

CHAPTER 15



Chapter Aztec Gambling and Magical Thinking

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We in modern societies share with the Aztecs of sixteenth-century Mexico a love of gambling, which must be one of the great human universals. Our pleasure in gambling has deep roots: we are all the result of countless episodes in which our ancestors played the evolutionary odds, choosing successful responses to uncertainty. Although today we are buffered against life-threatening consequences of everyday choices, we bear all the necessary apparatus for dealing with the vagaries of fortune—the generalized, adaptable body and the brain with its capacities for rational thought and impulsive reactions. We play the odds constantly and reflexively in our daily lives and occasionally may place bets on games of chance, “gambling” in the more formal sense.

Depending on the stakes, we anticipate the outcome with responses ranging from mild curiosity to anxiety, which can be soothed by the rituals of magical thinking. Few among us have never sought the comfort of a prayer or amulet that possessed the power to calm, in spite of our rational acceptance of its lack of demonstrated efficacy.

Magical thinking is the belief that thoughts or actions, often ritualized, can control an uncertain outcome, even when such thoughts or actions have no proven value. It is practiced universally, and while the modern world puts precedence on scientific explanations, we can empathize with the use of magical thinking in

traditional cultures because of our own experiences in dealing with uncertainty.

Thus magical thinking and gambling are gateways to understanding other cultures. This chapter explores magical thinking and its uses, especially its use by gamblers in Aztec society of sixteenth-century Mexico, finding that Aztec attitudes about gambling are similar to our own, while recognizing the stronger role played by magical thinking in their culture.

Magical Thinking and Hot Hands

Never go against your gut. (Moscow Rules [n.d.])

Evolutionary psychologists and behavioral ecologists reason that the suite of cognitive resources we deploy against uncertainty achieved its present form about 100,000 years ago, with the emergence of the first *Homo sapiens sapiens* and the modern human brain, the products of evolutionary pressures operating throughout our primate and mammalian ancestry. The modern brain’s convoluted neocortex gives us our strong capacity for reasoning and learning, while the underlying “animal brain” provides intuition-based drives that propel us toward impulsive responses in crises, for example, fight or flight.¹

These intuitive or reflexive responses to uncertainty are strongly adaptive. Developmentally, the limbic system-based responses that shape our psychological attitudes and behavior are directly expressed throughout childhood, but with

maturity, crisis reactions are tempered by the natural process of synaptic pruning as well as by neocortical rewiring: habits based on knowledge and training are established. Mature responses draw upon a cognitive hybrid, fusing reason and impulse into learned intuition, also known as “recognition-primed decision-making” (Klein 1999:17). This capacity allows us to deploy quickly the best and most timely responses to threats and opportunities.

For example, a game of darts draws upon behavior deeply rooted in the primate line. Even though the accuracy once essential to immediate survival is now mostly unnecessary at the personal level, we retain the capacity to become skilled at throwing things at targets and the competitive drive to throw more accurately than others. When faced with a standard target and reward for hitting it, the rational shooter will maximize accuracy. But with the unanticipated substitution of an image of a baby for the target, failure rates rise significantly (L. King et al. 2007: 910–12). This suggests that some sizable proportion of the population overrides reason with magical thinking, because the target remains, after all, only a piece of paper. The irrational behavior may be explicable from the perspectives of evolutionary psychology and behavioral ecology as a protective impulse toward the representation of the baby, based on internalization of social lessons about avoiding harm to others.²

We can assume that other complex instinctive behavioral responses are found cross-culturally. Consider our belief in “hot hands”—runs of good luck. This draws on the assumption that resources will be found in clumps, or groups. The expectation is based on the propensity for food to occur in groups (flocks, stands), and our species’ survival depended on recognizing this. We descendants of ancestral foragers also expect that other resources are grouped, and hot hands are appreciated by gamblers, even though they would seem to defy the laws of probability based on large numbers (T. Blanchard et al. 2014).

However, randomly distributed phenomena are themselves loosely clumped in time and space, particularly where there are constraints from the cultural and biophysical environments.

Even without such constraints we commonly experience clumped outcomes that defy the odds based on probability.³ Using intuition inherited from our species’ distant past, we learn from our experiences, whether in finding ripe fruit or parking spots. We assess the odds based on previous occurrences and consider the unique circumstances of each situation.

We would better understand the overall odds if we could keep track, mentally, of thousands of outcomes, because probability values are best derived from large numbers. However, the modern human brain is better at keeping track of small numbers, a skill no doubt honed during our long millennia of hominid evolution as hunter-foragers, including our evolution into fully modern *Homo sapiens sapiens* (G. Navarrete et al. 2015). There is also the human propensity to remember better our unusual runs of good luck and to forget the long periods of indifferent results. As Durán described Aztec gamblers,

Someone might ask whether they always won with that magic incantation. The devil is subtle in permitting some to win occasionally, thus confirming their unholy beliefs. At other times, when they lost, they were persuaded to curse their own bad luck, which is what losers do. (Durán 1971 [1574–79]:318)

Belief in luck predisposes us to believe that we can beat the laws of chance.

Intelligence and Reason

Normal humans have considerable intelligence, the ability to acquire skills and knowledge and make rational decisions, and modern neurological studies reveal learning as the process of developing a network of established paths in the brain’s neocortex—a significant rewiring of the brain. While any normal person is capable of learning, each individual possesses a unique set of potential strengths and weaknesses. In any society, from childhood, individuals will display a range of innate capabilities for reason and performance, with potential behavioral plasticity shaped by cultural norms and customs, including opportunities for training.

