Transfer Oriented Symmetric Relay Precision

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Definitions

- HCP = High card points (ace = 4, king = 3, queen = 2, jack = 1)
- Controls = Neapolitan style controls (ace = 2, king = 1)
- Balanced = No voids, no singletons, no major of more than 5 cards or minor of more than 6 cards. Usually not 5422 with a 5-card major either.
- Flat = Balanced, with no suit of more than 4 cards.
- Shapes = Cards in each suit listed in the order spades, hearts, diamonds, clubs. So 4432 means 4 spades, 4 hearts, 3 diamonds, and 2 clubs. 63xx means 6 spades, 3 hearts, any amount of diamonds, and any amount of clubs.
- Parentheses = General shapes. So (3334) means either 3334, 3343, 3433, or 4333. 26(23) means either 2623 or 2632. 7x3+x means 7 spades and at least 3 diamonds.
- Zoom = Answering the relayer's next questions even if it hasn't been asked yet, which is only possible when your answer to the last question was the highest possible based on your bidding to that point.

Style

- A positive response to 1c requires 2 controls, thus strong hands with one control such as KQJxx QJTx QJxx are considered a negative response. Clearly this is rather rare.
- Our notrump openings and rebids encompass a wide range of shapes. A 5 card major, a 6 card minor, or two doubletons are not at all uncommon for us, and for the NT rebids a singleton is also allowed (use your judgment).
- Our relays do not account for 8+ cards in a suit, or 12+ cards in two suits. With these shapes we are forced to fib a little (as little as possible we hope), so for example 8122 may be treated as 71(32). We have no specific rules to govern these situations, so 6601 may be treated as 6502 or 5602 at the bidder's discretion (or 5503 if we didn't take our pills in the morning). If we very much have taken our pills in the morning, we can show certain 8-baggers by using an idle sequence in the 2-suited relay structure.
- Our weak two bids and preempts in general are wide-ranging in style and fairly undisciplined. The suit could have just 5 cards for a 2 bid or 6 for a 3 bid. Regarding position at the table we follow the normal course of being most to least aggressive in the order of third, first, second, fourth, and regarding vulnerability we follow the normal course of being most to least aggressive in the order of white/red, white/white, red/red, red/white.
- We open fairly aggressively. All 12 counts and many 11-counts are opening bids, and shapely 10- or even 9-counts can be opened (especially NV) as well. We are systemically not allowed to pass any hand with 5 controls.

Opening Bids

- 1c: 17+ HCP balanced, or 16+ unbalanced. In 4th seat, this and all other opening bids are 1 point heavier (so 11-16 for the limited openings, 1d if balanced is 12-14, 1nt is 15-17, etc.). As a consequence, positive responses opposite a fourth-seat 1c start at 7 HCP instead of 8; of course they still require 2+ controls.
- 1d: 10-15(16) HCP (11-13 if balanced without 5 cards in either major), 2+ diamonds, and inappropriate for any other opening.
- 1h: 10-15(16) HCP, 5+ hearts.
- 1s: 10-15(16) HCP, 5+ spades.
- 1nt: 14-16 HCP (15-17 in 4th seat), balanced or mostly balanced.
- 2c: 10-15(16) HCP, 6+ clubs.
- 2d: 10-15(16) HCP, either 4405, 4414, or (34)15 distribution.
- 2h: weak, 5 cards is ok if NV only.
- 2s: weak, 5 cards is ok if NV only.
- 2nt: 4-10 HCP (about 4-9 not vul, 6-10 vul), xx5+5+. In fourth seat, it shows 12-15 HCP, xx5+5+.
- 3c: Club preempt.
- 3d: Diamond preempt.
- 3h: Heart preempt.
- 3s: Spade preempt.
- 3nt: A totally solid minor (AKQxxxx or better) of at least seven cards, no outside aces, kings, or Qxx in a major holdings. In third or fourth seat, it suggests a few stoppers outside with a reasonable expectation of making.
- 4c/4d/4h/4s: Normal preempts.
- 4nt: Specific ace asking Blackwood. Responses are 5c is none, 5d/5h/5s/5nt(clubs) is that ace only, and 6c is two aces.
- 5m: To play.
- 5M: Requesting a raise to 6 with one of the top honors, or 7 with both.
- 5nt: Specific king-asking Blackwood (possibly even rarer than the 5M opening).
- 6x, 7x: To play.

1C Opener

Responses to 1C

1c –

- 1d: 0-7 HCP and 0-2 controls, or any strength with 0-1 controls; any distribution. Anything higher than 1d is a positive response and 100% game forcing. Note, however, that any three-control hand is treated as a positive response.
- 1h: 8+ HCP, 4+ spades, not flat. This does not deny a (much) longer suit (in fact quite the opposite, most other bids tend to deny as many as 4 spades. The only other responses that may contain as many as 4 spades are 1s and 2c.).
- 1s: 8+ HCP, either flat, or 4+ diamonds 4+ hearts 9+ total 0-3 spades 0-3 clubs, the "red 2 suiter".
- 1nt: 8+ HCP, 4+ hearts, 0-3 spades, 0-3 diamonds, not flat. Note this does not deny (much) longer clubs.
- 2c: 8+ HCP, 5+ diamonds, 0-3 every other suit, OR (x4+)4+4+.
- 2d: 8+ HCP, 5+ clubs, 0-3 every other suit.
- 2h: 8+ HCP, 4 diamonds, 5+ clubs, no 4 card major.
- 2s: 8+ HCP, 5+ diamonds, 5+ clubs.
- 2nt: 8+ HCP, 5+ diamonds, 4 clubs, fewer spades than hearts.
- 3c: 8+ HCP, 2254.
- 3d: 8+ HCP, 3154.
- 3h: 8+ HCP, 2164.
- 3s: 8+ HCP, 3064.
- 3nt: 8+ HCP, 2074.
- 4c: 8+ HCP, 2 controls, 1174.
- 4d+: 3 controls, 1174. (4h=4, 4s=5, etc).

1c – 1d -...

- 1h: 20+ HCP, any distribution, could be less with great playing strength.
- 1s: 16-19 HCP, 5+ spades (can be 4 on 4(441) hands).
- 1nt: 17-19 HCP, balanced, systems on.(18-20 in 4th)
- 2c: 16-19 HCP, 5+ clubs.
- 2d: 16-19 HCP, 5+ diamonds.
- 2h: 16-19 HCP, 5+ hearts.
- 2s: 18-19 HCP, 4+6+xx.
- 2nt: 18-19 HCP, xx5+5+.
- 3c: 18-19 HCP, x5+x5+.
- 3d: 18-19 HCP, x5+5+x.
- 3h: 18-19 HCP, x46+x.
- 3s: 18-19 HCP, 4x6+x.
- 3nt: To play.

1c – 1d – 1h -...

These auctions are almost the same as is we opened a strong 1h and played our normal responses shifted up 2 steps.

- 1s: 0-5 HCP, any distribution.
- 1nt: 6+ HCP, 4+ spades, not flat. Note this does not deny a (much) longer suit.
- 2c: 6+ HCP, either flat, or 0-3 spades, 4+ hearts, 4+ diamonds, 0-3 clubs, 9+ red cards "red two-suiter".
 - 2nt: Bid 3nt with any flat hand; do something else with the reds.
- 2d: 6+ HCP, 4+ hearts, 0-3 spades, 0-3 diamonds, not flat. Note this does not deny (much) longer clubs.
- 2h: 6+ HCP, 5+ diamonds, 0-3 every other suit, OR (x4+)4+4+.
- 2s: 6+ HCP, 5+ clubs, 0-3 every other suit.
- 2nt: 6+ HCP, 4 diamonds, 5+ clubs, no 4 card major.
- 3c: 6+ HCP, 5+ diamonds, 5+ clubs.
- 3d: 6+ HCP, 5+ diamonds, 4 clubs, fewer spades than hearts.
- 3h: 6+ HCP, 2254.
- 3s: 6+ HCP, 3154.
- 3nt: 6+ HCP, 2164.
- 4c: 6+ HCP, 3064.
- 4d: 6+ HCP, 2074.
- 4h+: 6+ HCP, 1174.

1c - 1d - 1s -

- 1nt: 2-5, less than 3 card support (non-forcing).
- 2c: 6-8, less than 3 card support.
- 2d: 5-8 exactly 3 card support.
- 2h: 5-8, natural, forcing one round.
- 2s: 2-5 3-4 card support.
- 2nt: GF spade raise, opener may bid 3c to ask for shortness (HML) or bid something descriptive about his hand.
- 3c: 6+ clubs, invitational.
- 3d: 6+ diamonds, invitational.
- 3h: 6+ hearts, invitational.
- 3s: Limit, 4+ spades.
- 3n: Very strong void raise, bid 4C to relay for void, HML.
- 4c/d/h: Splinter raise, 5+ trumps.

1c – 1d – 1nt –...

Strong NT systems on, one special bid 1c - 1d - 1nt - 5x = the location of the sole control in a very strong hand (14-15 HCP).

1c - 1d - 2c - ...

- 2d: Asking for a 4-card major. If followed by 3 of a new major, shows 5-5 in the bid major and diamonds.
 - \circ 2M: 4 cards.
 - 2nt: Max, no 4-card major.
 - 3c: Min, no 4-card major.
- 2M: Natural (5+), forcing one round.
- 2nt: Natural, invitational.
- 3c: Courtesy raise.
- 3d, 3h, 3s: Natural, 6+, non-forcing.

1c - 1d - 2d -

- 2h: inv+, asking for a major. 2s shows spades, 2nt shows hearts, 3c is natural, 3d denies all of these things. However, a follow-up of 3h by responder is forcing with hearts, canceling the message of 2h.
- 2s: 5+ spades, forcing one round.
- 2nt: 5+ hearts, non-forcing but with constructive values.

1c - 1d - 2h -

- 2s: Similar to 1h-1s (see p 45), usually 0-4 spades and interest in hearing opener bid again; opener's rebids are transfers, except that 2nt is actually clubs instead of balanced or clubs (we would never rebid 2h on a balanced hand). Note, however, that responder's 3s rebid cancels the message of 2s and is forcing with spades.
- 2nt: 5+ spades, constructive values, but (NB!) non-forcing.
- 3m: Natural and forcing.
- 3s: Natural and non-forcing.

1c - 1d - 3c -

- 3d: Could be a strong raise of hearts (bid 4h next), but could also be natural (4d) or a grope for 3nt.
- 3h, 3nt: Natural and non-forcing.
- 3s: Natural and forcing.
- 4c: Natural and forcing.
- 4d: Splinter (for clubs).
- 4h: To play.
- 4s: Splinter (for clubs).

1c - 1d - 3d -

• 3h, 3nt: Natural and non-forcing.

- 3s: Natural and forcing.
- 4c: Artificial strong raise of hearts.
- 4d: Natural and forcing.
- 4h: To play.
- 4s: Splinter (for diamonds).

1c - 1d - 1h - 1s - ...

- 1nt: 20-22 HCP, balanced, systems on (21-22 in 4th).
- 2c: 23+ HCP, any distribution, or a slightly weaker hand with great playing strength.
- 2d: 20-22 HCP, 5+ diamonds. "Systems" on as if it had gone 1c-1d-2d.
- 2h: 20-22 HCP, 5+ hearts.
- 2s: 20-22 HCP, 5+ spades.
- 2nt: 20-22 HCP, either 5+xx5+, x5+x5+, or xx5+5+.
- (3c asks which it is, responses 3d minors, 3h and 3s a major and clubs).
- 3c: 20-22 HCP, 6+ clubs.
- 3d: 20-22 HCP, 5+5+xx (3M by responder is forcing).
- 3h: 20-22 HCP, x5+5+x.
- 3s: 20-22 HCP, 5+x5+x.
- 3nt: To play, usually based on a long running suit.

1c - 1d - 1h - 1s - 2c - ...

- 2d: No controls, any distribution.
- 2h: One control.
- 2s: Two controls (i.e. an ace, since two kings is a semi-positive).
- 2nt: At least a king, 3-suited hand. 3c asks, bid the shortness; if opener bids something other than 3c, 3nt shows shortness in opener's suit else responder bids the shortness anyway (at the 4-level is okay since there is a big fit).
- 3c/3d/3h/3s: Kxxxxx or better in the bid suit.

$1c-1d-1h-1s-2c-2d\ \hbox{-}\ldots$

- 2h: Either hearts, or a game forcing notrump hand. 2S is forced, then:
 - 2nt shows notrump hand with systems on (Puppet Stayman, Jacoby transfers, etc.)
 - All other bids confirm hearts and are forcing to 3h.
 - 3h bid is not forcing and shows 4 spades
 - 3s bid is game forcing and shows 4 spades
 - 3nt bid shows a heart single suiter and is forcing, over which 4 level bids by responder are cuebids.)
- 2s: Five or more spades. Responder raises with a fit, bids something natural without one, or bids 2nt with no convenient bid. 4 level bids by responder show shortness. 2s then 3s is forcing.
- 2nt: 23-24, systems on.
- 3c/3d: 5+ card suits, forcing to at least 3nt (can get out in 4 of the minor).

- 3h: 6+ hearts, not forcing.
- 3s: 6+ spades, not forcing.
- 3nt: To play, usually based on running tricks.

1c - 1d - 1h - 1s - 3M - ...

- 3s: Natural and forcing.
- 3nt: Natural and non-forcing.
- 4c: Strong raise of opener's major.
- 4d: Natural and forcing.
- 4h: Natural and non-forcing.
- 4s: Natural if opener bid 3s; splinter for hearts if opener bid 3h.

Relays

After a positive response to 1c, the opener will virtually always continue to make the cheapest possible bid, which is a relay (a request for more information without disclosing anything about his own hand). Some rules regarding relays are:

- 1. 3nt is almost never a relay. The exceptions to this are when responder has shown certain extreme distributions with a 3s bid—currently only (7330)—or when responder has 6+ controls. In other cases 3nt is always a signoff (or at least a signoff attempt). To relay when 3nt is the next bid, opener bids 4c instead.
- 2. 6s is the highest relay. Higher bids are automatically signoffs.
- 3. When shape is shown with a 3nt bid, that is forcing since responder is unlimited. This does not apply if responder is a passed hand or semi-positive, or if 3nt was the highest shape showing bid so he failed to zoom.

The order in which the information is given in the relays is:

- 1. Hand type
- 2. Exact shape
- 3. Range
- 4. Number of controls
- 5. Exact honor cards

In the most ideal scenarios we can figure out responder's exact shape and high cards down through jacks. In general, more common shapes come before less common shapes, but there are a few exceptions which will be noted specifically. Shapes with shortage in high suits tend to come before shapes with shortage in low suits, though again a few exceptions will be noted. The following are the relay structures:

- Single suited hand
- Two suited hand
- Three suited hand
- Flat hand

Single Suited Relay Structure:

This is used on hands with a 5+ card suit, and no other 4+ card suit. The steps go as follows:

- 1. Give a positive response in your suit (1h with spades, 1nt with hearts, 2c with diamonds, 2d with clubs).
- 2. Bid 2s or higher as follows:
 - 2s: High shortage, so spades is your shortest suit, or hearts if your main suit is spades.
 - 2nt: Middle shortage, so hearts is your shortest suit if your main suit is a minor, or diamonds is your shortest suit if your main suit is a major.
 - 3c: Equal shortage, so you have at least two doubletons. The rules governing this bid come at the end of this section.

