The Game of Backgammon by Robert Eighteen-Bisang

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If chess married poker, their child would be backgammon.

The rules of any game specify what you can win or lose and contain hints on how to go about winning. Game theory classifies backgammon as a rule-bound, two player, 0-sum, turn-taking game with perfect information. In chess and backgammon, both players can see all of their enemy's strengths and weakness. The better the player, the more accurately he or she can interpret the pattern of the checkers.¹

Games are a structured form of play. In 1961, French sociologist Roger Caillois² categorized rule-bound games and sports by the presence of:

- Agon (competition): Backgammon, chess and poker are extremely competitive.
- Alea (luck) diminishes skill and may allow amateurs to compete with professionals. In backgammon and poker, luck and skill are like the head and tail of a coin. If you erased one side, the other would disappear as well.
- *Ilinx* (vertigo) from the Greek word for "whirlpool," is the extent to which players and can become lost in a game or allow it to dictate their behavior.
- *Mimesis* (mimicry and participation): Poker became as popular as the major sports once viewers could share the excitement by peeking at players' hole cards. In contrast, neither backgammon nor chess allow a mass audience to participate in the nuances of master play.

We routinely hit blots, make points and try to stay out of trouble but these habits can stop us from finding other, better choices.

Centuries of chess literature contain advice on "seeing" the board, analyzing positions and finding the best move. In a similar vein, a flurry of books on poker contain advice about raising (doubling), re-raising (redoubling), folding (passing) and mental toughness. The following guidelines are an overview of backgammon, with notes on games and the psychology of play.

GOLD RULES

The Golden Rule of Checker Play: The fundamental principle of backgammon strategy is: "break or diminish contact when you are ahead in the race, but increase or maintain contact if you are behind." This applies to all variations of backgammon. If the cube is in play, every decision to double, take or pass is based on your chance of winning a pure race or converting contact into a winning race.

The Golden Rule of the Doubling Cube: Double when you have a 75% chance of winning the game and take if you expect to win at least 25% of the time; otherwise pass.⁴ In practice, you usually turn the cube when are about a 2 to 1 favorite to win or have a reasonable chance of scoring a gammon.

¹ In contrast, poker is a game of imperfect information which places a premium on guesswork and deception.

² Caillois, Roger. Man, Play and Games. New York: Schocken Books, 1979.

³ Exceptions can occur when you are trying to win (or avoid losing) a gammon.

⁴ This advice ignores the threats of winning or losing a gammon, and the value of owning the cube.

"In practice, the main drawback to the 3-to-1 principle is that it is usually impossible to determine exactly what the true odds of winning are." – Paul Magriel.

In other situations, the "51% rule" advocates turning the cube with any advantage if our next roll will decide the game. Redoubles increase how much you can expect to win, but giving away the cube forces you to play the game to the end while your opponent can use the cube to double you out.

The Golden Rule of Money Play: Play for stakes you can afford! Like poker, backgammon is meant to be played for meaningful stakes, but there are outrageous swings of luck and "bad beats" in both games.

The Golden Rule of Chouettes: Chouettes offer the box, captain, and members of the crew doubling options that do not exist in head to head play. In borderline take/pass decisions, the man in the box may take some cubes and drop others. As a member of the crew, you will often double when your teammates do in an effort to put pressure on the box. A contrary strategy is to refrain from joining them with the intent of "cashing" if your position improves. Even if the box has a take, he or she may drop your cube as a form of insurance. Either way, you gain equity.

The Golden Rule of Match Play: The score can affect your checker play and reverse decisions about the doubling cube – especially when either player is 1 to 5 points from victory. Positions that are a double and a pass in some situations may not even be a double at other scores. You may have to consult a match equity table or use a shortcut such as Neil's numbers to determine your chances of winning the match at different scores.

SILVER RULES

The Silver Rule of Checker Play: Find the best move! The fact that beginners play their checkers reasonably well long before they reach a similar degree of proficiency with the doubling cube obscures how difficult it can be to play your checkers properly. Before you make any move, study the *entire* board to determine if you are winning, losing, or about even, and whether an offensive or defensive move is called for. Depaining play revolves around a battle for key points – especially the 5, 4 and 7-points on both sides of the board – while hitting blots is usually more important than making points. Increasing contact creates a battlefield of points, spares, blots and gaps. Most patterns can be seen as back games; bear offs; blitzes; blocking games; high-anchor games; low-anchor games; mutual holding games; primes; and running games. Each pattern has different goals, and unique rules of thumb for checker and cube play. Mental muscle is important in equal positions and offers the underdog his best chance of coming out on top. A checklist of your assets and liabilities (including your standing in the race), will indicate your best strategy. Do you want to race you opponent, block him or attack

⁵ Paul Magriel devised criteria for deciding whether to play safely or boldly. *Strategic principles* include: The more men you have back, the more chances you can take. • Your standing in the race, and the number of men each player has in the other's inner board. *Tactical principles* are: Do you have an advanced anchor? • The strength of your opponent's inner board. • The strength of your inner board, especially in comparison to tog's. • The presence of blots in your opponent's board.