We recognize that far beyond the binary opposition of the Scholastic Aptitude Test's traditional categories of "verbal" and "math" are many expressions of intelligence. There are varied types, "multiple intelligences" in any population and indeed in any individual, and the variation clusters into several broad categories. Howard Gardner's original model (1983) recognized seven modalities: musical-rhythmic; visual-spatial; verbal-linguistic; logical-mathematical; bodily-kinesthetic; naturalistic; interpersonal; and intrapersonal.

The last two—the abilities to read other people and know oneself—are principal components of emotional intelligence (Goleman 1996). Most people can correctly interpret nonverbal expression, and some seem gifted with this interpersonal sensitivity. Societal training in emotional intelligence often emphasizes sympathy and duty to others, and when sympathetic individuals sense the pain of others they try to alleviate it. But correctly recognizing emotional vulnerability in another person does not necessarily prompt a sympathetic response. Bullies and con artists use emotional intelligence to discomfit others and take advantage.

Well-honed intrapersonal and interpersonal skills characterize social leaders and enhance their charisma. Recognizing the power of emotional intelligence, we can better understand the basic skills needed by those who would present themselves as capable intermediaries with the forces of the unknown. Anxious in the face of uncertainty, we may turn to those who seem capable of negotiating the future.

This may involve a willing suspension of disbelief: our complicated attitudes about the cognitive boundary between reason and magic are reflected in our language. "Magus" is not in common usage, yet we know that it means a wise person rather than one who has developed skills such as sleight of hand, a "magician." In the modern world, we generally assume that any reason-defying phenomenon, like a magical illusion, can be explained rationally, even if that explanation has not yet been forthcoming. Thus a magician is a kind of con artist.

Similarly, to call someone "wise" (un-ironically)

recognizes a rare combination of reasoned thinking and sympathetic emotional intelligence. But "wizard" and "wizardry" have less flattering implications, such as the willingness to confound with displays of privileged knowledge and skills, and also trying to do so with the support of the supernatural world.

Understanding emotional intelligence and other of Gardner's "frames of mind" has had an enduring value in interpreting the gifts, blind spots, and passions of modern people, but do these modalities of intelligence apply to traditional societies?⁴ All modern humans have highly similar general capacities for intelligence and physical movement, but recent research in ethnography has not sought cross-cultural similarities. Instead, it has been crippled by a combination of infatuation with the barren, "self-regarding...cul-de-sac" of postmodernism and a strong tradition of particularizing cultures (Beard 2013:6). Ethnographers are generally reluctant "to discuss—or commit to print—comparisons between the values of peoples in modern industrial societies and those of inhabitants of tribal societies" (Dutton 2009:65).

Meanwhile, psychologists have been unafraid to seek universals, such as the relation of facial expression to emotions (Ekman and Friesen 2003). The validity of cross-culturally shared human psychological characteristics is substantiated by the powerful and lucrative applications of these lines of research, such as facial response recognition software, making a television or gaming device into a monitor useful to corporate or government powers (Khatchadourian 2015).

Besides making us very afraid for the future of human privacy and free will, these breakthroughs in understanding the universals of human behavior corroborate the assumptions of many anthropological archaeologists that people in ancient societies were operating from the same basic parameters of psyche and soma as we are today. This would imply that the modes of intelligence valid today can be effectively applied to other societies, including traditional societies such as the Aztecs. We can assume that Aztec gamblers would develop rhythmic,

if not melodic incantations, sensitively use their surroundings, express themselves well, calculate the odds of particular outcomes, move elegantly through their rituals, be sensitive to others, and know themselves, including knowing when to trust reflexive, animal-brain responses.

Their rituals were based on rules derived from magical thinking and thought to minimize damage and maximize gain. Such ritualized responses may become highly formalized and particular to types of situations. But it is our perception of adaptive value that lets us distinguish between effective and magical. Such judgments depend on what the judge knows, and thus one's intelligence, in the sense of possession of a store of reliable knowledge, sets limits on our ability to distinguish between phenomena we attribute to the actions of the spirit world, true magic, and those we see as the effects of known causes, including enhanced adaptation.

Magical Thinking as Adaptive

Behavioral ecologists would argue that much cognition labeled magical thinking might have adaptive value. When we wear lucky clothing or orient our furniture to channel positive energy, we deploy another means of problem solving, increasing our life-enhancing "mindfulness," desired by many today.

For example, is there a causal relationship between ritualized costume and success in horse racing? In 2014, the owner of the horse California Chrome wore the same outfit to all three Triple Crown races. California Chrome won the Kentucky Derby and the Preakness, but this ritualized costume was apparently only useful for two wins in a row: California Chrome lost the Belmont (Hoppert 2014).

In spite of having failed such empirical tests, magical thinking remains rife in racing and other venues and is more disparagingly called "superstition." Baseball and other sports seem equally committed to magical thinking (Gmelch 2000).

Such beliefs are part of the lives of many normal adults, and while a rational purist would deem them superstitious or neurotic, their prevalence suggests that few societies or individu-

als are entirely and always free of them. South Korea, a strong participant in the global capitalist economy because of pragmatic development in engineering and other fields, is home to about 300,000 shamans—one for every 160 South Koreans—with their own union, working through the internet as well as in person (Sang-Hun 2007). Regardless of their other religious affiliations, many South Koreans regularly consult shamans. Clearly, a successful shaman should be emotionally intelligent and have well-developed, learned intuition in order to deliver to the client both psychological comfort and a sense of control over a seemingly mysterious situation. There may be adaptive value in this, such as the mental focus induced by an incantation, or the sense of well being offered by a kindly and experienced diviner.

