

Introduction

This match is a prize from the recent 'Snoopy' tournament on the First Internet Backgammon Server (FIBS). It features the winner of the tournament, ms (Casey Forrest in real life), and that humble puppy himself, Snoopy (also known as David Eggert). The idea of the prize was to have one of your matches critiqued by the 'experts'. At the same time that this prize was being awarded, alot of discussion was occurring on rec.games.backgammon concerning the relative merits of TD-Gammon and Jellyfish. Since it didn't seem all that likely the two would actually meet on the field of battle, this is an effort to kill two birds with one stone by bringing them together on the panel of experts to analyze ms's match. So let's meet our experts.

Kit Woolsey :

Currently listed in the low single digits in the world rankings, Kit's book and numerous annotated matches are a 'must read', as the information comes from one of the most brilliant backgammon minds of our time.

TD-Gammon :

Developed by Gerry Tesauro, this is the original backgammon neural network. TD is using a 3-ply lookahead to evaluate plays in this match. TD was developed as part of a research project at IBM, and is unfortunately not available for public use.

JellyFish :

Developed by Fredrik Dahl, this is the latest neural network to hit the scene. Version 1.2 will be evaluating the plays using its 2-ply lookahead function. Jellyfish is commercially available.

So one year after the "Kit vs. Jeremy" annotated match, we have yet another match for public consumption thanks to these experts (ok, so Kit did most of the real work). Kit's commentary offers excellent insight on both checker play and cube strategy which is educational for players at all levels. He is truly generous in sharing his knowledge about the game. His style is not only readable, but often times humorous as well.

So let's see where and how well our neural network panelists work together, or when they disagree with the carbon based unit or amongst themselves, and become neural nuisances. With these three experts in the play-by-play booth, it won't be dull!

And finally the credits for those who made this possible:

- Casey Forrest - winner of the tournament, match player
- David Eggert - match player, match formatting (postscript)
- Kit Woolsey - match annotation
- Mark Damish - match formatting (ascii)
- Andrew Fitzgibbon - match formatting (postscript bg board)
- Gerry Tesauro - TD-Gammon creator
- Fredrik Dahl - Jellyfish creator

Game 1

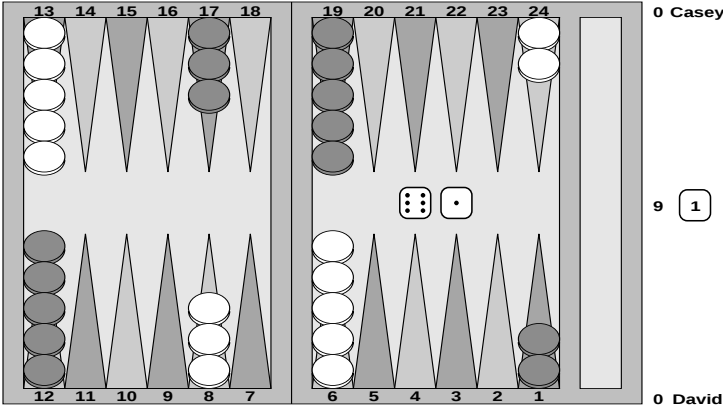
Score: David = 0 Casey = 0 to 9

Mark: Looking at Kit Woolsey's equity table:

David's gammonless take point with a 2-cube is 27.27%
Casey's gammonless take point with a 2-cube is 27.27%
David's gammon price with a 2-cube is 0.55
Casey's gammon price with a 2-cube is 0.55

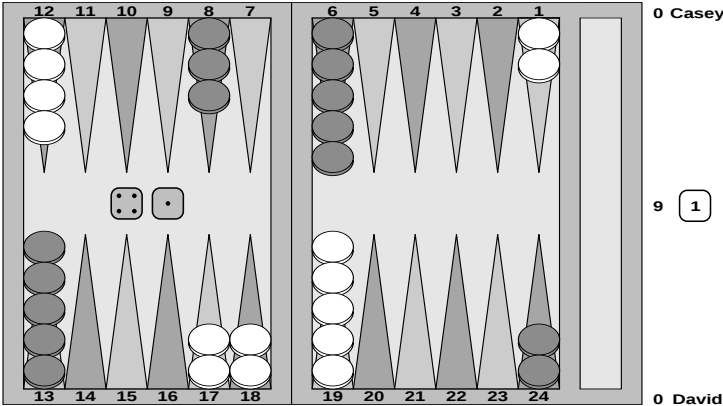
Gammon prices are from the doublers perspective

