

Fragment Spiral

Superseded by *EZ-Expert Bidding Tools*

[Pete Matthews Jr](https://3nt.xyz) – <https://3nt.xyz> – © February 18, 2026 [add Weinstein, etc.]

Spiral raises are often used when opener may have raised responder's major suit response holding only three card support. We consider these four auctions:

1 ♣	1 ♥
2 ♥	

1 ♣	1 ♠
2 ♠	

1 ♦	1 ♥
2 ♥	

1 ♦	1 ♠
2 ♠	

When holding a hand worth moving forward, responder needs tools to sort out the eventual level and strain. Playing basic spiral raises, responder bids 2NT, and opener responds in steps, easily described as 3-3-4-4:

- 3 ♣ 3-card support, minimum values [3-min]
- 3 ♦ 3-card support, maximum values [3-max]
- 3 ♥ 4-card support, minimum values [4-min]
- 3 ♠ 4-card support, maximum values [4-max]

Many pairs play basic spiral without discussing continuations, a mistake. Opener should have a ruffing value that makes the 3-card raise superior to a 1 NT rebid: a singleton, void, or small doubleton. With game interest, responder needs to know where that shortness is, but it cannot be reliably discovered below three of the major. If the shortness is in a major suit, either minor could be the best place to play.

Fragment Spiral – Structure

With only four (occasionally more) cards in the major and interest in bidding game, responder bids the next step, 2 ♠ over 2 ♥, or 2 NT over 2 ♠. Over this 2 M + 1 artificial spiral inquiry, opener has six possible bids to show the four hand types:

Hand	Bid	– Continuations
4-min	3 M	– responder passes, bids game or tries for slam.
4-max	3 M + 1	– responder bids game or tries for slam.
3-min	3 m	– non-forcing (further details below).
3-max	3 om	– shortness in oM, fragment/stopper in om, non-forcing.
	2NT/3♥	– shortness in om, fragment/stopper in oM, non-forcing.
	4 m	– 6-3-2-2, no side stopper, non-forcing.

If you are not familiar with this M & m shorthand, please see “Notation” toward the end of the article.

Gary Schwartz and I find the name *fragment spiral* more informative than my former name, *semi-natural spiral raises*. Because spiral is an inquiry, not a raise, the word “raises” has been dropped.

With game values, both unbid suits stopped, and only four cards in the major, responder must use the standard jump to 3 NT over the raise. Also, if a 4-4 fit in the unbid major suit is possible, responder must show that major instead of using the spiral inquiry. Details on these issues follow.

Examples

When opener has 4-card support, problems are few. Consider these hands for responder, when opener shows 3-card support:

(a) ♠ J 5 ♥ 10 6 4 2 ♦ K Q 4 ♣ A J 7 5

<p>Basic Spiral 1 ♦ – 1 ♥; 2 ♥ – 2 NT; 3 ♦ [3-max] – ? This auction is as tight as it can get. 3 NT could be embarrassing if the opponents never mentioned their 9-card spade fit.</p> <p>1 ♦ – 1 ♥; 2 ♥ – 2 NT; 3 ♣ [3-min] – ? Game is out of the question. Would 3 ♦ be an offer to play, or a probe for game? We cannot have it both ways.</p>	<p>Fragment Spiral 1 ♦ – 1 ♥; 2 ♥ – 2 ♠; 2 NT [3-max, ♠] – ? Bid 3 NT (or a wimpy 3 ♦).</p> <p>1 ♦ – 1 ♥; 2 ♥ – 2 ♠; 3 ♣ [3-max, ♣] – ? Definitely bid 3 ♦, to play, with spades wide open and bad hearts. 1 ♦ – 1 ♥; 2 ♥ – 2 NT; 3 ♦ [3-min] – ? Pass!</p>
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(b) ♠ 8 7 6 2 ♥ 6 5 ♦ A Q J 7 5 ♣ K 4

<p>Basic Spiral 1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♣ [3-min] – ? Unless we have an agreement that 3 ♦ is to play, it's probably too risky to try for game at all. 1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♦ [3-max] – ? Pass, no agreement required; try 3 ♥, whatever that means; or guess 3 NT.</p>	<p>Fragment Spiral 1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♦ [3-min] – ? Pass, to play.</p> <p>1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♣ [3-max, ♣] – ? Bid 3 ♦, to play, with at least a 5-4 fit and hearts wide open. 1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♥ [3-max, ♥] – ? Bid 3 NT and hope the ♣ K scores, or bid a wimpy 4 ♦.</p>
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(c) ♠ Q 10 7 2 ♥ 6 5 ♦ K J 7 4 ♣ A 6 5