If some features of magical thinking have adaptive value, then, logically, it has evolutionary significance and would probably be subsumed under limbic system-related cognitive processes. Its demonstrated effectiveness would undercut its status as "magical thinking." Thus, when considering the role of magical thinking in any society, we must recognize that magical thinking is culture-contextual, derived from that culture's belief system and explanations for the phenomena around us.

In some societies, the use of hallucinations to interpret uncertainty is regarded as a valid alternative pathway to understanding, and we know that this is an ancient practice (Shafer 2013). The experience may stimulate different responses among individuals, but their perceptions develop from the constraints of their culture and particular individual neocortical and limbic system pathways. Moreover, the hallucination may result in new and useful ideas and perceptions.

The Animated Aztec World

The Aztecs commonly achieved altered states of consciousness, with the stronger and more expensive hallucinogens and stimulants reserved for the nobles and wealthy commoners.⁵ Hallucinogenic experiences accessed the power to navigate a spiritual world full of active forces.

The Aztecs, inheritors of millennia of Meso-

american cultural traditions, dominated central Mexico immediately before the sixteenth-century Spanish intrusion into the New World and subsequent conquest of the Aztec empire. Like other Mesoamericans, they believed that the world around them was charged with animated energy. Every object, each natural feature—animal, vegetable, mineral, even time—possessed a force that required appropriate offerings and oblations. These were independent agents, and human responses to them created a conversation of agency.

Mesoamericans believed that humankind owed its existence to sacrifices by the creator gods, a debt that people repaid through generous and frequent offerings to the gods and to all the powers of the living earth. If the offerings were well received, the gods might reciprocate with good fortune. The most costly offering of all was human sacrifice, of war captives (warriors and the vanquished) and slaves purchased in the market. Other, more common offerings included autosacrificial blood, animal sacrifices, incense, food, drink, and prayers, processions, and pilgrimages.

In a sense, the most sustained offering was an individual's dedication to live a moderate, thrifty, dutiful, hard-working life, because risk-taking invited chaos and disaster. Ideally, Aztec lives followed a narrow path of duty and moderation, and sources such as the *Codex Mendoza* show children disciplined toward this goal (Berdan and Anawalt 1992b [ca. 1541–42]:122–33, folios 58–63). Sermons by elders drove these points home (see *Florentine Codex* Book 6, *Rhetoric and Moral Philosophy* [Sahagún 1969 {1569}:67–126]). Aztecs' fear of the uncertainty of their world led them to see imminent disaster in any unusual phenomena, as shown by the unremittingly pessimistic prophecies in *The Omens* (Sahagún 1979b [1569]), and in *Primeros Memoriales* (Sahagún 1997 [1559–61]:174–77).

Time and Divination

It has been common among all kinds of peoples and nations since the beginning of the world to use divination. (Ruiz de Alarcón 1984 [1629]:141)

The fate of any event hinged upon its timing. For the Aztecs, each day brought a different set of influences, and scheduling any important event (a wedding, a housewarming, investiture of a king) required a calculation from the divinatory almanacs (see Boone 2007, especially pp. 28–32). Time was perhaps the strongest influence on any individual, because the date of baptism, within a few days of birth, established that person's fate according to the 260-day *tonalpohualli* divination almanac (e.g., *The Soothsayers*, a Book of Days [Sahagún 1979a [1569]).

Aztecs believed that, as individuals, their fates were determined by Oxomoco and Cipactonal, the primordial human couple, the primordial diviners (Figure 15.1). Their divination technique was shared by Aztec diviners (and gamblers): interpreting maize kernels cast onto a blanket or mat (*Leyenda de los Soles* 1992 [ca. 1558]:16).⁶ The resulting pattern was interpreted as signaling good or bad fortune. The kernels were called “Seven Snake” (Ruiz de Alarcón 1984 [1629]:154). In Nahuatl, the language of the Aztecs, Seven Snake is Chicomecoatl, goddess of maize and general agricultural fertility, a strong metaphor for prosperity.

The Catholic proselytizer Ruiz de Alarcón wrote a treatise in 1629 on native Mexican religious practices as a guidebook so that other Catholics would recognize the behaviors and materials associated with the native religions they were trying to eradicate. He marveled at the native propensity to favor “contingent,” luck-based explanations rather than those based on cause and effect.⁷ He observed that native diviners used

...pebbles or maize kernels, which they throw upon a cloth.... And they judge the fortune according to whether the pebbles or kernels have fallen near or far from themselves, not noticing that by throwing them hard they will go far and they will remain near it if they are thrown gently, with the one or the other depending on the will of the one who does the throwing. (Ruiz de Alarcón 1984 [1629]:142)