Move 1: White (David) to play 61:



Play: 13/7 8/7

Move 2: Black (Casey) to play 41:

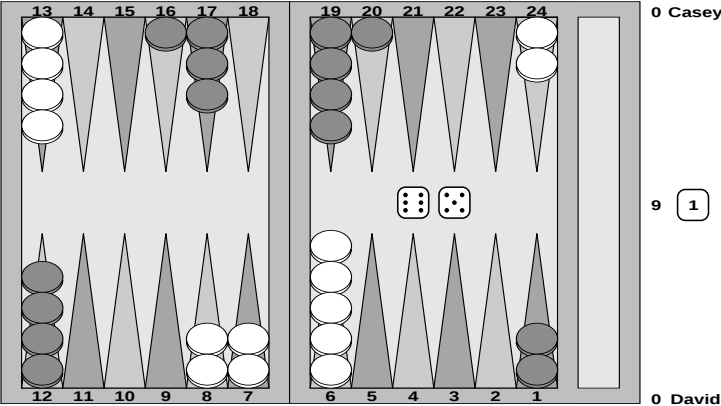


Play: 13/9 6/5

Kit: While Casey's play is ok, splitting with 24/23, 13/9 is generally preferable when your opponent has started with a point-making opening. You are behind in the point building battle, so going after an advanced anchor works better.

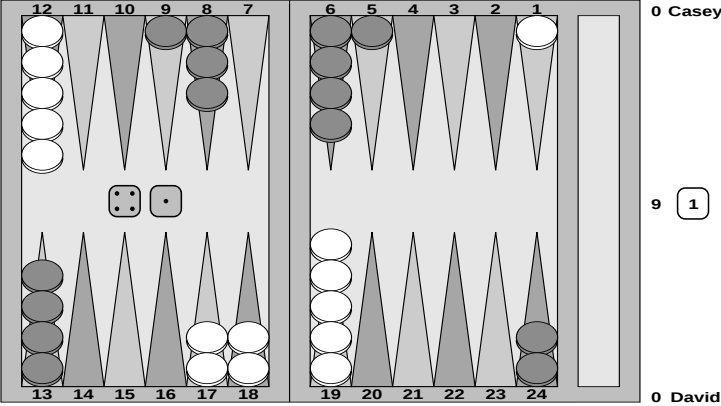
TD:		
24/23, 13/9	-	.137
24/23, 24/20	-	.149
24/20, 6/5	-	.169
JF:		
24/23, 13/9	-	.161
24/23, 24/20	-	.191
13/9, 6/5	-	.202

Move 3: White (David) to play 65:



Play: 24/13

Move 4: Black (Casey) to play 41:



Play: 13/9 6/5

Kit: Although splitting is valuable here, locking up the nine point appears to be more important.

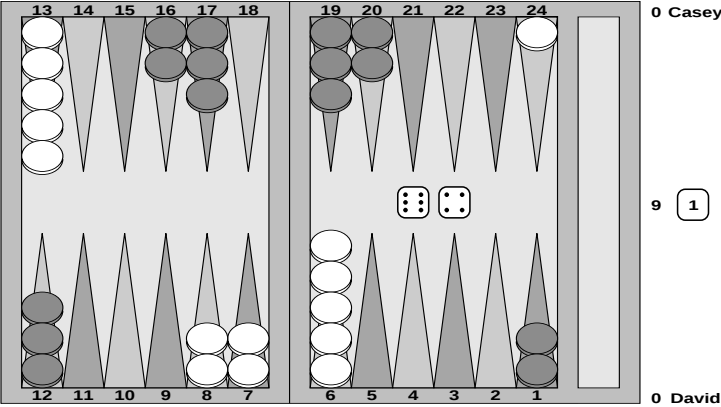
TD:

13/9, 6/5	-.049
24/20, 6/5	-.080
24/23, 9/5	-.089

JF:

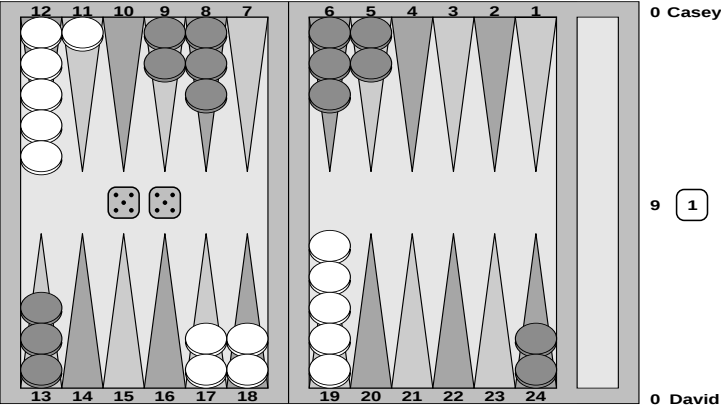
13/9, 6/5	+.001
9/5, 6/5	-.097
24/20, 6/5	-.098

Move 5: White (David) to play 64:



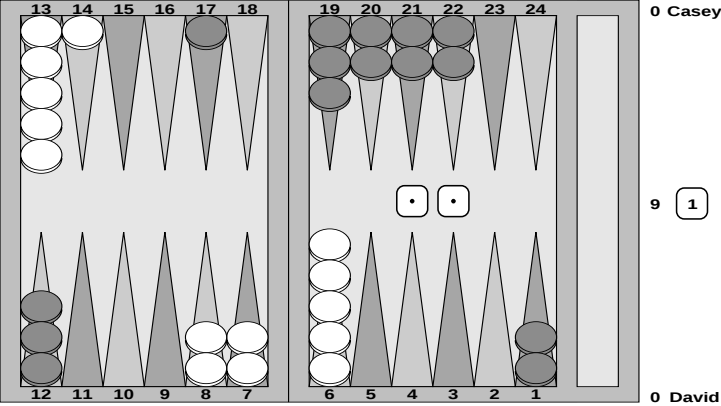
Play: 24/14

Move 6: Black (Casey) to play 55:



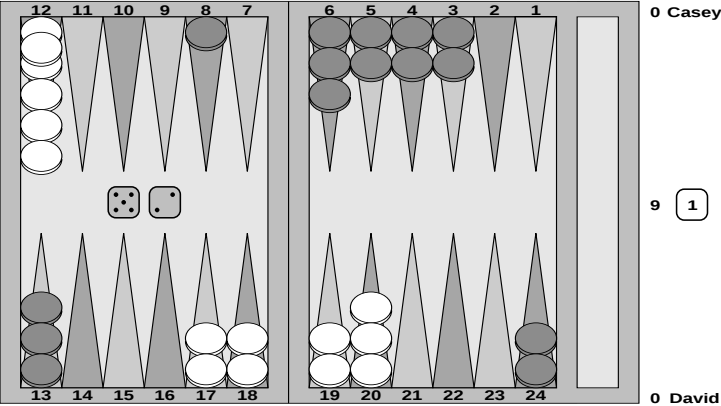
Play: 9/4 9/4 8/3 8/3

Move 7: White (David) to play 11:



Play: 14/13 6/5 6/5 6/5

Move 8: Black (Casey) to play 52:



Play: 24/22 13/8

Kit: The split is a must. Otherwise Casey's back men will be hemmed in forever.

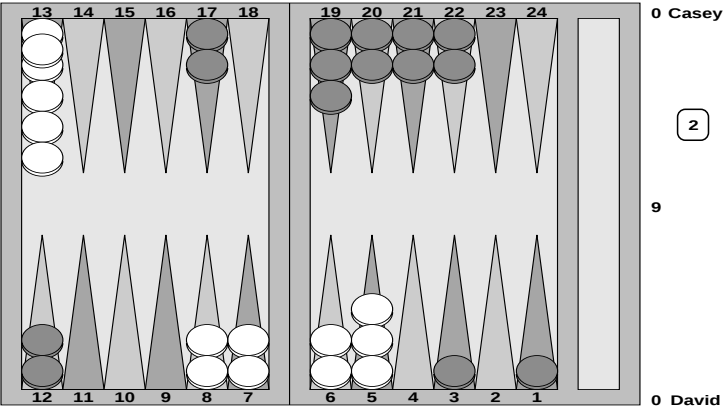
TD:

24/22, 13/8	-.297
24/22, 8/3	-.338
24/22, 6/1	-.352

JF:

24/22, 13/8	-.241
24/22, 8/3	-.272
24/22, 6/1	-.298

Move 9: White (David) DOUBLES

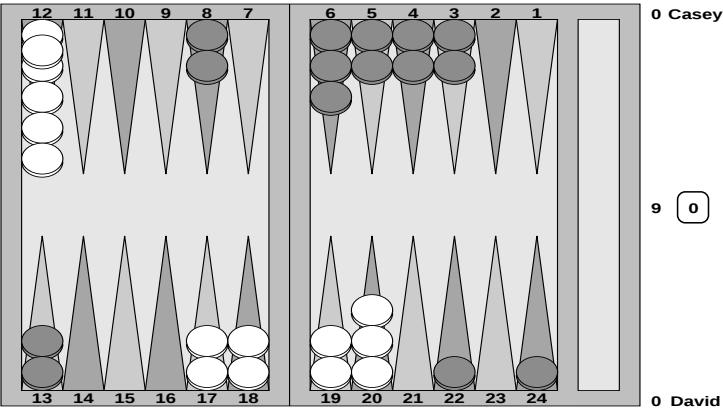


Kit: This is a fine double. David has escaped his back men and has built a strong offense. The problem is whether or not to take.

TD: Nonsense. Casey has a trivial take, and David isn't close to a double since the position isn't particularly volatile. Unless, of course, there is some chance that Casey will actually pass.

JF: David's advantage really isn't all that great. Casey is about even in the race, Casey has the stronger inner board, and David is not flexible with six men on the midpoint and no builders with which to attack. Not yet a double.

Move 10: Black (Casey) DROPS



David wins one point.

Kit: If Casey had already made her anchor she would definitely have a take, since she is in fine shape in the race and has built up a strong board so David can't be too frisky with his attack. As it is there is some danger she might never make the anchor and get blitzed, so while it looks close I agree with the pass.

TD: Human paranoia. What attack? Casey has the strong board and David has no builders. Casey's back men are in virtually no danger. This is a clear take, and the pass is a big blunder justifying the premature double.

JF: The race is about even, Casey has the stronger inner board, and she is almost certain to be able to make an anchor or escape one back man before David is able to bring down his builders. This double should be taken.

Game 2

Score: David = 1 Casey = 0 to 9

Mark: Looking at Kit Woolsey's equity table:

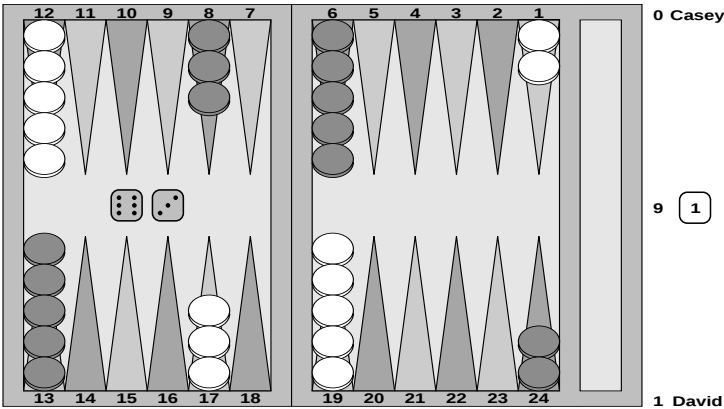
David's gammonless take point with a 2-cube is 26.09%

Casey's gammonless take point with a 2-cube is 26.09%

David's gammon price with a 2-cube is 0.52

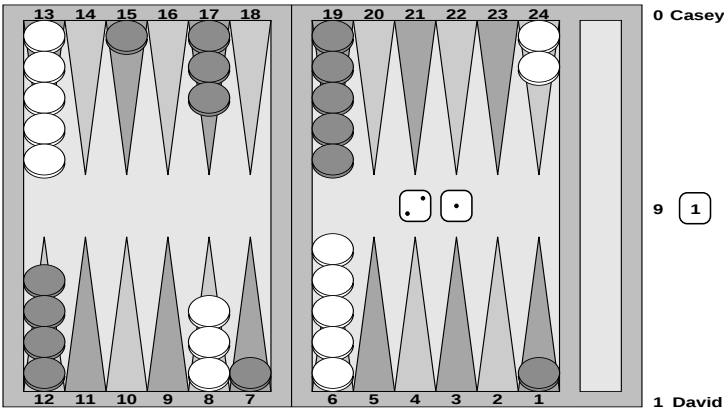
Casey's gammon price with a 2-cube is 0.52

Move 1: Black (Casey) to play 63:



Play: 24/18 13/10

Move 2: White (David) to play 21:



Play: 13/11 8/7*

Kit: Both this and 24/22, 8/7* are acceptable. Since the split to the 22 point isn't as valuable as more advanced splits, I prefer David's play.