- 3d: (5332) shape. If the shortage is in the highest of the three side suits, you have bid 2s first. If the shortage is in the middle of the three side suits, you have bid 2nt first. If the shortage is in the lowest of the three side suits you bid 3d directly. This principle applies to all bids higher than this. Direct arrival implies low shortage.
- 3h: (6331) shape.
- *3s: (7330) shape. Breaking the rule of the most common hand type coming first, because 3nt can be used as a relay over a distribution this extreme.
- *3nt+: (7321) shape. Only the location of the long suit and the singleton are known. This is the only hand with less than 12 cards in 2 suits where exact distribution cannot be shown. Note that 3nt shows a minimum (7321), 4c shows a max with 4 controls, etc.

Bidding 2s then 3c shows 223 or 232 in the side suits, after opener bids 3d separate in that order. Bidding 3c directly shows 222 or 322 in the side suits, after opener bids 3d separate in that order (yes, that breaks the rule of the more common hand type coming first, and in some instances may break the rule of higher shortage coming before low shortage. We have our reasons.).

Note the * on 3s and 3nt. This means that when we are on the 2-up relay track (due to semipositive relay or interference), these bids are not actually 2-up. We revert to the normal "more common shapes before less common" ordering since we don't have the optimization of using 3nt as a relay available anyway. The same applies if we are on the 1-up track or 1-down or any nonstandard track due to interference.

Two Suited Relay Structure:

This is used on hands with exactly two suits that are 4+ cards long, and have 9+ cards between them. The steps go as follows.

- 1. Show the first suit
 - a. With spades and any other suit, give a positive response in spades, then over the 1s relay bid 1nt with hearts, 2c with diamonds, 2d with clubs and 5+ spades, or 2h with 4 spades and longer clubs.
 - b. With hearts and diamonds, bid 1s, then over the 1nt relay bid 2c.
 - c. With hearts and clubs, bid 1nt, then over the 2c relay bid 2d with 5+ hearts or 2h with only 4.
 - d. With diamonds and clubs, immediately bid 2h or higher as appropriate.
- 2. Bid 2h or higher as follows.
 - 2h: Reverser, meaning the higher suit has 4 cards, and the lower suit has 5+ cards. All other responses except 2s show exactly 4 cards in the lower suit, and all other responses (including 2s) show 5+ cards in the higher suit. If this is bid after showing just one suit, the second suit is clubs. But don't bid 2c and then 2h with both minors! That would show a three-suiter. Instead bid 2h directly with xx45+ (or higher direct bids with xx5+4+).

- 2s: 5+ in each suit. Then 2N relays:
 - 3c: High shortage, which will be followed by 3h+.
 - 3d: (5611), then show 56 before 65. However, if opener doesn't care which is the 6 and which is the 5, then instead of relaying with 3h he can bid 3s to go straight to min/max/controls (see page 17).
 - 3h: (5521).
 - **•** 3s: (5530).
 - 3nt (5620).
 - 4c+: (6520). 4c shows 2 controls, 4d shows 3, etc.
- 2nt: High shortage. Opener relays with 3c, and then you bid 3d+ to finalize your shape.
- 3c: (5422) shape.
- 3d: (5431) shape. For this and higher bids: if bid directly then low shortage, if 2nt is bid first then high shortage.
- 3h: (6421) shape.
- 3s: (6430) shape.
- 3nt: (7420) shape.
- 4c+: (7411) shape. 4c shows 2 controls, 4d shows 3, etc. Notice something strange here: Other than 3c and 4c, all the shapes are uneven in the two short suits. So what does 2nt (high shortage) followed by 4c+ mean? Previously nothing; now, they're 8-baggers, as follows: 4c = 8311, 4d = 8302, 4h+ = 8320. Showing these shapes is non-mandatory; if you don't like your hand you can go the 7(32)1 route instead. 8221 hands definitely should go that route, and 8410/8500 hands are very rare even for 8-baggers. The very strange thing about this is that with, say, 3280, you will show first spades (!), then diamonds, then a reverser (I'll say), then heart shortage (!), then 4h. This is another reason you might choose not to take this route: if the opponents are in on the action or you are worried they are going to get in, you'd best show your real suit ASAP.

Three Suited Relay Structure:

These are hands with at least four cards in three different suits. There are two ways to show these hands, and they encompass all (4441) and (5440) hands.

- 1. With both majors and a minor,
 - a. bid 1h showing spades,
 - b. then 1nt showing hearts,
 - c. then 2d showing a three suiter with a short minor.
- 2. With both minors and a major,
 - a. bid 2c showing diamonds,
 - b. then 2h showing a three suiter with a short major.

In both cases, over opener's relay the first step shows high shortage (2s with both majors and short diamonds, 2nt with both minors and short spades). Then after opener's next relay, or directly with low shortage starting at 2nt/3c, the first step shows (544), and the second and higher

steps are zoom with 4441. Over (544), separate in the order of 445, 454, and 544 with zoom. (Take note because the same principle applies to the 4-shape reverse relay.)

To summarize:

1c-1h-1s-1nt-2c-2d-2h-2nt: club void, separate 4450, 4540, 5440 zoom
1c-1h-1s-1nt-2c-2d-2h-3c: 4441 min
1c-1h-1s-1nt-2c-2d-2h-2s-2nt-3c: diamond void, separate 4405, 4504, 5404 zoom
1c-1h-1s-1nt-2c-2d-2h-2s-2nt-3d: 4414 min
1c-2c-2d-2h-2s-3c: heart void, separate 4045, 4054, 5044 zoom
1c-2c-2d-2h-2s-3d: 4144 min
1c-2c-2d-2h-2s-2nt-3c-3d: spade void, separate 0445, 0454, 0544 zoom (since this is 4c go straight to controls)
1c-2c-2d-2h-2s-2nt-3c-3h: 1444 min

Flat Hand Relay Structure:

These are hands with all suits having between two and four cards. The steps go as follows.

- 1. Bid 1s, then follow with anything except 2c (which would show a red two-suiter).
- 2. Bid as follows.
 - 2d: Either two 4 card suits of the same color, or (43)33.
 - 2h: Two 4 card suits of the same rank.
 - *2s: (4333). With a 4 card major bid 2d first, but with a 4 card minor bid 2s directly. Over a 2nt relay: 3c shows four hearts or diamonds, and 3d shows 4 spades or clubs, sometimes breaking the rule of high shortage coming first, so that opener can declare a potential diamond contract. (Mnemonic: bid the other color*.)
 - 2nt+: two 4 card suits of the same shape:
 - *2nt: Doubleton spade. For this and higher bids, 2d is bid first with two 4 card suits of the same color, 2h is bid first with two 4 card suits of the same rank, or the bid is made directly with two 4 card suits of the same shape. (CRaSh)
 - *3c: Doubleton club.
 - *3d: Doubleton diamond.
 - *3h+: Doubleton heart. 3h shows a min, 3s shows a max with 4 controls, etc.

Lots of *'s here. When we are on the 2-up relay track (or 1-up or 1-down, which are possible because of interference), responder still completes his shape by bidding his actual doubleton, not 2-up from his doubleton. Thus the shape will be shown with a bid from 3d to 3nt (doubleton club —no zoom!).

Also, with (4333): normally we go through 2d with a 4-card major and 2s direct with a minor, the mnemonic being to right-side hearts. But on the 2-up track, the auction will go 1c-1d-1h-2c-2d, and now the issue is whether to go through 2s on the way to 3c to show your

(4333). In order to right-side spades (the only unbid suit), we have flipped these two sequences, so that 2s followed by 3c shows a 4-card minor and 3c direct shows a 4-card major. Then, in response to the 3d ask, we still bid the other color instead of 2 up from the other color (namely same color). This is all very complicated, perhaps, but there's an easy mnemonic: spades is the only unbid suit, so the only way to right-side it is to bid 3c (without going through 2s) and then 3h (instead of 3s) with 4333.

General Principles and their Exceptions:

In general, the design of the relays is such that more common shapes are shown before less common ones. In addition, a "numeric principle" is followed when deciding between permutations of the same shape. The principle can be stated thus: the shape shown first, or the one that goes through the cheaper step, is the one that would be lower if both shapes were written as a four-digit integer. For instance, 1c-1h-1s-2s-2nt-3c shows either 6223 or 6232. Over the 3d relay, they are resolved in that order: 3h shows 6223, and 3s+zoom shows 6232, since six thousand two hundred twenty-three is less than six thousand two hundred thirty-two. The numeric principle can be effectively thought of as "higher shortage comes first."

Now that the rules have been spelled out, here is a (hopefully exhaustive) list of cases that break the rules.

Single-Suited Relay Structure:

- 3s (7330) represents a rarer shape than 3nt (7321 min). This is so that 3nt can be used as a relay, since we won't typically want to play in 3nt opposite 7330.
- 3c (without going through 2s) shows a 322 or 222 residue. 322 is the more common hand type, but 3h is used for 222 and 3s+ for 322 so that we can zoom to hand strength and controls. This saves a step with the more common pattern—to show a 322 min, we just bid 3s, whereas with a 222 min we'd have to bid 3h and then 3nt.

Two-Suited Relay Structure:

- 3d (5431) is more common than 3c (5422); this ordering reflects the fact that the relays have to be symmetric around the "high shortage" bid (2nt, in this case); therefore, the bid above it (3c) is used for "equal shortage," i.e. 5422. Historical note: 7411 used to be included in 3c also, but that turns out to cost you two steps a vast majority of the time and save you two steps a tiny fraction of the time, since 7411 is so rare.
- In the 5/5 relay, 3d is (6511), rarer than 3h (5521)—but this is exactly the same situation as above, since 3c is the "high shortage" bid.

Three-Suited Relay Structure

This structure used to obey the rules, but we've optimized it since (4441) is more than twice as likely as all of the (5440) hands combined. Thus, after shortage is known, the first step is any (5440), so that we can zoom straight to hand strength with the more common (4441) hands. This

costs us a step with (5440) and saves us a step with (4441), a worthwhile trade considering their relative frequency.

Flat Hand Relay Structure:

Actually, almost everything in the flat hand structure breaks the rules. Basically, it is designed entirely differently; (4432) hands are based on CRaSh and the "bid your doubleton" principle, and (4333) hands are based on "make opener declarer of your long suit when possible." These override the numeric principle; and it's unclear how the common-before-rare principle would apply to this structure anyway.

Hand Strength and Controls:

After hand type and shape are shown, general strength comes next and is directly followed by controls. Responder's hand is considered a minimum if it has fewer than 4 controls, or 8-11 HCP and fewer than 5 controls. It is a maximum if it has 5+ controls, or 12+ HCP and 4+ controls.

In each relay structure, responder shows his hand strength as follows.

- 1st step: Minimum.
- 2nd step: Maximum, 4 controls.
- 3rd step: Maximum, 5 controls.
- 4th step: Maximum, 6 controls.

Etc.

Having shown a minimum, responder bids as follows over the next relay.

- 1st step: 2 controls.
- 2nd step: 3 controls.
- 3rd+ step: 4 controls.

Note the following:

- A responder who is a passed hand is automatically considered to be a minimum, and so goes right to controls starting with 2. A passed hand cannot have more than 4 controls. Also, a passed hand who is zooming to controls with the highest shape never bypasses 3nt. (So for example, 1c-2d-2h-3c-3d-3nt shows 3226 with either 3 or 4 controls; if opener continues with 4c, 4d shows 3 and 4h+ zooms with 4.) If opener explicitly asks for controls, of course, responder zooms as usual (1c-2d-2h-3c-3d-3h-3s-3nt shows exactly 2, since opener is explicitly saying that he can handle a response of 4c or higher).
- 2. If the range is asked about with a bid of 3nt or higher, then hand strength is skipped and responder goes directly to controls starting with 2. This includes cases where you are zooming to the highest shape at 4c. 4c shows that shape with 2, 4d shows 3, etc. The logic is that you are effectively zooming to answer a 3nt range-ask bid. If, due to interference or something, there is more than one shape above 3nt, then there is no zoom except for the highest shape.
- 3. Singleton aces and kings are shown as controls, though they aren't scanned later. They must be discovered by inference when the other suits are scanned.
- 4. If responder has made the highest possible shape showing response, he zooms directly into the next phase. So 1c 1s 1nt 3h shows a 4243 minimum, 1c 1s 1nt 3s shows 4243 and a maximum with 4 controls, etc.
- 5. There is the implication that if opener asks for hand strength, he has at least a hair over a minimum. With no interest at all in bigger things than game, opener will either sign off directly, or go through the 4d quantitative ask which comes later.

Denial Cuebidding:

After controls have been shown, all further relays are a scan for which specific honor cards are held. Responder looks at his suits from longest to shortest. When there are ties in length, responder looks at spades, hearts, diamonds, and clubs in that order. On the first look, aces and kings are shown, then queens on the second, and jacks on the third. Tens are never shown.

- 1st step: No ace or king in the longest suit, OR both the ace and king of the longest suit.
- 2nd step: The ace or king of the longest suit, either neither or both of those in the next longest suit.
- 3rd step: The ace or king of the longest and next longest suit, either neither or both of those in the third longest suit.

Etc.

The following rules apply to denial cuebidding:

- 1. Singletons are not scanned.
- 2. Doubletons and three card suits are not scanned once they can't hold any more honors. So AK doubleton is not scanned for queens or jacks, and AKQ is not scanned for jacks. This is actually an application of Josh's law (see #6). Note: Do not worry when you have shown an AK that partner will think it is neither rather than both, you assume that he can tell which, and in practice he virtually always can.
- 3. Denial cuebidding ends whenever any of the following three occurrences take place: a) The relayer places the contract by making any non-relay bid, b) The relayer bids 6nt or higher, or c) The scan has gone through jacks (all bids are then signoff).
- 4. When responder has shown 6 or more controls, his shortest non-void suit is skipped in the first scan, or the last suit in the case of equal length.
- 5. When responder has shown 6 or more controls, opener can skip one relay step to start the spiral scan directly at queens, skipping aces and kings.
- 6. Josh's Law: Whenever information regarding high cards or their location is absolutely known from previous bidding, then that information is skipped even if it hasn't been asked for yet. This can take many forms, such as knowing responder can have no more controls, or high card points, or can even pertain to distribution. Since this can be very tricky, here are some example auctions featuring Josh's law:

1c - 1h (4+ spades)	Res
1s - 2nt (diamond shortage)	the
3c - 3h (6313)	den
3s – 3nt (minimum)	or l
4c - 4d (2 controls)	knc
4h - 5c (A/K S, A/K H, no more	he l
controls possible, so 5c denies QS,	kin
the next card that would be asked	to t
about)	

Responder is 6313 with two controls. The 5c bid shows the ace or king of spades, the ace or king of hearts, and denies the queen of spades (rather than denying the ace or king of clubs.) This is because it is absolutely known from responder having shown two controls that he has the king of spades, king of hearts, and no ace or king of clubs. So clubs are skipped and responder goes to the next card, the queen of spades.