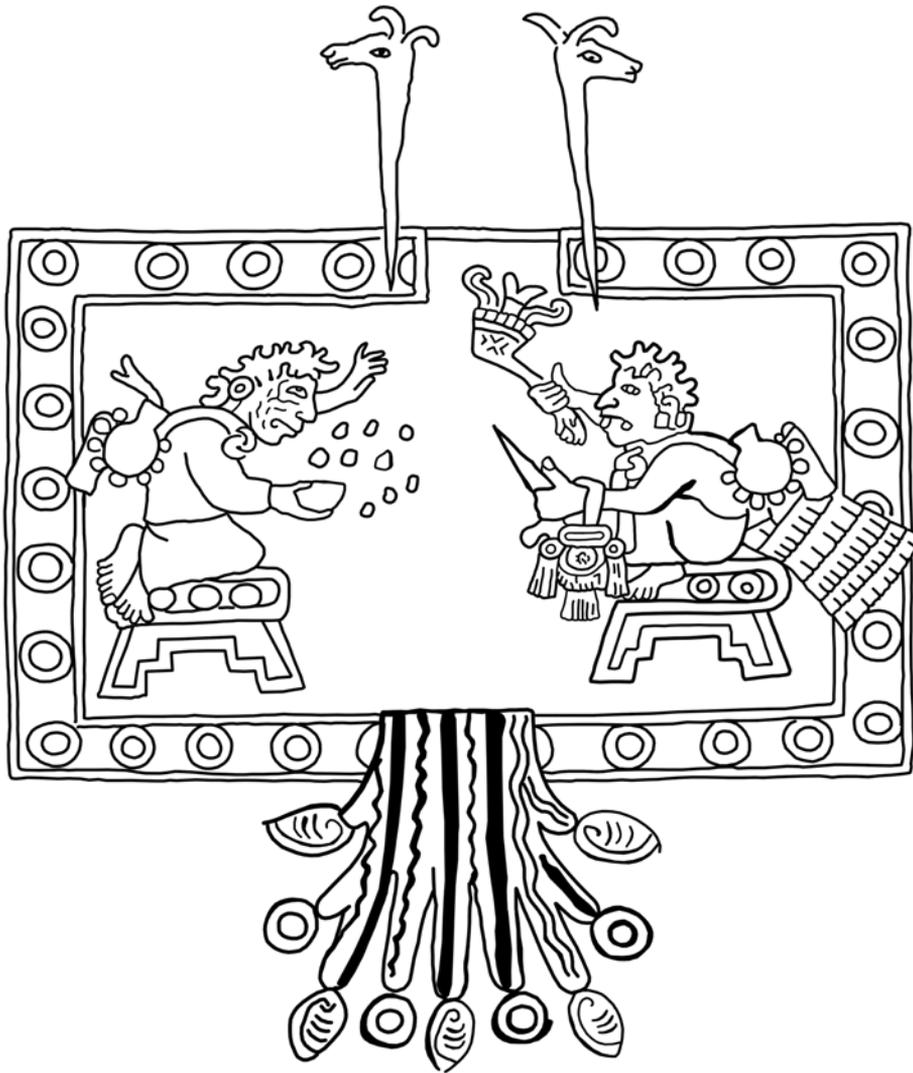


FIGURE 15.1. The primordial human couple, Oxomoco and Cipactonal, cast the newborn's fate with maize grains. (Drawn by Susan T. Evans from Codex Borbonicus [1899 {prob. sixteenth century}:21]).

It seems unlikely that anyone experienced in watching maize kernels (or beans or pebbles) being tossed onto a mat—for divination or in a game such as *patolli*—would remain unaware of the causal relation between type of throw and resulting position of the thrown object. Any gambler or supplicant would consider the skill of the *patolli* player and the sympathy of the diviner before placing a bet on a player or seeking counsel about an uncertain future.

The Aztecs recognized that the fates cast their birth dates, and that the divination almanac dates preordained their lives toward good or bad fortune, but knew that it was possible to modify that fate through several strategies. They mediated their fates through ritualized behavior and thought, consulting and heeding the advice of a wide array of professional wise ones, diviners, doctors, and sorcerers (at least 40 types, according to López Austin [1967]) while actively

deploying a suite of incantations and actions, learned from childhood onward, in order to secure safe passage through life.⁸ If the birthday sign was evil and better fates were available in the next few days, the diviner could choose another, nearby date, resetting fate and gaming time itself (e.g., Sahagún 1979a [1969]:4:30).⁹

Time Gamed Back

If penances were not carefully observed, if the individual did not diligently build on the strengths conferred by the sign, then time would become angry and the individual's good luck would disappear. Sahagún's informants offer numerous examples of the active agency of time in these circumstances. If someone born on One Flower, for example, neglected penances, "The day sign was angry with her" (Sahagún 1997 [1559–61]:167). Furthermore, those fearing the debasement predicted by their unlucky sign in the Book of Days, like One Ocelot (*Florentine Codex* Book 4 [Sahagún 1979a {1569}:5]), could show "prudence [and] might well be saved through forethought" but "almost all became slaves." On the other hand, those born on lucky One Deer merited "good fortune.... And if it were not realized, these lost it through laziness" (Sahagún 1979a [1569]:9).

The Aztecs' recognition of the potentially huge role of fate in their lives channeled their energy into narrow habits of moderation, thrift, and diligence so that they could weather bad luck: droughts, famines, illnesses, increases in tribute, or declaration of war. Gamblers, betting on chancy outcomes, sought out chaos, deliberately wasting time and risking the harm of chaotic forces for them and those around them.¹⁰

Aztec Games and Gamblers

Every country has and has had its games and its gamblers.... (Durán [1971 {1574–79}]:301)

In spite of the risks to individual, family, and social stability, gambling was a regular part of Aztec life. Everyone took part in the great festivals, and the chronicler Durán noted a festival's "many different dances, farces, and games," while grimly emphasizing, even in the title of the

chapter on feast-day games, the potentially fatal consequences of losing at gambling: "CHAPTER XXII which treats of the games which the Indians had for entertainment and amusement on feast days. [These were] also used to gamble one's life away and become a slave forever" (Durán 1971 [1574–79]:301).

Durán knew about these things first hand. Born in Spain in 1537, he grew up in the 1540s and 1550s in the old Aztec capitals: Tenochtitlan/Mexico City and Texcoco. He was a keen observer of native life at a time when it was still vibrant, before epidemics and suppression of traditions culled the active practices and practitioners of the old ways. He observed festivals with many native traits, and he noted that in Mexico, "[I]n former times those given to this vice [of gambling] were both many and greedy" (Durán 1971 [1574–79]:301).

