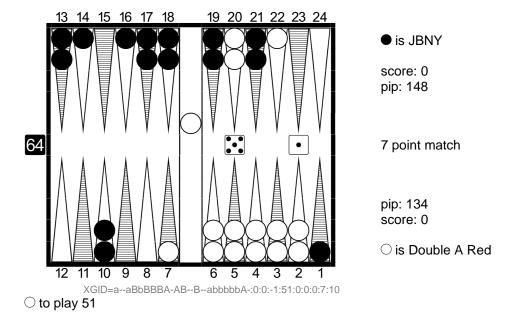
# PROBLEM OF THE WEEK – DECEMBER 12, 2020



In this week's problem, our very own local hero, Ralph "Double A Red" D'Onofrio is playing in the Winners' Bracket Finals in the Long Island Backgammon Club's annual online backgammon tournament. It is the first game of a 7-point match, and Ralph (with the White checkers above) has rolled a 51 – obviously this is not what he was hoping for.

Hitting one of Black's outfield blots from the bar would have been much preferred — and any entering roll containing a 4 or a 6 would have allowed him to do precisely that. With a Black checker on the bar facing White's well-constructed five-point inner board, Ralph would have been in very good shape indeed. Alas, that circumstance has not come to pass. Ralph briefly curses the backgammon dice Gods for giving him such a poor shot, as is their wont. But being the true gentlemen that he is, Ralph takes this bad roll in stride, brushing aside any thoughts of the poor luck that he has been unfairly confounded with, and he takes some time to ponder his next move. He thinks through the pertinent aspects of the position as he seeks out his best play for his 51 roll:

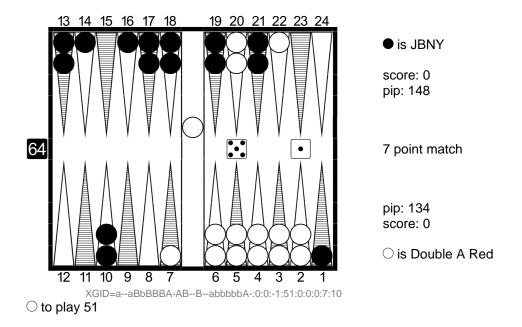
"It would have been nice to be able to hit one of Black's outfield blots, since I have a very strong five-point board. Unfortunately, I can't hit a checker with this roll. At least I didn't roll one of the 4/36 combinations of dancing numbers, which would have left me on the bar in very bad shape, facing an onslaught from Black's oncoming army. My biggest asset in this position is my strong inner board/prime. On the downside, I have four men back to Black's one, and Black has a much stronger presence in the outer board. He is poised to improve his budding outside prime, which will worsen my defensive position considerably, leaving me in danger of crunching in my inner board if I can't quickly escape some of my back checkers. What should I do here?"

So, how should Ralph play his 51 roll in this position?

Note that, as is the rule in modern 21<sup>st</sup> century trivia contests, consultation with electronic devices of any kind (including, in this case, assistance from any silicon-based life forms) is strictly prohibited – any such usage is, in fact, cheating.

Extreme Gammon's solution to this problem (including a rollout and some analysis and discussion from a carbon-based life form) will be circulated tomorrow evening, Sunday (12/13), or Monday (12/14), in either case well in advance of our weekly online tournament.

### **HINT**



Ralph has done a good job in analyzing the important aspects of the position. To review:

"It would have been nice to be able to hit one of Black's outfield blots, since I have a very strong five-point board. Unfortunately, I can't hit a checker with this roll. At least I didn't roll one of the 4/36 combinations of dancing numbers, which would have left me on the bar in very bad shape, facing an onslaught from Black's oncoming army. My biggest asset in this position is my strong inner board/prime. On the downside, I have four men back to Black's one, and Black has a much stronger presence in the outer board. He is poised to improve his budding outside prime, which will worsen my defensive position considerably, leaving me in danger of crunching in my inner board if I can't quickly escape some of my back checkers. What should I do here?"

It is fair to say that the qualitative aspects of the above analysis are very much on the mark, but . . .

Is Ralph accurate in his assessment of the factual particulars contained in the above analysis? The answer is "no." He is wrong on one point in particular, which is very much critical to finding White's best play with his 51 in this position. Can you spot the analytical flaw contained in the above assessment? If you are able to, can you now see what White's best play is?

You can see the solution to this Problem beginning on the next page.

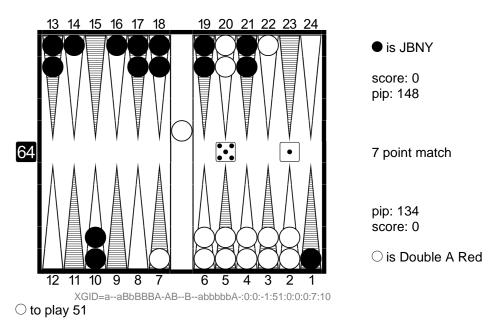
# **SOLUTION**

Were you able to find the mistake contained in the analysis of the position?

