

Professor D'Amato's essay is a kind of universal satire—of law reviews, law review editors, pompous generalizations, relentless illogic, fake mathematics, physical impossibilities, strategic misuse of footnotes, far-fetched claims of relevance to legal study, erudite allusions that go nowhere, and thoroughgoing self-mockery. In telling a simple tale of the origins of a rule of baseball, he manages to misunderstand and mistranslate the bulk of his source material, while displaying just enough of a simulacrum of historicity to get the thing published.

—The Editors

THE CONTRIBUTION OF THE INFIELD FLY RULE TO WESTERN CIVILIZATION (AND VICE VERSA)

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Baseball's Infield Fly Rule¹ is one of the most hotly contested topics in American law today.² A recent major-league addition to the burgeoning literature is Neil B. Cohen and Spencer Weber Waller's thorough and exhausting analysis of the rule's conceptual roots in the jurisprudence of the past one hundred years.³ Yet their assumption that nothing of significance

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¹ The infield fly rule is used to prevent a team from letting a pop-up drop in order to get two outs instead of the one that catching the ball would accomplish. It is called by the umpire when a pop-up is hit in the infield and there are fewer than two outs and runners at least on first and second base. The reason is that the baserunners assume the ball will be caught and thus all run back to their bases. Then a fielder could let the ball drop, pick it up on a bounce, and throw it to the third baseman who then throws it to the second basemen thus executing a double play. Once the umpire calls "Infield fly!" and points to the sky, the batter is out. The runners may advance at their own risk after tagging up as they would on a normal fly ball.

² See, e.g., Aside, *The Common Law Origins of the Infield Fly Rule*, 123 U. PA. L. REV. 1474 (1975). Though originally published anonymously, the author of this "Aside" was Will Stevens. See also, e.g., Margaret A. Berger, *Rethinking the Applicability of Evidentiary Rules at Sentencing: Of Relevant Conduct and Hearsay and the Need for an Infield Fly Rule*, 5 FED. SENT'G REP. 96 (1992); Mark W. Cochran, *The Infield Fly Rule and the Internal Revenue Code: An Even Further Aside*, 29 WM. & MARY L. REV. 567 (1988); Charles Yablon, *On the Contribution of Baseball to American Legal Theory*, 104 YALE L.J. 227 (1994); John J. Flynn, *Further Aside, A Comment on The Common Law Origins of the Infield Fly Rule*, 4 J. CONTEMP. L. 241 (1978).

³ Neil B. Cohen & Spencer Weber Waller, *Taking Pop-Ups Seriously: The Jurisprudence of the Infield Fly Rule*, 82 WASH. U. L.Q. 453 (2004). Professor Waller is a Visiting Professor at Northwestern University School of Law in 2005. He is a former student of the Author of this fabulous Article.

happened prior to the twentieth century ignores much of significance that happened prior to the twentieth century. For example, despite the fact that the authors are technically correct in noting that baseball itself is not mentioned in the Bible, they overlook the more specific biblical reference to the Infield Fly Rule. They also miss the historic contributions of Zeno, Plato, Aristotle, Aquinas, Voltaire, Leibniz, and Riemann, among others. Although the Cohen-Waller errors are those of omission and not of commission, the pre-1900 void they have left open cries out for coverage by an erudite article that is impeccably researched and brilliantly reasoned—one that is nothing short of a grand-slam contribution to Western thought. The present Article scores on all counts.

I. THE BIBLE

We begin appropriately with the Bible. In 1 Samuel 17:35, young David, armed with only a sling, confronted the giant warrior Goliath. The latter, surely accustomed to the then-ubiquitous weapon, can be assumed to have been fully prepared to duck the stone emanating from the device and then advance upon the youth to smite him.

But then David cleverly yelled “Infield fly!” (“ינפֿיאַלד!”) causing Goliath to look upward. That momentary distraction was all the time David needed to pitch his missile and thereby change the course of human history.

Although the Biblical account should be familiar to every schoolchild, the debate it has engendered is not as well-known to the general public. At issue is which came first, baseball or the Infield Fly Rule? One faction, the Activists, started by Moses Maimonides, apparently relies on elementary logic semiotically grounded on a steaming hotbed of layered structuralism. They contend that the Rule would be meaningless in the absence of the context provided by the game of baseball. The opposing faction, the Originalists, insist that every word in the Bible must be taken as gospel. Hence, if the Infield Fly Rule was mentioned first, then it must have antedated the game.