Gambling behavior in Mesoamerica is no doubt many centuries old, but direct evidence for it is limited to accounts of Late Postclassic customs recorded in the sixteenth and early seventeenth centuries, which deal mostly with the world of the Aztecs. However, there is no doubt about the great antiquity of games in Mesoamerica, with strong evidence from the Soconusco region for game surfaces like those used in dice games played by the Aztecs and others, dating to 5,000 years ago (Voorhies 2013). The earliest known formal ballcourt also is found in the Soconusco region and dates to about 2,600 years ago (W. Hill and Clark 2001). Both board games and ballgames are known archaeologically throughout Mesoamerica for subsequent centuries; and while our evidence favors elite settings, where leisure activities have prestige value rather than suggesting sloth as they would in the working class, games were probably enjoyed informally by people across socioeconomic classes.¹¹

Accounts of gambling among the Aztecs contain direct description and depiction, including passing references to gambling. Gambling is mentioned in sermons, for example in the *huetlatoalli* speeches to the new ruler (e.g., Sahagún 1969 [1569]:64) and illustrated in several major native-style screenfold manuscripts. Many of these references pertain to the board game *patolli*



FIGURE 15.2. Folio 60r from the Codex Magliabechiano depicts “*patolli*, which is like a game of dice on top of a mat.” (Drawn by Susan T. Evans from Codex Magliabechiano [mid 1500s] 59r, gloss [60v], translation by Boone [1983:205].)

and the ballgame *tlachtli*, which are among the best-known and most popular betting venues.

Gambling on the Patolli Game

Many of the Indians' games were extremely subtle, clever, cunning, and highly refined. [It is a pity] that so much heathenism and idolatry was mixed up with them. (Durán 1971 [1574–79]:312)

Among the oldest sources on Aztec gambling are illustrations such as figure 15.2, which shows four people around a *patolli* mat. In Nahuatl, *patolli* was a general term for games involving dice and betting (Molina 1977 [1571]:80). But its particular association is with the Parcheesi-like dice game played upon a “mat [on which] was painted a large X, which reached from corner to corner. Within the arms of the X certain lines were marked which formed squares. The X and

its squares were marked or striped with liquid rubber” (Durán 1971 [1574–79]:302–03). Ethno-historical sources vary as to the precise number of squares and the number of dice (marked beans) and tokens (pebbles, or possibly worked sherds).¹² Durán specifies the number of dice as “five, in honor of the god” Macuilxochitl (Five Flower), patron of the game (Durán 1971 [1574–79]:306).¹³

Many people could play together in this... their most common game.... [Bets were made] on the one who best handled the dice.... When this game was played, such a crowd of onlookers and gamblers came that they were pressed against each other around the mat, some waiting to play, others to bet. It was a remarkable thing to see. (Durán 1971 [1574–79]:303)

Durán conveys the excitement surrounding a betting game, probably taking place in a town plaza. We have all experienced or witnessed wins and losses at games and gambling and can readily relate to the mental focus and visceral eagerness among those present, the skill and nerve of successful gamblers, and their exciting runs of good luck. The Aztecs experienced many of the same feelings when gathered around a *patolli* board or at a ballgame to gamble or to watch others win and lose.

Gambling and Palace Life

While festivals offered an opportunity for everyone to bet on games of chance, the palace people, particularly the lords, gambled regularly. It was a major feature of Aztec court life. In the Florentine Codex, half the text in a chapter on “how the rulers took their pleasure” deals with the ballgame and *patolli* game: how games were played and what was gambled on their outcomes (Sahagún 1979c [1569]:29–31).¹⁴

The Aztecs were fascinated by anything that exhibited life and therefore possessed animated agency, and the rubber ball and bean dice both danced in the air before connecting with fate. Perhaps the rubber lines delineating the *patolli* board added resilience to the play of the dice. The beans used as dice were “known in Mexico by the name of *colorín* (*Sophora secundiflora*) and in the United States as the *mescal bean*. This name is incorrect...the bean contains cytosine and not mescaline. But...it should be classified within the category of psychotropes.... Thus the *patolli* seems, genetically, to have had some connection with a questioning of destiny” (Duverger 1984:44). It would be interesting to know if gamblers or diviners ever used as dice the seed pods of *Sebastiania pavoniana*, which harbors the larvae of *Cydia deshaisiana*, the Mexican jumping bean moth.

These matters pertaining to the animation of the playing pieces are notable, because in Aztec society, nobles, especially royals, claimed privileged access to many things that carried an energized force, and also claimed that such energy was too strong for most commoners and could harm them (see extended discussion in

López Austin 1988:1:388–400). For example, in the palaces, games and gambling were everyday activities, and so were feasts where the celebrants consumed hallucinogens such as peyote as well as stimulants such as chocolate and tobacco, which caused courtiers to perceive and access even more energy in a world they already regarded as charged with animate forces.

Members of upper-class society claimed that they preferred chocolate drinks to *pulque* (agave beer), and the course of Aztec empire expansion suggests that empire-building was motivated by the need to secure and control cacao plantations (see a justification in Sahagún 1997 [1559–61]:224), but *pulque* was ubiquitous in Aztec society, although its open use was heavily controlled by severe penalties for public drunkenness.

On the occasional major feast days, the commoners could behave immoderately, publicly drinking *pulque* and gambling, activities that were openly pursued by the upper classes in their palaces and mansions. The connection between *pulque* drinking and *patolli* gambling was honored in Ometochtli, the *pulque* god, who was always remembered when gamblers made offerings during their games (Durán 1971 [1574–79]:306).

