

ALEX RODRIGUEZ, A MONKEY, AND THE
 GAME OF SCRABBLE: THE HAZARD OF
 USING ILLOGIC TO DEFINE THE LEGALITY
 OF GAMES OF MIXED SKILL AND CHANCE

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I. INTRODUCTION

Games offering prizes are ubiquitous in our society. If an individual buys a hamburger, he or she may have a chance to win a small fortune. Youngsters at pizza parlors spend tokens to win tickets redeemable for prizes such as stuffed animals. Various other forms of lotteries, casinos, and other games—both legal and illegal—also appeal to the gambling instinct. Despite the popularity of these activities, courts are surprisingly inconsistent in defining what gambling is, either as unlawful activity or when subject to regulation. Indeed, the inconsistencies turn often to illogic when attempting to apply tests to distinguish gambling and nongambling activities.

This Article concerns one significant difference between gambling and nongambling prize games: the element of skill. The laws in most states are pretty clear on the difference between risking money on a roulette table and competing for a scholarship in a science competition. But what about competitions that mix both skill and chance? What should the standards be for an activity that blurs the line between legal and illegal or regulated and unregulated? How should a court apply these standards? This Article attempts to address these issues.

II. THE HISTORY OF CHANCE-BASED GAMES

“Throughout history gambling has been one of man’s most frequent endeavors.”¹ In various forms, “gambling has been present in all cultures” during all periods of time.² “Anthropological studies reveal its ubiquitous occurrence in the most primitive of societies and that modern games of chance are merely sophisticated versions of games once played by our

1. Darrell W. Bolen, *Gambling: Historical Highlights and Trends and Their Implications for Contemporary Society*, in *GAMBLING AND SOCIETY* 7 (William R. Eadington ed., 1976).

2. *Id.*

forbearers.”³ For instance, “[T]he drawing of lots probably constitutes the oldest form of gambling”⁴ “The origin of the word ‘lot’ is the Teutonic root *hleut*, which meant the pebble that was cast to decide disputes and divisions of property. This is also the source of the Italian word *lotteria* and the French *loterie*, which eventually came to mean a game of chance.”⁵ The Bible contains many references to the use of “lots” to settle disputes and divide property. Moses divided land among Israel’s twelve tribes by choosing lots,⁶ and the Bible describes Roman soldiers casting lots for the robes of Christ following his crucifixion.⁷

Whenever this technique was used, the outcome was interpreted not as a matter of chance but as a revelation of the divine will. The association with the heavens implied that the throwing of the dice should be treated seriously, with proper ritual and respect, and used only in cases when men were incapable of making decisions based on precedents. The outcome of the casting of lots was thus perceived as being determined by some supernatural force that was “just.”⁸

Ancient India, China, Greece, and Japan had lotteries as well.⁹ “The emperor Nero had lotteries for prizes at parties. The Great Wall of China was financed, in part, by a lottery As early as 1420, lotteries were used in Europe for public works.”¹⁰ The first government-organized lottery game “based upon purchases of tickets and awards of money prizes was instituted in the Italian city-state of Florence in 1530. Word of its success spread quickly, as France had a lottery drawing in 1533 and the English Monarch [Queen Elizabeth] authorized a lottery that was drawn in 1569.”¹¹ Eventually, “[l]otteries came to the New World as an import from the Old.”¹²

3. *Id.*

4. WILLIAM N. THOMPSON, *GAMBLING IN AMERICA: AN ENCYCLOPEDIA OF HISTORY, ISSUES, AND SOCIETY* 225 (2001).

5. REUVEN BRENNER & GABRIELLE A. BRENNER, *GAMBLING AND SPECULATION: A THEORY, A HISTORY, AND A FUTURE OF SOME HUMAN DECISIONS* 1 (1990) (citation omitted).

6. *Id.* at 3.

7. WILLIAM N. THOMPSON, *LEGALIZED GAMBLING* 4 (1994).

8. BRENNER & BRENNER, *supra* note 5, at 51.

9. ROGER DUNSTAN, *GAMBLING IN CALIFORNIA*, ch. 3 (Cal. Research Bureau 1997), available at <http://www.library.ca.gov/crb/97/03/crb97003.html>.

10. *Id.*

11. THOMPSON, *supra* note 4, at 226.

12. BRENNER & BRENNER, *supra* note 5, at 12 (citation omitted).

Each of the thirteen colonies established lotteries—often more than one—to raise revenue.¹³ Ben Franklin, John Hancock, and George Washington all prominently sponsored the use of lotteries for public works projects.¹⁴ “[L]otteries were used to . . . finance county and municipal buildings, repair streets, ensure the water supplies of the cities, and build roads, canals and bridges.”¹⁵ Some of the nation’s earliest and most prestigious universities—including Harvard, Yale, Columbia, Dartmouth, Princeton, and William and Mary—were built from lottery proceeds.¹⁶ Also, “lotteries became an issue in the drive for independence of the colonies.”¹⁷ To carry on the war against England, \$10 million was severely needed and because the national legislative body lacked the power to tax, a national lottery was created.¹⁸ The lottery had to be abandoned, however, because it was too large, badly managed, and too few tickets were sold.¹⁹

“Lotteries were a means to accumulate relatively large sums of money from people who had little cash and to acquire revenue from people who had perpetually complained of overtaxation.”²⁰ In other words, local governments could not find a more simple means of obtaining the money that they needed.²¹ One could argue that playing the lottery became a civic responsibility.²² It is estimated that between 1790 and 1860, twenty-four of the thirty-three states used lotteries for revenue-building purposes.²³ Lotteries were so respected that “in 1794 the General Assembly of Rhode Island approved [a lottery to complete] the building of a church, sanctioning the lottery as a promotion of ‘Public Worship, and the advancement of Religion.’”²⁴ This lottery era culminated in 1831, “when eight states ran 420 lottery games that sold more than \$66 million in

13. DUNSTAN, *supra* note 9, at ch. 2.

14. *Id.*

15. BRENNER & BRENNER, *supra* note 5, at 14.

16. DUNSTAN, *supra* note 9, at ch. 2.

17. *Id.*

18. HENRY CHAFETZ, *PLAY THE DEVIL: A HISTORY OF GAMBLING IN THE UNITED STATES FROM 1492 TO 1950*, at 25 (1960).

19. *Id.* at 25–26.

20. JOHN M. FINDLAY, *PEOPLE OF CHANCE: GAMBLING IN AMERICAN SOCIETY FROM JAMESTOWN TO LAS VEGAS* 31 (1986).

21. CHAFETZ, *supra* note 18, at 21.

22. See CHARLES T. CLOTFELTER & PHILIP J. COOK, *SELLING HOPE: STATE LOTTERIES IN AMERICA* 28–29 (1989) (discussing the role of lotteries in state finance).

23. THOMPSON, *supra* note 7, at 6.

24. CHAFETZ, *supra* note 18, at 22.

tickets.”²⁵ This made the ticket revenue five times the amount of the federal budget during that same year.²⁶

The first campaign against games of chance arose in the early to mid-nineteenth century because “Americans generally grew more disposed to reform society by removing temptations such as gambling that impeded the pursuit of individual perfectibility.”²⁷ Although there had always been “a group opposing gambling on moral grounds . . . [,] [t]he flames of opposition were fanned . . . by the prevalence of scandals and the belief that the poor were being targeted, especially by lotteries.”²⁸

The character of lottery activities changed as the activities expanded.²⁹

Eighteenth-century lotteries had mostly been small, local affairs conducted with a clear-cut sense of the common good. Participants had purchased tickets in these schemes as a way of contributing to the development of a new country. By the early nineteenth century, however, the scale and organization of lotteries had grown substantially.³⁰

“A group of middlemen, the ticket brokers and lottery contractors . . . took over the management of lotteries . . .”³¹ The wholesaling and retailing of tickets became a major line of business.³² This system not only provided more opportunities to gamble, but also provided more opportunities for fraud.³³ Lotteries were quickly “afflicted with scandals and swindles and lost public support.”³⁴

In response to the rise in fraud and subsequent loss of public support, state after state began to “abolish lotteries and prohibited private parties from selling tickets.”³⁵ “Pennsylvania became the first state to abolish

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25. THOMPSON, *supra* note 7, at 6.
 26. *Id.*
 27. FINDLAY, *supra* note 20, at 40.
 28. DUNSTAN, *supra* note 9, at ch. 2.
 29. BRENNER & BRENNER, *supra* note 5, at 14.
 30. FINDLAY, *supra* note 20, at 40.
 31. BRENNER & BRENNER, *supra* note 5, at 14.
 32. FINDLAY, *supra* note 20, at 40.
 33. BRENNER & BRENNER, *supra* note 5, at 15.
 34. THOMPSON, *supra* note 7, at 6.
 35. *Id.*

lotteries, in 1833, followed by Massachusetts in the same year.”³⁶ “As new states wrote their constitutions, the prohibitions were locked into basic laws.”³⁷ By the time of the Civil War, very few states continued to permit lotteries.³⁸