TD:

13/11, 8/7* - .091

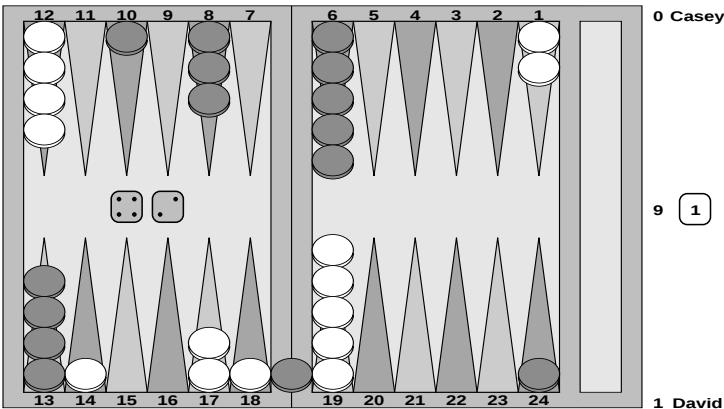
24/22, 8/7* - .100

JF:

13/11, 8/7* - .086

24/22, 8/7* - .091

Move 3: Black (Casey) to play 42:



Play: B/21 24/22

Kit: Casey's play is the strongest effort to make some advanced anchor, but she takes more of a risk of being attacked. Her play is fine, but I slightly prefer doing something on the other side of the board with B/21, 13/11.

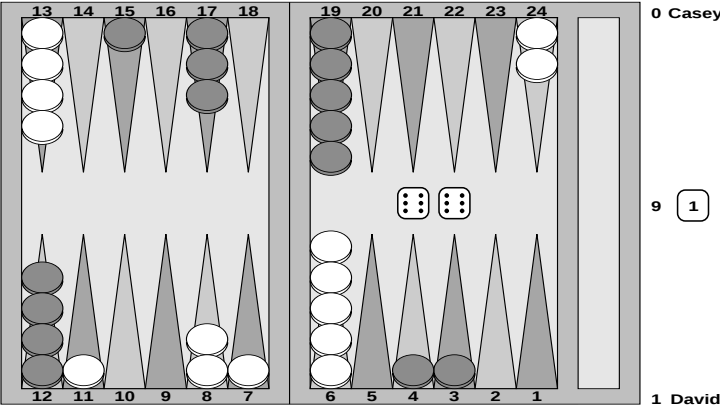
TD: As usual humans are willing to put their necks on the chopping block rather than put their checkers where they can be used to make useful points. B/23, 13/9 is superior.

B/23, 13/9 - .023
B/21, 13/11 - .030
B/21. 24/22 - .035

JF: It isn't necessary to enter on the 21 point. That just risks getting attacked. Simply having the back men split is sufficient to make life difficult for David. B/23, 13/9, bringing a builder to a superior place, is a bit better.

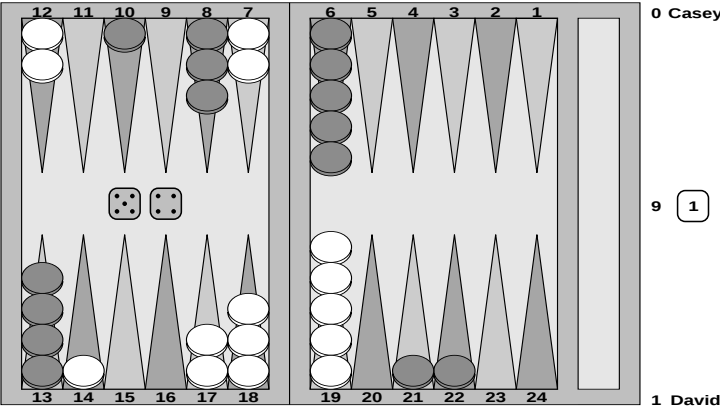
B/23, 13/9 - .031
B/21, 13/11 - .046
B/21, 24/22 - .071