<p>Basic Spiral</p> <p>1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♣ [3-min] – ? Game is out of the question. Would 3 ♦ be an offer to play, or a probe for game? We cannot have it both ways. At least 3 ♠ would be to play.</p> <p>1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♦ [3-max] – ? Responder may choose to pass with 4-card support, no agreement necessary, since opener has at least for diamonds. 3 ♥ is the only probe available, assuming 3 ♠ is to play. What does 3 ♥ mean?</p>	<p>Fragment Spiral</p> <p>1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♦ [3-min] – ? Pass, to play, with at least a 4-4 fit. At matchpoints, consider a greedy 3 ♠, also to play.</p> <p>1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♣ [3-max, ♣] – ? Bid 3 ♦, to play, with at least a 4-4 fit and hearts wide open. At matchpoints, consider 3 ♠, also to play. Woolsey recommends playing 3M in the good 4-3 fit, and not pushing to game.</p> <p>1 ♦ – 1 ♠; 2 ♠ – 2 NT; 3 ♥ [3-max, ♥] – ? Try 3 NT. At matchpoints, 3 ♠ may be better, per above.</p>
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(d) ♠ 8 7 6 2 ♥ 6 5 ♦ K 4 ♣ A Q J 7 5

<p>Basic Spiral</p> <p>1 ♣ – 1 ♠; 2 ♠ – 2 NT; 3 ♣ [3-min] An easy pass, no agreement needed.</p> <p>1 ♣ – 1 ♠; 2 ♠ – 2 NT; 3 ♦ [3-max] – ? OOPS! Would opener let us play 4 ♣? Probably best to play three yucky spades, or to not try for game in the first place.</p> <p>Would 3 ♣ (instead of 2 NT) be a non-forcing game try? Few pairs would have that agreement. 3 ♣ might be starting a slam try.</p>	<p>Fragment Spiral</p> <p>1 ♣ – 1 ♠; 2 ♠ – 2 NT; 3 ♣ [3-min] – ? Pass, to play.</p> <p>1 ♣ – 1 ♠; 2 ♠ – 2 NT; 3 ♦ [3-max, ♦] – ? Bid 4 ♣, to play, with at least a 5-4 fit and hearts wide open.</p> <p>1 ♣ – 1 ♠; 2 ♠ – 2 NT; 3 ♥ [3-max, ♥] – ? Bid 3 NT and hope the ♦ K scores, or bid a wimpy 4 ♣, to play.</p>
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Spiral System Goals

1. The system should be as natural as possible, while promptly separating 3-min, 3-max, 4-min and 4-max hands from each other.
2. When opener has a 4-max, game will always be bid. Expose no features of opener's hand unless responder tries for slam, but do preserve space for slam exploration.
3. When opener has other than a 4-max, assure the auction can always end at three of the major.
4. When opener has a 3-min, permit stopping at three of the minor, but

also permit exploring for 3 NT. (Our system also lets responder offer a choice between 3 \diamond and the major, when the minor is clubs.)

5. When opener has a 3-max, explore reliably for 3 NT.

Our methods meet the goals above, but not the following possible goals that some other methods achieve.

6. When the 1 \diamond opener has a 3-min and four or more clubs, permit stopping in 3 \clubsuit . (We can only stop there on a 3-max with clubs.)
7. Facilitate deciding between 3 NT and 4 M with a 4-4 fit. (Our other auctions are facilitated by suppressing this capability.)
8. Opener only bids NT first, if going to declare NT. (From the perspective of opener's weak suit this makes sense, but opener's minor or the fourth suit may turn out to be the real problem. It's a crap shoot with two hands of similar strength; and besides, for us, responder bids 2NT half the time.)
9. Responder can inquire with any and all hands when a 4-card major is raised. (In our methods, a wheel may come off, if you fail to bid 3NT when appropriate, or to show spades.)

Fundamentals

Weak shortness: Opener should have a weak shortness for a 3-card raise: a singleton, void or weak doubleton. I recommend that the best permissible holding in the short suit should be J-x, with Q-x or three small deemed suitable for a rebid of 1 NT. If you will raise on three cards without such shortness, fragment spiral is probably not for you.