“Legal lotteries ceased to exist in the United States until New Hampshire authorized a state-run sweepstakes in 1963.”³⁹ The sweepstakes was not an overwhelming success, but it did revive interest in the lottery idea.⁴⁰ In 1967, New York started a lottery, followed by the very successful New Jersey State Lottery in 1971.⁴¹ “As a result of New Jersey’s success, several other states became interested.”⁴² By 1996, thirty-eight states had legalized lotteries.⁴³ Nevertheless, the general prohibition against lotteries and games of chance found in state constitutions and statutes often have remained unchanged from the Civil War Era.⁴⁴ Permitted forms of gambling, therefore, are the exception to this general prohibition.⁴⁵

III. THE HISTORY OF SKILL-BASED GAMES

Games of chance have long been segregated from games of skill.⁴⁶ From carnival midways to bowling tournaments, the opportunity to win prizes has long drawn the interest of both young and old. Children’s arcades extended these trends to the youngest among us, who collect tickets for trinkets in prize-redemption games. More recently, the Internet has brought a myriad of new opportunities. The leading Internet sectors are fantasy sports and casual games such as solitaire, checkers, Tetris, and other puzzle or strategy games. A growing sector, however, is the genre of

36. BRENNER & BRENNER, *supra* note 5, at 15.

37. THOMPSON, *supra* note 4, at 227.

38. *Id.*

39. *Id.*

40. *Id.*

41. Duane V. Burke, *The Legalization of Gambling in the United States: An Analysis and Forecast*, in GAMBLING AND SOCIETY 39 (William R. Eadington ed., 1976).

42. *Id.*

43. JOHN LYMAN MASON & MICHAEL NELSON, GOVERNING GAMBLING 9 (2001).

44. *See* Burke, *supra* note 41, at 39.

45. *Id.*

46. *See, e.g.*, State v. Am. Holiday Ass’n, 727 P.2d 807, 809–11 (Ariz. 1986) (describing how different jurisdictions have distinguished between games of chance and games of skill).

hardcore games preferred by teens. These games include first-person shooter, role-playing, and strategy games. Another sector is fighting- and sports-simulation games. Conceptually, the issues surrounding the legality of online skill games are theoretically no different from their real-world predecessors, but their emergence rekindles old, misunderstood, or clumsily applied laws.

True skill games generally avoid prohibition not through an exemption, but rather because they are not gambling.⁴⁷ Many reasons exist for not including skill games within the general prohibition against gambling. The most prevalent reason is that skill games were deemed to have social merit through their teaching of valuable skills.⁴⁸ Historically, such contests were used to motivate the citizenry to increase its combat skills. As commentators have noted: “The value of martial games was recognized as far back as the days of Sparta and Rome, when youths engaged in mock battle to build skills that would later serve them in their duties as a soldier.”⁴⁹ Even the most conservative societies have exceptions to the prohibitions against wagering. For example, the Islamic general prohibition of gambling does not apply to persons who wager on horse racing because this betting has historically been an incentive for training horses necessary for the holy wars.⁵⁰ In addition, prizes have been awarded to winners of competitions involving knowledge about Islamic law.⁵¹

Skill contests simply provide motivation to excel at a particular activity. Spelling bees and science competitions stress academics, and baking competitions stress homemaking skills. From tests of physical skill, such as rodeos, to mental challenges, such as spelling bees, contests have become historically intertwined with American culture. As the Arizona Supreme Court has noted:

47. See, e.g., COLO. REV. STAT. § 18-10-102(2)(a) (2008) (defining gambling as “risking any money, credit, deposit, or other thing of value for gain contingent in whole or in part upon lot, chance, the operation of a gambling device, or the happening or outcome of an event, including a sporting event, over which the person taking a risk has no control, *but does not include bona fide contests of skill . . . in which awards are made only to entrants or the owners of entries . . .*”) (emphasis added).

48. See *Am. Holiday Ass’n*, 727 P.2d at 812.

49. See Erik M. Berg & Roger L. Lampe, *Modeling the Joust 7* (Feb. 27, 2002) (unpublished B.S. interactive qualifying project report, Worcester Polytechnic Inst.) (on file with the Nevada Law Journal), available at http://www.wpi.edu/~jforgeng/Modeling_the_Joust.pdf.

50. JOSEPH SCHACHT, *AN INTRODUCTION TO ISLAMIC LAW* 147 (1964).

51. *Id.*

Paying an entrance fee in order to participate in a game of skill . . . in the hope of winning prize money guaranteed by some sponsor to successful participants, is a traditional part of American social life. . . . [W]e are reluctant to adopt a statutory interpretation which would turn sponsors of golf, tennis or bridge tournaments, rodeos, livestock, poultry, and produce exhibitions, track meets, spelling bees, beauty contests, and the like into class 6 felons⁵²

IV. COMMON LAW DEFINITION OF GAMBLING

To accommodate the variety of traditional skill games, a common law definition of gambling arose in the United States that prohibited only those activities in which a person pays consideration—usually cash—for the opportunity to win a prize in a game of chance.⁵³ However, most games have some element of chance. For instance, chess—a predominantly skill-based game—nevertheless has an element of chance in that the draw determines who moves first. Accordingly, states have developed different tests for distinguishing skill and chance games.

A. Predominance Test

The predominance test, also known as the dominant factor test, is the prevailing test when assessing the existence of the gambling element of chance.⁵⁴ Under this test, one must “envision a continuum with pure skill on one end and pure chance on the other.”⁵⁵ Games of pure chance such as bingo and slot machines are illegal.⁵⁶ Games of pure skill, like chess (notwithstanding the luck of the initial draw), are legal.⁵⁷ In games of mixed

52. *Am. Holiday Ass'n*, 727 P.2d at 812 (citations omitted).

53. *See, e.g., F.C.C. v. Am. Broad. Co.*, 347 U.S. 284, 289–91 (1954) (subsequently distinguished on different grounds); *see also Commonwealth v. Plissner*, 4 N.E.2d 241, 244–45 (Mass. 1936) (holding similarly).

54. *See generally* INTERNET GAMBLING REPORT IV, at 15–16 (Anthony Cabot ed., 2001); *see also* Chuck Humphrey, *State Gambling Law Summary*, <http://www.gambling-law-us.com/State-Law-Summary/> (last visited Feb. 3, 2009) (setting forth and describing in depth the various tests utilized in different jurisdictions).

55. *See generally* INTERNET GAMBLING REPORT X, at 14 (Mark Balestra & Anthony Cabot eds., 2007).

56. *See, e.g., Sharp v. State*, 88 S.W.3d 848, 852 (Ark. 2002) (finding that poker and slot machines are illegal gaming devices because “[t]here was a risk undertaken between the player and the business, a contest of chance, whereby either the player or the business would be the winner. The other would necessarily be the loser. This is a game of chance.”).

57. Bennett M. Liebman, *Poker Flops Under New York Law*, 17 FORDHAM

chance and skill, the question is whether skill or chance predominates; hence, the term “predominance test” is commonly used.⁵⁸

In applying the predominance test, a court asks whether “player skill” or “uncontrollable chance” is the most likely factor influencing the outcome of a contest.⁵⁹ Stated another way,

[i]f the result of the distribution is to be determined solely by skill or judgment, the scheme is not a lottery, even though the result is uncertain or may be affected by things unforeseen and accidental. Where elements both of skill and of chance enter into a contest, the determination of its character as a lottery or not is generally held to depend on which is the dominating element.⁶⁰

Therefore, the presence of chance becomes significant only when chance predominates over skill, even if the activity requires some skill.⁶¹ In essence, the threshold for predominance is the point at which either skill or

INTELL. PROP. MEDIA & ENT. L.J. 1, 21 (2006) (discussing *Indoor Recreation Enters. v. Douglas*, 235 N.W.2d 398, 400 (Neb. 1975), which held that chess is a game of skill).

58. Anthony N. Cabot & Louis V. Csoka, *The Games People Play: Is It Time for a New Legal Approach to Prize Games?*, 4 NEV. L.J. 197, 202–03 (2003). In this area, a legal risk exists because it is a subjective assessment as to where on the continuum lies a game that is part skill and part chance.