Although the debate is becoming exciting, it is nevertheless conducted without a trace of scholarly jealousy. A new explanatory theory of time reversal in support of the Originalist position, couched in the gentlest terms of punctilious civility, appears in Tekel Upharsin’s *Contested Expectations of a Second Coming: Biblical Praxis, Lefty Gomez, and the Path-Dependence of Liberal Angst* (Cambridge: Wormwood Press, 2005). Upharsin cordially invites the esteemed reader to consider adopting a fresh and hopeful methodology which he calls supernatural logic, in contradistinction to the perhaps cramped deductivism of Frege and Wittgenstein. In supernatural logic, deduction can proceed from the bottom up rather than from the top down, with effects sometimes anticipating their causes and time itself running backwards now and then. One of the most notorious examples of an effect preceding its cause is precisely the Infield Fly Rule. Professor

Upharsin notes that inasmuch as the Bible was authored by the Supreme Being, or at least written under Him for credit, anyone who argues that the Infield Fly Rule was not *ex ante* the game of baseball might conceivably be charging the Lord God as having only limited power over time and sports. But surely if anyone can make time run backwards, the Almighty can do it. Therefore, Upharsin concludes, the Biblical Activists are liars, blasphemers, and probably affiliates of the Frankfurt School. They must immediately be tied between driverless humvees and torn asunder, and/or eaten alive by creepy-crawly things with odd numbers of legs. Their names must be anathematized, their research grants revoked, and their domestic partners accursed unto the tenth generation.

II. THE PRE-SOCRATICS

Although the proximate cause of the Peloponnesian War was a disputed umpire's call in a game between the Spartans and Athenians, this incident got lost in the numerous retellings of that celebrated conflict. As proof, we find no mention of it in *The Iliad*. Fortunately, its author attained lasting fame anyway by his discovery of the homer. Many other useful additions to baseball were made by the Greeks in the years that followed,⁴ such as the *treiska miasmos* (three-strikes-and-ye-out), the *spheros entroadyton* (passed ball), and the *treiska katabasis* (ground-rule triple) which was reduced to a double in 1708 by the Queen's Commissioner of Spherical Bodies, Sir Isaac Newton. In turn, baseball had a salutary effect upon Grecian culture. When the early Olympic games suffered from a drop in attendance during an extended Reading Period, the fast-food concessionaires, afraid of losing their livelihood, lobbied vigorously to get baseball included as an Olympic sport. Their initiative saved the Games. A veritable gaggle of Greeks poured into Olympia, and T-chitons with team logos did a brisk business. But the best sellers were red-figure baseball cards featuring players in the nude. Today, alas, only the Vatican has a complete set, which is kept in an electrum-and-alabaster shoebox in the Original Attic of the *Penitenteria Apostolica's Librorum Prohibitorum*.

But although the game of baseball grew more complex by the accretion of the aforementioned rules under the tutelage of the Greeks, its underlying theory remained elusive until 450 B.C., when a major insight was contributed by the famous shortstop-second-base combination of Zeno and Parmenides playing for the Athenian Nemeses.⁵ A pop fly ball inspired Zeno

⁴ In addition, some hoary baseball lore is attributable to Grecian influence. For example, a particularly vicious baserunner for the Hittite Hitmen, a precursor of the infamous Ty Cobb, used to steal second base by sliding into the bag with his feet high and spikes sharpened. Euripides, playing second base for the Syracuse Sciaticas, famously yelled to this Hittite baserunner as he went into his slide, "Euripides pants and I keel you!"

⁵ The two were soon to become part of the famed trio "Zeno to Parmenides to Melissus," baseball's most renowned double-play combination up to the mid-twentieth century when it was by chance supplanted by "O'Brien to Ryan to Goldberg."

to formulate his First Paradox of Motion. Zeno realized that if the ball were hit straight up, a point would be reached at the exact apex of its flight when it would be motionless. At that instant of supreme indecision the ball would not know whether to go up or down. Yet a ball that is completely still at a given moment cannot spontaneously start moving a moment later. It follows as a matter of logic that the baseball will remain suspended in mid-air.

