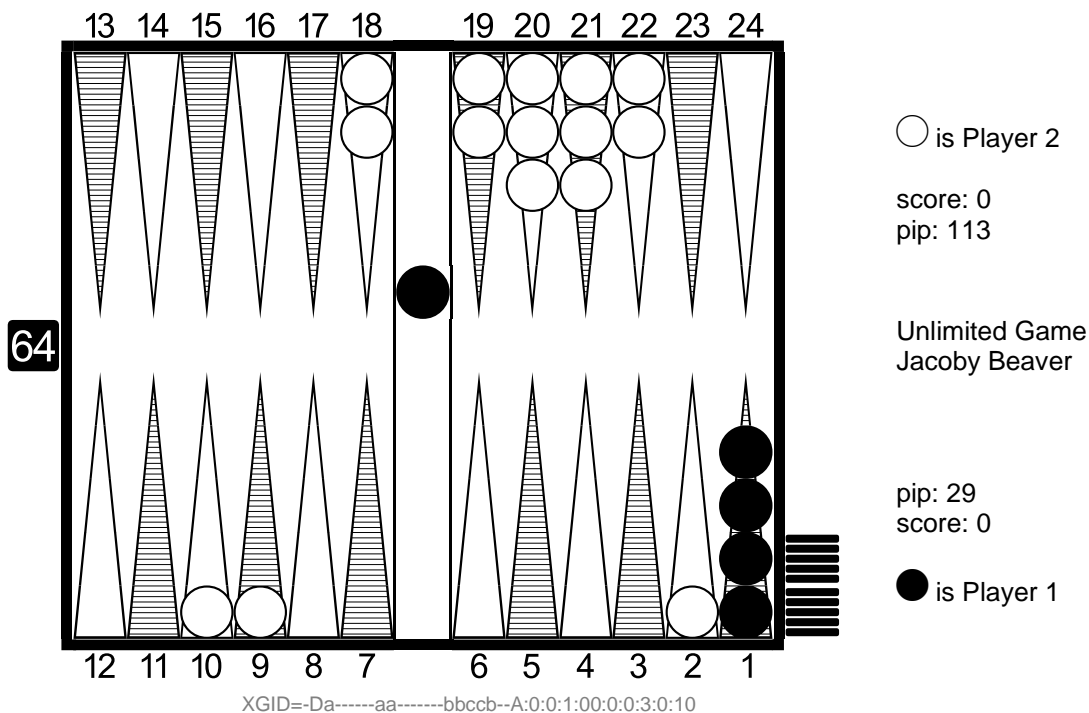


PROBLEM OF THE WEEK #20 – APRIL 27, 2021

THE POSITION:



● on roll, cube action?

THE PROBLEM:

This week's problem is based upon a problem submission from Jeff (the "Jeffster") Misrahi. It comes from a match that I played with him in the Monday online "For the Glory" tournament circuit. This is a position from a game type that is commonly referred to as a "Containment Game." If White is successful in closing his board while keeping Black on the bar, the game type will become a "Post-Ace-Point Game." I've removed the match score from the equation, as doubling decisions in these types of situations are extremely common, and proper play in a money game situation will generally serve as the best baseline for gaining an understanding of proper cube action and improving your game.

THE GAME SITUATION:

Black is on roll with a centered cube. He has borne off 10 of his checkers and has a checker on the bar. White has established a five-prime on his own side of the board. Before rolling, Black needs to consider whether he should double. If he does double, White will have a take/pass decision of his own.

THE QUESTION:

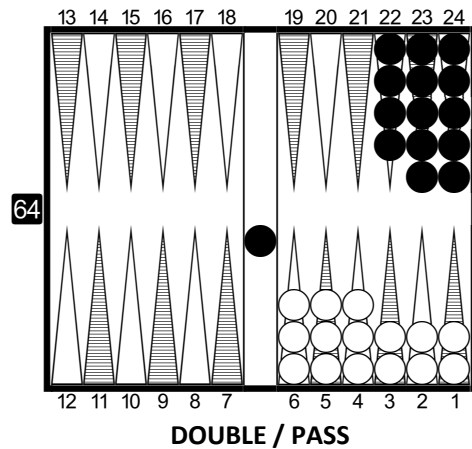
So, what is the proper cube action for this position? Should Black double? If he does, should White take the double?