59. See generally INTERNET GAMBLING REPORT X, *supra* note 55, at 14.

60. Opinion of the Justices No. 373, 795 So. 2d 630, 641 (Ala. 2001) (quoting 54 C.J.S. *Lotteries* § 4 (1987)).

61. With reference to cases in which both elements are present, the general rule is that if the element of chance—rather than that of skill—predominates, the game may be found to be a lottery. See *Commonwealth v. Theatre Adver. Co.*, 190 N.E. 518, 520 (Mass. 1934) (holding the game “Beano”—a game in which players throw darts at a board full of numbers in order to hit as many numbers on their scorecard as possible, similar to what we know as Bingo—to be a lottery, because it was “not a game where chance is merely incidental,” but one in which “[t]he rules of the game contemplated the element of chance and chance is inherent in the nature of the game”); *Stevens v. Cincinnati Times-Star Co.*, 73 N.E. 1058, 1060–61 (Ohio 1905) (holding that a newspaper-sponsored game inviting readers to pay fifty cents to guess the number of votes a state official would get in an upcoming election was an illegal game of chance despite the skill a particular guesser might possess from his own political knowledge); *People ex. rel. Ellison v. Lavin*, 71 N.E. 753, 755 (N.Y. 1904) (holding that an advertisement inviting customers to guess how many cigars the United States would collect taxes on in November 1903 for a prize of up to \$5,000 was a game of chance because the sponsor sought to make the game as fair as possible so that little or no skill was required).

chance crosses the 50% mark.⁶² While the predominance test is fairly easily applied to roulette (clearly a game of chance) and chess (clearly a game of skill), a large gray area exists that is populated by hundreds of games that contain elements of chance and skill.⁶³

B. *Material Element Test*

Eight states examine the element of chance by determining whether a particular game contains chance as a material element affecting the outcome of the game.⁶⁴ The material element test poses a risk that certain games of skill, in which chance plays a material element, may be categorized as a game of chance even though the element of skill may predominate over chance.⁶⁵ Such a test recognizes that although skill may

62. See, e.g., *Dep't of Corrs. v. Workers' Comp. Appeals Bd.*, 90 Cal. Rptr. 2d 716, 720 (Ct. App. 1999) (discussing the statutory language "predominant as to all causes" and holding that such language was intended to require "greater than 50 percent").

63. See generally *Cabot & Csoka*, *supra* note 58, at 219–27 (offering an analysis of why it can be difficult to develop a bright-line test for determining games of skill, and using as examples data mining, cellular telephone promotions, kids' arcades with prizes, trading cards, online skill games, decision markets, and video lottery terminals).

64. Material element states include Alabama, Alaska, Hawaii, Missouri, New Jersey, New York, Oklahoma, Oregon, and, perhaps, Washington. See *Opinion of the Justices No. 373*, 795 So. 2d 630, 643 (Ala. 2001) (explaining that Alabama employs a material elements test); *Gilman v. Martin*, 662 P.2d 120, 124 n.1 (Alaska 1983) (analyzing the Alaska material elements definition of gambling); *Hawaii v. Sur*, 39 Haw. 332, 337–39 (1952) (examining the elements of Hawaii's material elements test); *Thole v. Westfall*, 682 S.W.2d 33, 36–37 (Mo. Ct. App. 1984) (listing statutory elements for Missouri's material elements test); *Boardwalk Regency Corp. v. Att'y Gen. of N.J.*, 457 A.2d 847, 849 (N.J. Super. Ct. Law Div. 1982) (explaining the New Jersey material elements test); *Sweezy v. O'Rourke*, 123 N.E. 752, 753 (N.Y. 1919) (discussing "a material element of chance and uncertainty" with regard to the likelihood of success when drilling a well under the New York material elements test); *State v. Koo*, 647 P.2d 889, 891–92 (Okla. Crim. App. 1982) (listing the statutory elements of Oklahoma's material element definition of "bet"); *State v. Coats*, 74 P.2d 1102, 1105 (Or. 1938) (applying the material elements test to a pinball machine in question and noting that "the element of chance predominates"); *Dodd v. Gregory*, 663 P.2d 161, 163 (Wash. Ct. App. 1983) (discussing the statutory definition of "contest of chance," which "depends in a material degree upon an element of chance, notwithstanding that skill of the contestants may also be a factor therein" (quoting WASH. REV. CODE ANN. § 9.46.020(7) (West 1973))).

65. See, e.g., MO. REV. STAT. § 572.010(3) (2003) ("Contest of chance" means any contest, game, gaming scheme or gaming device in which the outcome depends in a material degree upon an element of chance, notwithstanding that the skill of the

primarily influence the outcome of a game, a state may prohibit wagering on the game if chance has more than a mere incidental effect on the game.⁶⁶ This tends to be an even more subjective test because it is not quantifiable like the predominance test.

C. Any Chance Test

In a few states, courts have examined the element of chance by determining whether a particular game contains any chance that influences the outcome of the game.⁶⁷ As virtually every game has some element of chance, most skill games will not survive scrutiny in these states. Generally, this is true even if the game does not have any random events. Rather, if the game has any elements not known to the player such that the player can only guess the answer, then an element of chance is present. For example, a multiple choice trivia question with five possible answers has a chance element because a completely unskilled person has a 20% chance of selecting the correct answer.

D. Gambling Instinct Test

Similarly, the few courts employing the gambling instinct test prohibit

contestants may also be a factor therein.”).

66. Video games simulating blackjack, draw poker, and slot machine play have been held games of chance under the material element test. *See Thole v. Westfall*, 682 S.W.2d 33 (Mo. Ct. App. 1984). In *Thole v. Westfall*, the Missouri court reasoned that although a player with some knowledge may win more than a player without knowledge, chance is still a material element. *Id.* at 37 n.10 (“The outcome of a game may depend significantly on chance ‘notwithstanding that the skill of the contestants is a factor therein.’”) (citation omitted). The court adopted a test measured by the average skill of the majority of players likely to play the game and not a limited class of players or experts. *Id.* at 37. In addition, the court noted that chance need only be a material element—not a dominant element—to find the game to be one of chance. *Id.* at 37 n.8. The Supreme Court of New York held that the video game of poker is a game of chance. *In re Plato’s Cave Corp. v. State Liquor Auth.*, 496 N.Y.S.2d 436 (App. Div. 1985). A game of chance is a game that depends in a material degree upon an element of chance, even if some skill is involved. *Id.* at 437. Therefore, even if some skill is involved in the game of poker, if the outcome is based upon a material degree of chance, such as the draw of cards, the game is not one of skill. *Id.* at 438.

67. Anthony N. Cabot & Louis V. Csoka, *Fantasy Sports: One Form of Mainstream Wagering in the United States*, 40 J. MARSHALL L. REV. 1195, 1205 (2007) (“Under the Any Chance Test, if the contest contains any element of chance, however small, wagering on such contest is always prohibited as gambling.”); *see, e.g.*, *State v. Gambling Device*, 859 S.W.2d 519, 523 (Tex. App. 1993) (interpreting the applicable Texas statute “to apply to contrivances that incorporate any element of chance, even if the exercise of skill also influences the outcome”).

an activity that “appeals” to the player’s “gambling instinct.”⁶⁸ This test looks at the nature of an activity to determine whether it appeals to one’s “gambling instinct,” regardless of whether skill or chance dominates.⁶⁹ Because this test is highly subjective, a court decision can vary widely in its application to particular games.

V. DEFINING SKILL AND CHANCE

A. *What is Skill?*

A skill game is when a person pays consideration for the opportunity to win a prize as the result of a contest of skill.⁷⁰ Skill is defined as the exercise of “quickness or acuteness of sense perceptions; keenness of discernment with soundness of judgment; shrewdness; [or] the ability to see what is relevant and significant.”⁷¹

B. *What is Chance?*

The word “chance” in the lottery context was analyzed in *State v. Lindsay*.⁷² Using *Webster’s New International Dictionary*, the court concluded that chance should be understood as “an unforeseen or inexplicable cause or its operation; accident; as to happen by chance.”⁷³

68. See, e.g., *City of Milwaukee v. Burns*, 274 N.W. 273, 275 (Wis. 1937).

69. For example, in *City of Milwaukee v. Burns*, the court, in condemning pinball machines as gambling devices, held that:

The machine makes an appeal to the gambling instinct, because the player has constantly before him the chance that the next play will assure him of the right on the next succeeding play to secure from 2 to 20 checks. Were it not for this appeal to the gambling instinct, these machines, which attempt to adhere to the letter of the law while violating its spirit, would never have been placed upon the market.

Id. (citation omitted).

70. See *Las Vegas Hacienda, Inc. v. Gibson*, 359 P.2d 85, 87 (Nev. 1961).

71. The Alabama Supreme Court defined “skill,” in the context of activities, as “merely the exercise, upon known rules and fixed probabilities, of ‘sagacity,’ which is in turn defined as ‘quickness or acuteness of sense perceptions; keenness of discernment or penetration with soundness of judgment; shrewdness; [the] ability to see what is relevant and significant.’” See *Opinion of the Justices No. 358*, 692 So. 2d 107, 111 (Ala. 1997) (quoting WEBSTER’S NEW INTERNATIONAL DICTIONARY 2198 (2d ed. 1953)).