Move 4: White (David) to play 66:



Play: 24/18 24/18 13/7 13/7

Move 5: Black (Casey) to play 54:



Play: 13/9 10/5

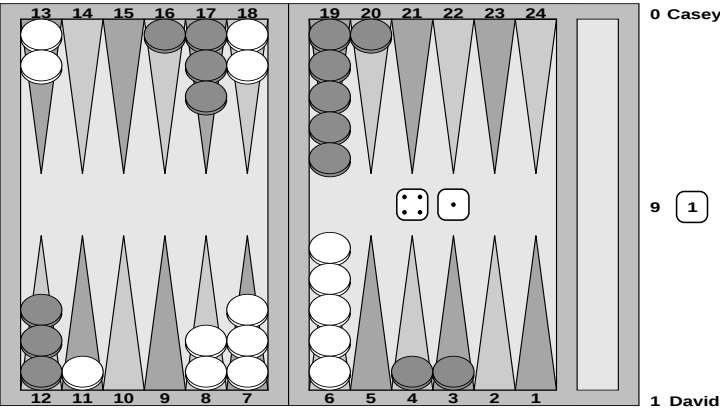
Kit: A fine play by Casey in a difficult situation. She puts her checkers where they belong at relatively little risk. David is unlikely to want to break his anchor to hit the blot on Casey's nine point, particularly since his twos can be used to hit on the four point.

TD:
13/9, 10/5 - .358
10/5, 8/4 - .378
13/8, 10/6 - .378

JF: I don't see it that way. This game is likely to turn into a race, and Casey will lose a lot if David is able to hit the blot while leaving the anchor. She can build her board quite effectively without the danger by playing either 10/5, 8/4 or 10/5, 6/2.

10/5, 8/4 - .447
10/5, 6/2 - .447
13/8, 10/6 - .453
13/9, 10/5 - .4543

Move 6: White (David) to play 41:



Play: 18/13

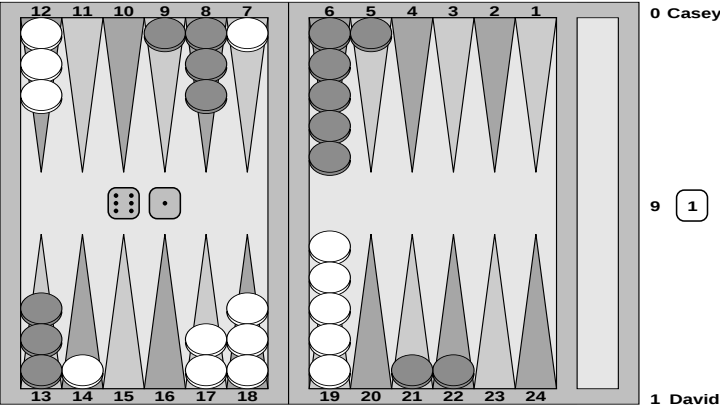
Kit: I don't care for this play at all. David is voluntarily leaving his anchor and inviting Casey to attack when he should be the one attacking. He should go after Casey's blots with 8/4*, 4/3*, which will leave him a strong position if Casey is unable to hit back.

TD:
8/4*, 4/3* + .265
13/8 + .160
11/6 + .160

JF: One of David's worst errors of the match. The double hit, holding the anchor in reserve in case he is hit back, is far superior.

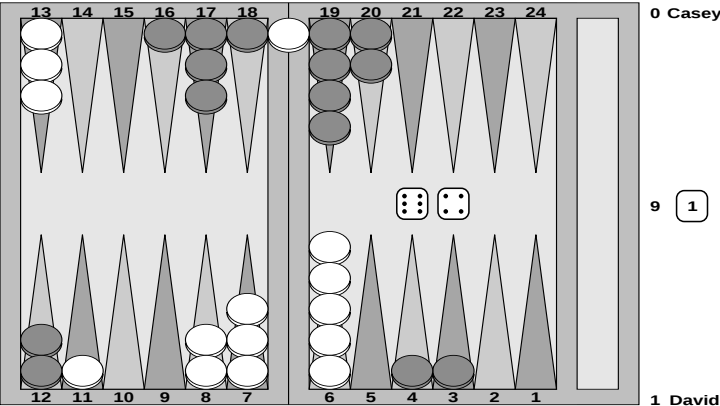
8/4*, 4/3* + .336
11/6 + .180
6/1 + .154
18/13 + .069