1c - 1h (spades)	Responder is 5431 with three
1s - 1nt (and hearts)	ace or king of spades, and de
2c - 3d (5431)	hearts. You might think from
3h-3s (minimum)	fact that singletons aren't sca
4c - 4h (3 controls)	the queen of spades since res
4s - 5c (A/K S, no A/KH)	or king of diamonds to make
5d - 5h (no A/K D)	However Josh's law does not
	ace or king of diamonds. Thi
	might have the singleton ace
	Singletons aren't scanned, bu
	are still shown in the control
1c - 1h (spades)	Responder is 4450 with five
1s - 1nt (and hearts)	and king of diamonds (it cou
2c - 2d (and a minor)	cards, but we go by the assur
2h – 2nt (club void)	always tell which it is, so we
3c - 3d (4450)	has the ace and king in this c
3h - 4c (5 controls)	king of spades. 5d denies the
4d - 4h (A+KD or neither)	rather than the ace or king of
4s - 4nt (A+KS or neither)	has five controls, and exactly
5c - 5d (no QD)	of hearts, he is absolutely know
	hearts. So hearts are skipped

Responder is 5431 with three controls. 5c shows the ace or king of spades, and denies the ace or king of hearts. You might think from Josh's law, and from the fact that singletons aren't scanned, that 5h should deny the queen of spades since responder must have the ace or king of diamonds to make up his three controls. However Josh's law does not apply here, 5h denies the ace or king of diamonds. This is because responder might have the singleton ace or king of clubs. Singletons aren't scanned, but singleton aces and kings are still shown in the control response. Be careful!

Responder is 4450 with five controls. 4h shows the ace and king of diamonds (it could have denied both those cards, but we go by the assumption that opener can always tell which it is, so we will assume responder has the ace and king in this case). 4nt denies the ace or king of spades. 5d denies the queen of diamonds, rather than the ace or king of hearts. Since responder has five controls, and exactly three of them are outside of hearts, he is absolutely known to have the ace of hearts. So hearts are skipped and he goes to the next card, the queen of diamonds.

One more important note: When responder shows 5 or more controls, both partners should assume for the purposes of Josh's law that opener can tell how many aces and kings that means, i.e. whether 5 controls is AKKK or AAK (in practice it is almost always the latter, but if opener has three aces then he knows better). So if you have 5 controls and show AK in your long suit and then another ace, you don't have to worry that partner will think you have AK, K and another control somewhere.

Signing off, 3nt and the 4d end signal:

When the relayer wants to signoff, there are several ways to do so. One is by bidding 3nt. 3nt is never a relay, except for when responder is (7330) or has 6+ controls. In other cases, 3nt is to play. If opener asked range then bid 3nt upon finding out, responder only pulls (into controls starting with 2) with 11+ HCP if he showed a minimum, or 15+ HCP if he showed a maximum (controls starting with 4 in this case). If opener declined the chance to ask range and simply bid 3nt, responder pulls only with a good 13 HCP or more. Pulling to 4c shows 13-14, 4d shows 15-16, etc.; opener's next step relay asks for controls starting with 4, and he can proceed to DCB from there if he wants. Opener's immediate 5nt asks responder to pass with the lower in the point-range, or bid (either 6nt or a playable trump suit) with the higher.

If responder is a semi-positive, he pulls only with 8+ HCP and exactly 1 control, and he pulls specifically to 4c always. Opener can bid 4d to ask "where is your king?" and then proceed to DCB, or 4h to go straight to queens, or 4s to ask for HCP in two-point ranges (4nt = 8-9, 5c = 10-11, etc.), or 4nt+ to sign off again.

When opener doesn't want to play in 3nt, he has two ways to sign off. He can simply bid a game contract if responder is limited in any way (a passed hand, or a semi-positive, or has already shown min, or even has already shown max but showed a specific number of controls), or go through 4d, an "end signal". (If responder is still totally unlimited, then opener cannot possibly want to unilaterally sign off, and so game and higher bids are actually RKC asks; see p 28.) 4d asks responder to bid 4h unless he has significant extra values (in the context of the auction) not yet shown, in which case he will make his normal relay response beginning with 4s. This only applies when the last bid was 3nt or lower; in other words, if the last bid was 4c, then 4d is a relay like normal. Opener bids game directly without going through the 4d end signal when he wants to sign off absolutely (note that he can never want to do this if responder has limited neither his hand strength nor controls thus far; see the section on RKC asks for more information). What we define as "extra values" is as follows:

- When responder has shown a maximum, he needs at least a useful-looking queen extra, and pulls to DCB.
- When responder has shown a minimum, he needs at least 11 HCP, and pulls to controls starting with 2 (yes, 2); but not zooming on 4.
- When opener has declined to ask responder's range, he needs at least 14 HCP, and pulls to controls starting with 4. If opener never had a chance to ask responder's range due to a rare shape (ending at, say, 3nt), then he needs 12 HCP and 4+ controls.
- When responder is a semi-positive response, he needs at least 8 HCP (and thus 1 control), or 7 HCP with 2 controls, and pulls to controls starting with 1 but not zooming on 2.

Quantitative invites:

Related to the previous section, here is a guideline for how opener should invite to slam with various ranges when he is planning to play notrump. In particular, these methods can only be used whenever responder has shown no shortness and no 6-card or longer suit (so flat, or 5422 or 5332). Opener doesn't have to bid this way, but generally will whenever he has no particular fit or upgradeable features. The general idea is to get to 7nt with 37+ hcp, 6nt with 33+, and not to bypass 3nt without at least 30+. There are some times when it might be necessary for opener to choose between potentially getting to 4nt with 29, or stopping in 3nt with 33. Anyway, without further ado:

With 17-20, opener bids 3nt with no ask. Responder pulls to controls with 13+, regardless of whether or not he already zoomed to min. Examples: 1c 1s 1nt 3d 3nt, or 1c 1s 1nt 3h 3nt (in the latter case responder has shown a min but it doesn't matter).

With 21-22, opener asks one question and then bids 3nt (or sometimes 4nt, if the answer to the question was 3nt). Responder pulls to DCB with 11+. Examples: 1c 1s 1nt 3d 3h 3s 3nt, or 1c 1s 1nt 3h 3s 3nt 4nt.

With 23-24, opener asks two questions, the second being 4d, and then bids 4nt. This is strongly invitational to slam. There's no real need to zoom over this; responder can bid 6nt (or 6 of a good suit) with 10-12, 5nt to invite 7nt with 13, or 7nt with 14+. With 9, specifically, responder can bid a suit on the 5-level to invite to 6nt. Examples: 1c 1s 1nt 3d 3h 3s 4d 4h 4nt, or 1c 1s 1nt 3h 3s 3nt 4d 4h 4nt.

If any of this seems hard to memorize, consider that essentially it's only opener's ranges that have to be memorized, responder's ranges almost fall into your lap from there.

Stopper Asks:

Sometimes opener is interested in knowing whether responder has a suit stopped before he decides whether or not to sign off in 3nt. In this case, our stopper ask may be just what the doctor ordered. When opener skips at least one relay step to a bid below 3nt, it is an ask to responder whether he has a stopper in a particular suit. The order of the scan is from highest to lowest among responder's known tripletons, followed by high to low among known doubletons. (This applies any time responder has shown at least one two- or three-card suit, not just when he has a flattish hand; but in practice he is usually flattish since otherwise there won't be extra relay breaks available below 3nt to ask for stoppers anyway.) For example, consider an auction beginning with 1c - 1s - 1nt - 2s. At this point responder is 33(34). So if opener bids 3c, it asks about responder's spade stopper, and 3d asks about the heart stopper. Opener can not ask about minor suit stoppers on this auction since neither minor is known to be 2-3 cards long. Special Case in Competition: If the opponents have explicitly shown strength (either with an overcall, or a X) in one of responder's fragments, that suit is moved to the front of the queue, with the remaining fragments following in normal descending order. This makes sure that the most likely stopper-ask is available if possible. If two suits have been shown by the opponents, they are both considered first before other fragments, in descending order themselves.

The responses to the stopper asks are as follows:

- 3nt: Minimum response with the suit stopped. Opener normally passes but can continue with 4c (relay) or 4d (invite) as usual; this may be just an advance check on whether to play 6nt or 6 of a suit.
- 1st non-3nt step: Minimum response without the suit stopped. Opener passes or bids naturally; there is no relay since opener is pronounced minimum.
- 2nd non-3nt step: 11+ without the suit stopped. Opener relays for controls (3+) or signs off. This is a little weaker than a normal max, but since you don't have a stopper it's a 3-suited deck anyway. So anything you'd treat as a "good min" (pulling the 4d ask after showing a min) is a max here. Note also that if opener continues to relay, we

just skip this suit in the DCB scan; even if responder could have the queen or jack, opener cannot possibly be interested in those cards.

• 3rd+ non-3nt step: 13+ with the suit stopped, zoom to controls starting with 3.

If responder happens to have already shown min, or if he is a passed hand, the responses are simple: 3nt with, cheapest other step without.

Reverse Relays:

A lot of the time, there is great incentive for responder to become the relayer and opener to give the information, especially when opener has a minimum three-suited hand. Consider the following:

- 1. When responder bids 1h and opener is short in spades, there is a great chance for a heart fit so it makes sense for responder to assume captaincy since he may well declare the hand. Plus, if there isn't a heart fit, this gets the strong hand to declare any notrump contract.
- 2. When responder bids 1s and opener is short in any suit, responder is the only one who will know early in the auction if it is well stopped enough to play 3nt or not. Plus, if opener is short in any suit but spades, responder will get to declare any spade contract.
- 3. When responder bids 2c or higher there is much less chance of a major suit fit, so making sure all suits are well stopped for notrump may be key, especially in a suit where opener is short.
- 4. When opener has a void, he often has a much more difficult time telling how high he can risk going since the spiral scan largely becomes guesswork (does he have AK in spades and nothing in my heart void, or nothing in my QJxx of spades and AK of my heart void?)
- 5. Even with a singleton it may be key to ascertain the degree of wastage opposite in responder's hand, which can be very difficult for opener to do. This is all the more true with a void.

For these reasons, opener has the option on minimum three-suited hands of transferring captaincy to the responder by making a "reverse relay" bid. He does this by bidding at least one step above the relay as his initial rebid. Hands which qualify must a) have no more than 19 HCP, b) have between 5 and 8 controls (occasionally 4), and c) not have a singleton ace, king or queen. Shortness is shown first in responder's suit, then from highest to lowest. The initial bidding goes as follows:

1c - 1h:
1s: Normal relay.
1nt: RR, short spades.
2c: RR, short hearts.
2d: RR, short diamonds.
2h: RR, short clubs, zoom to next step.

1c - 1s:
1nt: Normal relay.
2c: RR, short spades.
2d: RR, short hearts.
2h: RR, short diamonds.
2s: RR, short clubs, zoom to next step.

1c - 1nt:
2c: Normal relay.
2d: RR, short hearts.
2h: RR, short spades.
2s: RR, short diamonds.
2nt: RR, short clubs, zoom to next step.

1c - 2c:
2d: Normal relay.
2h: RR, short diamonds.
2s: RR, short spades.
2nt: RR, short hearts.
3c: RR, short clubs, zoom to next step.

1c - 2d:
2h: Normal relay.
2s: RR, short clubs.
2nt: RR, short spades.
3c: RR, short hearts.
3d: RR, short diamonds, zoom to next step.

When opener makes a reverse relay bid, responder becomes the relayer, and bids the next step up as an ask for more information. Responder may now make use of any tools (such as stopper ask, quantitative 4d, etc) that are available in the room remaining. When responder's initial bid was 1h, 1s, or 1nt, opener goes into a 10-shape structure. Note that if making the last bid, opener zooms into controls; otherwise, responder can keep relaying for number of controls. The first step shows (four or) five, then six, seven, eight with zoom.

A word about controls: When opener has only four, he should have a relatively "pure" hand, e.g. KQJx AQTx KQxx x to reverse relay. That way, responder will often know every card in opener's hand after one DCB ask. However, the uncertainty in controls can still be deadly—for instance, if responder has a small singleton somewhere, he won't be able to tell if opener has the ace or king there. For this reason, over the bid showing (4)5 controls, responder can skip a step to ask "four or five?" instead of making the normal DCB relay. (Typically, this will still be below game; but if it's not, then the clarification-ask doesn't apply.) The response is the cheapest step

with 4, zooming to DCB on 5; so as responder, don't make this ask unless you can really go beyond game opposite 5.

10-shape RR:

For 10-shape RR's, the steps are as follows:

- 1. (4441), (4450); the "true" 3-suiters. These are unwrapped just like in the 3-suited relay structure: the first step shows one of the three void patterns (which are subsequently separated numerically), and the second and higher steps are zooming with a singleton.
- 2. "Rule of 345", the non-short suits, when ordered, will always be in the order 453, 345, 534 (reading the numbers with wrapping will always reveal 345). Note that after the next relay, the order in which you disclose your shape is based on the highest ranking suit. That order is 4 (usually 4-5-3), then 3 (usually 3-4-5), then 5 (usually 5-3-4).

3/4/5. "Rule of 543" Like 345, but with the order always revealing the other patterns. As above, the order you show these steps is 4 in the highest ranking suit (usually 4-3-5), then 3 (usually 3-5-4), then 5 (usually 5-4-3)

1c - 1h - 1nt - 2c:

2d: Either 1444, 0445, 0454, or 0544 shapes, opener separates in the usual way over 2h by responder.

2h: Either 1453, 1345, or 1534 shapes, opener separates in that order over 2s by responder, zoom if making last response.

2s: 1435.

2nt: 1354.

3c: 1543, zoom (so 3c shows five controls, 3d shows six controls, etc.)

1c - 1h - 2c - 2d:

2h: Either 4144, 4045, 4054, or 5044 shapes, opener separates in the usual way over 2s by responder.

2s: Either 4153, 3145, or 5134 shapes, opener separates in that order over 2nt by responder, zoom if making last response.

2nt: 4135.

3c: 3154.

3d: 5143, zoom.

1c - 1h - 2d - 2h:

2s: Either 4414, 4405, 4504, or 5404 shapes, opener separates in the usual way over 2nt by responder.

2nt: Either 4513, 3415, or 5314 shapes, opener separates in that order over 3c by responder, zoom if making last response.

3c: 4315.

3d: 3514.

3h: 5413, zoom.

1c - 1h:
2h: Either 4441, 4450, 4540, or 5440 shapes, opener separates in the usual way over 2s by responder.
2s: Either 4531, 3451, or 5341 shapes, opener separates in that order over 2nt by responder, zoom.
2nt: 4351.
3c: 3541.
3d: 5431, zoom.

Note the pattern, in the step two and steps three/four/five responses, that the top suit goes 4-3-5, and that the interior matrix of the suits is 345 in step two but 543 in steps three/four/five. This is logical bridgewise, and helps for memory purposes (honest, it really does).

1c - 1s - 2c - 2d:

2h: Either 1444, 0445, 0454, or 0544 shapes, opener separates in the usual way over 2s by responder.

2s: Either 1453, 1345, or 1534 shapes, opener separates in that order over 2nt by responder, zoom if making last response.

2nt: 1435.

3c: 1354.

3d: 1543, zoom.

1c - 1s - 2d - 2h:

2s: Either 4144, 4045, 4054, or 5044 shapes, opener separates in the usual way over 2nt by responder, but watch out—don't zoom past 3nt (with 5044) since there is no known fit. 2nt: Either 4153, 3145, or 5134 shapes, opener separates in that order over 3c by responder, zoom if making last response.

3c: 4135. 3d: 3154.

3h: 5143, zoom.

1c - 1s - 2h - 2s:

2nt: Either 4414, 4405, 4504, or 5404 shapes, opener separates in the usual way over 3c by responder. Responder should be careful here—if opener shows a void (by bidding 3d), responder should only try to resolve it if he can handle the 4c response (showing 5404), probably by playing in 4 of a major.