72. *State v. Lindsay*, 2 A.2d 201, 203–04 (Vt. 1938).

73. *Id.* at 203 (quoting WEBSTER’S NEW INTERNATIONAL DICTIONARY).

Chance is the opposite of something that is planned or designed.⁷⁴ Different types of chance can exist in a game. While the term is not always expressed in a structured fashion, courts have struggled with the various types of chance. The next portion of this Article will discuss these variations.

1. *Systemic Chance*

The most common type of chance is one in which the game has systemic elements of chance. Systemic chance exists when the game itself has elements created either by a random number generator in a computer program or some other random event such as a dice throw, ball draw, or card shuffle.⁷⁵ The idea of random events as an indicator of chance is easy to understand. For example, in Scrabble, it is the random selection of tiles.⁷⁶ In poker, it is the shuffle and deal of the cards. The absence of systemic chance is often a deciding factor in a court's review of a particular scheme.⁷⁷ In contrast, convincing a court that a game having systemic

74. *Id.*

75. Anthony Cabot & Robert Hannum, *Advantage Play and Commercial Casinos*, 74 MISS. L.J. 681, 683–84 (2005).

[U]sing the slot machine example, what determines the placement of the symbols on the payline in modern electronical slot machines is a random number generator within the computer that runs the slot machine. A random number generator is merely an algorithm, or a computer program with a well-defined set of instructions, finite in number, that produces numbers that appear to be random. Each number generated may correspond to a group of symbols on a reel-type machine. Some of these groups are combinations that result in the patron winning and others result in the player losing.

In other games, the random events that determine winning and losing combinations are decidedly less technical. For example in craps, the random event is the roll of two dice; in baccarat and blackjack, it is the shuffle of a standard deck of playing cards; and in roulette, it is the spin of a wheel and the toss of the roulette ball.

Id.

76. *See, e.g.*, NATIONAL SCRABBLE ASSOCIATION OFFICIAL TOURNAMENT RULES 3–4 (2004), <http://scrabble-assoc.com/rules/nsa-rules-2004.pdf>. To decide the order of play in Scrabble, each player must draw one tile. The person who draws the letter closest to A goes first, and a blank tile supersedes all other letters. *Id.* at 4.

77. In *State v. Lindsay*, a number of merchants entered a contest in which their customers were offered voting ballots in return for money spent on groceries. *Lindsay*, 2 A.2d at 202–03. Prizes were awarded to the candidates receiving the largest number of votes. *Id.* at 203. In this instance, the court held the act did not constitute a lottery. *Id.* at 204. However, this case did name certain events that would be

chance—such as a roll of the dice or a shuffle of the cards—as a core element is actually a skill game is often a challenge. For example, as noted by a New York court, games such as poker and blackjack— although requiring some skill—are games of chance, as the outcome depends on random distribution of the cards.⁷⁸ Likewise, a recent New Jersey case found backgammon—a game in which players toss dice to determine what options they have to move game pieces—to be a game of chance.⁷⁹

2. *Imperfect Information*

A second type of chance is premised on the concept of imperfect information. Perfect information is a state of complete knowledge about the rules of the game and about the actions of other players that is instantaneously updated as new information arises.⁸⁰ One academic study compared this to imperfect information by stating:

The essential difference lies in the information that is available to the players. In games such as chess or even backgammon, the current state of the game is fully accessible to both players. The only

considered “chance-based,” including the drawing of a number, the turn of a card, or the spinning of a wheel. *Id.*

78. *See* *People v. Turner*, 629 N.Y.S.2d 661, 662 (Crim. Ct. 1995).

79. *See* *Boardwalk Regency Corp. v. Att’y Gen. of N.J.*, 457 A.2d 847, 848–51 (N.J. 1982) (holding that despite any skill necessary, many factors in the game, including the doubling technique which results in increasing points, were “uncontrollable element[s] of chance”).

80. With regard to the unpredictability of the player’s opponent, the Alaska Attorney General opined that merely not knowing your opponents was sufficient imperfect information to categorize an activity as a game of chance. *Computer Video Games & State Gambling Laws*, Alaska Op. Att’y Gen. No. 663-01-0183, 7 (May 22, 2001), http://www.law.state.ak.us/pdf/opinions/opinions_2001/01-007_663010183.pdf. The opinion relies on the fact that “when devices are linked in multiple locations, there is the additional uncertainty about the identity of opponents. Players thus lack significant information upon which to base a decision whether to continue paying to play in a particular contest.” *Id.* at 9. While the attorney general may have difficulty proving that the mere fact of unfamiliarity with an opponent in a given game rises to the level of causing the game to be one of chance, it does illustrate an example of imperfect information. For instance, in the game of poker a skilled player’s advantage may increase as he or she plays more games with a particular opponent and learns the opponent’s playing style. Likewise, the skilled player can increase his or her advantage over another player by altering his or her own playing style to be more unpredictable. Both instances reflect the way in which a skilled player may assess the situation to help determine the outcome of the game.

uncertainty is about future moves. In games such as poker, the players have *imperfect information*: they have only partial knowledge about the current state of the game. This can result in complex chains of reasoning such as: “Since I have two aces showing, but she raised, then she is either bluffing or she has a good hand; but then if I raise a lot, she may realize that I have at least a third ace, so she might fold; so maybe I should underbid, but . . .”⁸¹

Imperfect information has a significant role in many types of games. For example, some may assume that duplicate bridge has no chance elements because the players have identical “draws.” Nevertheless, the players have imperfect information because they need to make decisions based on the unexposed cards and the unpredictability of their opponents’ play.⁸² Here, the chance element will be based on the limitations on analysis that can be undertaken by the player in assessing the situation and skillfully playing the various potential plays.

Imperfect information needs to be distinguished from the uncertainty that results from not knowing a competitor’s strategy. A contest involves perfect information if the game is sequential and “each player knows every action of the players that moved before him at every point.”⁸³ Thus, a game like chess or checkers is a game of perfect information even though the contestants do not know the strategies that the opponent will necessarily employ in the game.⁸⁴ In contrast, games where the players either move simultaneously or where information critical to the game is

81. Daphne Koller & Avi Pfeffer, *Generating and Solving Imperfect Information Games*, in PROCEEDINGS OF THE 14TH INTERNATIONAL JOINT CONFERENCE ON ARTIFICIAL INTELLIGENCE 1185–92 (1995), <http://ai.stanford.edu/~koller/Papers/Koller+Pfeffer:IJCAI95.pdf> (emphasis in original).

82. In terms of electronic video games, courts have held that players being unaware of how maintenance (or lack of maintenance) or adjustments could affect play on any given occasion will result in the game being one of chance. The Alaska Attorney General, in discussing *Morrow v. State*, 511 P.2d 127 (Alaska 1973), further opined that it is “extraordinarily difficult if not impossible for a player to gain sufficient knowledge about the software or hardware in a computer gaming device to be able to determine the manner or degree to which randomness or mathematical or statistical patterns affect its operation.” Computer Video Games & State Gambling Laws, Alaska Op. Att’y Gen. No. 663-01-0183, 7 (May 22, 2001), http://www.law.state.ak.us/pdf/opinions/opinions_2001/01-007_663_010183.pdf.

83. Michael Shor, “Perfect Information,” Dictionary of Game Theory Terms, GameTheory.net, <http://www.gametheory.net/dictionary/PerfectInformation.html> (last visited Feb. 5, 2009).

84. L.C. THOMAS, GAMES, THEORY AND APPLICATIONS 19 (2003).

hidden or unknown to the players, such as card games with cards hidden from all competitors, are games of imperfect information.⁸⁵

While the above mentioned systemic elements of chance in poker may confuse the issue of imperfect information, another example may be more illuminating. Take a pitching and hitting duel between C.C. Sabathia and Alex Rodriguez. In any given at bat, Sabathia may come at Rodriguez with a combination of three major pitches—slider, fastball, and change up. These are clearly not random, but strategic.⁸⁶ The batter likewise will be looking for certain pitches at certain points in the count. If the batter assumes correctly, he is more likely to get a hit than if his assumption is incorrect. While this example lacks systemic elements of chance, the requirement for nonsequential decision making demonstrates the presence of imperfect information in a game of skill.⁸⁷ In baseball or any sport, however, the simultaneous decision making contains significant, if not overwhelming, skill that justifies paying multimillion dollar salaries to players and coaches.

A simpler example of imperfect information in a nonsequential game is rock-paper-scissors. While the players' choice of which item to display is again not random but strategic, the game is nonetheless one of imperfect information. The players are not aware of the nonsequential decision making that can impact the result. Specifically, one player does not know what the other player is going to choose, and consequently, players are acting without perfect information. An extreme case of imperfect information is when a skilled player is faced with the prospect of equal probabilities, but when one decision will lead to defeat and the other to success.