Suit lengths: For a 3-card raise, opener must have opened at least a 4-card minor and may have a true third suit. The flattest opener could be is 4-4-3-2: four in the minor suit opened, four in a side suit, support and a weak doubleton. 5-4-3-1 is a common shape; 5-5 minors with a void or a 6-card minor is possible.

4=3=3=3: With a flat hand, opener should rebid 1 NT, bypassing a spade suit. For example, suppose responder holds:

\spadesuit J 3 \heartsuit K 9 5 3 2 \diamondsuit 9 6 \clubsuit Q 8 4 2

If you open 1 \clubsuit and rebid 1 \spadesuit , responder's only attractive option is to stick you in 2 \clubsuit , a 4-3 fit. Worse, if responder's 2 \clubsuit rebid would be artificial, responder would have to guess between:

- Pass – usually a 4-2 fit,
- 1 NT – with diamonds an obvious problem,
- 2 \heartsuit – could catch singleton support, and
- 3 \clubsuit – assuming you play the bid weak – way high.

Just rebid 1 NT and make life easy for partner.

Opener has four spades and three hearts – partnership decision: In this auction, opener shows 3-card heart support and shortness in the fourth suit:

1 m – 1 ♥; 1 ♠ – 1 NT; 2 ♥

Some players require no values for 2 ♥ beyond those required for 1 ♠. This approach has been in Bridge World Standard since 2001. To invite game at the third bid with 3-card heart support, opener would have to jump to 3 ♥, perhaps too lofty a height.

For other players, the delayed raise of 2 ♥ shows extra values, about the overall strength required to raise 1 ♥ to 3 ♥, but with only three trumps. With fewer values, the immediate 3-card raise is used, even when holding four spades:

1 ♣ – 1 ♥; 2 ♥

Chances of finding 3-card heart support are therefore reduced, when opener rebids 1 ♠. This approach may play 2 ♥ in a 4-3 heart fit with a 4-4 spade fit on the side. This method seems to be favored by players with many years of experience, including World Grand Master Steve Weinstein and this author.

Most players do play that the delayed raise shows extras when the spade suit is not at issue, such as auction:

1 ♦ – 1 ♥; 2 ♣ – 2 ♦; 2 ♥

It's a trade-off. The important thing is to have an agreement with your partner on these matters.

Show spades with hearts trump: Playing fragment spiral, responder's 2 NT game try over 2 ♥ shows four spades. If the partnership might have a 4-4 spade fit, this bid is the only way to find it.

Other game tries promise five trumps: Other than the spiral inquiry and 2 NT showing spades, any suit bid is a natural game or slam try, promising at least five cards in the major suit. These bids set the major suit as trump, although it is possible to switch from spades to a 4-4 heart fit or conceivably to play slam in a minor suit.

Bid 3 NT with both side suits stopped: Responder's jump rebid of 3 NT is standard, showing game values with exactly four cards in the major suit, and both unbid suits stopped. Holding 4-card support, opener usually converts to game in the major suit, or passes otherwise.

Our methods depend on using this bid when it applies. If you instead use the spiral inquiry and opener shows a 3-min, your 3 NT *denies* a stopper in oM.

Competition: Fragment spiral does not apply if the length of opener's support is already known, for example, when playing support doubles and redoubles. In an auction where an opponent intervenes, and opener might have 3-card support, then responder's free bid at three of opener's minor should be a *non-forcing*, natural game try, with only four cards in the major.

Fragment Spiral - Details

Over the 2 M + 1 spiral inquiry, opener chooses among these bids:

- 3 m Bidding the minor shows a 3-min. Over this bid, responder has these choices:
 - Pass With 4-card support, likely best place to play.
 - 3 \diamond Offer to play with 5+ cards. Opener passes or bids 3 M.
 - 3 M To play.
 - 3 oM The other major is stopped. Asks for 3NT with the other minor stopped. [Principle: with two suits in doubt, bid what you have.]
 - 3 NT om is stopped, but not oM.

[Using 3NT to show om and deny oM is required to cover all four cases when a single bid shows a 3-min – even when playing 3-3-4-4 – so we can both stop at 3 of either suit, and determine whether we have stoppers for 3 NT without bypassing it. We could get around this pit trap by using 3 \diamond , but only when clubs are trump. The alternative of using two or more “3-any” bids to show or deny stoppers would work, but cause other problems.]