Move 7: Black (Casey) to play 61:



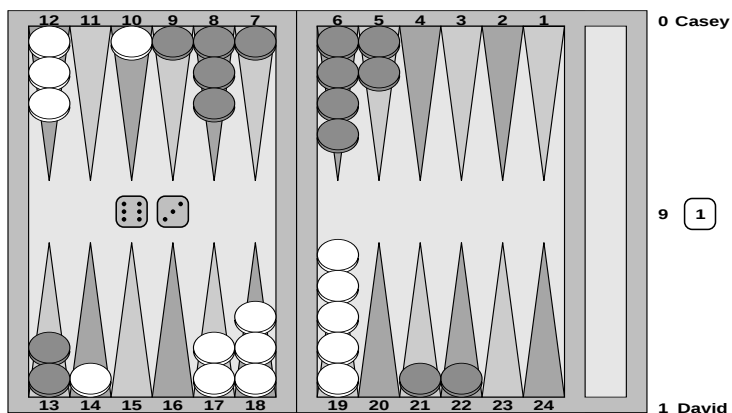
Play: 13/7* 6/5

Move 8: White (David) to play 64:



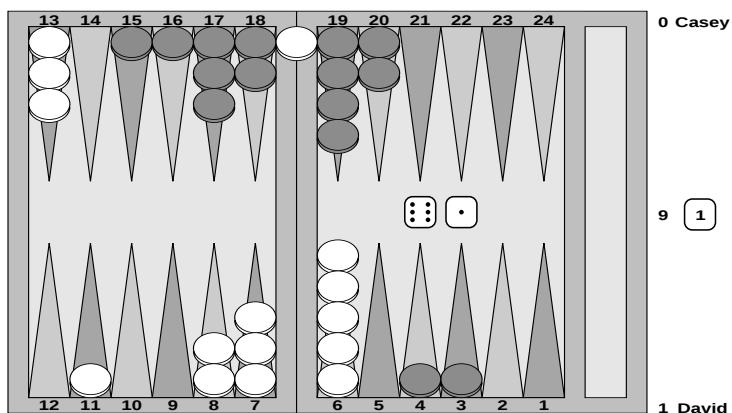
Play: B/15

Move 9: Black (Casey) to play 63:



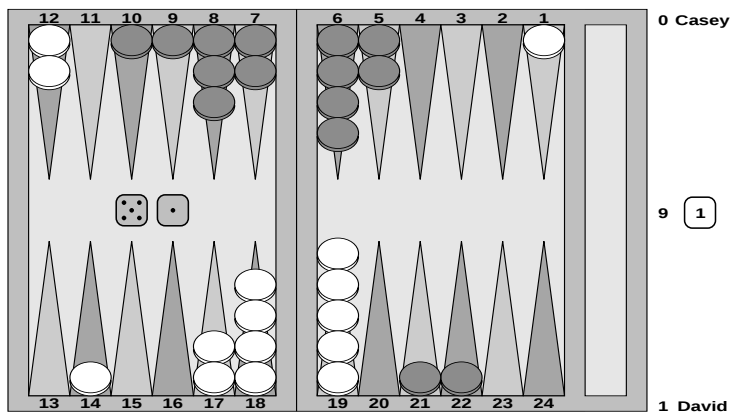
Play: 13/10* 13/7

Move 10: White (David) to play 61:



Play: B/24 13/7

Move 11: Black (Casey) to play 51:



Play: 21/16 10/9

Kit: Casey has taken full advantage of David's 4-1 play a few rolls ago. She now has a solid five-prime, and David has accomplished nothing. Her play looks better than making the anchor with 22/21, 10/5. She will need to escape her back men soon anyway, so this looks like the best time to do it with her five-prime to back her up.