"It would have been nice to be able to hit one of Black's outfield blots, since I have a very strong five-point board. Unfortunately, I can't hit a checker with this roll. At least I didn't roll one of the 4/36 combinations of dancing numbers, which would have left me on the bar in very bad shape, facing an onslaught from Black's oncoming army. My biggest asset in this position is my strong inner board/prime. On the downside, I have four men back to Black's one, and Black has a much stronger presence in the outer board. He is poised to improve his budding outside prime, which will worsen my defensive position considerably, leaving me in danger of crunching in my inner board if I can't quickly escape some of my back checkers. What should I do here?"

The highlighted sentence is, in fact, incorrect. White CAN hit a checker with this roll. In point of fact, not only CAN he hit a checker, he SHOULD hit a checker.

#### **Extreme Gammon Rollout Results:**



1.	Rollout <sup>1</sup>	Bar/20 2/1*	eq: +0.058
	Player:	47.65% (G:27.96% B:1.08%)	Conf.: ± 0.010 (+0.047+0.068) - [100.0%]
	Opponent:	52.35% (G:13.15% B:0.49%)	Duration: 2 minutes 14 seconds
2.	Rollout <sup>1</sup>	Bar/24 6/1*	eq: -0.062 (-0.119)
	Player:	42.13% (G:24.51% B:0.79%)	Conf.: ± 0.008 (-0.0700.054) - [0.0%]
	Opponent:	57.87% (G:16.15% B:0.78%)	Duration: 3 minutes 05 seconds
3.	Rollout <sup>1</sup>	Bar/20 7/6	eq: -0.176 (-0.233)
	Player:	42.75% (G:17.66% B:0.51%)	Conf.: ± 0.017 (-0.1920.159) - [0.0%]
	Opponent:	57.25% (G:10.03% B:0.40%)	Duration: 4 minutes 58 seconds
4.	Rollout <sup>1</sup>	Bar/24 7/2	eq: -0.396 (-0.453)
	Player:	37.74% (G:14.91% B:0.50%)	Conf.: ± 0.018 (-0.4140.377) - [0.0%]
	Opponent:	62.26% (G:13.56% B:0.67%)	Duration: 4 minutes 28 seconds
<sup>1</sup> 1296 Games rolled with Variance Reduction.			
Moves: 3-ply, cube decisions: XG Roller			

 $\underline{www.eXtremeGammon.com} \ \ Version: 2.19.211.pre-release, \ MET: Kazaross \ XG2$ 

Ralph made what appears to be a routine play in this position, going with Bar/20 7/6. He enters his checker from the bar on the advanced anchor that he has established in John's board (preparing to escape on the next

roll), while simultaneously safetying the blot that he has on his own bar-point and leaving John's last back checker stuck on the ace-point behind Ralph's imposing five-point prime/inner board.

I believe almost all players (myself included) would have reflexively made the play that Ralph went with, without giving a second thought to other possible alternative plays, and certainly not to the play that actually is the BEST play – after all, it is very counter-intuitive to break a five-point board to hit loose, leaving not one, but TWO, blots in your inner board subject to direct shots from the checker that you just put on the bar. Especially since Bar/20 7/6 is relatively safe and keeps White's five-point board intact – what's not to like?

Interestingly, however, as the Extreme Gammon rollout convincingly shows, Ralph's routine play is a blunder (as are all other plays which fail to put Black on the bar, and even the odd-looking Bar/24 6/1\* is superior to the routine play). The correct play is a very hard play to find and, for most players, it is a play that I think is even harder to actually make. Nevertheless, not only is Bar/20 2/1\* the correct play in this position, but it's correct by a country mile.

### So, what's going on here?

In today's Problem, as was noted in the intro, Black has strong control of the outfield and is threatening to improve his outside blockade. In comparison, White's army is basically divided in two, with a five-point inner board on one side of the board, and four checkers stuck behind Black's growing blockade on the other. If Black is able to consolidate his outfield position, White will be in trouble. It will not be easy for White to get his checkers out from behind Black's blockade and then navigate safely through the outfield where Black has a strong presence (and note that White will need to do this multiple times, since he has many men back). In addition, if White is unable to start this extrication process relatively quickly, he will be forced to collapse his front board, leaving a position that will be lacking in viable winning game plans.

In short, White is the underdog in this position. While he will of course have some chances due to his racing lead and ownership of an advanced anchor in Black's inner board (as well as some additional counterplay in the possibility of containing or priming a Black checker), Black's outfield control, combined with the fact that White has four men back, makes Black the clear favorite in this game. By making the routine play, Bar/20 7/6, White essentially maintains the "status quo" and relegates himself to being an underdog in the game.