- 3 M Bidding the major shows a 4-min and may be passed. Other continuations are equivalent to those after 3 M+1.
- 3 M+1 The next step after three of the major (3 \spadesuit or 3 NT) shows a 4-max, forcing to game with four spades. Both partners use these continuations:
 - 4M No slam interest.
 - 3 NT Cue bid, first or second round control in the other major, usually spades.
[Alternative: offer to play.]
 - Other The cheapest first or second round control.
- 3 om The other minor shows a 3-max, with a fragment in the bid suit and weak shortness in the other major. Over 3 \diamond , 4 \clubsuit is to play!
- 2NT/3 \heartsuit The other bid below 3 M shows a 3-max and weak shortness in the other minor. When hearts were raised, 2NT shows a fragment in

spades. When spades were raised, 3 ♠ shows a fragment in hearts.

4 m 6-3-2-2 shape, a 3-max with no secure side stopper.

A *fragment* could be A-x, K-x, or any three or more cards in the suit.

Opener's 3-max bid (3 om, 2NT/3♠ or 4m) is not forcing. If opener pulls responder's 3 NT to 4 m, this shows six cards, a singleton or void in the fourth suit, and no side stopper.

2 NT Shows Spades over 2 ♠

When hearts have been raised, responder's 2NT shows *four spades*. This is not going to happen very often, and three suits are presumably stopped, so play these basic responses:

3♠/3♣ 4-card raise, non-forcing, sets trump. Usual continuations.

4♠/4♣ 4-card raise, maximum, sets trump. [At least we find the right strain.]

3 m 3-min, wing it.

3 NT 3-max, natural, stopper in om (short oM).

3 om 3-max, *denies* stopper in om. [Only one suit is in doubt.]

Notation

M	the bid major
m	the bid minor
oM	the other major
om	the other minor

"2 M + 1" therefore means 2 ♠ over hearts, or 2 NT over spades.

A slash (/) is used to mean "or", as in 2NT/3♠.

A distribution of four suits in any order is separated by dashes, such as 4-4-3-2. Using equal signs means the specific suit order. 4=3=4=2 means four spades, three hearts, etc.

Summary of Alternative Methods

After Minor Suit Opener Raises Responder's Major Suit – Part 1							
	Wolpert Spiral		Dutch Spiral		Fragment Spiral		Weinstein Spiral
Inquiry	Over 2 ♡	Over 2 ♠	Over 2 ♡	Over 2 ♠	Over 2 ♡	Over 2 ♠	2 NT
	2 ♠*	2 NT	2 ♠*	2 NT	2 ♠*	2 NT	
Other	Sets the major as trump; natural game or slam try.						3 m = forcing GT
3-min	2NT = balanced	3♣ = balanced	3 m	3 m	3 m; continuations: Pass = to play 3 ♢ = offer to play 3 M = to play 3 oM = stopper 3 NT = om stop but no oM stop		3 m
	3♢ = short om 3♡ = short oM	3♡ = short om 3♠ = short oM					
3-max	3NT = balanced	3NT = balanced	3 om	3 om	3 om = om fragment 4 m = 6-3-2-2		3 om = short major (5-4 minors) 3 oM = short minor 3 NT = nondescript
					2 NT = oM frag	3 ♡ = oM frag	
4-min	3♣ 3♠/4om = splinter 4M = 5-4-2-2	3♢ 4om/4♡ = splinter 4M = 5-4-2-2	3 M	3 M	3 M	3 M	3 M
4-max	3♣ 4m = 2=4=(5-2)	3♢ 4m = 4=2=(5-2)	2 NT	3 ♡	3 M+1 4 m = 5-4-2-2 Splinters 3 NT = ♠ for ♡		4 M 4 m = good 5 (2-2) 4 om = splinter 4 ♡ = splinter for ♠
Notes	"short" (3-min & 3-max combined responses) and "balanced" are undefined; 0-1 cards assuming opener has at least a doubleton? Complicated; finds 3 NT with 4-4 fit; not as good as Cooper at avoiding 3NT without stoppers. <i>As played with Vincent Demuy.</i>		Basic: "Next step asks shortness". Preferred: "Next step asks shortness if opener had 4-card support, but asks for unstopped suits if opener had 3-card support." Step responses: no-low-high-(both).		To avoid problems, responder must instead use 3 NT with 4 cards & both side suits stopped; must instead use 2 NT over hearts with 4 spades. "xxx opposite xxx plays 3 NT."		No ♠ splinter for ♡ 1 m – 1 ♠; 2 ♠ – 2 NT; 3 ♡ – 4 ♡; 4 ♠ = 3=3=(6-1) <i>As played with Bobby Levin.</i>

*2 NT shows four spades over 2 ♡, with four or more hearts.