him? In contrast to strategy, tactics are short-tem maneuvers that try to leave you in the best possible position, *after* your opponent's next turn. Gambits such as hitting a blot in your home-board despite the risk of return shots don't always work because the other guy has a say in the matter, but you must take reasonable chances to seize the initiative. Be alert for chances to do something *now* which could be difficult or dangerous to do *later*. At the very least, try to maximize your winning chances or minimize his good rolls.⁶ In defensive positions, your priorities may include making an anchor in your opponent's board, getting a shot (then hitting and containing it), tidying up blots, or scurrying to save a gammon or backgammon. Once contact is broken, races, bear-ins and bear-offs have "pure strategies" in which it is relatively easy to calculate your best move.

"It is difficult to state with certainty what the single most important aspect of backgammon is, but near the top is the ability to see clearly when voluntary risks should be taken." – Barclay Cooke (*Paradoxes and Probabilities*).

The Silver Rule of the Doubling Cube: Use the doubling cube as a weapon to put pressure on your opponent! Two ideas that originated in Danny Kleinman's work have become popular in recent years. PRAT stands for "position, race and threats." An advantage in any two of these areas indicates a double and a take. Advantages in all three suggest a pass. The second rule of thumb is: "Any time you aren't sure if you opponent has a take or a pass, you must double." Many backgammon players are liberal or conservative by nature. One wants "action" and enjoys taking chances to make the game more exciting; the other prefers to play it safe and may be reluctant or unwilling to risk a large loss. You can increase your profit by doubling liberal players "in" at their point of last take, and doubling conservative opponents "out" at the first opportunity.

"More important than the extent of your advantage is the extent of the drama in the situation. If not much is likely to happen before your next turn, you do not double even when you have quite a big advantage. But if the position is one of high drama, so that the game is likely to be won or lost before your next turn, you should be prepared to double with only a small advantage." – Phillip Martyn (*Phillip Martyn on Backgammon*).

The Silver Rule of Money Play: Anybody can beat anyone else on any given day. The naïve belief that you are going to win (or, even worse, "deserve" to win) is a recipe for disappointment and disaster. If you are playing equally skilled opponents, you will win and lose half your games. You must cultivate the mental toughness to deal with misfortune and "bad beats." Arrogance fosters carelessness.

"The good player takes losses and errors as a constant lesson to readjust." – Larry W. Phillips (*Zen in the Art of Poker*).

The Silver Rule of Chouettes: Observe! Take advantage of your down time to see what happens in games you have dropped. Were there any surprises or twists

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⁶ Duplication and diversification are well-known examples of mini-max strategies.

⁷ Good luck is when the arrow hits the other guy in the eye.

and turns that made you regret your decision? In addition, note the other players' strengths and weaknesses.

The Silver Rule of Match Play: The rules of match play differ from money play. The fact that the margin victory or defeat is irrelevant and the possibility of winning a gammon without turning the cube can be confusing. In addition, you must understand the fluctuating value of gammons⁸ and appreciate the implications of such things as the Crawford Rule, "free passes" and "free takes."

BRONZE RULES

The Bronze Rule of Checker Play: Blend checker play with cube action to put pressure on your opponent. To do so, you must be aware of the location of the cube and who has access to it. If you are on the verge of winning the game or turning the cube, it is foolish give your opponent any "jokers" that could turn the game around. When he is about to cube you, look for ways to stop him from doing so or insure that you will have a take.

The Bronze Rule of the Doubling Cube: It is usually more difficult to decide whether to take or pass the cube than to know when to give it. The difference between the first, second and third-best way of playing your checkers may be insignificant, but every doubling decision involves two choices – the right choice and the wrong choice. You can't control the whims of the dice, but you are responsible for your doubling decisions. Errors may be traced to a failure to understand the position, but negative emotions can affect our actions. The martial arts distinguish true fear and true anger from their illusionary counterparts which cling what "may" happen in the future or what happened "to us" in the past. In backgammon, fear breeds inaction (failing to double when you should and dropping when you shouldn't), while anger can lead to hasty checker play and overlyaggressive cube actions.

The Bronze Rule of Money Play: Avoid scoreboard takes and passes! Many amateurs base their cube decisions on whether they are up or down on the score sheet in an effort to the night in the plus column.

The Bronze Rule of Chouettes: The box is a magnet for questionable takes and passes. The increased stakes can cause conservative players to choke, while the desire for the box – retaining or winning it – may lead the man in the box or the captain into the land of dubious takes.

The Bronze Rule of Match Play: In any form of tournament, you must be alert for situations (i.e., checker plays⁹, doubling decisions, gammons or backgammons) that could win or lose the match for you – especially if losing would put you out of the tournament.

⁸ In money play, the gammon price is always 2 to 1, i.e., you must win two gammons for every game your attempt to win a gammon costs you. In tournament play, the price of gammons can vary from 0-100%.

⁹ Blitzes and blocking games create more gammons, but races and holding games are relatively gammon-free.