

# Learning Points - Deeper Finesse II - a 2<sup>nd</sup> Look

by Steve Moese (Mike Purcell ed.)

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LEVEL: Intermediate /Expert

South Deals  
NS Vul  
MP Pairs

♠ A62
♥ 63
♦ Q6542
♣ A82
♠ KQJ5
♥ AJ102
♦ A3
♣ J73

Deep Finesse:  
NS: 4NT

♠	N	♠
♥		♥
♦	W 13 E	♦
♣	S	♣

South	West	North	East
1N	Pass	3N	Pass
West Leads ♣5			

See this hand and the original article "[Deeper Finesse](#)" by Mr. Jim Edmiston, p.4 2009April Alert – Cincinnati Bridge Association. Probabilities from Richard Pavlicek's [Card Combination Analyzer](#).

Jim's thoughtful article calls attention to a great question: Does a "double-dummy" play analysis program really predict the most probable result from best play at the table?

Here's the hand in question. Is the path to 10 tricks here good planning by declarer or a double dummy delusion? Let's take another look. *Post hoc* analysis, not possible in the few minutes at the table, can open our thinking to the possibilities of this hand.

Declarer can count 26 HCP and 7 tricks off the top: 4S, 1H, 1♦, and 1♣. Declarer sees 2 entries to dummy, and 4 to hand.

There are several chances for extra tricks. There's a 75% chance for an additional ♥ trick (double finesse). There's also a 50% chance for a 2<sup>nd</sup> diamond trick when the ♦K is onside. ♦ might yield 3 tricks if they break 3-3 with the ♦K offside or 4-2 with the

♦K onside. Any 3-3 ♦ split is ~36% probability. The ♦K onside in any 4-2 split is a 42%. If ♦ split 3-3 and the ♦K is onside, 4 extra tricks are available (~18%).

What about ♣? There's the rub. The ♣5 opening lead is surely from 4 or more cards. Defenders will usually lead high from shortness. The lead of a ♣ suggests West has no 4 card major.

Pragmatically, if ♣ split 4-3 (29%), defense gets 3 ♣ and we can afford to lose one other trick. We can therefore discount 4-3 splits as a threat to the contract (Yes, if West has led from ♣KQxx we risk losing a valuable overtrick).

If ♣ split 5-2 (~15%), then defense might get 4♣ and one other trick. East holding 6 or more ♣ (~4%) means 5 + losers, except when East holds a singleton K or Q (~1%). Therefore the 5-2 ♣ split is the case we need to focus on. 5-2 is the only relevant case because it's the only one where our choice impacts the outcome.

A 5-2 split in ♣ means we must have a solution that loses only 1 trick to our opponents while adding the 2 (or more) tricks we need. **We can never lose 2 tricks outside ♣ to develop the tricks we need.** Why?

Those 2 tricks added to the 3 ♣ tricks they established set our contract. We must lose 2 tricks in the following scenarios:

1. A double finesse in ♥ and the ♦K onside
  2. 3-3 ♦, the ♦K offside
  3. 4-2 ♦, the ♦K onside,
- so these fail.

What about ducking the ♣A? We can steal an early ♣ trick whenever the opening lead is from KQxxx. Of all the 5-2 splits consistent with a 4<sup>th</sup> best ♣5 lead, 5% have split honors, 5% have both honors in West, and ~1% have both honors in East. How to play to the 1<sup>st</sup> trick appears to be a coin flip. Backing the conviction that West indeed has 5♣, opponents will run

Play Options:	Success probability	# Tricks we add	# Tricks they add
Double finesse in ♥	75%	1	1
♦K onside	50%	1	1
3-3 ♦, ♦K offside	18%	2	2
4-2 ♦, ♦K onside	42%	2	2
3-3 ♦, ♦K onside	18%	3	1
Duck the ♣A	6%	1	0
Playing the ♣A trick 1	6%	1	0

4♣ tricks unless East holds specifically ♣Kx or ♣Qx (or West holds ♣KQxxx and we duck the lead to our ♣J). Perhaps the skill of the player on lead offers a clue. A very experienced player will lead low from 2 touching honors much more often than a novice. Leading the ♣K from touching honors is very tempting. Holding ♣Kxxxx or ♣Qxxxx will elicit a 4<sup>th</sup> best lead more frequently than from ♣KQxxx. Similarly we don't know if opponents play coded 9's and 10's. If they do there's a slight inference that they do not hold both honors when they lead the ♣5.