85. *Id.*

86. In ruling that baseball is a game of skill, the Supreme Court of Missouri stated: “[I]t is affected by chance; but it is primarily and properly a game of science, of physical skill” *Ex parte Neet*, 57 S.W. 1025, 1027 (Mo. 1900). In a case from 1901 involving the legality of playing baseball on Sunday, the Supreme Court of Kansas stated that baseball is a game of skill. *State v. Prather*, 100 P. 57, 59 (Kan. 1909) (quoting the language from *Neet* used above). The court explained that even though baseball involves some chance, it is primarily a game of science, physical skill, endurance, and athletic skill. *Id.* The court stated that baseball “‘is a game of chance only to the same extent that chance or luck may enter into anything man may do. But when chance or luck is pitted against skill and science, it is as far an illustration of what will result as any test that could be applied.’” *Id.* (quoting *Neet*, 57 S.W. at 1027).

87. *Id.*

3. *The Lucky Shot*

Courts have been confounded by contests in which the odds of succeeding are small, but the contest contains no systemic chance and little or no imperfect information. The best example is the hole-in-one contest. The contestants know the distance to the hole, know the pin placement, and can measure other factors. Nevertheless, courts have been inconsistent in deciding whether these contests are skill or chance games.

In *Las Vegas Hacienda, Inc. v. Gibson*, the owner of a golf course publicly offered \$5,000 to any person, having entered for a fifty-cent fee, who shot a hole-in-one on the course.⁸⁸ Gibson entered, complied with all the conditions of the offer, and shot a hole-in-one.⁸⁹ The offeror reneged, claiming that the alleged contract was a wager, unenforceable, and that shooting a hole-in-one was not a feat of skill, but a feat of chance.⁹⁰ The lower court held against Las Vegas Hacienda on both points, and the Supreme Court of Nevada affirmed.⁹¹

The court “concluded that the contract does not involve a gaming transaction, [thus,] consideration of appellant’s second assignment of error, that the lower court erred in finding that the shooting of a ‘hole in one’ was a feat of skill, becomes unnecessary.”⁹² The court went on to hold that the record contained “sufficient evidence to sustain the [lower] court’s finding.”⁹³ The court noted that “[t]he test of the character of a game is not whether it contains an element of chance or an element of skill, but which is the dominating element.”⁹⁴

In contrast, Assistant Deputy Attorney General Cook of South Carolina opined that while playing the game of golf is a game of skill, a hole-in-one golf contest is a game of chance because skill is almost irrelevant.⁹⁵ In this opinion, Cook referred extensively to dissenting Justice Popovich’s opinion in *Cobaugh v. Klick-Lewis*.⁹⁶ Justice Popovich first admitted that the game of golf is one of skill;

88. *Las Vegas Hacienda, Inc. v. Gibson*, 359 P.2d 85, 86 (Nev. 1961).

89. *Id.*

90. *Id.*

91. *Id.* at 87.

92. *Id.*

93. *Id.*

94. *Id.*

95. S.C. Op. Att’y Gen. (Sept. 5, 1995), 1995 S.C. AG LEXIS 129, at *8.

96. *Id.* at *6–8.

[m]aking a hole-in-one, however, is such a fortuitous event that skill is almost an irrelevant factor. Because of that fact (an element of chance), combined with the payment of an entry fee to the East End Open Golf Tournament (consideration) and the automobile prize (reward), my view is that the necessary elements of gambling are present thus rendering the contract *sub judice* unenforceable as violating the Commonwealth's policy against gambling.⁹⁷

Justice Popovich further noted that "the possibility of a hole-in-one, even for the world's best players, is still remote."⁹⁸ In estimating that the odds of making a hole-in-one were about 10,000 to 1, Justice Popovich concluded that "[T]he professional's chances of aceing a hole are more akin to an act of God than a demonstration of skill. Clearly, the possibility of a hole-in-one is sufficiently remote to qualify as the necessary gambling requirement of an element of chance."⁹⁹

In addition to relying on this conclusion, Assistant Deputy Attorney General Cook also referred to an earlier opinion of former Attorney General McLeod, who opined that a hole-in-one contest, even at a miniature golf course, could constitute a lottery, "assuming the three elements of prize, chance and consideration were met."¹⁰⁰ Consequently, Cook concluded that, unlike a golf tournament, in which skill is primarily involved, the making of a hole-in-one "is such a fortuitous event that skill is almost an irrelevant factor."¹⁰¹

C. *Negating Skill*

Negating skill occurs when the game is designed so that, while it appears to be based on the skill of the players, aspects of the game negate that skill by either setting the skill levels beyond the capabilities of the participants or setting them so low that every participant can always display perfect skill.¹⁰² For example, imagine administering a multiple choice test

97. *Cobaugh v. Klick-Lewis, Inc.*, 561 A.2d 1248, 1251 (Pa. Super. Ct. 1989) (Popovich, J., dissenting).

98. *Id.* at 1252.

99. *Id.*

100. S.C. Op. Att'y Gen., 1995 S.C. AG LEXIS 129, at *7 (citing S.C. Op. Att'y Gen. (Apr. 25, 1977)).

101. *Id.* at *8 (quoting *Cobaugh*, 561 A.2d at 1251).

102. In a New York case, the issue before the court was whether a shell game was a game of skill or chance. *People v. Turner*, 629 N.Y.S.2d 661 (Crim. Ct. 1995). The court explained that the dealer who chooses under which shell to hide the object and uses his sleight of hand to confuse the player does not influence the outcome. *Id.*

on quantum physics to eight-year-olds. Would the test results be based on skill or chance? Likely, most of the fifth-graders would simply be guessing at the correct answer. Therefore, despite the appearance of being a contest of skill, the improbability of the participants having the requisite level of skill prevents it from being so. Skill must play a real factor in the outcome of the game and cannot be a sham or negated by contest processes.¹⁰³

VI. SKILL VERSUS CHANCE AS A QUESTION OF FACT

The determination whether a particular game is a game of chance or a game of skill is a question of fact, not of law.¹⁰⁴ Effectively, this means that each side—the prosecutor and the defendant—must introduce evidence of the chance and skill elements of the game and try to convince the jury or judge that the game has the requisite legal standards of one or the other to prove their respective sides of the case. Not surprisingly, in evaluating games with hybrid characteristics, two different states applied the predominance test to identical games and came to opposite conclusions.¹⁰⁵ For example, poker has been described both as a game of chance and as a game of skill.¹⁰⁶ Differences, however, can be attributed to the

at 663. The outcome is based upon the player's random selection of a shell. *Id.* To reach this conclusion, the court had to determine that a player was incapable of following the dealer's movement, thus negating any skill. *Id.*

103. In Hawaii, skill questions that are merely a farce and do not involve the substance of a game do not change the character of a game from one of chance to one of skill. *Territory v. Pierce*, 43 Haw. 246, 251 (1959). The case involved a bingo game in which the winner, once achieving a "bingo," needed to answer a trivia question to win the prize. *Id.* at 250–51. Although evidence existed that some contestants who incorrectly answered the question did not win, the court concluded that avoiding "the consequences of a 'bingo' lottery by the hocus-pocus of whispering a question to the winner . . . assumes . . . that the judge . . . leave[s] behind all intelligence and common sense." *Id.* at 252.

104. *People v. Mason*, 68 Cal. Rptr. 17, 21 (Dist. Ct. App. 1968) ("Whether a pinball machine is a game of skill or chance is largely a question of fact.").

105. Compare *Commonwealth v. Plissner*, 4 N.E.2d 241, 245 (Mass. 1936) (upholding jury instructions that allowed jurors to conclude that the "crane game" was a game of chance under the dominant factor test), with *Kan. Op. Att'y Gen. No. 87-140* (Sept. 18, 1987), 1987 WL 290378 (concluding that "crane games" are games of skill under the dominant factor test).

106. See, e.g., *Charnes v. Cent. City Opera House Ass'n.*, 773 P.2d 546, 551 (Colo. 1989) (holding that in Colorado, poker is an illegal gambling game of chance). See also *United States v. Marder*, 48 F.3d 564, 569 (1st Cir. 1995) (holding that in Massachusetts, video poker is a lottery in which chance predominates); *Colo. Op. Att'y Gen. No. 93-5* (Apr. 21, 1993), 1993 WL 380757, at *4–5 (opining that in Colorado, poker is a game of skill, but certain forms are nevertheless illegal under specific

determination of skill and chance as being a question of fact as opposed to a question of law.¹⁰⁷ Therefore, the skill or chance decision can be influenced by the quality of evidence presented, the experience and qualifications of counsel, and the experience, qualifications, and biases of the triers of fact.