Several weeks after posting his thesis on a public billboard in the Agora, Zeno had the opportunity to introduce his Paradox into an actual game. It was the top of the ninth inning and the visiting Visigoths were leading by a score of 49 to 1. There were no outs and the bases were loaded as usual. The batter for the Goths hit a high pop fly directly over home plate, and Zeno strolled in to position himself under the ball. But just as the umpire began to yell “Infield Fly!” Zeno shushed him and demanded that the game be called on account of darkness. Zeno argued that the ball would never come down. It is immobilized at its highest point, he assured the umpire, and will remain there for all eternity. So strong were Zeno’s famed powers of persuasion that a hush descended over the stadium and the umpire was plunged into deep cogitation. Meanwhile, the baseball unceremoniously reversed its course, bounced off Zeno’s head, and fell to the turf. The alert catcher scooped it up, stepped on the plate, and fired to third. The third baseman tagged the bag, wheeled, and fired to Parmenides at second. The umpire yelled “Three outs—triple play.” Immediately all the Visigoths poured out of the dugout. In the fracas that ensued, one of them killed the umpire. The Hellenic League Council declared the Nemeses winner by forfeit with a final score of 50 to 49. Zeno was feted as a hero, and the Infield Fly Rule was retroactively amended so that it would not apply to philosophers who are beamed by the ball while sincerely arguing the Rule’s inapplicability.⁶

However, Zeno’s Paradox did not solve the question of why the Infield Fly Rule arose in the first place, a dilemma that would have to await the genius of Aristotle.⁷ But Zeno’s work did inspire one of Euclid’s famous postulates—the one about the triangle. Euclid began by noting that in the infield fly as described by Zeno, the upward leg of flight of the baseball was equal to the downward leg, even if the ball itself never came down. What if one were to pry apart the two legs from the bottom? This would create a new figure, which Euclid named a “triangle.” Upon pondering this new geometric construction, Euclid further observed that merely separating the legs would not increase the length of either of them. Thus, the “sides” of the “triangle” remained equal when pushed apart. To test his theory, Euclid drew a diagram depicting the two sides of the triangle as squeezed back to-

⁶ Although this codicil to the infield fly rule remains valid today, there is no further record of its having been invoked, perhaps due to a widening gap between philosophers and baseball players.

⁷ See *infra* a couple of pages, or better yet, stick to the darn text and don’t peek ahead.

gether. They merged into a single vertical line representing the height of the triangle, just as Zeno had predicted. Euclid proudly announced that in all future triangles the height of the triangle will be represented by a vertical dotted line—a lasting virtual homage to Zeno and his critical insight into the metaphysics of the Infield Fly Rule.⁸

III. THE CLASSICISTS

Plato was the first to address the issue of an ideal baseball. Such a ball, he reasoned, would be a perfect spheroid. If struck by a bat, the ball would travel outward in a smooth parabolic arc. An ideal baseball could not travel straight up. Although Plato was aware of empirical reports that pop flies occasionally went straight up, he held that if such behavior occurred it was due to manufacturing imperfections in the internal constitution of the ball. In an ideal game of baseball played with a perfect ball, Plato argued, there would be no pop flies and hence there would be no Infield Fly Rule. Therefore the Rule was merely an illusion, one of many fostered by watching too many cave movies.

Plato's student Aristotle had a somewhat higher tolerance for reality. Although he allowed in deference to his teacher that a baseball game might be an illusion, it nevertheless had a solid ring to it, especially when combined with peanuts, popcorn, and beer. He suggested that baseball occupied a privileged existence in the golden mean between the ideal world and the real world.⁹

Aristotle is best known today for his rationale of the Infield Fly Rule. He took up the matter at length in his *Metaphysics*. He reasoned that Plato was on to something in spotting the discrepancy between baseballian perfectionism and the apparently ad hoc, if not illusory, character of the Infield Fly Rule. The more Aristotle thought about it, the more he concluded that the Infield Fly Rule presented the greatest logico-empirical puzzle of his career.