HINT

In order to make determinations as to the proper cube action in a Post-Ace-Point Game, there are several reference positions that you should commit to memory.

This is the prototype reference position:

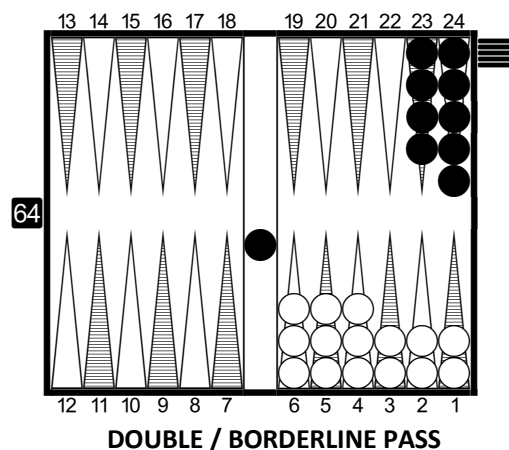
Position #1 – White on Roll



White has managed to close his board with Black having a single checker on the bar. White's starting bearoff position is ideal insofar as he has managed to place his three spares on the 6-point, the 5-point and the 4-point. In this position, Black has not yet borne off any of his checkers. Obviously, White has a huge double, and Black should pass.

The prototype position is not particularly interesting, but it becomes more interesting as you update it to reflect situations where Black has managed to bear off some of his checkers before he gets closed out.

Position #2 – White on Roll

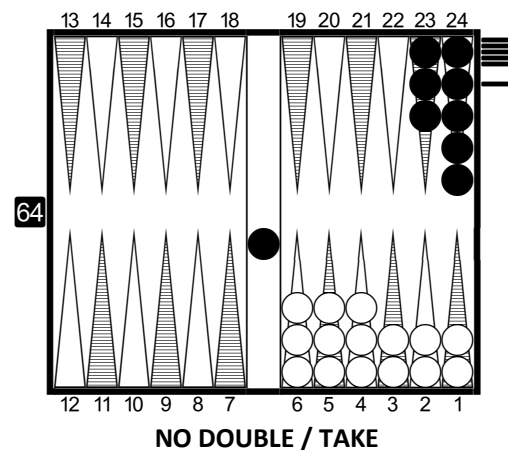


In Position #2, Black has managed to bear off five of his checkers. White has a double, and Black has a very borderline pass. (Black averages a loss of 1.001 units per game if he takes the cube, while he'll lose 1.000 units per game by passing).

Note that this is a pass only because White has managed to obtain the ideal bearoff formation. Move White's spare checker on the 4-point to the 3-point, and Black will have a close take.

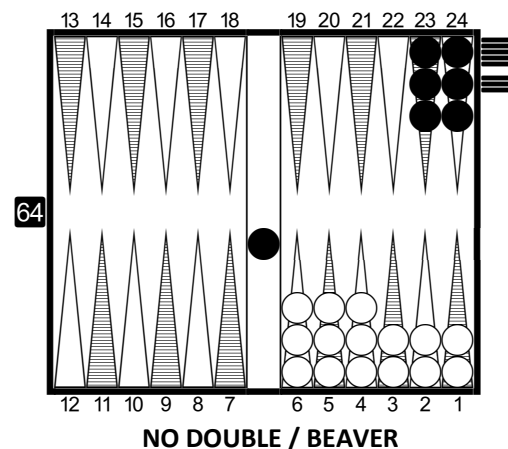
Let's continue to remove additional Black checkers and see what happens.