VII. PROBLEMS IN APPLYING THE TESTS

In light of the various types of chance and the potential for negating skill elements, U.S. courts often find it a difficult task to distinguish among the many games of chance and skill. The ambiguous nature of these tests for measuring skill and chance has caused courts to struggle with assessing the legality of skill games.¹⁰⁸ Courts that utilize the predominance test at least have a benchmark to judge these cases: a game is legal if it is greater than 50% skill and is illegal if it is greater than 50% chance.¹⁰⁹ Much more elusive is the material element test. With this test, the court will need to determine the level of chance in a particular game, as well as make a judgment as to when that level of chance becomes material to the outcome.¹¹⁰ The question then becomes, how do you measure “skill”

statutory language). *But see* Commonwealth v. Club Caravan, Inc., 571 N.E.2d 405, 406–07 (Mass. App. Ct. 1991) (holding that in Massachusetts, video poker games are games of skill).

107. *Mason*, 68 Cal. Rptr. at 21.

108. *See, e.g.*, Hurvich v. City of Birmingham, 46 So. 2d 577, 580 (Ala. Ct. App. 1950) (holding that playing with a simulated pistol was a game of skill and, therefore, not able to be prohibited); Boardwalk Regency Corp. v. Att’y Gen. of N.J., 457 A.2d 847, 851 (N.J. Super. Ct. Law Div. 1982) (holding that despite any skill necessary, many factors in the game of backgammon—including the doubling technique, which results in increasing points—are “uncontrollable element[s] of chance”).

109. *See, e.g.*, Baedaro v. Caldwell, 56 N.W.2d 706, 709 (Neb. 1953). The court in *Baedaro* held:

The test of the character of the game is not whether it contains an element of chance or an element of skill, but which of these is the dominating element that determines the result of the game.

A game of chance is one in which the result as to success or failure depends less on the skill and experience of the player than on purely fortuitous or accidental circumstances incidental to the game or the manner of playing it or the device or apparatus with which it is played, but not under the control of the player.

Id. (citations omitted).

110. The *Boardwalk Regency* court, in finding that the proposed backgammon tournament would violate New Jersey law because the element of chance represented

versus “chance” in a particular game?

Using the material element test to determine skill versus chance defies logic. The term “material” has various meanings. In the context of the law of evidence, an item is considered material if some logical connection exists between the item and a fact of consequence to the outcome of a case.¹¹¹ This is hardly a useful test unless one concludes that chance is material if it has any logical connection to outcome, which will be the case if the game contains any chance.¹¹² In the law of contracts, materiality applies to a term or provision of a contract that is significant.¹¹³ Applying this understanding of materiality would merely substitute one imprecise term for another. Materiality could have meaning if it were used to determine the degree to which chance can impact the result of a particular game. Such a construction would treat materiality as a quantitative concept, meaning that the larger the deviation from the intended result caused by a particular factor, the more likely that the factor is material. However, this would only be useful in situations in which the degree of materiality is set by the statute.

VIII. HOW DO COURTS ANALYZE SKILL?

While courts generally understand the rule of law distinguishing skill and chance games, they rarely understand the relevance of evidence proffered in support of the countervailing arguments. This evidence can come in many forms. Experts can testify to the elements of skill or chance

by the rolling of two dice to begin the game and at the beginning of each player’s turn is a decidedly material element in the game of backgammon, held:

[T]his recognition of the skill factor is not determinative on the issue of whether chance plays a material or immaterial role in the outcome of the activity. Indeed, the statute acknowledges that a game may be a “contest of chance” “notwithstanding that skill of the contestants . . . may also be a factor therein.” Thus, the proper focus of the inquiry here is not on the level of skill which may affect the outcome of the contested activity but rather on whether the element of chance is a factor that is material to the final result.

Boardwalk Regency, 457 A.2d at 850 (citations omitted).

111. BLACK’S LAW DICTIONARY 998 (8th ed. 2004).

112. Cabot & Csoka, *supra* note 67, at 1205 (“Under the Any Chance Test, if the contest contains any element of chance, however small, wagering on such contest is always prohibited as gambling.” (citing *State v. Gambling Device*, 859 S.W.2d 519, 523 (Tex. App. 1993)).

113. BLACK’S LAW DICTIONARY 998 (8th ed. 2004).

in a particular game and books of strategy may be introduced.¹¹⁴ But, these are merely forms of anecdotal evidence that do not assist the trier of fact in quantifying the level of skill or chance in a game. The most compelling evidence is mathematical evidence.

Proving that a game is entirely chance-based is relatively simple. If a game has predetermined odds such that the payout is consistent over time, regardless of the player, then the game is one of chance.¹¹⁵ A slot machine, for example, clearly embodies this principle because a monkey has the same opportunity for success as an average human. Likewise, if a game has no elements of systemic chance and involves perfect information, a trier of fact is likely to consider the game to be one of pure skill.¹¹⁶ Checkers, for instance, which has no systemic chance and offers perfect information, is a game that has universally been found to be a game of skill.¹¹⁷

The difficulty becomes more apparent when games are mixed games of chance and skill.¹¹⁸ One method that would bring greater clarity to the question of whether a game is one of skill or chance is to reference a single element—systemic chance. If a game contains no systemic chance, then a trier of fact should consider it to be a game of skill. If it contains any systemic chance, then it is a game of chance. This is the prevailing rule in Canada and is occasionally reflected in American jurisprudence when used to justify a game as a game of skill. For example, in determining that table

114. See, e.g., *O'Brien v. Scott*, 89 A.2d 280, 284–85 (N.J. Super. Ct. Ch. Div. 1952) (court considered testimony of mathematical expert, who stated that in the game of “Skilo” a skilled player could win substantially more times than a novice).

115. *Harris v. Mo. Gaming Comm'n*, 869 S.W.2d 58, 64 (Mo. 1994) (“*Slot machines*—random matching of symbols with predetermined configurations for a payoff—involve no skill.”). See also *Thompson v. Ledbetter*, 39 S.E.2d 720, 721 (Ga. Ct. App. 1946); *State v. Village of Garden City*, 265 P.2d 328, 332 (Idaho 1953); *State v. Marck*, 220 P.2d 1017, 1018 (Mont. 1950); *State ex rel. Evans v. Brotherhood of Friends*, 247 P.2d 787, 796 (Wash. 1952).

116. In *D’Orio v. Jacobs*, the plaintiff sold checkerboards to the defendant under a contract. *D’Orio v. Jacobs*, 275 P. 563 (Wash. 1929). The defendant later claimed the contract was unenforceable because the checkerboards were illegal gambling devices. *Id.* at 564. In this instance, the court held the checkerboards were not illegal gambling machines because “[c]hecker playing is universally held by the authorities to be a game of skill.” *Id.* at 566.

117. *Id.*; see also *Johnson v. McDonald*, 287 P. 220, 221 (Or. 1930); *Boatwright v. State*, 38 S.W.2d 87, 89 (Tex. Crim. App. 1931); *D’Orio v. Startup Candy Co.*, 266 P. 1037, 1039 (Utah 1928).

118. *Cabot & Csoka*, *supra* note 58, at 202–03. In this area, a legal risk exists because it is a subjective assessment as to where on the continuum lies a game that is part skill and part chance. *Id.*

soccer was a game of skill and therefore legal, the Kentucky Attorney General relied on the recognition that the game contained no element of systemic chance.¹¹⁹ Specifically, the opinion noted that the game offered no initial drawing of cards, numbers, or other random events.¹²⁰ Moreover, in finding that chess, draughts or chequers, billiards, fives, bowles, and quoits are games of skill, the court in *State v. Gupton* defined a game of skill as one “in which nothing is left to chance, but superior knowledge and attention, or superior strength, agility, and practice gain the victory.”¹²¹

Although this definition creates greater certainty and is relatively simple to implement, it has its disadvantages. First, it ignores imperfect information and other types of chance as sources of chance. Is rock-paper-scissors really a game of skill? Second, if strictly adhered to, the test will exclude a game that has any random element regardless of its overall impact on the outcome. For example, even Scrabble and chess—clearly games of skill—would be prohibited under this test due to the nature of determining who goes first.¹²²

Another alternative is to prohibit all games, whether skill or chance-based, where persons pay consideration for the opportunity to win prizes.¹²³ This prohibition, followed in a handful of states, has the advantage of certainty but also comes with the disadvantage of excluding competitions that can contribute to the social good by promoting education, vocational or athletic pursuits.¹²⁴ An even smaller number of

119. Ky. Op. Att’y Gen., No. 79-215 (Feb. 23, 1979), 1979 WL 33103.

120. *Id.*

121. *State v. Gupton*, 30 N.C. 271, 274–75, 8 Ired. 199, 201 (1848).