3c: Either 4513, 3415, or 5314 shapes, opener separates in that order over 3d by responder, no zoom.

3d: 4315.

3h: 3514.

3s: 5413, zoom.

1c – 1s:

2s: Either 4441, 4450, 4540, or 5440 shapes, opener separates in the usual way over 2nt by responder. No zoom past 3nt, since there is no known fit.

2nt: Either 4531, 3451, or 5341 shapes, opener separates in that order over 3c by responder, zoom if making last response.

3c: 4351.

3d: 3541.

3h: 5431, zoom.

The same pattern as noted over 1h also applied over 1s, but watch out for when responder bids 1nt and opener has a minor suit shortage!

1c - 1nt - 2d - 2h: 2s: Either 4144, 4045, 4054, or 5044 shapes. Usual resolution, but don't zoom past 3nt. 2nt: Either 4153, 3451, or 5134 shapes, opener separates in that order over 3c by responder, zoom if making last response (but not past 3nt). 3c: 4135. 3d: 3154. 3h: 5143, zoom. 1c - 1nt - 2h - 2s: 2nt: Either 1444, 0445, 0454, or 0544 shapes. Zoom all you like with a known heart fit. 3c: Either 1453, 1345, or 1534 shapes, opener separates in that order over 3d by responder, zoom if making last response. 3d: 1435. 3h: 1354. 3s: 1543, zoom. 1c - 1nt - 2s - 2nt: 3c: Either 4414, 4405, 5404, or 4504 shapes. Zoom is on. 3d: Either 5413, 4315, or 3514 shapes, opener separates in that order over 3h by responder, zoom if making last response. 3h: 3415. 3s: 5314. 3nt: 4513, zoom. 1c - 1nt: 2nt: Either 4441, 4450, 5440, or 4540 shapes. Zoom, baby, zoom. 3c: Either 5431, 4351, or 3541 shapes, opener separates in that order over 3d by responder, zoom if making last response. 3d: 3451. 3h: 5341. 3s: 4531, zoom.

The explanation for what looks like a total rearrangement of the previously stated pattern is that the pattern is maintained, but with a known major suit fit that suit is moved to the top of the queue. In other words, after 1c - 1nt - 2nt - 3c - 3h, the order is still 4531, 3451, 5341, except that hearts is considered to be the highest ranking suit due to the known fit (so what we are considering to be 4531 is in reality 5431). We do this so that the zoom can go past 3nt more easily when there is a known major suit fit, and not otherwise. Luckily, this alteration won't rear its ugly head over 2c and 2d responses, since no major suit fit can be known, and in fact the bids after these responses are vastly simpler than even over 1h and 1s, as a 4-shape structure is used rather than 10 due to lack of space. Zoom is always on, except that we do not zoom past 3nt without a known fit.

4-shape RR:

1c - 2c - 2h - 2s: 2nt: 4405, 4504, or 5404, separate in that order over 3c, including zoom (but not past 3nt). 3c+: 4414, zoom (but not past 3nt).

1c - 2c - 2s - 2nt: 3c: 0445, 0454, or 0544. 3d+: 1444, zoom.

1c - 2c - 2nt - 3c: 3d: 4045, 4054, or 5044. 3h+: 4144, zoom.

1c – 2c: 3c: 4450, 4540, or 5440. 3d+: 4441, zoom.

Only the shapes that were contained in the previous step one responses are used to RR with after a 2c response, obviously due to space considerations. The same is true over 2d.

1c - 2d - 2s - 2nt: 3c: 4450, 4540, or 5440, separate in that order over 3d. NO ZOOM. 3d+: 4441, zoom (not past 3nt).

1c - 2d - 2nt - 3c: 3d: 0445, 0454, or 0544, separate with zoom over 3h. 3h+: 1444, zoom.

1c - 2d - 3c - 3d: 3h: 4045, 4054, or 5044, separate with zoom over 3s. 3s+: 4414, zoom. 1c – 2d: 3d: 4405, 4504, or 5404, separate with zoom over 3h. 3h+: 4414, zoom.

4c exclusion relay:

When responder has finished showing his shape with a bid of 3h or lower, a 4c continuation by opener shows a void and asks responder to bid 4d, after which opener will bid 4h, 4s, 4nt or 5c to show a void in responder's longest, second, third or shortest suits (ties broken in the usual way, highest first) and ask for controls outside of the excluded suit. The responses are: 0 or 1, 2, 3, and so on, after which opener can relay for DCB in the usual way, but always excluding that suit. (So if responder has a short suit somewhere else, the DCB only covers two suits!)

There are a number of important notes about this kind of ask, so let's jump right in.

- This is basically forcing to the five-level at least, so opener must have a very good hand to do
 it: not just any old hand with a void and a fit. Also, opener will usually have another suit with
 neither of the top honors; otherwise he could just relay normally and expect to figure out
 where responder's cards are. In short, as opener be extremely careful about using this toy.
 Even if it doesn't lead to immediate disaster it may be inferior to the regular controls+DCB
 route.
- 2. This ask may also apply if min/max has already been shown, e.g. 1c 3c 3d 3h 4c; or even if controls have already been shown, e.g. p 1c 1s 1nt 3h 4c. It is even just barely possible opposite a semi-positive hand. Another rare but important case: if responder is (7330) then he will end up bidding 3s, and 3nt is used as the relay. So in this case, 4c is free to be used as the exclusion relay. In principle, this ask could even apply after a reverse relay sequence; but in practice, responder should never ever do this, since he is better off just relaying.
- 3. Josh's Law most certainly still applies. For instance, if responder shows two controls, and then opener makes the exclusion relay ask, then the first step shows 0 or 1, and the second is two with zoom. Or if responder is a passed hand, the steps go 0 or 1, 2, 3, 4 with zoom. Be careful with this—Josh's Law can be very tricky in these situations.
- 4. Even after opener has determined the # of outside controls, he might still want to know if responder has a suitable holding in the excluded suit for notrump. He can ask by relaybreaking into the void suit (note, it must be a relay break; e.g. if clubs are the void suit and responder bids 4nt, 5c does NOT ask about responder's club holding—it is the regular relay). The responses to this ask are K or worse, A, AK. Opener could even then bid the void suit yet again under some circumstances to ask for the queen. Josh's Law may well come into play here too; if responder has shown e.g. 2 controls outside the void suit but had earlier shown

min, he can hardly also have AK in the void suit (that would give him 5 controls total), so that third step should show AQ.

RKC asking bids:

Roman Keycard asking bids can be used by the relayer by skipping one or more steps in relay auctions. The rules are as follows:

1) It can't be a reverse relay situation; those take precedence (though it can be on opener's first rebid if responder's first bid was high enough, such as 1c - 2h - 2nt).

2) It can't be a stopper ask; those take precedence.

3) It can never be a 4d bid.

4) It can't be any game or higher bid. Those maintain their natural (or in the case of 4d,

quantitative) meanings. *Exception*: if neither hand strength nor controls have yet been shown and responder is an unpassed hand, opener cannot possibly want to sign off unilaterally, so game and higher bids are available for RKC asks.

5) It can't be a 4c bid after responder has shown exact shape; that's the exclusion relay. However, it can be a 4c relay break before responder's exact shape is known, e.g. 1c 1h 1s 3c, now 3d is the shape relay, 3h and 3s are stopper asks (in hearts and diamonds, respectively), 3nt is 3nt, and 4c is RKC in spades.

The first step of RKC asking bids is RKC for responder's longest suit, then second longest, then next longest, then shortest, with ties and ambiguities broken by S, H, D, C. Relative suit length must be known, an implication on its own is not enough (to see what I mean by this, check out the 3rd and 4th examples).

Examples:

1c - 1nt - 2c - 2d -2s sets hearts 2nt sets clubs 3c sets spades 3d sets diamonds

1c - 2h -2nt sets clubs 3c sets diamonds 3d sets spades 3h sets hearts

1c - 1s - 1nt - 2s -3c sets spades 3d sets hearts 3h sets diamonds

3s sets clubs (even though responder's longest suit is a minor, you don't know which one)

1c - 2c - 2d - 2h 2nt sets spades
3c sets hearts
3d sets diamonds
3h sets clubs (even though responder is short in one of the majors, you don't know which one, and either of his majors could be his longest suit if he is 0544 or 5044)

1c - 2s 3c sets diamonds
3d sets clubs
3h sets spades
3s sets hearts (this is different from the last example since it is certain that his minors are longer than his majors)

Responder's first reply is 1430 style for the trump suit, but zooming directly into denial cue bidding beginning with the queen of trumps, then side kings, side queens, and jacks beginning with the trump suit. However, the denial cue bidding itself *does* include a scan of responder's known singletons (though not known voids).

Responder's suit order for scanning is the exact same as the above suit orders to use the RKC asking bids.

1c - 1h - 1s - 1nt - 2d 2h: 1 or 4 keycards for spades.
2s: 0 or 3 keycards for spades.
2nt: 2 keycards, no queen of spades.
3c: 2 keycards, queen of spades, no king of hearts.
3d: 2 keycards, queen of spades, king of hearts, no king of diamonds. etc.

The next relay asks for the first unknown card in similar fashion, but for each step the relayer skips, responder in turn skips one card.

1c - 1h - 1s - 1nt - 2d - 2s -

2nt asks for queen of spades (Then 3c denies it, 3d shows it and denies king of hearts, etc). 3c skips the queen of spades and asks for the king of hearts.

3d skips the queen of spades and king of hearts and asks for the king of diamonds.

5c skips all other honor cards and asks for the jack of clubs (bids at game level and higher in the trump suit are to play, not relays, which is why if you count this seems off a step).

When the relayer uses the RKC asking bids, he is setting that suit as trumps, period (well, almost period). The only way to play in a different strain is for the relayer to make any bid higher than the highest asking bid, which is to play. (Or to cleverly maneuver responder in to making a reply that he can pass, e.g. by asking about a card in opener's own hand; see example 2 below.) Otherwise game and higher bids in the trump suit are to play, and all other bids are relay asks. 6nt and bids higher than 7 of the trump suit, however, are to play; but even 7-level bids can be asks (e.g. 7c, if spades are trump, asking for a certain jack to see if 7nt is better than 7s), unlike in DCB.

Note: When responder shows 0 or 3 keycards, or 1 or 4 keycards, and opener signs off in game, responder zooms and keeps going anyway if he has the higher number, just like in regular RKC.

Examples of RKC asks at work:

xx AKQJT987 A AT

1c - 1h - 1s - 2c - 2nt (RKC hearts) - 3c (1 or 4 keycards) - 3h (king of spades?) - 3s (no) - 3nt (king of diamonds?) - 4d (Yes but no king of clubs) -...

Opener now is worried about a spade lead in which case even slam is not there, so he keeps going: 4s (queen of spades?) - 5d (yes, and the queen of diamonds, but no queen of clubs) - 7h (at least this is right sided, too bad 7nt isn't).

If responder bids 4nt instead of 5d and if you are confident they will find a spade lead then you can signoff in 5h, even opposite AJxx xx KQJTx xx

AKQ AJxxxx J AQJ

1c - 1h - 1s - 3c - 4c (RKC spades) - 4h (0 or 3 keycards) - 5c (king of hearts?) - 5h (yes but no king of diamonds) - 6c (queen of hearts?) - 6d (no) - 6s (you have Jxxxxx Kxx Qx Kx) Or over 6c, - 6h (yes but no queen of diamonds) - pass (in case you have xxxxxx KQx xx Kx and 6s is in trouble on the diamond tap)

Whether opener would want to use RKC asks instead of relaying is often unclear, so here are some guidelines for when it is a good idea.

1) You are only considering one trump suit, or perhaps also 7nt, and figure on a loser in it regardless of whether partner is off the ace or king (perhaps you have a doubleton, or a singleton opposite a 7 card major)

- 2) Certain jacks are very important to you
- 3) You want to know whether partner's singleton might be the queen
- 4) Trump solidity is a key factor (probably even more so if you have the singleton).

Note that Josh's Law still applies during RKC asks; for instance, if responder is known to have a stiff spade and he shows the king of spades, he can't have the queen of spades so opener's steps won't include an ask for it. Be very, very careful about this though: a specific ace is not

considered to be absolutely known to be in responder's hand (unless he shows four, which is not terribly likely, or three with a known void).

Trump quality ask:

This might never ever come up, but it's fairly easy to remember so I'll include it: If responder answers a relay bid with 4h or 4s, a raise to 5 of that suit is invitational to slam and asking for good trumps. Here "good trumps" means the suit can be played for one loser opposite a small singleton.

Semi-Positive relaying:

If the auction starts 1c - 1d - 1h, and responder bids anything but 1s, he is said to have a semipositive response, or a "good negative". This means that for his original negative response, responder has 6+ HCP or a very good 5. All of his bids from 1nt up are "2 up" relays, so 1nt means what 1h would have, 2c means what 1s would have, etc. The following considerations apply to 2 up relaying:

- There is no min/max ask about responder's hand, the relays go right from shape to controls. The controls go one, zero, and two with zoom (recall that three controls is always a positive response). After a response of one control, opener can relay as usual to ask "where is your king?" (cheapest step = longest suit; zoom if giving highest response) instead of the less-efficient DCB. Skipping a relay step goes directly to DCB for queens.
- 2. On auctions starting 1c 1d 1h 2c 2d (2s 2nt or 2nt 3c or nothing at all) 3d/3h/3s/3nt, responder bids his actual doubleton instead of staying 2 up. So a 3d bid there shows 3424, not 2434. With a doubleton club, do not zoom past 3nt unless you have a monster hand with only 1 control. Also, the sequence for (4333) is slightly different, so that spades can be right-sided where possible. See the flat hand relay section, page 14, for details.
- 3. In cases where 3s and 3nt were reversed to allow 3nt as a relay, these steps are "unreversed" (they come in the natural order) in the 2-up track. Note: in the single-suited even shortage auctions, where responder's 6322 and 7222 are reversed over a normal 3d ask, those hands are still reversed over a two-up 3s ask. This is so that opener can safely ask for 3-card support for his 5-card major without bypassing 3nt.
- 4. Other things, such as stopper-asking breaks and the 4d end signal, still apply. In fact the 4d signal is all the more useful, since hands with 1 control can have between 6 and 15 high card points. 3nt by opener cannot be pulled, and reverse relays are on, but only the 4-shape RR. Try not to zoom past 3nt without a known fit. If you are lucky enough to have a semi-positive reverse relay auction that starts to head slamwards, opener starts showing controls at 6 and cannot have more than 9 (remember, no RR with a singleton honor—so the best you can have is AK in each of your three long suits). As with the regular reverse relay, opener is allowed to have only 5, in which case he shows 6 anyway.
- 5. Relaying becomes tougher when responder shows a semi-positive hand with extreme shape, such that his final shape-showing bid is 4d or 4h. These patterns are (7411),

(7420), (7330), and (6520). In these cases, responder will zoom to controls, but up to and not beyond his long suit (or either long suit in the case of 6-5). Also, opener can bid responder's long suit to play if it is a major, and has to bypass it to relay. So if responder bids 4h with 7(411), opener's 4s is to play and 4nt is the relay; if he bids 4d with (65) (20), opener's 4h *and* 4s are to play and 4nt is the relay.

6. Making a semi-positive has a great effect on Josh's law, since hands with two controls are limited to 7 HCP, and if a hand has no controls, denial cuebidding obviously starts at queens.