After Minor Suit Opener Raises Responder's Major Suit – Part 2			
Standard		Cooper	Bethe
Only a new suit is forcing [optional: 3 m forcing].	Inquiry	2 NT	2 NT
	Other	Sets M as trump; natural game or slam try.	
	3-min	3 m	Below 3M natural & non-forcing.
	3-max	3 x = this stopper 3 NT = no side stop	3 NT
Only 3 M (invitational) promises more than 4 trumps.	4-min	3 M	3 M
	4-max	4M. 4 x = splinter	Above 3 NT.
	Notes	"Easy to remember and works very well."	Better 3-level partscores, not as good as Cooper for stoppers.

Capabilities of Spiral Methods ●=full ○=partial (○)=modified version	Basic	Wolpert	Dutch	Cooper	Fragment	Weinstein	Meckstroth
Inquiry is 2 ♠ over hearts		●	●		●		
Stop at 3 m on a 3-min	●	●	●	●	●	●	●
Stop at 3 M on 3-min	●	●	○	●	●	●	●
Stop at 3 ♦ on a 3-min in clubs					●		
Stop at 3 M on 3-max	●		○		●		
Always resolve 3 NT			●	●	●		
Resolve 3 NT by 3 M on 3-min			(○)		○		
Resolve 3 NT by 3 M on 3-max			(○)	○	●		
Learn balanced/unbalanced		●				●	○
Both vote on playing 3 NT in 4-4 fit		●					
Opener bids 2 NT only with 4-4 fit	N/A		●	N/A		N/A	N/A
Space below 3 M on 4-max		○	○				
Space for control-bidding on 4-4	●	○	●		●		●
Easy to learn and remember	●		○	●	○		●

Descriptions

Stop on 3-max. Except for fragment spiral, using the inquiry with any non-basic system is likely to land us in 3 NT or higher when opener has a 3-max. There is a class of hands where responder wants to be in game opposite a 4-max, but to stop short otherwise.

Wolpert spiral responses start with these four steps: (1) balanced 3-min, (2) 4-min or 4-max, (3) 3-min or 3-max, short om, (4) 3-min or 3-max, short oM. After the 4-4 second step, both partners get to vote on 3NT, a touted advantage. Gavin's Master Series at <https://wolpertbridge.com> does not include this method.

Dutch spiral is unacceptable. If our suits are diamonds and hearts, opener shows a 3-min by bidding 3 ♦ over the inquiry. 3 ♥ may be the top contract, but 3 ♣ is the further inquiry: we cannot play there, and 3 ♦ may not be playable.

Cooper is a worthy contender: it's easy to learn, and it always resolves 3 NT.

Fragment spiral always lets us stop short of 3 NT on a 3-max, often in opener's minor as well as the major. Responder can bid 3 NT with opener's known short suit bottled up, although opener's fragment may not be a stopper.

Weinstein spiral makes the inquiring responder declarer at any notrump contract, a likely advantage. With a 3-max, opener either shows true shortness or bids 3 NT (concealing their side-suit shape). However, the use of 2 NT to inquire over hearts costs us some capabilities.

Jeff Meckstroth played basic spiral with Al Muggia, with these provisions:

- Opener only raises with three cards when holding a singleton (or void). A 3-max is GF, a hand that would have opened 1 NT, but for the shortness.
- When opener shows a 3-card raise, the next step asks where the shortness is, and opener bids steps: low, high.

Recommendation

For many partnerships, the Wolpert and Weinstein methods won't deliver enough value for their complexity. If you find fragment spiral to also be too complex, I recommend trying Cooper or Meckstroth basic spiral.

Backstory

Jan Jansma published Dutch spiral as I was researching and publishing fragment methods. Gavin Wolpert describes his method in his "Spiral Raises" article; Kitty Munson Cooper's method is the first comment. While I consulted Steve Weinstein's article early on, for some reason I did not include his methods until 2025.

References

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