122. See NATIONAL SCRABBLE ASSOCIATION, OFFICIAL TOURNAMENT RULES, *supra* note 75, and accompanying text.

123. See FLA. STAT. § 849.14 (1998) (“Whoever stakes, bets or wagers any money or other thing of value upon the result of any trial or contest of skill, speed or power or endurance of human or beast, or whoever receives in any manner whatsoever any money or other thing of value staked, bet or wagered, or offered for the purpose of being staked, bet or wagered, by or for any other person upon any such result, or whoever knowingly becomes the custodian or depository of any money or other thing of value so staked, bet, or wagered upon any such result, or whoever aids, or assists, or abets in any manner in any of such acts all of which are hereby forbidden, shall be guilty of a misdemeanor of the second degree”)

124. See *State v. Am. Holiday Ass’n*, 727 P.2d 807, 812 (Ariz. 1986) (expressing reluctance to adopt a statutory interpretation that would make participants in events like golf tournaments, rodeos, or spelling bees into “class 6 felons operating gambling games”); see also Joseph Coyle, *Use It or Lose It—Do Effortful Mental Activities Protect Against Dementia?*, 348 NEW ENG. J. MED. 2489 (2003); Joe Verghese et al.,

states attempt to distinguish between skill games by prohibiting competitions where a portion or all of the player's stakes determine the prize and competitions where the prizes are predetermined by the sponsor and that are awarded regardless of the number of entrants.¹²⁵ While nonsensical from a policy perspective, this extreme minority position has crept into commentary and law, such as the Unlawful Internet Gambling Enforcement Act.¹²⁶

In contrast, under the prevailing American rules, courts must determine the relevant impact of chance and skill under either the predominance test or the material element test.¹²⁷ At least two methods exist to measure skill versus chance. One is to analyze the game itself.¹²⁸ Suppose the game has no systemic chance and no imperfect information. In this situation, a path exists to a solution that is consistent. Games with perfect information and no systemic chance distinguish themselves because, no matter their complexity, a computer with enough power can be programmed to play virtually perfectly.

Once imperfect information or systemic chance is introduced, the less susceptible the game becomes to direct mathematical analysis.¹²⁹ Instead,

Leisure Activities and the Risk of Dementia in the Elderly, 348 NEW ENG. J. MED. 2508 (2003).

125. In *State v. Am. Holiday Ass'n*, the Arizona Supreme Court distinguished between playing word bingo games for a prize while requiring entry fees and illegal gambling activity by noting that the prizes in the bingo games are not awarded on the basis of the outcome of some event involving third parties. *Am. Holiday Ass'n*, 727 P.2d at 809. Additionally, the court noted that "payment of an entrance fee is not an illegal bet or wager in an otherwise legal competition for prizes to be awarded by a nonparticipant, at least where the entrance fees do not specifically make up the prize purse." *Id.* at 810.

126. See Unlawful Internet Gambling Enforcement Act of 2006, 31 U.S.C. §§ 5361–5367 (2006).

127. See Chuck Humphrey, *State Gambling Law Summary*, <http://www.gambling-law-us.com/State-Law-Summary/> (last visited Feb. 5, 2009) (setting forth and describing the various tests utilized in different jurisdictions).

128. See Cabot & Csoka, *supra* note 58, at 202–03 (stating that a traditional slot machine is a game of chance because winning is determined purely by chance).

129. However, courts are often unwilling to accept that a particular game cannot be directly analyzed to determine relative degrees of chance and skill. After all, the court has been tasked to make this determination under either the predominance test or the material element test. But, a few games are subject to an analysis in which a mathematician can directly analyze skill versus chance—particularly in games that have many elements of skill. With regard to the first approach, the court in *Thole v. Westfall* adopted a test measured by the average skill of the majority of players likely to play

another method to measure skill versus chance is necessary—one that looks at the effect of skill as opposed to its cause. In logic, this can be related to the expression that if x is a necessary cause of y , then the presence of y necessarily implies the presence of x .¹³⁰ In context, if a game is skill-based, effect-based analysis suggests that a person possessing the skill will statistically prevail over a person without the requisite skill.

Two major issues confront the court in the consideration of effect-based analysis. The first is the probativity of evidence showing the likelihood that a more-skilled player will prevail over a lesser-skilled player. The second is what types of players should be used to analyze these differences. For example, should the court be comparing highly skilled players with unskilled players or average-skilled players?¹³¹

A. *Sufficiency of Mathematical Evidence*

As the difference in skill between competitors increases or the number of instances in which skill is displayed increases, the greater the likelihood of the skilled person prevailing over the less-skilled person. In practice, this simple notion has confounded courts. Take for example the game of golf. Few would argue that golf is not a game of skill.¹³² But what about a hole-in-one contest? Courts have struggled with this concept because it is a single trial in which chance plays a role—whether it is

the game and not a limited class of players or experts. *Thole v. Westfall*, 682 S.W.2d 33, 37–38 (Mo. Ct. App. 1984). Similarly, in the case of *State v. Prevo*, the court held that the test to determine if a game was one of skill was not measured by experts but by the average skill of the game players. *See State v. Prevo*, 361 P.2d 1044, 1051 (Haw. 1961). This case concerned the table game “Fascination,” which the court determined to be a game of chance. The court followed the reasoning of a New Jersey court that concluded that the game’s average player was a casual player who was lured by chance and not skill. *Id.*

130. *See* JOHN STUART MILL, *SYSTEM OF LOGIC, RATIOCINATIVE AND INDUCTIVE; BEING A CONNECTED VIEW OF THE PRINCIPLES OF EVIDENCE AND THE METHODS OF SCIENTIFIC INVESTIGATION* 230–37 (1858) (discussing the “Method of Concomitant Variations,” wherein “[w]hatever phenomenon varies in any manner whenever another phenomenon varies in some particular manner, is either a cause or an effect of that phenomenon, or is connected with it through some fact of causation”).

131. *See Thole*, 682 S.W.2d at 37 n.10 (adopting a test measured by the average skill of the majority of players likely to play the game and not a limited class of players or experts).

132. *See, e.g., Berckefeldt v. Hammer*, 616 P.2d 183, 185 (Colo. Ct. App. 1980) (holding that a golf match participated in and bet on by four golfers, in which each of the four had control over the outcome due to his individual play, did not constitute “gambling” as defined in Colorado law).

imperfect information (wind or cut of the green) or an odds-defying shot.¹³³ But thanks to the law of large numbers, when played over eighteen or seventy-two holes, no average golfer will likely ever beat a PGA professional.

The law of large numbers is one of several theorems expressing the idea that as the number of trials of a process increases, the percentage difference between the expected and actual values approaches zero.¹³⁴ Thus, in a game that is 99% luck and 1% skill, if one player possesses that skill and the other player does not, then in a small number of games, the skilled player is unlikely to exhibit a decided advantage. However, if you run thousands of games, the likelihood that the skilled player will win more than the unskilled is virtually assured. Suppose a game is played in a single trial. If skill determines 51% of the results and chance determines 49%, then one would expect a skilled player to win over a nonskilled player 51% plus one-half of 49%, or 75.5% of the time. Yet, many courts find the fact that unskilled players can beat a skilled player in a game to be conclusive evidence that the game is predominantly determined by chance.¹³⁵

Contrast this with a game where the outcome is determined 1% of the time by skill and 99% of the time by chance. In a single trial, a skilled player is expected to win 1% plus one-half of 99%, or 50.5% of the time. Because the predominance test requires the game to be predominately

133. See *supra* Part V.B.3.

134. John Renze & Eric W. Weisstein, Law of Large Numbers, <http://mathworld.wolfram.com/LawofLargeNumbers.html> (last visited Feb. 16, 2009).

135. In Mississippi, the court held that inconsistent scores by experienced players who sometimes scored lower than novices were a factor in its finding that the game at issue was a game of chance. *Redd v. Simmons*, 167 So. 65, 67–68 (Miss. 1936). In a prior case, the court analyzed a game, Pin Marble. *Id.* at 66. In this game, the player, upon inserting a coin, released a plunger and points were scored when marbles entered holes surrounded by hazards. *Id.* at 66–67. In declaring Pin Marble a game of chance, two significant factors were mentioned. First, novices playing this game would succeed purely by chance. *Id.* at 67. Second, an expert with a lot of practice once got a score of several thousand points higher than on a second trial. *Id.* at 67–68.