But, can White do something to shake up this status quo? Let's look at a possible alternative: the strange and unconventional board-breaking play, Bar/20 2/1\*. For starters, we must realize that breaking an inner-board point to hit feels wrong because it usually is. For it to be correct, you basically need a broad range of favorable circumstances to come together in harmony to justify taking such a radical and risky approach. In this case, note that the following factors are all in play:

• First, Black has two outfield blots which leave him momentarily vulnerable – these are ideal circumstances to look for a "tempo" play if there is one to be found.¹ If Black is left to his own devices and permitted to use his full next roll to improve his position, he 'll be able to safety at least one of his outfield blots or strengthen his outside blockade, and he'll often be able to do both. In addition, Black

¹ In common backgammon parlance, a "tempo" play is basically a play which involves hitting a checker with the specific tactical objective of depriving your opponent of an opportunity to make full use of his next roll. By hitting, your opponent must use half of his next roll to enter from the bar. Tempo plays are commonly used to minimize a strong threat from your opponent; typical examples are situations where your opponent has many builders in place which he can use to strengthen his position and/or situations where you have a loose blot which you want to help "protect" from an attack by your opponent. By making a loose hit as a tempo play, you are essentially distracting your opponent from some of his more primary objectives – for example, since he has to use half of his roll to enter from the bar, he won't be able to (a) make a new point that will extend his prime or strengthen his inner board or (b) point on your exposed blot (unless he is lucky enough to roll doubles). You are essentially hoping that by distracting/delaying your opponent's progress, something good might happen for you in the meantime that will improve your winning chances (e.g., you might be able to escape a back checker or establish an advanced anchor).

- can elect to use 6's to escape his last back checker. If White wants to deprive Black of his next roll to prevent him from consolidating his position, White will need to act immediately and aggressively. Passive play just won't do here.
- Second, as noted above, White's only real alternative to the aggressive loose hit is a temporizing play
  which will leave him an underdog in the game, with the structural weakness of having his army divided
  into two non-connected parts that are each vulnerable and don't communicate well with one another.
- Third, and the most important consideration of all, White needs to recognize that when Black dances from the bar after White hits loose on the ace-point, the gain White realizes is *enormous*. Almost any ace, 5 or 6 will cover (or safety) one or both blots, restoring White's five-point board (with Black now being on the bar). In addition, 4's and 6's allow White to hit one of Black's outfield blots, putting a second Black checker on the bar in the face of White's imposing inner board (with at least four made points, possibly five, depending on what White's full roll actually is). The gammon potential will also be huge not surprisingly, the rollout shows that more than half of White's wins are gammons. In fact, White's position is so strong after a Black dance that he wins *immediately*, since Black cannot take White's double (well, he can, but it would be a fairly serious mistake to do so).

To sum up, basically White has two fundamental choices here. One, he can make a passive play that will leave him fighting an uphill battle as an underdog in the game; or two, he can make an aggressive but risky play that will win the game for him immediately on 16 of Black's 36 upcoming rolls where he fans. That's 44% *immediate* wins. When Black hits from the bar, of course, it is pretty bad for White, who will then have five checkers stuck in Black's backfield. However, the aggressive play leaves White an equity favorite, <u>OVERALL</u>, because of how strong it is when the aggressive play works out for him (as noted, 44% of the time). In addition, when White does get hit back by Black from the bar, it's bad but not completely lights out for him. He will sometimes come back with a strong reply of his own from the bar or otherwise manage to occasionally win from his holding game formation. These factors all conspire to make the unusual board-breaking play correct in this position. As any gambler knows, risky plays can be profitable and proper if they are accompanied by the possibility of commensurate rewards – and that's essentially what we have here.

As an aside, these types of board-breaking plays are called "banana" splits, a term coined by Kent Goulding to reflect the presumption that one generally needs to be "bananas" to make such plays. Also, in their book, **What's Your Game Plan (2011)**, Mary Hickey and Marty Storer note that backgammon players like to make plays such as these when it is correct to do so, since the person executing such a play will often get to "Look Really Cool" – however, this is only true in those cases where the play is, in fact, the correct play to make.

So, what have we learned? Backgammon is hard! It takes a lifetime to master. But it is the existence of plays like this, and the complications and nuances that come with them, that make the game so interesting and popular – it's why we like to play it. As mere mortals, though, all we can do is try our best to improve our play by studying and learning from plays like this, while we continue to play and enjoy our favorite game.

### **EPILOGUE**

As it turns out, Ralph missed out on his opportunity to "Look Really Cool" and he made an understandable blunder when he was confronted with the Problem position. Can't really fault him, though. After all, if this wasn't a very difficult play to find, it wouldn't have warranted attention as our very first Quiz Problem. However, this story does have a happy ending (for Ralph at least) – he went on to win that opening game of this match (winning with the cube on 4), and followed that winning game with an impressive victory in the match – advancing to the tournament finals as the winner of the main bracket under the double-elimination tournament structure.

Can Ralph carry his successful online play to ultimate victory in the Long Island Backgammon Club's annual online tournament? Only time will tell, but we'll all know soon enough!