Interference over 1c:

The ways we handle this depends on the form and level of the interference, as well as what it shows. Here is how we deal with natural interference directly over 1c.

Bid over 1c:

1c - (double) -...

1d = 0-5 HCP, ends all relaying.

Redouble = 6-7 HCP, 4+ clubs, interest in penalizing the opponents in whatever the double showed, especially in clubs. Opener can bid 1d to start relaying if he wants, on the positive track. Pass = 6-7 HCP, no interest in playing 1cXX. Opener can redouble to suggest playing 1cXX anyway, or 1d to start relaying on the positive track. Everything else as though there was no interference.

1c - (1d) - ...

Pass = 6-7 HCP. Opener can double 1d to relay, on the positive track. Double = 0-5 HCP, ends all relaying Everything else as though there was no interference.

1c - (1h) - ...

Pass = Would have bid 1d. Opener can double to show 20+ and then systems are on.

Double = Would have bid 1h.

Everything else as though there was no interference.

If the overcall over 1c is higher than 1h, relaying is off.

1c - (1s/2c/2d) - ...

Pass = Either 0-4 HCP, or 5-7 Unsuitable for cuebid or double, or any hand with a penalty pass of the overcall.

Double = 5-7 HCP with three or four cards in the opponents suit, usually a flattish hand with penalty interest, or a game forcing balanced hand without the opponents' suit well stopped (show that by cuebidding next round). Can also be a better balanced hand with their suit stopped, if you are hoping your double gets passed.

Cuebid = GF, takeout, promises decent support for unbid majors, may be a little offshape regarding the minors. If the overcall is 1s and it goes 1c (1s) 2s (p), good/bad applies, so responder need not have a full game force for 2s with takeout distribution. Suit Jump = 5-7 HCP with at least six cards in the suit (can be a good five). All other bids are natural and game forcing, including notrump.

As higher overcalls put even more pressure on us, we lose the ability to show semi-positive hands so easily, and thus may stretch on the game forcing bids.

1c - (2h/2s) -...
Pass = Either nothing to say or a penalty pass.
Double = Card showing, 6-8 hcp usually, more if no good bid.
Cuebid = Looking for a stopper for 3nt. (i.e. no suit to bid, but GF, takeout oriented).
Suit Jump = Leaping Michaels, 4M cue = minors with normal implications.
Bid = Natural and game forcing.

1c - (3c/3d/3h/3s) -...
Pass = Either nothing to say or a penalty pass.
Double = Takeout oriented and game forcing.
Cuebid = Huge hand, takeout.
Suit Jump = Game forcing, a suit playable opposite no support.
Bid = Natural and game forcing.

1c - (4c+) - ...Pass = Either nothing to say or a penalty pass. Double = Game values, cooperative/optional. Cuebid = Huge hand, takeout. Notrump = Huge two-suiter. Bid = Natural.

Notes about auctions with natural interference:

- 1. All doubles by either player are takeout in non-game forcing auctions, unless otherwise noted.
- 2. If fourth hand bids, good/bad 2nt applies to opener since he is still unlimited.
- 3. If responder passes over interference at any level, a suit bid by opener at the lowest level is not forcing.

Artificial Interference:

If the interference shows the bid suit and some other suit(s), treat the bid suit as natural and ignore the fact that other suits may or may not have been shown. Basically any time there is a pretty good likelihood than overcaller's partner will pass, defend as if the overcall was natural.

If the interference shows no known suit (e.g. 1nt for rounded or pointed suits), or three suits (e.g. 1s takeout of spades), double shows penalty interest (usually GF balanced, could be semipositive at a low level) and bids are natural; pass and then double is takeout, not necessarily a good hand. Other bids are natural and game-forcing.

If they shown a known suit which is not the bid suit (e.g. transfer overcalls, or 2h showing spades and another), double to suggest a penalty and bid their known suit for takeout. Other bids are natural and game-forcing. Pass and then double is takeout.

If they show two known suits, neither of which is the bid suit (e.g. 1nt for the minors), play unusual vs unusual. Cheaper cuebid = lower of "our" suits, double for penalty.

If they have something else, use your judgment and the general principles outlined here.

1c-(p)-1d-(1x)-

Pass is forcing, could be a penalty pass. NOT a relay. Double is takeout 1N shows 17-19(& usually a source of tricks), 2N shows 22-23 (& a source of tricks), suits are natural, jump shifts are game forcing. Cue is big 2/3 suit takeout Jump cue-bid is NATURAL(PSYCH EXPOSER) Double then Jump cue-bid asks for stopper.

Note: the 1C bidder is very aggressive with a 5 card major; he MUST bid his suit below 2N if it is decent. Therefore, the 1D bidder should cut him some slack before advancing, as a really good hand would start with a double.

1c-(p)-1d-(x)-... if the double shows diamonds, use above, with redouble instead of pass and pass instead of double. If the double is artificial we just play bids are natural and jumps are strong. If the double shows one or more known suits, cue is takeout and jump-cue is psychexposer (XX then jump-cue asks for stopper).

Interference in Relay Auctions:

Interference in our relay auctions can often be a good thing for us since it can actually add one or two extra steps to our relay (through judicious use of passing, doubling, and redoubling). Our rule is that we keep the relays on so long as we have lost no more than two steps. The easiest way to remember is that they are off if the opponent's bid has taken a full level of bidding. So 1c (p) 1h (2d), relays on, 1c (p) 1h (2h), relays off. When the relays are off we have no particular

rules governing the rest of the auction, but bids are as natural as can reasonably be expected (given that responder for his 1h bid could have 0-7 in any of the other suits).

When the interference is in front of responder, pass is the first relay step, double/redouble is the second, the next bid is the third, etc. (PODI/PORI). If responder passes (to show the first relay step), opener can double/redouble as the relay.

When the interference is in front of the opener, pass is the relay, double/redouble is an attempt to cash in. Responder won't normally overrule this, but if he does the relays continue, but a singleton or void is assumed in the suit responder pulled from (this is not to say responder should necessarily pull with a singleton or void) so relay steps showing 2+ in that suit are skipped.

1D Opening:

1d -...

- 1h: 5+ HCP, 4+ hearts.
- 1s: 5+ HCP, 4+ spades.
- 1nt: 7-11 HCP, natural.
- 2c: 5+ clubs (rarely four), game forcing.
- 2d: 4+ diamonds, invitational (11-13) but not forcing.
- 2h: Either good 11 to 13 balanced, or game forcing with 5+ diamonds.
- 2s: Invitational (9+ to 13) with both minors.
- 2nt: 14-16 HCP or 19+, natural.
- 3c: Invitational, 6+ clubs.
- 3d: Preemptive, 5+ diamonds.
- 3M: Natural and weak.
- 3nt: 17-18 HCP, natural.
- 4c: Splinter (usually 6+ diamonds).
- 4d: Preemptive.
- 4M: To play.

$1d - 1h - \dots$

- 1s: 4+s, may be balanced; quite unlikely to be 4333 though.
- 1nt: 11-13. Singleton heart is possible; 4 spades also possible.
- 2c: 4+c, 4+d, 9+ total, usually clubs longer or equal to diamonds. Don't give a false preference on 2-3.
- 2d: 5+d, usually 6+. Denies the ability to make a stronger diamond showing bid.
- 2h: Normal raise.
- 2s(artificial relay to 2nt) 2nt(mostly forced, though non-forcing 3d on x45+x is allowed) -...
 - 3c: 4 hearts, 0-1 clubs, invitational. Note, not HL here since 2nt doesn't "ask for shortness," nor is it part of a relay sequence.
 - 3d: 5x6x, maximum values, not forcing.
 - 3h: 4 hearts, 0-1 spades, invitational.
 - 3s: 4 hearts, 1 spade, game forcing.
 - 3nt: 4 hearts, 1 club, game forcing.
- 2nt: 6 diamonds, 0-2 hearts, maximum values, not forcing.
- 3c: xx55, maximum values, not forcing.
- 3d: x36+x, maximum values, not forcing.
- 3h: 4 hearts, maximum values, denies shortness unless it is a singleton honor.
- 3s: 04xx, game forcing.
- 3nt: To play, probably a long running diamond suit.
- 4c: x4x0, game forcing.
- 4d: x4+6+x, game forcing.

• 4h: 1561 max.

1d – 1s -...

- 1nt: 11-13, singleton spade possible if 14xx. Don't do this with 13(54) though.
- 2c: 4+c, 3+d, 8+ total, usually clubs longer or equal to diamonds. Don't give a false preference on 2-3.
- 2d: 5+d, may not have a good rebid on a 5 card suit, usually 6+.
- 2h: A "Good Raise" to 2s. Since we open so aggressively this is used when your hand is not quite good enough to force to the 3 level, but you don't want partner to play you for your usual 10 HCP. Over this bid 2s is to play, 2N asks shortness (3d = 3 card raise and can be passed, 3s = no shortness) and other bids are natural game tries that cannot be passed.
- 2nt(artificial relay to 3c). Responder may reject the relay only by bidding 3s, which is to play opposite the 3d hand below; but usually he will bid 3c. Then:
 - 3d: 6 diamonds, 0-2 spades, maximum values, not forcing.
 - 3h: 4 spades, 0-1 hearts, invitational.
 - 3s: 4 spades, 0-1 clubs, invitational.
 - 3nt: 4 spades, 1 heart, game forcing.
 - 4c: 4 spades, 1 club, game forcing.
- 3c: xx55, maximum values, not forcing..
- 3d: 3x6x, maximum values, not forcing.
- 3h: x56x, maximum values, not forcing.
- 3s: 4 spades, maximum values, denies shortness unless it is a singleton honor.
- 3nt: To play, probably a long running diamond suit.
- 4c: 4xx0, game forcing.
- 4d: 4+x6+x, game forcing.
- 4h: 40xx, game forcing.
- 4s: 5161, max.

1d - 1h - 1s -... and 1d - 1h/1s - 1nt -...

- 2c: Forces a 2d bid (opener can rarely break after 1d 1h 1s 2c with extreme distribution). Then 2h, 2s, and 3d are invitational, and 2nt is invitational with clubs; 2c then 3c is *to play*. 2M may be rebid with only 5 cards as 3M is bid normally on 6. Using 2c to force 2d, then bidding 3N offers a choice of contracts with exactly 5 cards in your shown major.
- 2d: Artificial game forcing relay.
- 2h (or 1d 1s 1nt 2s): Weak, signing off.
- 2M: To play.
- 20M: 1d-1h-1nt-2s is 4-4 invitational (going through 2c shows 4-5); 1s then 2h is pass or correct, showing probably 5-4.

- 2nt: Natural and invitational, could contain 5 cards in the major. Opener should show a willingness to play in the major "on the way" to 3nt if he accepts the invite.
- 3c, 3d, 3h, 3s: Natural and slammish. If in a lower suit than responder's first suit, this shows 5-5 and asks opener to either cuebid (for the second suit) or bid the first suit to agree that. If in the same suit, shows a very good 6+, sets trumps, and asks for cuebidding (3nt = bad hand for slam). And I guess 1d 1h 1nt 3s shows something like 5-6, over which 3nt sets *hearts* and everything else is a cue for spades. 1d 1h 1s 3s is forcing and slammish but may only be 45xx; either way 3nt is a bad hand and others are cuebids (for spades, obviously).

The above systems are all on in any kind of competition, so long as responder still has a 2c bid available at his second turn. However, if responder is a passed hand, these systems are *off*. In that case, regular new-minor forcing/4th suit forcing applies.

1d - 1h - 1nt - 2d - ...

- 2h: x3xx, now 2s relays.
 - o 2n: (3334), 3c relays, responses 3334, 3343, 4333 min.
 - 3c: (4432), 3d relays, responses 2344, 4324, 4342.
 - 3d: 2335.
 - 3h: 2353.
 - 3s: 3325.
 - 3n: 3352.
- 2s: Doubleton honor in hearts, now 2nt relays, with responses as below.
- 2n: 31xx, now 3c relays with responses 3145, 3154 min, 3154 max.
- 3c: (4432) with a doubleton heart, 3d relays, responses 3244, 4234, 4243.
- 3d: 2245.
- 3h: 2254.
- 3s: 3235.
- 3n: 3253.

That and the following relay auctions are followed by a min/max ask if there is room below 3nt (much more important when showing an unbalanced pattern, since the range for those is 10-15). After that (or if there is not room), CRASH applies. Here are the rules.

After shape is shown, 3nt and all game bids in opener's 4+ card suits are to play. The first other bid is the CRASH relay. Other non-game bids (including 4d) are natural, setting trumps and asking for cue-bidding (often the best idea). But if you do decide to go through CRASH, here are the responses:

Step 1: 1 or 4 aces Step 2: 0 or 3 aces Step 3: 2 aces, same color Step 4: 2 aces, same rank Step 5: 2 aces, odd suits (same shape)

After this response the process repeats. The first bid that is not in his 4+ card suits is relay, other bids all to play, except of course for....

The Super-relay

The SUPER relay is used after you have inquired with crash for aces, kings or queens. After asking about aces or kings, it is the second bid up not in one of his 4+ card suits (the first being the regular crash relay). After asking about queens, it is the first relay bid, taking the place of crash for jacks (that comes on the next round if still available). After responder has replied to the super relay, CRASH resumes as normal.

When one honor has been shown1st step: The honor is in the longest suit, if two suits are equal in length, you show the highest ranking honor first.2nd step: The honor is in the second longest suit.3rd step: The honor is in the third longest suit.4th step: The honor is in the shortest suit.

Two honors have been shown

1st step: The honors are in the longer pair of suits (by sum of lengths).

2nd step: The honors are in the shorter pair of suits.

Note that this is never ambiguous since opener's shape is always known exactly before CRASH can be invoked.

Three honors has been shown

1st step: The missing honor is in the shortest suit, if two suits are equal in length, you show the lowest ranking missing honor first (think of it as showing the highest ranking honors first).

2nd step: The missing honor is in the third longest suit.

3rd step: The missing honor is in the second longest suit.

4th step: The missing honor is in the longest suit.

1d - 1s - 1n - 2d -...

- 2h: 3xxx, now 2s relays.
 - 2n: 3(334), 3c relays, responses 3334, 3343, 3433 min.
 - 3c: 3(442), 3d relays, responses 3244, 3424, 3442.
 - 3d: 3235.
 - 3h: 3253.
 - 3s: 3325.
 - 3n: 3352.
- 2s: Doubleton honor in spades, now 2nt relays, bid as below.

- 2n: 14xx (13xx rebids 2m), now 3c relays:
 - 3d: 1444.
 - 3h: 1435.
 - 3s: 1453, min.
 - 3n: 1453, max.
- 3c: 2(443), 3d relays, responses 2344, 2434, 2443.
- 3d: 24(52), now 3h relays, responses 2425, 2452.
- 3h: 22(45), now 3s relays, responses 2245, 2254.
- 3s: 2335.
- 3n: 2353.

1d - 1h - 1s - 2d -...

- 2h: 4x5+x, now 2s relays with responses as in the strong club structure. Note, however, that the follow-ups are CRASH, not DCB.
- 2s: 4(432), now 2nt relays with responses as follows. Note that with 4333, first of all we don't often bid 1s (strong spades and little outside), and second we'd rebid 3nt, not 2s.
 - 3c: 4234
 - 3d: 4243.
 - 3h: 4324.
 - 3s: 4342 minimum (in context).
- 2nt: 4xx5, now 3c relays with responses 4135, 4225 min, 4225 max.
- 3c: 4144.
- 3d: 4045.
- 3h: 4054 minimum.
- 3s: 4054 maximum.
- 3nt: 4333.