He began his analysis by wondering why an unsupported baseball, save perhaps for the special case described by Zeno, always fell to earth. Aristotle hypothesized that the ball was seeking to return to its origins. A baseball, after all, is made up of cork, gum Arabic, horsehide, and yarn.¹⁰ Since each of these materials has a natural yearning to return to the place from whence it came, when all of them are tightly packed into one spheroid their aggregated yen to return is well-nigh insatiable.

⁸ Euclid also decreed that the apex of the triangle be represented by the letter *B* for baseball (with the bottom angles being called *A* and *C*).

⁹ Although Aristotle apparently never completed this thought, it was retrieved and obfuscated centuries later by Georg Hegel, designated benchwarmer for the Bergdorf Brewers.

¹⁰ *Not* earth, wind, fire, and water, as a few students every year pretentiously assert in their final exam in Commercial Sports Law.

Now the necessary propositions were in place for Aristotle to begin his attack upon the main question: why was there an Infield Fly Rule? The answer must lie in the nature of the game. Since a baseball strives to fulfill its own teleology by constantly attempting to return to the earth, the “game” of baseball must consist of an artificial effort by the fielders to thwart the ball’s downward proclivity. Thus, the fielders try to keep the ball in the air by having the pitcher throw it, the catcher receive it, and the others intercept it in mid-flight by the deft employment of artificial arm extenders called mittes. If all nine players in the field succeed in their joint enterprise of preventing the ball from ever hitting the turf, they will achieve shut-out.

One of Aristotle’s students asked him why pitchers reach down, grab some dirt from the mound, and assiduously rub it on the baseball. Aristotle’s reply is given in Book Twelve of the *Metaphysics*. The experienced pitcher is aware that the longer the baseball is kept from reaching the earth, the more frustrated it becomes. By rubbing dirt on the baseball, the pitcher attempts to temporarily placate the ball’s desire to hit the ground.

The intellectual stage had now been set for Aristotle’s brilliant explication of the Infield Fly Rule. We begin by assuming the opposite of that which we wish to prove, namely, that there is no Infield Fly Rule. We recall that the fielding team must do everything in its power to prevent the ball from hitting the ground. But if there are baserunners and fewer than two outs, an infielder might *feign* to catch the ball and yet let it drop, thus commencing a double play. In that event the baseball would have reached the ground through the *deliberate and intentional efforts* of the fielder in violation of his immanent obligation to keep the ball in the air. In short, we have arrived at a teleological *hoistus petardis*.

To rescue the game of baseball from the perilous abyss of self-contradiction, the Infield Fly Rule that we so recently snubbed is now brought back into the picture. The logic of the rule is impeccable, as seen even today in its extensive employment in the finest legal reasoning. Our Aristotelian sorites stacks up as follows: since the fielder *can* catch the infield fly, it follows that he *should* catch it. But if he *should* catch it, then he *ought to* have caught it. Since he *ought to* have caught it, then he is *deemed* to have caught it. But if he is *deemed* to have caught it, he *might as well* catch it. Since he *might as well* catch it, he catches it. Thus the ball has been prevented from hitting the ground after all. *Quod erat demonstrandum* (i.e., thank you very much, ladies and gentlemen).

IV. THE DARK AGES

Baseball went into relative decline during the Dark Ages due to a shortage of playing time. Numerous wooden mechanical pitching machines that had been used in batting practice were requisitioned for military use in storming castles. Nevertheless, this dull era produced one bright moment: the invention of the balk. Under this new rule, if the pitcher balks, the run-

ner on first is awarded second base. Then, according to custom, the runner takes it home and carefully mounts it on his living room wall.

V. THE HIGH MIDDLE AGES

According to computerized compilations of medieval box scores, the E.R.A. (earned run average) of medieval pitchers was surprisingly low. This fact has figured prominently in the oft-heard theory that the balls used in the Middle Ages were not as “lively” as they are today. Manufacturers, however, insist that the baseball has not changed one iota since its standardization in the early Olympics.