Macuilxochitl, Patron of Gambling and Palace People

The patron deity of gamblers was Macuilxochitl, the object of most of their offerings. Macuilxochitl (Five Flower in Nahuatl) represents a complex of spiritual forces overseeing fertility (Nicholson 1971: Table 3, 417–18). His alter ego, Xochipilli (Flower Prince), is linked to hallucinogens. Macuilxochitl dominates the left side of the Codex Magliabechiano image (Figure 15.2), emphasizing the great importance of luck in any gambling setting.

The identification of the palace as a place of gambling is strengthened by Macuilxochitl’s other important patronage: palace people. This is an inclusive term, covering those who were part of the palace household or who frequented the court—in other words, those who shared (or observed) the pleasures of the ruler. While palace servants were by no means granted the

privileges of nobles, they lived closely with them and observed gambling, ballgames, feasting, and indulgence in hallucinogens and stimulants. And servants included rural villagers who periodically worked in service at the palace. They too would have come under Macuilxochitl's influence. Thus palace ways and gods were familiar to people who served there, even if their own lives centered on their farmsteads.

Macuilxochitl rewarded supplicants with good fortune but punished them by withholding it and also by sending venereal disease and hemorrhoids. To placate the god, gamblers included him in their games. A portion of every bet was an offering to the god. "[M]asters of these games invoked the demon...in order that he might give them victory" (Codex Magliabechiano 59r op. cit.). "He was invoked by the gamblers when they cast the beans from their hands...rolled them a little in their hands, and, on throwing them on the mat...they noisily called to Macuilxochitl and clapped loudly" (Durán 1971 [1574-79]:306; see also translation of gloss [60v], Boone 1983:205).

The name Five Flower suggests the five fingers that toss dice (or divination pieces), and across his mouth is a design variously interpreted as a five-fingered hand or a flower. At the top of the Magliabechiano image, five precious *chalchuihuilitl* disks would remind people across the Aztec world of his power. The number five also suggests such important Aztec phenomena as the axis mundi (the "fifth direction") and the finality of living in the Age of the Fifth Sun (Díaz Balsera 2005:46).

Gambling Stakes

Depending on the setting and the game, the stakes varied greatly. When rulers gambled, the majordomos brought out "all which the ruler was to wager in the game...capes...lip plugs, the golden ear plugs,...the golden necklaces" (Sahagún 1979c [1569]:58). The rulers also wagered "green stone, fine turquoise, slaves, precious capes, valuable breech clouts, cultivated fields, houses, leather leg bands, gold bracelets, arm bands of quetzal feathers, duck feather capes, bales of cacao" (Sahagún 1979c [1569]:29).¹⁵

Durán mentions that professional gamblers "staked jewels, stones, slaves, fine cloths, breech-cloths, their homes, their wives' jewelry. They gambled their lands, their fields, their granaries filled with grain, their maguey fields, their trees and orchards" (Durán 1971 [1574-79]:305). The poor could wager their modest goods against the king's bet, and if they won would be given fine goods brought out by the king's majordomos. There was even a winner-take-all clause in the *patolli* rules, occasioned if one of the dice beans stood on its end (Sahagún 1979c [1569]:29-30).

The most serious gambling bet was one's own life: gamblers wagered their own lives if their losses became catastrophic and they were forced to consign themselves as slaves to the winners. The Aztecs were businesslike about this: a gambler unable to pay his debts was like a thief and would become the property of his creditors. If no one could redeem the debt, then the debtor could be sold as a slave in the marketplace, where merchants and lords would shop for human offerings to be sacrificed (Durán 1971 [1574-79]:281).

However, some gamblers must have won, and in fact Durán recalled learning from one man that he was a professional, fulltime player at pins (bowling), who said "that he seldom lost" (Durán 1971 [1574-79]:304). Gambling was also the life of choice for some commoners, and some sought to earn a living by it. The professional *patolli* gamblers "always went about with the mats under their armpits and with the dice tied up in small cloths" (Durán 1971 [1574-79]:304). A winning gambler's earnings could provide for his family and neighborhood, as well as raising his own economic status. If one gambler could lose "quetzal feathers, slaves, houses, fields..." then another was that much richer (Sahagún 1979c [1569]:30).

Attitudes toward Gambling

Palace lords included the wealthiest gamblers, like Motecuzóma, whose resources were vast and unlikely to be diminished by lost bets.¹⁶ Gambling was tolerated—not outlawed—but everyone knew its risks and that some individuals seem fated to be gamblers, perhaps destined to lose everything. The twenty *trecena* (thirteen-

day-count) signs of the divinatory almanac were variously glossed as good, neutral, and evil. An evil day-sign generally presaged a life of sloth, adultery, thievery, and drunkenness. Such dissolute futures are repeatedly forecast.¹⁷ But only one, One House, “was said to be evil” in that a man born under that sign lived “in dangerous luxury, ... completely given to the rubber ballgame and to *patolli*....”¹⁸ He lost; he lost the possessions of others.... He wagered everything which was in his home.... All the treasures and support of his beloved mother and father he spirited away, even if some little thing had been hidden” (Sahagún 1979a [1569]:93, 94).¹⁹

However, the day-signs could be ameliorated, even the evil One House, if “he practiced abstinence diligently, he drew blood from himself.” To this, Sahagún’s informants add the seemingly contradictory note that “[i]f he played the rubber ballgame, it was said that he thus nourished the day sign, that thus it improved.” (Sahagún 1997 [1559–61]:161–62). Sahagún’s informants in general were nobles, and perhaps this “nourishment” of the day-sign was possible because nobles could partake of activities and essences too powerful for commoners.