1d - 1h/1s - 3c -...

- 3d: Natural preference, not forcing (discouraging if anything, opener generally passes).
- 3h/3s: If responder rebids his major, it is natural and forcing showing 6+. If responder bids the other major, it is ostensibly a try for 3nt asking for a tidbit in that suit. However, if responder then pulls 3nt, or does something strong sounding over other bids, he shows his rebid was an advance cuebid in support of one of opener's suits.
- 4c/4d: Natural slam try in support of opener, but suggesting the lack of ability to cuebid in the unbid major.

1d - 1h - 2nt, or 1d - 1s - 2nt - 3c - 3d -...

- 3c: Natural with 5+ clubs, forcing.
- 3d: Natural preference, not forcing (discouraging if anything, opener generally passes).
- 3h: Natural and forcing no matter which major you originally responded in.

- 3s: If responder bid 1h, this is ostensibly a try for 3nt asking for a tidbit in spades. However, if responder then pulls 3nt, or does something strong sounding over other bids, he shows his rebid was an advance cuebid in support of diamonds. If responder bid 1s, this is natural and forcing.
- 4c: A cuebid in support of diamonds.
- 4d: Natural slam try, probably no club cuebid to make.

1d - 1h - 2s - 2n - 3d or 1d - 1s - 3h -...

- 3h: Natural and forcing, may be geared toward reaching 3nt.
- 3s: If responder bid 1h, this is a natural preference, not forcing (discouraging if anything, opener generally passes). If responder bid 1s, this is natural and forcing, may be geared toward reaching 3nt.
- 4c: A cuebid in support of opener's major.
- 4d: Natural slam try in support of diamonds.

1d - 1h/1s - 3d -...

- 3h/3s: If responder rebids his major, it is natural and not forcing, to play. If responder bids the other major, it is ostensibly a try for 3nt asking for a tidbit in that suit. However, if responder then pulls 3nt, or does something strong sounding over other bids, he shows his rebid was an advance cuebid in support of either diamonds or his major.
- 4c: A cuebid setting the major as trump, and suggesting the lack of ability to cuebid in the other major.
- 4d: A natural slam try in support of diamonds, and suggesting the lack of ability to cuebid in the other major.

1d – 2c -...

- 2d: 5+ diamonds, may or may not have extra values, may or may not have a 4-card major; tends to be unbalanced.
 - 2M: Natural. If responder bypasses 2M, he can no longer bid a major naturally.
 - 2nt: Suitable to declare notrump. Continuations natural.
 - 3m: Natural.
 - 3M: Splinter raise of diamonds. Can be done on three-card support.
- 2h: Weak notrump with club support (usually four cards, but judgment applies). Fourthsuit forcing may apply in auctions like 1d-2c-2h-3h-3s, stopper-asking.
 - 2s, 2nt, 3m, 3h: Natural. 2s then 3s shows 5-6.
 - 3s: Splinter, clubs agreed.
 - 4d: RKC for clubs.
- 2s: Weak notrump without club support and containing 4 spades. Could be 4441.
- 2nt: Weak notrump without club support or 4 spades.
 - 3s: 5xx6.

- 3c: Club raise. Tends to be unbalanced, but unsuitable for a splinter.
 - 3d: Natural.
 - 3M: Quasi-natural; could be a 3nt probe or an advance cuebid.
 - 4d: RKC.
- 3d: Maximum, good 6-card suit.
- 3h/s: 0-1 hearts/spades, club support, maximum.
- 3nt: 4441, maximum.

1d – 2h - ...

- 2s: Asks responder to bid 2nt with the invitational notrump hand, or whatever else looks most descriptive with the game forcing diamonds hand; usually with minimum values. 3c by responder would tend to show 5-4, as with 4-5 he would usually respond 2c. If responder bids 2nt then the following apply to opener's rebid:
 - 3c: Natural and non-forcing, showing primary clubs.
 - 3d: Natural and non-forcing, showing primary diamonds.
- 2nt: Essentially the same as 2s, asks responder to pass with the invitational notrump hand, or bid whatever looks most descriptive with the game forcing diamonds hand. Note, the choice between 2s and 2nt is primarily based on an attempt to rightside the notrump contract.
- 3c: Natural and game forcing, showing primary clubs. Responder bids 3nt, or 3M to ask for help in the other major. 3d would suggest neither major well-stopped. Bidding a major may be a try for 3nt, or a cuebid for clubs.
- 3d: Natural and game forcing, showing primary diamonds. As above.
- 3M: Shortness. With the balanced hand, responder can bid 3nt, 4d (not forcing), or 5d. With the game forcing diamonds hand, responder can also bid 3nt or 5d if minimum and ill fitting, but otherwise is expected to cuebid.
- 3nt: To play, assuming the notrump hand opposite. Responder also passes with the game forcing diamonds hand unless he holds significant extra values (something like a good looking 16 at least).

What if they interfere over 2h?

$1d - 2h - (X) - \dots$

- Pass: Minimum opener.
 - Pass: Rolling the dice.
 - Redouble: Transferring notrump to opener.
 - 2nt: Non-forcing; should probably contain at least Jx or Qx of hearts to right-side.
 - All other bids (including 2s): game-forcing with diamonds.
- Redouble: To play. Responder may not pull with the balanced hand, so any bid shows the game forcing raise.

• Bids: As without interference. Note that opener can bid 2s to demand that partner take notrump when he has an anti-positional heart stopper.

 $1d - 2h - (2s) - \dots$

- Pass: Asking for a spade stopper.
 - Double: No stopper, non-game-forcing.
 - 2nt: Pick a minor.
 - 3m: To play.
 - 2nt: Stopper, non-forcing.
 - 3x: Game-forcing with diamonds.
- Double: Penalty. Responder may not pull with the invitational hand.
- 2nt and higher: Natural. Other than 2nt, these bids are all game forcing.

 $1d - 2h - (3c) - \dots$

- Pass: Forcing—responder is expected to either double (penalty) or bid 3d with the invitational hand, or something higher with the game forcing hand. Opener's pass and then pull is strong (e.g. pass and then pull X to 3d is the kind of hand that would have bid 3d forcing without the overcall).
- Double: Penalty. Responder may not pull with the invitational hand.
- 3d: Non-forcing.

If the interference is higher than that, pass is non-forcing (although obviously responder won't sell out with the game-forcing diamond raise) and double is penalty. Bids are natural. Maybe we should consider making pass of a 3M overcall stopper-asking?

1d – 2s - ...

- 2nt: Interest in game.
 - 3c: Min, longer clubs.
 - 3d: Min, longer diamonds.
 - 3h: Max, short hearts.
 - 3s: Max, short spades.
 - 3nt: Max, 22(45).
 - 4c: 1156.
 - 4d: 1165.
 - 4h: 20(56).
 - 4s: 02(56).
- 3c: To play.
- 3d: To play.
- 3M: Asks for help in the other major for 3nt.

1d – 2nt - ...

- 3c: Natural, usually 5 cards.
- 3d: Natural, usually 6 cards.
- 3M: Natural.
- 3nt: To play.
- 4c: True minor two-suiter, at least 55.
- 4d: 2272 max, I guess.
- 4M: (5x)6x, I guess.

Pass – 1d - ...

- 1h, 1s, 1nt: Same as BUPH.
- 2c: Natural, starting around a good 8 and always showing a good suit. All follow-ups by both players are natural; nothing is particularly forcing (well, except a splinter), though the odds that you will be dropped after p-1d-2c-2M are vanishing.
- 2d: 8 to 11ish, suggests 5-card support. Follow-ups are natural; if opener bids over 2d, he promises extra values and forces to at least 3d.
- 2M: Fit jump, 8+ with 5+ of the bid suit and 4+ diamonds. Not forcing.
- 2nt: Doesn't particularly exist. It should probably mean "I forgot to open the bidding but I don't want to hang you for opening light in 3rd."
- 3c: Fit jump, as above.
- 3d: Preemptive. Strongly suggests 6 cards.
- 3M: Weak (unlikely, but what else are we using this for?).

1H Opening:

1h -...

- 1s: Exact same as a forcing 1nt response, may contain up to 4 spades.
- 1nt: 5+ HCP, 5+ spades, one round force.
- 2c: 3(2)+ clubs, game forcing.
- 2d: 4+ diamonds, game forcing.
- 2h: 7-10 HCP, 3-4(5) hearts.
- 2s: 6+ spades, decent suit, constructive values (6-10ish).
- 2nt: 4+ hearts, game forcing.
- 3c: 6+ clubs, invitational.
- 3d: 6+ diamonds, invitational.
- 3h: 4-5 hearts, limit.
- 3s: 0-1 spades, 4+ hearts, about 13-16 points in support.
- 3nt: Choice of games.
- 4c: 0-1 clubs, 4+ hearts, about 13-16 points.
- 4d: 0-1 diamonds, 4+ hearts, about 13-16 points.
- 4h: Normal, can be a little stronger and/or less shapely than in more common systems.
- 4s: To play.
- 4nt: Regular Blackwood.

1h – 1s -...

- 1nt: Either balanced, or 4+ clubs.
- 2c: 4+ diamonds, tends to deny 6 hearts.
- 2d: 6+ hearts. If followed by 2h and then 2s, shows a 56xx min.
- 2h: 4 spades, 5-6 hearts.
- 2s: Artificial relay, promises a maximum 6-4 hand.
 - 2nt: Relay, shows game interest but does not promise a rebid.
 - 3c: x6+x4.
 - 3d: x6+4x.
 - 3h: 46+xx.
 - 3s: 56+xx.
 - 3h: To play.
- 2nt: 6+ hearts, maximum, suggesting a notrump contract.
- 3c: 5+ clubs, maximum.
- 3d: 5+ diamonds, maximum.
- 3h: 6+ hearts, maximum.

In competition, transfers are off. In particular, 1h(p) 1s(x) xx shows (four) spades and suggests that they could be in trouble.

1h – 1nt -...

- 2c: Either balanced, or 4+ clubs. Not 100% forcing, but pass would be rare.
- 2d: 4+ diamonds.
- 2h: 6+ hearts.
- 2s: 3+ spades, non-maximum.
- 2nt: Good 3-card spade raise.
 - 3m: Help-suit game try. Opener is expected to reject with shortness.
 - 3M, 4M: To play.
 - 3nt: Asking for shortness (HLN).
 - 4m: Cuebid.
 - 4nt: 6-ace RKC with both majors agreed.
- 3s: Good 4-card spade raise.
 - 3nt: Asking for shortness (HL).

1h - 1nt - 2m -

- 2d: Invitational 5+x5+x.
- 2h: Weak preference.
- 2s: Artifical game-force. Continuations as natural as possible.
- 2nt: Natural, invitational.
- 3m: Invitational.
- 3om: Game forcing 5-5.
- 3h: Invitational, 5+3xx.
- 3s: Invitational, 6+xxx.

1h - 1nt - 2h -

- 2s: Artificial game-forcing relay.
 - 2nt: 4 clubs. Over that, 3c and 3h set trumps, 3s shows six or more spades, and game bids are signoffs.
 - 3c: 4 diamonds. Over that, 3d and 3h set trumps, 3s shows six or more spades, and game bids are signoffs.
 - 3d: 1633, or 26(32) with no top spade honor. Over that, 3h sets trumps, 3s shows six or more spades, and game bids are signoffs.
 - 3h: 26(32) with a top spade honor. Over that, 3s sets trumps, 4c and 4d are cuebids setting hearts as trumps, and game bids are signoffs.
 - 3s/4c/4d: 7 or more hearts, with shortness in the bid suit. 4c and 4d are cuebids setting hearts as trumps, 4nt is RKC in hearts, and game bids are signoffs.
 - 3nt: 2722, 12-14 HCP. 4c and 4d set hearts as trump, 4nt is RKC in hearts, and game bids are signoffs.
 - 4h: 2722, 9-11 HCP. 4s is to play, 4nt is RKC in hearts.
- 2nt: Natural and invitational.

- 3m: Game-forcing 5-5.
- 3h: Invitational, 5+3xx. This would also apply over opener's 2s rebid.
- 3s: Invitational, 6+xxx.

1h – 2c -...

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- 2d: Either 6+ hearts, or a "punt" with no other attractive bid.
 - 2h: 2+ hearts, asking (don't bid this if you can rightside notrump instead).
 - 2s: (5332), no diamond stopper for notrump.
 - 2nt: Club support, usually 3 good ones.
 - 3c: (5332), no spade stopper for notrump.
 - 3d: 6 hearts.
 - 3h: 46xx, better hearts than spades.
 - 3s: 7 hearts, solid or semi-solid with little outside.
 - 3nt: 7 broken hearts.
 - 4m: 8-bagger plus the ace of the bid suit.
 - 4h: 8-bagger plus spade ace. With no side ace, probably either open 4h or rebid 4h.
- 2h: 4+ spades. If 46xx, better spades than hearts. Continuations natural.
- 2s: 4+ diamonds. Continuations natural.
- 2nt: 11-13 balanced, good stoppers in spades and diamonds.
- 3c: 4+ clubs, could be minimum. Remember, if partner doesn't have real clubs, he'll definitely either bid 3nt or 3h next.
- 3d: Splinter raise of clubs.
- 3h: 0-1 loser suit opposite a void, not a minimum. Agrees hearts and asks for cuebids; non-serious 3nt applies.
- 3s: Splinter raise of clubs, but for god's sake don't do this unless you really, really mean it (surely at least a 5-5 max), since it can torpedo responder's planned auction.
- 3nt: 14-16 balanced with 6 hearts and exactly one ace or king in every side suit, including clubs. Note that this implies weakish hearts. With that shape and range but a different honor distribution, go through 2d.

1h - 2d -...

- 2h: Either 6+ hearts, or a "punt" with no other attractive bid.
- 2s: 4+ spades. If 46xx, better spades than hearts. Does not promise extras.
- 2nt: 11-13 balanced, good stoppers in spades and clubs.
- 3c: 5+ clubs, could be minimum.
- 3d: 4+ diamonds, could be minimum.
- 3h: 0-1 loser suit opposite a void, not a minimum. Agrees hearts and asks for cuebids; non-serious 3nt applies.
- 3s: Splinter raise of diamonds, but please please don't do this unless you really mean it.

- 3nt: 14-16 balanced with 6 hearts and exactly one ace or king in every side suit, including diamonds. With that shape and range but a different honor distribution, go through 2h.
- 4c: I guess this is a splinter also. It better be a good one.

$1h - 2h - \ldots$

- 2s: Shows the desire to make a short suit game try in any suit.
 - 2nt: Accepting a SSGT in spades.
 - 3m: Explicit SSGT in the bid suit.
 - 3c: Accepting SSGT in clubs but not spades.
 - 3d: Explicit SSGT in diamonds.
 - 3d: Accepting SSGT only in diamonds.
 - 3h: Rejecting any short suit game try.
 - 3s: Accepting all short suit game tries, and has no king or queen in any side suit (so only aces or empty suits, potentially jacks).
 - 3nt: Requests the cuebid of an ace.
 - 4h: Accepting all tries but not a hand like the above.
- 2nt: Game try in spades.
- 3m: Natural game try.
- 3h: To play.

1h – 2nt -...