Where do we find a tie breaker for this coin flip? Perhaps we should consider the best path to an overtrick. It's best to start with the suit that when right yields the most tricks, all else equal. Here, ♦ offers the best bet for an extra trick, and we require that West hold the ♦K three times. If West holds the ♦K and one ♥ honor, then giving West the ♣KQ might elicit an overcall (or a double if you play DONT). It's a thin premise, but there are a few shadows that suggest playing to block ♣ and run ♦ is more interesting than ducking ♣ and running ♦. As it was, honors were split in all suits missing two honors.

South Deals NS Vul	♠ A62 ♥ 63 ♦ Q6542 ♣ A82	The Full Hand
♠ 108 ♥ K95 ♦ K107 ♣ Q9654	N W 13 S	♠ 9743 ♥ Q874 ♦ J98 ♣ K10
	♠ KQJ5 ♥ AJ102 ♦ A3 ♣ J73	Deep Finesse: NS: 4NT

West	East	Ways	%	4th best 5	Ace wins	Low Wins
KQTxx	9x	3	2.2	0.33	0.0	0.7
KQTx	9xx	3	2.7	0.33	0.0	0.9
KQ9xx	Tx	3	2.2	0.33	0.0	0.7
KQ9x	Txx	3	2.7	0.33	0.0	0.9
KQxxx	T9	1	0.7	1	0.0	0.7
KQxx	T9x	3	2.7	0.33	0.0	0.9
KT9xx	Qx	3	2.2	0.33	0.7	0.0
KT9x	Qxx	3	2.7	0.33	0.9	0.0
KTxxx	Q9	1	0.7	1	0.7	0.0
KTxx	Q9x	3	2.7	0.33	0.9	0.0
K9xxx	QT	1	0.7	1	0.7	0.0
K9xx	QTx	3	2.7	0.33	0.9	0.0
QT9xx	Kx	3	2.2	0.33	0.7	0.0
QTxxx	K9	1	0.7	1	0.7	0.0
QTxx	K9x	3	2.7	0.33	0.9	0.0
Q9xxx	KT	1	0.7	1	0.7	0.0
Q9xx	KTx	3	2.7	0.33	0.9	0.0
T9xxx	KQ	1	0.7	1	0.7	0.7
T9xx	KQx	3	2.7	0.33	0.9	0.9
				<b>10.4</b>	<b>6.5</b>	

Club 5 is 4th best

Ace wins	10.4	1.6
Low Win	6.5	

Odds 8:5 Ace wins!!!

Let's narrow West's hands to only 5 card suits. Then there are 10 relevant holdings assuming 4<sup>th</sup> best. The CA wins 7 cases and the Cx wins 4 cases. The odds are 9:5 in favor of playing the ♣A.

If we include West's 3<sup>rd</sup> best lead from 3 (and 4<sup>th</sup> best from 4 or more, but ignoring low from KQx and topless holdings in an unbid suit) then the number of relevant splits is 23. ♣A wins 6 cases, ♣x wins 6 cases, and either wins 11 cases. The % success is virtually breakeven 14.1 to 14.6, or a miniscule 34/33 edge to playing low.

What can we conclude? **South's play to trick one depends strongly on West's ♣ length.** If you believe West has 4 or 5 ♣,

### One last thought:

Richard Pavlicek's Card Combination Analyzer shows that when missing the ♣KQ109654, there are 64 relevant cases or splits between the opponents' hands. When we filter these for the **♣5 lead being 4<sup>th</sup> best**, an interesting picture appears. Assuming West has either 4 or 5 ♣ cards, only 19 cases of the 64 are relevant. Of these, 13 happen 1/3 as often because the ♣5 can only happen in one of three possible arrangements of the missing small cards (6, 5, 4). [West's possible KQ10xx: only with xx = 54 is it possible to meet the 4<sup>th</sup> best criteria. The options: KQ1065, KQ1064, **KQ1054**]. 2 of 3 cases are eliminated for 13 possible splits. The 4<sup>th</sup> best ♣5 assumption also eliminates 6 and 7 card club suits from consideration!