Attitudes about commoners undertaking gambling as a career are well expressed in the *Codex Mendoza* (1992 [ca. 1541–42]). Folio 70r shows contrasting paths for young people: most are being educated into dutiful, moderate Aztec adulthood and following vocational training and betterment. But the right side of the page shows the slackers: the vagabond and thief, gossip and drunk, gamblers, a ballplayer, and a *patolli* player (Figure 15.3). The gloss states,

[T]he majordomo is giving them good advice, telling them to give up idleness and going about as vagabonds, which lead to becoming thieves and ballplayers, or a player of *patolli*, which is like dice. As a result of these games, they increase their stealing to satisfy and provide for such vices, so that it will only bring them to a bad end, as the drawings show.” (*Codex Mendoza* [ca. 1541–1542], folio 69v, translation by Berdan and Anawalt 1992c:144)



FIGURE 15.3. From the Codex Mendoza, a detail of a *patolli* gambler. The cape to the side of the bean dice is knotted rather than folded, “as though it had been impulsively pulled off [and bet as]... a desperate wager by the near-naked player.” (Berdan and Anawalt 1992a:2:226; drawn by Susan T. Evans from Codex Mendoza Folio 70r.)

Like the Aztecs, we take the view that gambling is somewhat dangerous. While there is little harm in occasional low-stakes, feast-day indulgence, habitual gamblers live on society’s margin, no matter how wealthy they may become. Because of the long-term role of randomness in honest games, any gambler is bound to lose, and thus, even if wealthy, may court disaster. Gambling was thus seen as a gateway activity leading to crime and violent death. The losing gambler endangered his family and community through reckless use of hard-won resources (Durán 1971 [1574–79]:307). Gamblers “always went about indigent, in need; finally, when there was nothing left to gamble, they staked themselves” (Durán 1971 [1574–79]:305).

Like Sahagún’s informants, who described the cursed lives of those born under the sign of One House, Durán called professional gamblers

...infamous and knavish people, idle, dishonest, vicious, enemies of honest toil. Persons proud of their honor fled from any contact with them, and thus parents advised their children to keep away, to shun them and their presence as bad company. They were afraid that [their children] might become addicted, learn to gamble, and gamblers came to no good end. (Durán 1971 [1574–79]:305)

Gamblers, Aztec Gamblers, and Magical Thinking

Believing in a participatory cosmos spurs us on to action. (Aveni 2002:297)

The epistemological bases of the Aztec world and our own vary greatly. Yet gambling provides an area of beliefs common to our modern responses to a presumably scientifically explicable environment and also to Aztec responses to a cosmos throbbing with spiritual forces. We may wish luck to be a lady, while the Aztecs call upon on Macuilxochitl's kindness, but gamblers in both societies recognize the murky region of uncertainty in which magical thinking may provide comfort, and even, gamblers might believe, some edge in the game.

Here is how the Aztecs prepared to play *patolli*.

Those dice, together with the pebbles used in the game... were revered as gods, as it was believed that they were mighty; and thus when they played, [the people] spoke to them... and begged them to be favorable, to come to their aid in that game,... uttering a thousand loving words, a thousand compliments, a thousand superstitions. After having spoken to them, they placed the painted mat and the small case containing the implements of the game in a place of worship. They brought fire, cast incense into the flames, and offered their sacrifice in the presence of the implements, placing food before them. When the ceremonial gift had been delivered, they went off to play in the most carefree manner... [Durán 1971 (1574-79):304]

Durán commented that Spaniards also spoke to the dice. Furthermore, Durán and the other Catholic proselytizers shared with the Aztecs a belief in the power of ritualized actions, words, and thoughts in their own culture and in each other's. The Catholics firmly believed in the power of the devil, as beseeched through the devil-worshipping paganism they hoped to eradicate. They witnessed how the devil worked through the Aztecs, demonstrating the effec-

tiveness of some Aztec practices as "magical thinking," because they could not explain how an impressive effect had been caused.

For example, some Catholics believed that Aztec acrobats who juggled logs with their feet did so "through diabolical arts." But with greater knowledge of Aztec culture and society, Durán could dismiss their fears. He knew that sorcery was unnecessary, because the tricks were achieved through training and physical skill. There was a juggling school in his childhood neighborhood, and his neighbor, an Aztec "most skillful in this art... [trained] young Indians from different provinces... how to juggle the log with their feet" (Durán 1971 [1574-79]:297).²⁰ Durán jokingly calls the performance "sleight of foot" and compares it with "sleight of hand played in Spain." He recognized that the success of the acrobats lay in training. The acrobats had strengthened their natural kinesthetic intelligence with long years of practice (as Gutiérrez, Chapter 14, this volume, points out), not through magical thinking, though they no doubt faithfully followed a regime of prayers and offerings.

Durán reflected on changes in Mexico, noting with some regret that irreplaceable skills were lost with the suppression of games and the destruction of gaming pieces (Durán 1971 [1574-79]:307). In part, this was to save the gamblers from further economic losses in a Colonial-era world even harsher than that of the Aztec period, and, of course, to save their souls from the devil-worship that saturated every throw of the dice.

Aztec gambling practices combined skill and hope in a strategy to control fate.²¹ The Aztecs shared with gamblers everywhere and throughout time the use of magical thinking and of particular kinds of intelligence and intuition—the capacity of our species for reasoning and instinct. These shared human capabilities were shaped by their own cultural values and norms, which rewarded successful gamblers lavishly but always pressured toward conformity and duty. Aztec gambling behavior illuminates that culture's world view, belief system, and societal norms, and offers a perspective on cross-cultural reliance on intelligence and luck, including a cross-cultural dependence on magical thinking as a means of influencing an uncertain outcome.