- 3c: Minimum (10-bad 13).
 - 3d: Relay, but only ask if you really want to know.
 - 3h: Any singleton or void. 3s relays (HML).
 - 3s: 4522, good spades.
 - 3nt: 6-7 hearts, no shortness.
 - 4c: 2524, good clubs.
 - 4d: 2542, good diamonds.
 - 4h: Only 5 trumps, no good 4-card side suit.
 - 3h: Asking for a singleton (responses NHML).
 - 4h: Signoff.
 - Other: Cuebid.
- 3d: Max, no singleton or void.
 - 3h: Relay, responses same as after 1h-2nt-3c-3d.
 - 4h: Signoff.
 - Other: Cuebid.
 - 3h: Max, short spades.
- 3s: Max, short diamonds.
- 3nt: Max, short clubs.
- 4c: Max, good 5-card club suit.
- 4d: Max, good 5-card diamond suit.

• 4h: Max, good 5-card spade suit (and hence 6+ hearts).

The general principle is: when showing a suit, bid it naturally (with substitution principle if necessary); but when showing shortness, bid high/middle/low instead.

Pass – 1h -...

- 1s: Natural, 4+ cards.
- 1nt: Not particularly forcing.
- 2c: Reverse Drury, but only shows constructive values (good 8, usually 9) since we open light.
 - 2d: At least mild interest in game, but not enough to force to the 3-level.
 - 2h: No interest in game.
 - \circ 2s+: Game try, as over 1h-2h.
 - 4h: Common, since slam is rare when you can't open 1c and he can't open at all.
- 2d: Natural, about 9+ acceptable with good suit. All follow-ups natural.
- 2h: 6-8ish, not constructive.
- Jump shifts: Fit-showing. Not forcing, but opener will strain to keep it alive.
- 2nt: Clubs.
- 3h: Shapely limit raise, usually 5 cards.

1S Opening:

1s -...

- 1nt: Semi-forcing. Opener is expected to pass with a balanced minimum.
- 2c: 3(2)+ clubs, game forcing.
- 2d: 4+ diamonds, game forcing.
- 2h: 5+ (rarely 4) hearts, game forcing.
- 2s: 7-10 HCP, 3-4(5) spades.
- 2nt: 4+ spades, game forcing.
- 3c: 6+ clubs, invitational.
- 3d: 6+ diamonds, invitational.
- 3h: 6+ hearts, invitational.
- 3s: 4-5 spades, limit.
- 3nt: Choice of games.
- 4c: 0-1 clubs, 4+ spades, about 13-16 points.
- 4d: 0-1 diamonds, 4+ spades, about 13-16 points.
- 4h: 0-1 hearts, 4+ spades, about 13-16 points.
- 4s: Normal, can be a little stronger and/or less shapely than in normal systems.
- 4nt: Regular Blackwood.

1s - 1nt - 2c (Either balanced, or 4+ clubs) -

- 2d: requests opener bid 2h, then:
 - Pass: 6+ hearts attempting to sign off.
 - 2s: Invitational with a good (8-11) 2 card spade raise.
 - 2nt: Club raise and a NT hand (2nt).
 - 3c: Good club raise.
 - \circ 3d: x5+5+x invitational.
 - 3h: 26xx invitational.
 - 3s: 36xx invitational.
- 2h: 5+hearts and tolerance for either spades or clubs, NF.
- 2s: Weak preference; please don't make a game try over this.
- 2nt: Invitation to 3nt without good club support.
- 3c: "Courtesy" club raise.
- 3d: Natural and weak.
- 3h: Fit showing, 5+H, 4+C, invitational.
- 3s: 3-card limit.

1s – 2c -...

2d: 4+ hearts. Now 2h by responder is a relay, and opener continues as in TOSR ("max" = 14+, at least 4 controls). Note the following changes, however: after 1s-2c-2d-2h-2s (was "5-5"; now "5-5 or a void")-2nt:

- 3c: High (diamond) shortage, as before.
- 3d: Was (65)11; now, specifically 6511 since with 5611 we'd open 1h.
- 3h: 5521.
- 3s: 5530.
- 3nt: Was 5620; now, however, 5440 (5404 if preceded by 3c).
- 4c+: 6520, as before.
- 2h: Either 6+ spades, or a "punt" with no great bid. Responder can bid 2s (only with 2+ spades), if so:
 - 2nt: 3 (maybe even 4) clubs, not appropriate to raise directly.
 - 3c: The death hand, 5(332) with an unstopped red suit. Responder bids what he has to look for 3nt.
 - 3d: 64xx, better spades (with better hearts, show hearts instead of punting).
 - 3h: 6 spades.
 - 3s: 7 spades that you expect to run; little else.
 - 3nt: 7 broken spades.
 - 4x: 8-bagger plus ace of bid suit.
- 2s: 4+ diamonds.
- 2nt: 11-13, suitable to declare notrump.
- 3c: 4+ clubs, could be minimum. Remember, if partner doesn't have real clubs, he will definitely either bid 3nt or 3s next.
- 3d: Splinter raise of clubs.
- 3h: Splinter raise of clubs.
- 3s: 0-1 loser suit opposite a void. Agrees spades, asks for cuebids; non-serious 3nt applies.
- 3nt: 14-16, 6(322), exactly one ace or king in every side suit, including clubs. With that strength and shape but different honor location, go through 2h.

1s – 2d -...

- 2h: Either 6+ spades, or a "punt" with no great bid. Responder can bid 2s (only with 2+ spades), if so:
 - 2nt: 4 clubs exactly. With 5, rebid 3c directly.
 - 3c: The death hand, 5(332) with an unstopped round suit. Responder bids 3h to show heart cards; 3d suggests he does not but probably has clubs.
 - 3d: 64xx, better spades (with better hearts, show hearts instead of punting).
 - 3h: 6 spades.
 - 3s: 7 spades that you expect to run; little else.
 - 3nt: 7 broken spades.
 - 4x: 8-bagger plus ace of bid suit.
- 2s: 4+ hearts. If 64xx, better hearts than spades. Continuations natural.
- 2nt: 11-13, suitable to declare notrump.
- 3c: 5+ clubs, could be minimum.
- 3d: 4+ diamonds, could be minimum.

- 3h: Splinter raise of diamonds.
- 3s: 0-1 loser suit opposite a void. Agrees spades, asks for cuebids; non-serious 3nt applies.
- 3nt: 14-16, 6(322), exactly one ace or king in every side suit, including diamonds. With that strength and shape but different honor location, go through 2h.

$1s - 2h - \ldots$

- 2s: Either 6+ spades, or a "punt" with no other convenient bid. Continuations natural.
- 2nt: 11-13, suitable to declare notrump.
- 3c: 5+ clubs, could be minimum.
- 3d: 5+ diamonds, could be minimum.
- 3h: 3+ hearts.
 - 3s: Agrees spades; not a cuebid for hearts.
- 3s: 0-1 loser suit opposite a void. Agrees spades, asks for cuebids; non-serious 3nt applies.
- 3nt: 14-16, 62(32), exactly one ace or king in every side suit, including hearts. With that strength and shape but different honor location, go through 2s.

1s – 2s -...

- 2nt: Shows the desire to make a short suit game try in any suit.
 - 3c: Accepting a SSGT in clubs.
 - 3d, 3h: Explicit SSGT in the bid suit.
 - 3d: Rejecting clubs but accepting diamonds.
 - 3h: Explicit SSGT it hearts.
 - 3h: Accepting only hearts.
 - 3s: Rejecting all SSGTs.
 - 3nt: No side kings or queens (so all aces or jacks or worse).
 - 4c: Asking for cuebid of an ace.
 - 4s: Accepting all game tries, but not a hand like the above.
- 3c, 3d, 3h: Natural game try.
- 3s: To play.

1s – 2nt -...

- 3c: Minimum (10-bad 13).
 - 3d: Relay, but only ask if you really want to know.
 - 3h: Any singleton or void. 3s relays (HML).
 - 3s: 5(422) with a bad side suit.
 - 3nt: To play.
 - 4c: Relay for side suit, responses natural.
 - 3nt: 6-7 spades, no shortness.

- 4c: 5224, good clubs.
- 4d: 5242, good diamonds.
- 4h: 5422, good hearts.
- 4s: 5(332).
- 3h: Asking for a singleton (responses NHML).
- 4s: Signoff.
- Other: Cuebid.
- 3d: Max, no singleton or void.
 - 3h: Relay, responses same as after 1s-2nt-3c-3d.
 - 4s: Signoff.
 - Other: Cuebid.
- 3h: Max, short hearts.
- 3s: Max, short diamonds.
- 3nt: Max, short clubs.
- 4c: Max, good 5-card club suit.
- 4d: Max, good 5-card diamond suit.
- 4h: Max, good 5-card heart suit.
- 4s: Max, good 5-card heart suit and extra spade length.

The general principle is: when showing a suit, bid it naturally (with substitution principle if necessary); but when showing shortness, bid high/middle/low instead.

Pass – 1s -...

- 1nt: Not particularly forcing.
- 2c: Reverse Drury, but only shows constructive values (good 8, usually 9) since we open light.
 - 2d: At least mild interest in game.
 - 2h: No interest in game; 4-4 or 5-4 in majors. Not forcing in the least.
 - 2s: No interest in game.
 - 2nt+: Game tries, as above.
 - 4s: Don't be afraid to jump to game since partner is quite limited and you are somewhat limited too.
- 2d, 2h: Natural, 9+, good suits. Follow-ups natural.
- 2s: 6-8ish, not constructive.
- 2nt: Clubs.
- Jump shifts: Fit-showing. Not forcing, but opener should strain to keep it alive.
- 3s: Shapely limit raise, usually 5 cards.

1NT Opening (14-16 or 15-17):

1nt -...

- 2c: Stayman, does not promise a four card major.
- 2d: Transfer to hearts.
- 2h: Transfer to spades.
- 2s: Transfer to clubs, any strength.
- 2nt: Diamonds, or a weak hand with both minors.
- 3c: Asking for a 5-card major, or splinter.
- 3d: 5-5 or longer in the majors, game forcing.
- 3h: 5-5 or longer in the majors, invitational.
- 3s: 5-5 or longer in the minors, game forcing.
- 3nt: To play.
- 4c: Gerber (responses are 1 or 4, 0 or 3, 2 with a minimum, 2 with a maximum).
- 4d: Transfer to hearts.
- 4h: Transfer to spades.
- 4s: Quantitative, 4-4 or longer in the minors
- 4nt: Quantitative.

$1nt - 2c - 2d - \dots$

- 2h: Weak, 4+4+xx.
- 2s: Unbalanced invite with 5+ spades (this is also how to bid 54xx invitational).
- 2nt: Invitational, does not guarantee a major.
- 3c: Natural and forcing.
- 3d: Natural and forcing.
- 3h: Showing 5+4xx, forcing, what we might have is another story entirely.
- 3s: 45+xx, forcing.
- 3nt: Duh.
- 4c+: Same as directly over 1nt.

1nt - 2c - 2h - ...

- 2s: Unbalanced invite with 5+ spades.
- 2nt: Invitational, does not promise 4 spades.
- 3c: 4xx5+, forcing.
- 3d: 4x5+x, forcing.
- 3h: Invitational.
- 3s: At least game forcing, sets hearts as trumps with an unspecified shortness. (3nt is relay to find out, responses HML, 4h over that shows short clubs, 4s shows short clubs and a hand too good to risk having 4h passed.).
- 3nt: Guarantees 4 spades; pass or correct to 4s.
- 4c: 1430 roman keycard Blackwood for hearts.

- 4d: Quantitative, promises 4+ hearts.
- 4h: To play.
- 4s: Quantitative with 4 spades, denies 4 hearts.
- 4nt/5c/5d: 0314 exclusion keycard Blackwood (4nt shows a spade void).

1nt - 2c - 2s -...

- 2nt: Invitational, does not promise 4 hearts.
- 3c: x4x5+, forcing.
- 3d: x45+x, forcing.
- 3h: At least game forcing, sets spades as trumps with an unspecified shortness. (3s is relay to find out, responses HML).
- 3s: Invitational.
- 3nt: To play. "Guarantees" 4 hearts, but who cares?
- 4c: 1430 roman keycard Blackwood for spades.
- 4d: Quantitative, promises 4+ spades.
- 4h: Quantitative, 4 hearts, not 4 spades.
- 4s: To play.
- 4nt/5c/5d: 0314 exclusion keycard Blackwood. (4nt excl of H)

1nt – 2d -...

- 2h: Fewer than 4 hearts.
 - 2s: Unbalanced hand with invitational values; forces 2nt, then:
 - 3m: Natural, usually 5-5.
 - 3h: 46xx, invitational.
 - 2nt: Balanced invite.
 - 3s: At least game forcing, undisclosed shortness somewhere. (3nt asks, responses HML, 4h over that shows club shortage, 4s is club shortage and a hand too good to risk having 4h passed.)
 - 4c: 1430 RKC for hearts.
 - 4d: Balanced slam try, 6 hearts.
 - 4h: Mild slam try, 6+ hearts.
 - 4s: Uh... I guess slam try with spade void?
 - 4nt: Balanced slam try, exactly 5 hearts.
- 2s: Max, 4+ hearts, weak doubleton somewhere.
 - 2nt: Asking for doubleton, responses HML.
 - 3d: Re-transfer.
- 2nt: Max, 4+ hearts, concentration of values in spades.
 - 3d: Re-transfer.
- 3c: Max, 4+ hearts, concentration of values in clubs.
 - 3d: Re-transfer.
- 3d: Max, 4+ hearts, concentration of values in diamonds.

- 3h: To play.
- 4d: Re-transfer.
- 3h: Min, 4+ hearts.

1nt – 2h -...

- 2s: Fewer than 4 spades.
 - 2nt: Balanced invite (with an unbalanced hand, go through 2c and then 2s).
 - 3h: At least game forcing, undisclosed shortness somewhere. (3s asks, HML.)
 - 4c: 1430 RKC for spades.
 - 4d: Balanced slam try, 6 spades.
 - 4h: Either pass or correct, or a splinter. Um, don't do this.
 - 4s: Mild slam try, 6+ spades.
 - 4nt: Balanced slam try, exactly 5 spades.
- 2nt: Max, 4+ spades, weak doubleton somewhere.
 - 3c: Asking for doubleton, responses HML.
 - 3d: Re-transfer.
- 3c: Max, 4+ spades, concentration of values in clubs.
 - 3h: Re-transfer.
- 3d: Max, 4+ spades, concentration of values in diamonds.
 - 3h: Re-transfer.
- 3h: Max, 4+ spades, concentration of values in hearts.
 - 3s: To play.
 - 4h: Re-transfer.
- 3s: Min, 4+ spades.

1nt – 2s -...

- 2nt: Bad hand for clubs.
- 3c: Good hand for clubs. After either one:
 - 3c: To play.
 - 3d: Natural, exactly 4 cards.
 - 3M: Shortage, at least GF. Definitely tends to suggest 6+ clubs and precisely 3 cards in the other major.
 - 3nt: To play.

1nt – 2nt -...

- 3c: Bad hand for diamonds.
- 3d: Good hand for diamonds. After either one:
 - Pass/3d: To play.
 - 3M: Shortage, at least GF. Definitely tends to suggest 6+ diamonds and precisely 3 cards in the other major.

• 3nt: To play.

1nt – 3c -...