The ♣x wins when the ♣KQ are with West or EW can take no more than 3 ♣ tricks, and loses when the honors are split. The ♣A wins when ♣ block or EW can take no more than 3 ♣ tricks. When both honors are with East, both win. **Playing the ♣A to block the suit has a 50% advantage over playing low – a 8:5 odds of success.**

West	East	Ways	%	4th best 5	Ace wins	Low Wins
KQTxx	9x	3	2.2	0.33	0.0	0.7
KQ9xx	Tx	3	2.2	0.33	0.0	0.7
KQxxx	T9	1	0.7	1	0.0	0.7
KT9xx	Qx	3	2.2	0.33	0.7	0.0
KTxxx	Q9	1	0.7	1	0.7	0.0
K9xxx	QT	1	0.7	1	0.7	0.0
QT9xx	Kx	3	2.2	0.33	0.7	0.0
QTxxx	K9	1	0.7	1	0.7	0.0
Q9xxx	KT	1	0.7	1	0.7	0.0
T9xxx	KQ	1	0.7	1	0.7	0.7
				<b>5.1</b>	<b>2.9</b>	

Club 5 is 4th best

Ace wins	5.1	1.8
Low Win	2.9	

Odds 9:5 Ace wins!!!

playing the ♣A to block is right. Being aware of both options in the ♣ suit is a step in the right direction.

West	East	Ways	%	4th best 5	Ace wins	Low Wins
KQTxx	9x	3	2.2	0.33	0.0	0.7
KQTx	9xx	3	2.7	0.33	0.0	0.9
KQ9xx	Tx	3	2.2	0.33	0.0	0.7
KQ9x	Txx	3	2.7	0.33	0.0	0.9
KQxxx	T9	1	0.7	1	0.0	0.7
KQxx	T9x	3	2.7	0.33	0.0	0.9
KT9xx	Qx	3	2.2	0.33	0.7	0.0
KT9x	Qxx	3	2.7	0.33	0.9	0.9
KTxxx	Q9	1	0.7	1	0.7	0.0
KTxx	Q9x	3	2.7	0.33	0.9	0.9
KTx	Q9xx	3	2.7	0.33	0.9	0.9
K9xxx	QT	1	0.7	1	0.7	0.0
K9xx	QTx	3	2.7	0.33	0.9	0.9
K9x	QTxx	3	2.7	0.33	0.9	0.9
Kxx	QT9x	3	2.7	0.33	0.9	0.9
QT9xx	Kx	3	2.2	0.33	0.7	0.0
QTxxx	K9	1	0.7	1	0.7	0.0
QTxx	K9x	3	2.7	0.33	0.9	0.9
QTx	K9xx	3	2.7	0.33	0.9	0.9
Q9xxx	KT	1	0.7	1	0.7	0.0
Q9xx	KTx	3	2.7	0.33	0.9	0.9
Q9x	KTxx	3	2.7	0.33	0.9	0.9
Qxx	KT9x	3	2.7	0.33	0.9	0.9
				14.1	14.6	

3rd best from 3, 4th best from 4+

Ace win:	14.1	0.97
Low Win:	14.6	

not topless length, nor from KQx.

Odds 34:33 Low wins!!!

For sure, blocking opponent's threat suit when it splits 5-2 is a tactic I will remember – will you? Astounding how knowledge of the 4, 5, 6 spots favor playing the ♣A when East holds 4 or 5 ♣.

*Deep Finesse* uses double dummy information and not best bridge strategy to arrive at the maximum result. The analysis program never ask for subjective, intangible information about opponents or the opening leader's experience. They make no inferential judgments. They don't flip coins, and can't do card combination analysis.

Deep Finesse tells us only what we can make when we have perfect knowledge of defender's cards for the exact lie of the cards.

Deep Finesse does not tell us what good bridge is.

I'll hang my hat on *post hoc* analysis for that.

Thanks to Jim Edmiston for presenting the original idea.

### Learning Points:

1. Plan the play and take care to attend to the number of winners you need.
2. Count defender's tricks – this will tell you how many times you can safely afford for defenders to be on lead. If you can safely surrender the lead only once, take a countermeasure (ducking to block their source of tricks) or choose the play that gets the number of tricks you need immediately no matter how improbable.
3. Pay attention to those spots! A minor suit lead against a 1N-3N auction implies length. When combined with common lead assumptions (4<sup>th</sup> best from length) an apparent 50/50 play might be a 2/1 loser because the leader has eliminated many possible holdings because of the spot led. Missing KQ109654, the opening leader cannot lead a 4<sup>th</sup> best 5 from a 6 or 7 card suit!
4. It also helps to know if opponents are using coded 9's and 10's.
5. Finally, post hoc analysis is rigorous and time consuming but can really yield some amazing insights. Try it! Richard Pavlicek has many useful tools at his web site: <http://www.rpbridge.net/rpbr.htm>

URLs:

Deeper Finesse: <http://www.cincybridge.com/alerts/Alert%20April%202009%20Version%202.pdf>

Richard Pavlicek Card Combination Analyzer: <http://www.rpbridge.net/cgi-bin/xcc1.pl>

Richard Pavlicek Home Page: <http://www.rpbridge.net/rpbr.htm>