It should come as no surprise that the most important contribution to the Infield Fly Rule made in the Middle Ages was authored by its most imposing figure, St. Thomas Aquinas. He might never have seen a baseball game were it not for an invitation he received from Pope Urban IV, who was traveling to Paris to root for the visiting team, the Papal Bulls. Aquinas was a quick study, and by the top of the sixth he had learned the rules of baseball. Or so he thought. The batter for the Bulls lifted a pop fly, and the umpire immediately yelled “Infield fly! Yer out!” Aquinas had counted on a sure double play. From his diary we learn that he said, “Urban, what manner of abomination is this?” “Tom, my son,” the Pope replied, “it is a rare rule of baseball. Aristotle speaks of it.”

After a few months of study, Aquinas concluded self-referentially that he could not attack Aristotle without jeopardizing the entire edifice of natural law upon which the Church had been justifying itself through his own efforts. Then one day a shaft of golden sunlight came through the window and fell upon his brow. “Aha!” he exclaimed, presumably.

He introspected that the Infield Fly Rule was the work of devilish pragmatism, concocted to perpetuate this morally pointless mind-numbing sport. Satan, with consummate ad hocery, had invented the Infield Fly Rule in utter disdain of all relevant theories. Therefore no theory could now be cobbled together that would defeat the King of Darkness. Aquinas resolved to fight pragmatism with pragmatism. Recalling the game he had witnessed, it had been a left-handed pitcher who threw the ball that was popped up. Using the type of quick mental extrapolation for which he became famous, Aquinas concluded that infield flies only occur when the pitcher is left-handed. Since the Latin term for the left hand is “sinister,” and inasmuch as the Church traditionally considered the left hand diabolical, it followed conclusively that all left-handed pitchers were agents of the devil. Aquinas posted a “finding” on the church bulletin board (*Dominus prohibetum*) banishing left-handed pitchers from the game of baseball. In one bold stroke he had purified the game as well as rendering the Infield Fly Rule inoperative.

For the next century or two, left-handed ballplayers were not allowed to pitch. On those occasions when a right-handed pitcher pitched into an

infield fly, he was branded a “closet lefty” and taken out of the game. But over time there came a reformation: the Aquinian rule was modified to disallow left-handed pitchers only when there were runners on first and second and fewer than two outs. The rule was further chipped away in an oft-shepherdized game where the left-handed pitcher was taken out and all the available relief pitchers were left-handed. A dispensation was allowed in that situation for the relief pitcher, provided that he confessed to a venial sin within three days. In turn, this latter provision was dropped when the abrasively atheistic Mongolian Hordes came into town. Following eleven straight humiliating losses to the Hordes, the Catholic teams banded together in a nationwide protest, claiming that they were being discriminated against on account of their majoritarian beliefs. As a result the Aquinian rule was only honored in the breach (i.e., in the dugout) until it was eventually forgotten.¹¹

VI. THE RENAISSANCE

Not much of lasting interest happened during the Renaissance. It is true that a young Galileo Galilei dropped two baseballs from the Leaning Tower of Pisa, yet was disappointed when they both reached the ground at the same time. Later in his life he varied the experiment by using two objects of different weights, neither of which, sad to say, was a baseball. Even so, the most notable result of his life’s work was the establishment of a linkage between baseball and Pisa that has grown stronger with each passing season.

VII. THE ENLIGHTENMENT

Lefty Leibniz, hotshot reliever for the Hanover Huns, famously proclaimed after chug-a-lugging seven straight steins of Erfahrung Extragewichtig Pilsner that this was the best of all possible worlds. Some time later he was brought in from the bullpen to face the Paris Polysémiques. It was the bottom of the ninth, the score was tied, there was one out, and the Sémics had the bases loaded with Denny “the Dip” Diderot hugging third, “Jay-Jay” Rousseau cheating off second, and “the Baron” Montesquieu taking a wide lead off first. Tensions reached the boiling point. The batter, Voltaire, muttered curses at Leibniz in pidgin French. Leibniz shrugged them off, pumped, shook, and heaved. Voltaire swung for the seats but only managed to pop the ball up high over the mound. The umpire was yelling something as Leibniz allowed the ball to bounce, then deftly flipped it to the third baseman who threw to second, apparently executing a double play. The umpire yelled “Infield fly—one out only.” “What do you mean?” Leibniz yelled back. “Can’t you count up to two?” Meanwhile

¹¹ And it would still be forgotten if this Article were anything less than the comprehensive research masterpiece that it is.