Acknowledgments

Thanks to Barbara Voorhies for organizing the symposium “Games People Play” for the 2015 meetings of the Society for American Archaeology in San Francisco. I appreciate Gerardo Gutiérrez’s generosity in coordinating and sharing images for this volume and comments and suggestions by Tony Aveni, Elizabeth Boone, Rebecca Lerner, and David Webster. I have learned much about magical thinking by playing *Spite and Malice* with David Webster, and value that experience.

Notes

1. The effect of the brain’s structure on play has been explored from the perspective of the brain’s right and left hemispheres by Dobkin de Rios and Schroeder (1979).
2. There are other explanations: the shooter may cynically assume that this psychological experiment could be made public and those who would shoot a baby, even in representation, would be shamed. Or the shooter may realize that although the action is harmless, it can serve as a behavioral gateway, the first step toward habituation into harmful actions, and thus should be avoided.
3. Even if there is only a 1-in-6 chance of rolling doubles at dice, and 1-in-36 of doubles on the next roll, experienced gamers find these situations to be common—doubles don’t just show up every sixth roll. See Wong (1998) for an interesting common-sense perspective.
4. Gardner’s work has prompted much discussion among psychologists, and while emendations have been proposed, the original list functions adequately for this purpose.
5. The Aztecs had many controlled substances, and commoners were forbidden or at least discouraged from using them, with occasional exceptions. The Tenochca lords incorporated hallucinogens into their feasts and used peyote and morning glory seeds, plus stimulants such as a strong tobacco mixture and chocolate drinks. These were part of “a ‘physical’ presence of power, a visual, auditory, palpable, olfactory dimension—perceptible in incense and flowers—indeed, a hallucinatory aspect of power, which has been too often placed among the exotic accessories, to be minimized and conjured away.... The source of that power was a divine force infused into the nobles, into the ranks of the pipiltin—a vocation for leadership that came from the gods Quetzalcoatl and Xiuhtecutli and sealed the nobles’ authority” (Gruzinski 1989:19–20).
6. Divination by casting beans was a “common, mundane practice” in Renaissance Italy, though suppressed by church authorities (Monson 2010:46). At the same time in Britain, “games of chance...were totally forbidden since they involved recourse to divine providence for unworthy reasons” (Thomas 1971:121).
7. “[P]or suertes remitiendo a su contingencia la resolución de sus dudas” (Ruiz de Alarcón 2011 [1629]).
8. A divination was regarded as much less effective without the proper invocation, noted Ruiz de Alarcón (1984 [1629]:142).
9. “We can easily imagine the attraction which ancient Mexicans must have felt for all divination techniques; they never missed a chance to question destiny” (Duverger 1984:39).
10. Gamblers are among a group including “adulterers, prostitutes, licentious persons,...thieves,...and drunkards” thought to harm others (including “animals, plants, and things...[including] religious rites and offerings”) through pollution, a native tradition by the Nahuas of today (López Austin 1988:1:266).
11. “Board” (as in “board games” and “game boards”) is herein used in the broad sense, to indicate a marked playing surface around which tokens are moved. Mesoamerican “board games” were played on marked mats or open ground and architectural floors.
12. Strategies of play have not been documented, but a series of simulations devised by Gómez and Galindo (2007) have recreated plausible tactics. See also the discussion in Walden and Voorhies, Chapter 12, this volume.
13. Macuilxochitl’s association with games may date at least into the Classic period. A figure on the floor marker of Copán’s Ballcourt IIb may represent one of Copán’s kings dressed as a Maya version of “Macuilxochitl, complete with the diagnostic hand over the jaw” (B. Fash and Fash 2007:275).
14. The other pleasures cited in Chapter 10 of Book 8 are: the rhythmic procession of the ruler exiting the palace; poetry; rhetoric; hunting; landscape design; entertainment by jesters (especially those juggling logs with the feet) and the ruler’s servants; and animals kept in zoos. (For a full discussion see Evans 2000.)
15. Lords were not always good-natured about their losses. Citing Alva Ixtlilxóchitl (1975–77 [1600–40]:II:144), B. Fash and Fash note, “In 1473 the Emperor Axayácatl tried to secure gardens in

- Xochimilco from its lord, ... betting his own market and the lake around it. ... Upon losing the game, he had his Xochimilcan counterpart strangled to death rather than lose such a treasure to a lower-ranking lord" (B. Fash and Fash 2007:271).
16. However, it was possible that a ruler could lose his *altépetl*, as recounted by William Sanders in a personal communication.
 17. Book 4 of the *Florentine Codex*, the Book of Days, repeatedly abjures the people to avoid being indolent/lazy, drunk, loud, incorrigible, sowers of discord, insolent, lying, rumor-mongers, cowardly, adulterous, thieving, hot-tempered, big-talking, agitating, troublemakers (Sahagún 1979a [1569]).
 18. Women born under One House faced bad futures of their own as described in the *Florentine Codex*, but gambling seems to have been a male pursuit (Sahagún 1979a [1569]:95–96).
 19. The *Codex Telleriano-Remensis* (1995 [1563]), does not associate One House with gambling (1995: 182–183).
 20. Piña Chan quotes Clavijero's description of a log juggler who "threw himself on his back, lifted his feet high and held a thick round log about eight feet long with his feet. He threw the log in the air...twirled it rapidly...[while] two men sat astride the ends of the log" (1969:34).
 21. Fittingly, the greatest Aztec god, Tezcatlipoca, bestowed good fortune and bad regardless of an individual's ethics or offerings—the perfect embodiment of an indifferent universe.