Finding the Q using Vacant Places

Provided by Neil H. Timm

You have a total of 9 trumps and you want to find the queen. Do you finesse or play for the drop? A prior with no information from the bidding many use the Rule of 8 ever 9 never. **That is finesse with 8 and play for the drop with 9.**

The percentage of each is 50% vs. 52.18% as explained in detail in my book (2018, p. 318). However, when does this rule not work? Simple, when you have more information from the bidding.

What do you mean by more information? Let's look at an example where the opponents are using the Flannery Convention where the bid of 2♦* = 5 Hearts and 4 Spades with 11-15 HCP and *=alert.

The North-South hands follow; where west is the Dealer.

NORTH
♠2
♥A4
♦KJ876
♣A9854

SOUTH
♠A1053
♥982
♦A1092
♣K2

The bidding goes:

WEST	NORTH	EAST	SOUTH (Declarer)
2♦*	X=take-out	2♠*=to play	5♦
Pass	6♦	All Pass	

Knowing that a 4-4 fit is better than a 5-3 fit, east's bid is 2♠'s and not 3♥'s. East's bid is alerted by west bid because they know that it is non-forcing and to play. Note that if east were to bid 2NT (no alert required); however, it is forcing because it asks for more information about the shape and strength of west's hand. The opponents must ask what the bid of 2NT means.

With the bidding complete, west leads the K♥.

South wins the trick with the A♥ in dummy and must now decide how to play diamonds. Do you finesse (declarer has a two-way finesse; either East - his Right hand opponent or West - his Left hand opponent) or play for the drop. Not thinking/listening to the bidding, a beginner may just play the K♦ and then the A♦ using the Rule 8 ever 9 never, hoping that the Q♦ will drop. Even thought a 3-1 fit is more likely than a 2-2 split (49.7% vs. 40.7%). And a 4-0 split is small (9.6%).

A more experienced player would get to his hand with a spade and play a low diamond towards the K♦ to guard against a 4-0 split in diamonds when west is void. Then, if both opponents follow, he would lead a low diamond from Dummy and play the A♦ when east follows with a second diamond; BOTH APPROACHES ARE WRONG since they assume the 8 ever 9 never rule!

What is one to do? LISTEN TO THE BIDDING. The bidding tells us something about the distribution. From the bidding, the distribution of the West-East hands is:

West – East
♠ 4-4
♥ 5-3
♦& ♣ 4-6

Given what we know about the majors, there are 4 vacant places in the west hand and 6 in the east hand. The relative probability that the Q♦ is on declarers Right (QR) (in the East hand) rather than declarers Left (QL) (in the West hand) is the ratio of the number of vacant places available. That is, the Q♦ is more likely to be on the Right since the Ratio is 3:2.

There are two possibilities for the distribution, assuming that the 10 minor suit cards may be placed at random in either the West or East hands.

	Other Cards			Other Cards
Q♦ on the Left	3L – 6R		Q♦ on the Right	4L – 5R

Looking at the combinations, assuming Queen is on the left (QL), we have $9!/6!x3!=84$ combinations and for the Queen being on the Right (QR), we have $9!/4!x5!=126$. Note that the ratio of combinations is 6:4 which is **identical** to the ratio of the vacant places for the minor suits or 3:2. Thus, we do not need to calculate the combinations (no complicated mathematics) when playing the hand --- WE NEED TO ONLY COUNT THE VACANT PLACES and calculate the RATIO! Yes, just count.

There is really no magic in the use of vacant places; probabilities are no more than the ratio of combinations.

We would finesse East for the Queen. The full deal follows. **WOW! Glad we took the time to LISTEN to the bidding! Did you make the slam?**

	♠ 2	
	♥ A4	
	♦ KJ876	
	♣ A9854	
♠ KQJ4	**N**	♠ 9876
♥ KQ653		♥ J107
♦ 3	**W** **E**	♦ Q54
♣ J73	**S**	♣ Q106
	♠ A1053	
	♥ 982	
	♦ A1092	
	♣ K2	

Whenever there is a two-way finesse for the Queen, the principle of vacant places may be invoked. What do you do when you have little direct information from the bidding? For example, consider the same layout in diamonds, but as North-South you are in a slam contract in hearts (6♥) and find that hearts are split 3-0. Can do you use this information if the diamonds are again as before, but you have no information? Does an uneven split in hearts effect your play for the Q♦? Yes and No. If you play diamonds immediately, with no information about the black suits, it is usually better to finesse (the odds are 11:9 that the queen lies with east) and not play for the drop since unevenness suggests unevenness. However, if you play the black suits and find them to break unevenly, which tends to be more likely; then it is better to PLAY for the DROP. There is no simple answer since uneven and even breaks are independent. The magic of vacant places can be used to find other cards, for example the K. To see how this may work, I will use a hand from an example in the May 24, 2017 issue of the Daily Sun newspaper, The Villages, FL.

The North-South hands follow; where south is the Dealer.

NORTH
♠A10642
♥A1075
♦A743
♣Void

SOUTH
♠KQ753
♥J2
♦QJ5
♣K84

The bidding goes:

SOUTH	WEST	NORTH	EAST
1♠	3♣	4♣*	Pass
4♠	Pass	6♠	All Pass

* = Alert - bid shows a spade fit with a singleton/void

The opening lead was the 9♠.

South won the opening lead and continued by drawing trump and ended in his hand.

To make the slam what is one to do missing two kings?

Independent of who has the Kings (50%), if the diamonds split 3-3 (36%), he should lead the Q♦. He can ignore the K♥, since he can toss his losing heart on the established diamond having four. A low percentage slam!