Position #3 – White on Roll



If Black has borne off six checkers, White doesn't quite have a double, and Black has a very comfortable take.

Position #4 – White on Roll

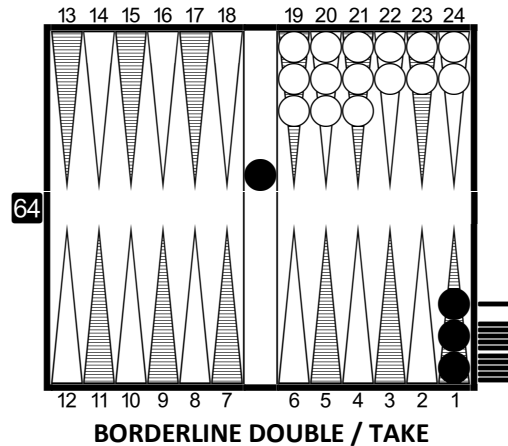


With Black having borne eight checkers off, chances are about 50/50. An Extreme Gammon

rollout shows that White wins 50.44% of the time in this position.

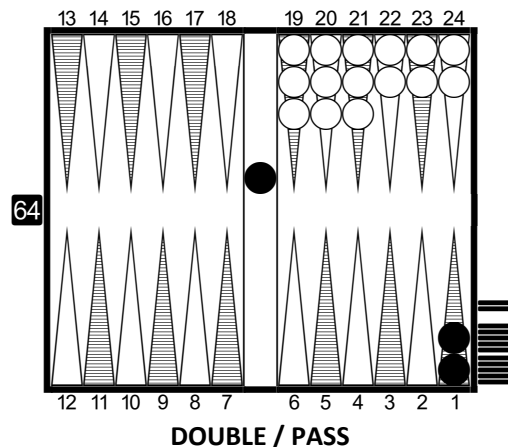
Since there is value in cube ownership, Black will have a proper beaver if White mistakenly turns the cube in this position.

Position #5 – Black on Roll



If Black has borne off 11 checkers, then it is actually Black that can double, although it's a very borderline double. White has an easy take.

Position #6 – Black on Roll



With Black having 12 checkers off (or more), White has a pass.

While these references provide a good foundation for addressing proper cube actions in post-ace-point games, it will often be the case that you don't run into a position that matches the above positions exactly. However, you can use these reference positions as a baseline for evaluating actual positions that you may reach in over the board play.

You should now reexamine the problem position with these reference positions in mind. Key things to consider:

- How many checkers does Black have off?
- Has White reached a closeout position? Is he close to reaching one?
- Is White's bear off structure "ideal"? Or are there structural deficiencies that will slow down his bearoff and cost him some equity.
- Do Black's remaining checkers occupy the lowest points in his home board, ensuring that he'll have a speedy bearoff once he gets his checker on the bar back in play?

SUMMARY TABLE

# of Men Off	White's Win Pct.
0	97.3% (3.4% Gammons)
1	95.6%
2	93.2%
3	89.6%
4	84.8% (Double/Pass)
5	78.0% (Double/Close Pass)
6	69.4% (No Double/Take)
7	61.1%
8	50.4% (No Double/Beaver)
9	42.0%
10	33.0%
11	24.3% (Double for Black)
12	17.1% (White has a pass)
13	21.4%
14	8.3%

The above table summarizes all of the main variants of the prototype reference positions – *i.e.*, White has achieved an ideal closeout formation and Black has borne off between 0 and 14 checkers, with a checker on the bar. Note that White's chances actually improve when Black has 13 checkers off, rather than 12. This is because with 13 checkers off, Black will have a blot on his ace-point instead of a made point. This gives White additional winning chances in those variations where White gets hit during his bearoff.

The "5-8-11 Rule" – in making doubling decisions in post-ace-point game positions: five checkers off is a double and a borderline pass, eight checkers off leaves equal chances, and 11 checkers off is a borderline double for the player on the bar.