Nebraska has determined that pinball, even with flippers, is a game of chance. *Baedar v. Caldwell*, 56 N.W.2d 706, 709 (Neb. 1953). The rationale of the court focused on the lack of control the player had over the score. *Id.* The court believed that the ball was the controlling factor. *Id.* The court noted that even an expert received varying scores, and on one occasion, a lesser score than a novice. *Id.* The court admitted that practicing the game may result in greater success; however, any effect would be overshadowed by chance. *Id.* The court concluded its reasoning by finding that for the general public—the audience which must be considered—the game was a game of chance. *Id.* at 711.

determined by skill, a skilled player winning an average of just more than 50% of the games is insufficient. In single trials, the expected average win percentage should be much higher if the game itself is greater than 50% skill. For example, after analyzing 1000 hands of poker two conclusions can be reached. The first is that, in a single hand of poker, a highly skilled person will have a probability of winning X% in any given hand against an “unskilled” player. A second conclusion is that after 1000 hands, there is a Y% chance that the skilled player will have won more hands (or more important, more money) than the unskilled player. The first conclusion is valid and applicable to determining the skill levels in a single hand. In a broader sense, however, that skilled players can make a living playing poker is irrelevant to whether a single hand of poker is predominately a game of skill.

On the other hand, the number of trials in a game is relevant. After all, it is the game being presented that must be judged for skill levels. In other words, it is seventy-two holes of golf in a tournament and not the first drive off the first hole of the tournament that determines the outcome. In games with many opportunities to display one’s skill, the more likely the person possessing that skill is to win. Take, for example, a game of air hockey and suppose each winner of a single point is determined 10% of the time by skill and 90% of the time by chance. If the game were played to twenty-one points, the skilled player would be expected to beat the unskilled player 74.1% of the games. Consequently, the proper methodology is to test the type of game being played. If the game is a tournament of Texas Hold’em, it is the tournament—not an individual hand of the game or the results of playing the game over a year—that needs to be scrutinized. The anomaly being that a single hand may be a game of chance, but a tournament made of many hands may be a game of skill. Thus, in a game of multiple trials, repetitions of the entire game are relevant, but repetitions of a single point or hand to prove that entire game is a game of skill may not be relevant except in those rare circumstances where the trials are independent.

B. *Whose Skill Should the Court Be Concerned With?*

Most courts have understood that the two methods of analyzing a game that are generally appropriate are either direct mathematical analysis or comparing the effect of skill as measured by results.¹³⁶ Nevertheless,

136. In *Collins Coin Music Co. v. N.C. Alcoholic Beverage Control Commission*, the court held that the operation of the video card game depends upon

many courts have gone astray. For example, some courts have relied on a comparison of the same player's results over multiple trials under the false assumption that, if skill is present, the player's results should necessarily be consistent between games.¹³⁷ The fallacy of this observation is demonstrated in highly skilled sports in which the outcome is determined by very few trials. A good example is competitive diving. In this sport, divers often perform well on one dive but poorly on the next, with a wide variation in score between the two dives.

More appropriately, courts have considered the differences in results between players of differing skill levels.¹³⁸ In doing so, another question that arises is who the courts should compare a participant's skill level with.

chance rather than a player's skill. *Collins Coin Music Co. v. N.C. Alcoholic Beverage Control Comm'n*, 451 S.E.2d 306, 308 (N.C. Ct. App. 1994). In reaching this decision, the court found that:

although a player's knowledge of statistical probabilities can maximize his winnings in the short term, he cannot determine or influence the result since the cards are drawn at random. In the long run, the video game's program, which allows only a predetermined number of winning hands, negates even this limited skill element.

Id. at 308 (citation omitted).

The court in *Sparks v. State* found a device known as a marble-jax table to be a game of chance. *Sparks v. State*, 173 S.E. 216 (Ga. Ct. App. 1934). The game involves a lever that is pulled to allow marbles to go into different holes on the board. *Id.* Pins on the board were "laid off scientifically at the time the machine was made." *Id.* at 218 (quoting testimony of the defendant). The plunger, if controlled by the player, would determine the speed of the ball. *Id.* at 216. Testimony was offered that if the plunger is pulled back the same way each time, the ball is deflected to the same place and that "[t]here is no more chance to that table than there is to a game of pool." *Id.* at 217-18 (quoting testimony of the defendant). However, the court found as a fact that "the tables are 'set' to give away half of what they take in" and these predetermined odds were controlling in the court's holding that the game is one of chance. *Id.* at 218. The court stated that even if some skill or proficiency is involved, there is still chance involved. *Id.* Another basis for the court's decision is that "even the most efficient could not obtain that score every time, although some, from practice, would obtain it more frequently than others." *Id.*

137. See *Sparks*, 173 S.E. at 218; Cabot & Csoka, *supra* note 58.

138. In *O'Brien v. Scott*, the court found that the game of "Skilo"—in which each player has a numbered card and throws a ball into a numbered box, seeking to have the ball land on the same number as on his card—was a game of skill. *O'Brien v. Scott*, 89 A.2d 280, 283 (N.J. Super. Ct. Ch. Div. 1952). The court's decision noted that a mathematical expert testified that a skilled player could win substantially more times than a novice player. *Id.* at 284-85. In *D'Orio*, the Washington Supreme Court explained that if a game could always be won by a player with enough skill, the game is not a game of chance. See *D'Orio v. Jacobs*, 275 P. 563, 566 (Wash. 1929).

Several categories of individuals are possible: (1) those displaying no skill whatsoever, (2) those whose skills are inherent to the individual and displayed in the game without augmentation through experience or practice, (3) persons of average skill (considering both inherent skills and experience), and (4) experts in a particular activity that display the highest attainable skill level.¹³⁹

When using an effects-based analysis, comparisons should reflect that in any grouping, the more skilled persons have a statistically relevant average win percentage over lesser-skilled opponents.¹⁴⁰ In situations where the use of the effects-based analysis is based on the predominance test, the analysis is an attempt to measure the percentage of skill versus chance in a particular game or competition. Therefore, it must measure the differences between participants with no skill versus those of the highest skill level. This is the only method to distinguish between pure chance—the unskilled player—and skill—the expert player. That being said, is the unskilled player one who displays no skill whatsoever or whose skills are inherent to the individual and displayed in the game without augmentation through experience or practice? Take, for example, a game in which you throw a ball and try to hit a moving target. Most persons would have inherent skills to know to face the target, grasp the ball, throw the ball by propelling your arm forward, and releasing it in the direction of the target. These are basic skills that a person would possess. The skill in the game may include greater hand–eye coordination, arm strength, conditioning, or repetitive practice. The fair comparison is between an individual with skills inherent to an average person, and displayed in the game without augmentation through experience or practice, as against the most highly skilled players. In a table game setting, if the game of Scrabble were examined, the proper comparison would be a person with an average vocabulary that understands the basic rules of the game versus a highly skilled player.

139. See, e.g., *State v. Prevo*, 361 P.2d 1044, 1050 (Haw. 1961) (“[T]he test of whether a game is one of skill or of chance, or one in which skill greatly predominates over chance, is not to be measured by the standard of experts or any limited class of players, but by that of the average skill of a majority of players likely to play the game”); *State v. Ricciardi*, 114 A.2d 257, 259 (N.J. 1955) (“The difficulty lies, of course, in determining whether in the particular case one or the other element—chance or skill—predominates. We know of no test by which the boundary lines may be clearly marked for all the myriad forms of activity in which men engage. . . . [W]e think a fair test would be whether a player possessing average skill would be successful more often than not in the venture.”).

140. See INTERNET GAMBLING REPORT X, *supra* note 55, at 14.

IX. CONCLUSION

All factors point to the continued emergence of skill games as a popular entertainment and wagering opportunity in the United States. As the activity generates more cash revenues, however, it becomes more conspicuous and drives more complaints towards law enforcement officials and politicians. Law and policy, therefore, are likely to play more prominent roles in this burgeoning industry, as will the struggles that courts face in assessing the legality of such games.

To meet these challenges, state laws first need to be conformed to reflect legal tests that are susceptible to meaningful analysis through the introduction of mathematical evidence. Specifically, states and courts need to shed the material element test and the gambling instinct test, both of which are imprecise and not susceptible to meaningful analysis by a trier of fact. In their stead, states should consider more definitive tests such as the predominance test or, for a more conservative position, the Canadian rule that prohibits all games with systemic chance.

States utilizing or adopting the predominance test need to apply a consistent analysis that recognizes certain methodologies. First, the effects-based analysis should compare the experience of average persons, without augmentation through experience or practice, with that of the most highly skilled players to determine the skill levels of the game. Second, the game should not be reviewed in isolation, but in the way it is being offered. For example, a single game of poker may be predominately chance-based, but a tournament may be skilled-based. Third, the results of a mathematical analysis of play does not need to result in the more skilled person winning virtually every time, but instead only a statistically relevant number of times in order to show that overall, in the particular game or format offered, skill is the predominate factor.

If inconsistencies and illogic in analysis continue to subsist, the long-recognized and valued segregation between games of skill and chance will be blurred into obscurity.