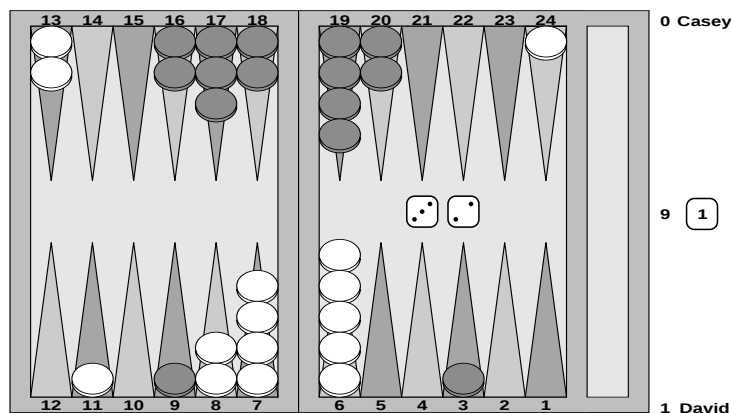
TD: Makes the five-prime and springs a back checker. Perfect!

21/16, 10/9	+ .302
22/21, 10/5	+ .255
10/9, 6/1*	+ .251

JF: Casey's play is ok, but everybody is overlooking something. David's builders are poised to attack, and Casey should not leave them free to do so. The loose hit on the ace point with the better board to back it up is slightly superior.

10/9, 6/1*	+ .361
21/16, 10/9	+ .359
22/21, 10/5	+ .313

Move 12: White (David) to play 32:



Play: 24/21 11/9*

Kit: David's play is reasonable, since coming to the edge of the prime is important. However he is leaving Casey an awful lot of return shots. My preference is to worry about the back man later and concentrate on the offense with the double-hit 11/9*, 6/3*.

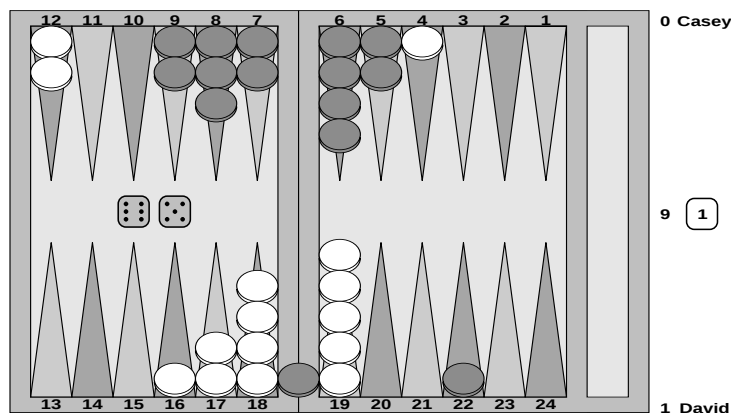
TD: Kit's suggestion is far better. Offense before defense.

11/9*, 6/3*	- .218
11/9*, 9/6	- .328
24/21, 11/9*	- .350

JF:

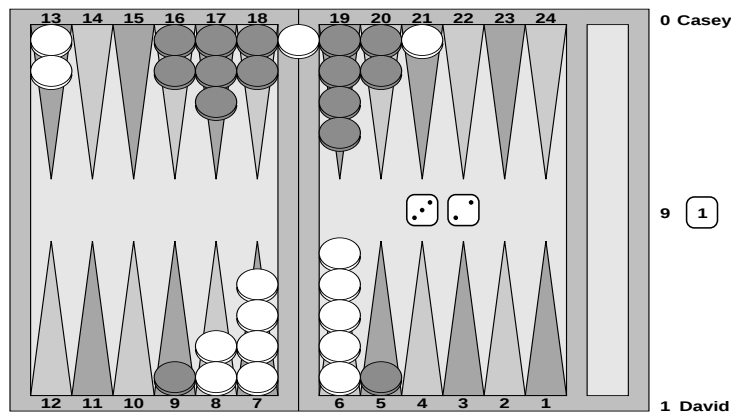
11/9*, 6/3*	- .303
11/9*, 9/6	- .427
24/21, 11/9*	- .442

Move 13: Black (Casey) to play 65:



Play: B/20 22/16*

Move 14: White (David) to play 32:



Play: B/22 6/4

Kit: Much too passive. David has to hit with B/22, 7/5* if he is to have any hope of staying in this game. Giving Casey her full roll is invitation to disaster.

TD: No question about it. If David doesn't hit loose on the five point, Casey has a complete claim.

B/22, 7/5*	- .602
B/23, 8/5*	- .715
B/23, 7/4	- .723