally and *voluntarily* put in the ball (0.5psi)
- 25 times the amount by which the ref disadvantaged the Patriots in the Jets game by over-inflating (16-13.5 psi)
 - 20 times the amount that this coming season, balls in the 2nd half of 30-degree games will be at higher pressure than they were in all previous years (because previously the balls weren't pumped at halftime to make up for losing pressure due to cold) (2 psi)
To verify the row (2psi increase) calculated as follows: Assuming balls were and will continue to be first set to 13psi indoors, but that refs will pump them up to 13 again on the field at halftime under the new rules. For ballpark proof that 2psi is the right number, compare first and last row of Table 10 on page 37 of the Exponent report, multiply by 2 for 40-degree differential (70 degree locker to 30 degree field) rather than 20 degrees to calculate 2.01psi difference.

Conclusion:

The net result of the Exponent research isn't evidence against the Patriots. It isn't inconclusive. It is conclusive evidence of no wrongdoing.

The reason that evidenced to prove innocence was not discovered earlier is the hidden through lies and deception (and bias and ill-will). Therefore you can't blame the Patriots for not catching it sooner during appeal. Therefore the NFL

decision was changed due to the lack of due process. The CBA cannot possibly be construed as agreeing to this kind of behavior. In addition to the arbitration decision being wrong, it must be overturned.

Sources:

Exponent report: is part of the Wells Report, produced for the NFL:

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

American Enterprise Institute (AEI) critique of the Wells/Exponent report: “On the Wells Report”: <https://www.aei.org/wp-content/uploads/2015/06/On-the-Wells-report.pdf>

Date: August 25, 2015

Respectfully submitted,

Robert Young
209 Holman Road
Fitzwilliam, NH 03447
Robert.Young@BetterDialogue.com
Cell 603 494 7677

Word count certification: Using MSWord, I
determined the word count to be below 14,000.