What is one to do? LISTEN TO THE BIDDING. The bidding tells us something about the distribution. From the bidding, the West-East hands are:

West – East
♠ & ♦ & ♥ 6-10
♣ 7-3

Given what we know about the clubs, there are 6 vacant places in the west hand and 10 in the east hand. The relative probability that a king is in the east hand is 5:3, the ratio of the vacant places.

However, based on the spade lead (a singleton), the vacant places for hearts and diamonds is likely 5-9 or 5-10; or a ratio of about 1.6-1 or 2:1.

So south should not lead the Q♦, but instead after pulling trumps end in dummy and lead a low diamond toward the Q♦ in his hand. If that holds, he must ruff a club and repeat leading a diamond. East may win with his king, but declarer has now established diamonds for a heart discard. And the slam makes!

In the Daily Sun, declarer led the Q♦ and the slam failed. The deal follows.

	♠ A10642	
	♥ A1075	
	♦ A743	
	♣ Void	
♠ 9	N	♠ J8
♥ Q98	W E	♥ K643
♦ 82	S	♦ K1096
♣ AJ106532		♣ Q97
	♠ KQ753	
	♥ J2	
	♦ QJ5	
	♣ K84	

Vacant Places (also called Vacant Spaces)

You are South and Declarer; west had opened 2♠ and leads a spade. After the first trick you believe east started with two spades. You now know that of the remaining cards; west have 7 spaces that hold non-spades and east has 11 spaces that hold non-spades. The theory of vacant places in bridge states that when the distribution of one or more suits is completely known, the probability that an opponent holds a particular card in any other suit is directly proportional to the number of vacant places remaining in their respective hands.

The basic principle is: when the distribution of one suit (or more) is completely known, the probability that an opponent holds a particular card is proportional to the number of vacant places remaining in his hand.

Using Vacant Places in Notrump

You open 1NT as south and partner raises to 3NT. East leads a small minor card, say the 5 and you know (based on the lay of thee cards) that it was from a 4-card suit. And say you need to finesse a Queen in the other minor. What do you know? Well east has a total of 9 vacant places and west has 12. Using this information, the odds are 4 to 3 that west have the Queen.

So listen to the Bidding and use information from a lead of a small card to find the Queen using the principle of vacant places. No need to guess.

The following deal appeared in the June 21, 2017 issue of the Daily Sun.

Neither vulnerable and south deals.

	♠ 653	
	♥ AK108	
	♦ Q5	
	♣ K1052	
♠ KJ10942	N	♠ O8
♥ 53		♥ Q9762
♦ 10982	W E	♦ A4
♣ 9	S	♣ QJ83
	♠ A7	
	♥ J4	
	♦ KJ763	
	♣ A764	

The bidding goes:

SOUTH	WEST	NORTH	EAST
1♦	2♠	Dbl*	Pass
3♣	Pass	3♠ (WQ)	Dbl
3NT	All Pass		

*= Negative values with no clear bid. And
3♠ bid was Western Queue, do you have a spade stopper?

Opening Lead: J♠.

With only two spades, south ducked the opening spade lead and won the spade continuation. South next led a diamond a diamond to the queen, with east winning the ace. East led a second diamond and south won the ace. South next cashed his J♦ tossing a spade from dummy with east playing a heart. Knowing that east had four diamonds and probably six spades, he had to abandon diamonds. South next played the J♥ and won by east queen. East exited with a heart and south won in dummy. Now for clubs!

You are missing both the Jack and Queen of clubs, do you play the club king and hope for the drop of an honor or do you play the club 10? Not much to go on! The principle of restricted choice suggests that the honors are split. However, counting vacant places the odds are 4:1 that an honor is with east. Thus, play the ♣10 and duck east's honor is the winning play since east will have to lead clubs giving south three club tricks for the contract.

<u>More on Finesse or Drop using Vacant Places</u>

The opponents drop an honor card on the first round of a suit and you hold as north A 10 9 8 7 6 and in dummy (south) K 5 2. You play the king, which results in the jack from west and on the next round west plays the 4. Do you finesse the queen or play for the drop?

A count of vacant places indicates that the odds are 12 to 11 on the queen being with east. But you must also take into account that the drop resulted from a singleton or a doubleton. You know that if east had QJ that the probability of his playing the jack was 50% so that the proportional number of 12 given by the count is reduced to 6.

If east has a singleton jack, the probability of playing it is 100%. Hence the proportional number of 11 remains, and the odds are 11 to 6 that the queen is with west. Or, the finesse is nearly twice as good as the play for the drop. Is there a rule? Yes!

If we let H denote the number of vacant places in the hand that drops an Honor in a critical suit and L the number of vacant places in the hand that follows with a Low card;

Then:

> If H < 2L, finesse.
> If H > 2L, play for the drop.
> If H= 2L, you have no information, flip a coin!

Lets see how this works.

East makes a preemptive bid of 3♠ and you bid 4♦; the deal follows.

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NORTH
♠Q1097
♥AQ4
♦K6
♣A985

SOUTH
♠ Void
♥KJ9
♦A1097543
♣KQ2

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Your partner bids 6♦ and all pass.

You ruff the spade lead and lead a diamond to the king. West plays the queen and east the 2. When you continue with the six of diamonds, east plays the eight. Do you now finesse

the nine or play the ace? Looking only at the diamond suit, the odds favor the drop, but the principle of restricted choice favors the finesse. What is one to do?

East's preempt suggests seven spades and two diamonds or four vacant places. West with two spades and one diamond has 10 vacant places. Since H > 2L it is right to play for the drop.

Reference

Frank Stewart (2011), Who Has the Queen: The Bridge Player's Handbook of Card Reading, Bridge World Books.