Diderot took advantage of the distraction to run home, scoring the winning run. The ebullient crowd burst the barricades. Leibniz threw a tempestuous tantrum, screaming that the Infield Fly Rule was the single most idiotic thing in the entire world.

Making his way through the melee, Voltaire approached Leibniz and asked whether he would prefer an alternative world that was exactly like the present one except without an Infield Fly Rule. Leibniz, a quick thinker, realized that he had been trapped. He could only shake his fists and emit a stream of curses against Voltaire in low German.

Later, rejoicing over the victory in the clubhouse, Voltaire recounted to Diderot what he had said to Leibniz. Diderot said excitedly,

Your interpolation defeats absolutely the claim of Leibniz that our world is tops of all possible worlds, and to boot by his own suspenders. In consequence the rule of the infield fly has this day destructed this imposter in the baseball as well as in the logic. Name of a name! It is not that I will not include this item in the encyclopedia during which I am developing.

But by the next morning, Diderot forgot his promise to Voltaire. Thus, a major counterfactual disproof was left out of what was to become the world's most famous encyclopedia. It is resuscitated here for the first time.

VIII. THE AGE OF RATIONALISM

While doodling in the dugout, Bernhard Riemann, coach of the Münster Meisters, drew an equilateral triangle on a baseball. He noticed that the sum of its angles appeared to exceed 180 degrees. "Holy Euclid!" he reportedly exclaimed, "suppose our entire universe is a baseball and we are living on its surface like little ants." Although Riemann's insight when uttered evoked scant reaction from the players, Einstein picked it up fifty years after Riemann's death and built around it his General Theory of Relativity.

Fortunately, fame came to Riemann during his lifetime. In a doodle on the back of a scorecard he created the Fundamental Hypothesis of Baseball. His equation reveals with the precision of abstract mathematics all the interconnected rules of baseball, including the Infield Fly Rule (hereinafter "IFR"):

RIEMANN'S FUNDAMENTAL HYPOTHESIS OF BASEBALL¹²

$$\Re \diamond = \pm 9 [\vartheta^{-1} u^{s-i} du \Rightarrow \prod_{n=2} \xi(5/4/3)] \geq \int_0 \sin \chi (\Xi \approx 25) \varphi \rightarrow \iint_{n=1} b \uparrow \pm (2+i)$$

LEGEND

- ℜ Riemann
- ◇ Baseball diamond
- ±9 a constant representing number of players on either side
- ϑ⁻¹ renormalized value of a given player is 1/9th
- u^{s-i} average utility to the power of superstition less an imaginary quantity
- du first derivative of utility function
- Π opposing dugouts
- _{n=2} number of opposing dugouts
- ξ around the horn
- (5/4/3) explanation of around the horn, i.e., third base to second to first
- ∫ curve ball
- sin χ venial sin if pitcher (χ) throws curve ball
- Ξ ≈ 25 roster is more or less 25 players
- φ Sign of the Cross Made with Right Hand (forgives venial sins)
- ∬ ball that curves both ways, i.e., screwball
- b↑ pop fly ball

The world was astounded by Riemann's Hypothesis. He was awarded the Mathematics Prize of the East Unheilbarlebensüberdrüsskeitstadt Gymnasium. The famed Stuttgart Stompers gave him a baseball autographed by most of its players. He received a telegram from Tsar Alexander II of Russia congratulating him on his work and requesting a pair of complimentary tickets in the grandstand. His equation has been hailed as the prime example of an equation.

CONCLUSION

The history of baseball up to the twentieth century is now complete. Although there may have been other noteworthy events during baseball's long evolution, the Author sincerely doubts it. What cannot be doubted is that baseball has shaped the world even as the world has shaped baseball.

¹² To the Articles Editor: If you've had the slightest doubt up to now whether to accept this Article for publication, you can immediately see in the text the pièce de resistance, the ultimate sockdolager that guarantees publication in any law review or journal, namely, a highly complex mathematical equation that is beyond lawyerly comprehension. This singular equation, coupled with the earlier obligatory reference in the text to Wittgenstein, make this Article more article-like than any other article you'll ever hope to publish.

This is not surprising considering that, as Riemann has shown, the world and baseball are one and the same.