- 3d: No 5-card major.
 - 3h: 31(54) or maybe 3055, at least game forcing.
 - 3s: 13(54) or maybe 0355, at least game forcing.
 - 3nt: To play.
- 3h: 5 hearts.
 - 3s: Slam try, hearts agreed. Do this if you want to bid RKC for hearts, since a direct 4nt is not RKC.
 - 3nt, 4h: To play.
 - 4m: Cuebid for hearts.
 - 4s: Um, don't torture your partner.
 - 4nt: Natural pick-a-minor-ish invite.
- 3s: 5 spades.
 - 3nt, 4s: To play.
 - 4m: Cuebid for spades.
 - 4h: Slam try, spades agreed. Typically this means you want to bid RKC over partner's expected 4s, since a direct 4nt would not be RKC.
 - 4nt: Natural pick-a-minor-ish invite.

1nt – 3d -...

- 3M: Preference. By far the most common response.
- ⁹ 3nt: Highly discouraging, values concentrated in the minors. Non-forcing.
 - 4nt: Invitational. This the one auction in which responder's 4nt advance is not Blackwood.
- 4m: Excellent fit for at least one major; shows ace of bid suit and denies ace in other minor.
- 4M: Excellent fit for bid suit and both minor suit aces.

In all of these auctions, responder's advance of 3nt or 4M is non-forcing. 4m shows shortness and is a definite slam try; 4nt is 1430 double-keycard, except over 3nt as noted above.

2C Opening:

- 1. 5-card major okay if weak (9-12)
- 2. 5 diamonds always okay

2c -...

- 2d: Invitational or better relay. (By passed hand: Stayman.)
- 2M: Non-forcing constructive.
- 2nt: Relay to 3c for weak raise or game-forcing two-suiter. Over 3c:
 - Pass: To play.
 - 3d: 5+5+xx.
 - \circ 3h: x5+5+x.
 - \circ 3s: 5+x5+x.
- **3**c: Invitational (to 3nt, usually).
- 3d, 3h, 3s: Natural and game-forcing, promises a good 6-card suit.
- 3nt: To play.
- 4c: Weak.
- 4d: RKC.
- 4M: To play.

2c - (X) - ...

- XX: Business; tends to deny club support.
- 2d: Invitational or better relay, just as if no double. (By passed hand: Stayman.)
- 2M: Non-forcing constructive.
- 2nt: Invitational. Prefer this to XX with club support.
- 3c: Blocking.

2c – 2d - ...

- 2h: 4cM, any strength
- 2s: extra values, not NT-ish, requires shortness somewhere.
- 2n: NT-ish, max
- 3c: any min with no 4+M
- 3d: 5H/6+C (min by definition)
- 3h: 5S/6+C (min by definition)
- 3s: 7+ solid clubs, no keys on the side (4C asks cue outside strength, 4d asks short),
- 3nt: max, 6+C 5D (maybe 4 really chunky ones??)

p - 2c - 2d - ...

- 2h: 4 hearts.
- 2s: 4 spades.
- 2n: No 4-card major, max.
- 3c: No 4-card major, min.

$2c-2d-2h-\ldots$

- 2s: relay, promises either a GF hand or inv with 4 spades
- 2nt: NF inv with no major, usually asking for good clubs
- 3c: inv with 4 hearts
- 3d/h/s: nat 5 card suits, forcing to game

$2c-2d-2h-2s-\ldots$

- 2nt: 4 spades (now GF). 3c relay:
 - 3d: min. 3h relay, bad clubs, good clubs hi short, good clubs lo short.
 - 3h: max, bad clubs.
 - 3s: max, good clubs, hi short. 4c relay, 4126 4036, 4027.
 - 3nt: max, good clubs, lo short. 4c relay.
 - \circ 4c: max, good clubs, 4117.
- 3c: 4 hearts, min, non-forcing. 3d relay:
 - 3h: bad clubs. 3s relay, hi short, lo short.
 - 3s: good clubs, hi short. 4c relay.
 - 3nt: good clubs, lo short. 4c relay.
- 3d: 4 hearts, max, bad clubs. 3h relay:
 - 3s: hi short. 4c relay.
 - 3nt: lo short. 4c relay.
- 3h: 4 hearts, max, good clubs, hi short. 3s relay, 1426, 0436, 0427.
- 3s: 4 hearts, max, good clubs, lo short. 4c relay.
- 3nt: 1417, max, good clubs.

$2c - 2d - 2s - \dots$

- 2nt: Relay.
 - \circ 3c: 7+ C. 3d relay:
 - 3h: high short (1237, 1327, 0337).
 - 3s: relay. 1237, 1327, 0337.
 - 4c: rkc C
 - 3s: middle short (2137, 3127, 3037)
 - 4c: relay. 2137, 3127, 3037.
 - 4d: rkc C
 - 3n: low short (2317, 3217, 3307)
 - 4c: relay. 2317, 3217, 3307.
 - 4d: rkc C
 - \circ 3d: 4D. 3h relay:
 - 3s: hi short. 4c relay, 1246, 0346, 0247.
 - 3n: lo short. 4c relay, 2146, 3046, 2047.
 - 4c: 1147.
 - 3h: 1336

- 3s: 3136
- 3nt: 3316
- 3c: NF.
- 3d/h/s: 5+ nat, GF.

2c - 2d - 2n - ...

This can only be bid on maximum hands where you lack any weak shortness. Stoppers are not required in every suit. There is no longer any mechanism in 2c-2d-2s to handle balanced hands. This bid is GF. Finally, note that this tends to show good clubs or good controls; otherwise, why not just open 1nt?

- 3c: Relay.
 - 3d: 3226 or 2326. 3h relay, 2326, 3226.
 - 3h: 2236 or 2227. 3s relay, 2236, 2227.
 - 3s: 1336 (should have a singleton honor)
 - 3nt: 3136 (should have a singleton honor)
- 3d: Stopper relay.
 - 3h: H stopped, S not stopped. 3s asks if D stopped.
 - 3s: S stopped, H not stopped.
 - 3nt: At least H+S stopped, D not necessary.
- 3M: 5 card suit, GF.
- 3nt: The most common rebid. Don't relay looking for the ultimate perfecta, remember, no shortness possible

$2c - 2d - 3c - \dots$

The generic rebid. Depending on who bid 2c, this may not even promise an opening hand.

- 3d: Relay, but definitely try to avoid this, since opener's hand will always disappoint you.
- 3M: 5 card suit, GF.

$2c-2d-3c-3d-\ldots$

- 3h: high short or no short. 3s relay.
- 3s: middle short. 4c relay, 3136, x1x7, 2146/3046, 3037.
- 3n: low short. 4c relay. 3316, xx17, 3307.

2c-2d-3c-3d-3h-3s

- 3n: no shortage.
 - 4c: relay, 2236, 2326, 3226, 2227.
 - 4d: rkc C
- 4c: 1336
- 4d: 1xx7

- 4h: 1246/3046
- 4s: 0337

2c - 2d - 3d/h - ...

Transferring to 5-card M with 6C. Always a minimum. (Open 1M on a max)

- 3M: non-forcing.
- 3nt: to play
- Step 1: relay, 11, 02, 20.
- Step 2: rkc in C + M.

2c - 2d - 3s - ...

Solid suit, but enough outside to not have opened 3N. (7 solid and an ace is a 1C opener, so at most 1 ctrl outside)

- 4c: asks for outside strength (show a Q or K)
- 4d: asks for short; NHML.

$2c - 2d - 3n - \dots$

5D/6C max. Opener had the option of opening 1D, but chose not to (good clubs bad diamonds a likely reason)

- 4c: relay, 11, 02, 20.
- 4d: rkc in C + D.

2D Opening:

2d - ...

- 2h: to play. (with 4315 bid 2s over this)
- 2s: to play.
- 2nt: asking bid about opener's hand, invitational or better.
- 3c: to play.
- 3d: asking for openers better major
- 3h: preemptive
- 3s: preemptive

2d – 2nt -...

- 3c: any min (then 3d GF re-ask, 3h/s/nt as below, 4m = 4405; see below).
- 3d: max 4405.
- 3h: max 4315.
- 3s: max 3415.
- 3n: max 4414.

After shape is revealed, i.e., 2d - 2nt - 3d/h/s/nt - ... or 2d - 2nt - 3c - 3d - 3h/s/nt - ...

- 4c: puppet to 4d for a signoff (this right-sides 4M)
- 4d: Do you like your hand for slam?
 - 4h: No.
 - 4s: Yes.
- 4h: RKC for clubs.
- 4s: RKC for hearts.
- 4nt: RKC for spades.

If opener is 4405 min, then he'll end up bidding 4c himself, which throws off the above. The solution is that he bids 4c if he likes his hand for slam (over which 4d is the signoff relay and 4h + are RKC), and 4d if he doesn't (all bids signoff, except maybe 4nt?).

2M Opening:

2M - ...

- 2n: asking, responses when NV: (jogust)
 - 3c: 5 card suit, any quality preempt, 3d reasks, then 3h bad, 3s good
 - 3d: bad 6
 - \circ 3h: middle 6
 - 3s: best 6
 - responses when vul: (bogust) (BS/BH, GS/BH, BS/GH, GS/GH)
- 4c (or after jogust/bogust): modified rkc: Q, 1 w/o Q, 1 w/ Q, 2 w/o Q, 2 w/ Q

2NT Opening:

2nt -...

- 3c: To play.
- 3d: To play.
- 3h: Natural, forcing.
- 3s: Natural, forcing.
- 3nt: To play.
- 4c: To play.
- 4d: To play.
- 4h: Blackwood for clubs (0, 1, 1, 2, 2).
- 4s: Blackwood for diamonds (0, 1, 1, 2, 2).
- 4nt: 1430 for both minors (1, 0, 2, 2, 2).
- 5c: To play.
- 5d: To play.

3NT Opening:

3nt -...

- 4c/5c/6c/7c: Pass or correct. Do this even if you know the suit is diamonds.
- 4d: Shortness ask.
 - 4M: Shortness here.
 - 4nt: No shortness; then 5c pass or correct.
 - 5m: Shortness in the *other minor*.
- 4M: To play.
- 4nt: Length ask (suit assumed to be known).
 - 5c: 7.
 - 5d: 8.
 - $\circ~$ 5h: 8 plus HQ.
 - \circ 5s: 8 plus SQ.

• 5nt: 8 plus queen of other minor.

Constructive Agreements

Spiral Raises

We often raise on only 3 card support for partner's major after opening 1d. It can be important to distinguish 3 from 4 card support, and among the types of hands held for each. Spiral applies by an UPH only.

1d-1h-2h-2s

- 2nt: min, 3 card support, no shortness
- 3c: min, 3 card support, short spades (and hence 44+ in minors), non-forcing
- 3d: min, 3 card support, 5+ diamonds, some undisclosed shortness (usually clubs), nonforcing
- 3h: min, 4 card support
- 3s: max, 3 card support, spade shortness
- 3nt: max, 3 card support, club shortness
- 4c: max, 4 card support, spade shortness
- 4d: max, 4 card support, club shortness
- 4h: max, 4 card support, usually no shortness

1d - 1s - 2s - 2n

- Pass: min, 3 card support, no shortness.
- 3c: min, 3 card support, spade shortness (and hence 44+ in minors), non-forcing
- 3d: min, 3 card support, 5+ diamonds, some undisclosed shortness (usually clubs), nonforcing
- 3h: max, 3 card support, heart shortness
- 3s: min, 4 card support
- 3nt: max, 3 card support, club shortness
- 4s: max, 4 card support

Note: Responder's rebids in side suits (or 2nt over hearts, showing spades) are natural game or slam tries and imply (but do not guarantee) 5+ of his major. Bidding spiral suggests only four cards, although it may also be done with 5+. Bidding 3M is a quantitative invite with 5+ cards.

Roman Keycard Blackwood

1430 responses in general. Exceptions:

- Responses to exclusion are always 0314.
- If responder to keycard opened with a preemptive bid, responses are 0, 1 without, 1 with, 2 without, 2 with.
- The same applies if the auction begins 1c-1d and opener later bids keycard.

5nt follow-up by asker confirms all keycards and interest in a grand (not just greedily trying for 6nt); responder bids his cheapest K with 1 or 2, returns to trumps with 0, or bids 6nt with all 3. If responder shows a K, opener can bid another suit to ask about that K (not show it!). Alternatively, with a previously undisclosed source of tricks responder can simply bid a grand, though there is quite a bit of freedom to show various different kinds of holdings (after all, any seven-level bid commits to a grand, and then it's just a matter of picking the right grand). For example, say you open 1d and then spades are bid and raised, and now partner checks on keycards and then bids 5nt and you get excited because your diamonds are much better than partner has a right to expect. With AKQxxx or better in diamonds, bid 7d; with AKQxx, bid 6d and then 7d if partner signs off; with AKxxxx, say, bid 6d and then 7s. With judgment, you can often convey your exact holding, which will enable partner to count tricks accurately enough to decide between 7d and 7s and 7nt.

Cheapest non-signoff-looking follow-up asks for the queen of trumps. If responder has it, he tends to cuebid his cheapest king, or 6 trumps with nothing outside, or 5nt with no outside king but something else worth showing. However, if the queen-asking bid is at or higher than 5 trumps (this obviously is forcing to slam and therefore looking for a grand), 6 trumps denies the queen and 5nt now shows the queen with no outside king. See below for an example of this (actually, probably the only instance of this, unless they interfere). If responder denies the queen, a 5nt follow-up asks for extra trump length beyond the minimum number consistent with previous bidding (responses min, one extra, two extra). I don't expect this to happen much, and the 6h response seems particularly rare, since with two extra trumps you probably wouldn't deny the queen in the first place—it would have to be something like AKJxxxxx after 1M-2m-3M.

6x follow-up by asker confirms all keycards and interest in a grand, and asks for 3rd-round control of the bid suit. Return to 6 trumps with Jxx or worse; bid 6nt with the Q, 7 trumps with a doubleton, and raise with QJ (maybe 7nt is in the picture).

When hearts are trump, the 5s continuation (unless it is needed as the queen ask) asks for specific kings (and the spade king becomes the "cheapest" king, shown with 5nt); 5nt is the 3rd-round control-ask in spades. Also note that the 4nt bidder always has at least 1 plus the queen; with less, he risks being hosed by a 5s response. Therefore he can never stop short of slam opposite a response of 3 or 4. With that in mind:

4nt – 5d (hearts are trump):

- 5h: Q ask opposite 3, to play opposite 0
 - o pass: 0
 - 5s, 6c, 6d: Q and cheapest K
 - 5nt: Q and no side K
 - \circ 6h: no Q
 - 6nt: Q and all 3 K's (if safe)

- 5s: Specific kings (5nt = spade K)
- 5nt: 3rd-round control-ask in spades

When is something other than 4nt RKC?

- Responding to a non-club preempt, 4c is modified RKC. Responses: 0 (Q assumed if vul), 1 without, 1 with, 2 without, 2 with. The 5c continuation by responder is the appropriate ask—NOT clubs! If the opening bid is 3c or 4c, 4d is keycard with the same set of responses. Also if they interfere high enough that 4c is unavailable, 4nt is keycard but the responses are still 01122, e.g. 3s (4h) 4nt.
- When a minor is agreed at the 3-level or lower and we are in a game force, the following apply to either hand:
 - \circ 4m = Waiting.
 - \circ 4m+1 = RKC unless this is 4h and hearts is a playable strain. In that case, 4s becomes RKC.
 - \circ 4x = Cuebid, after which 4nt by partner is NOT RKC but instead conveys the message "I'm still interested in slam" (often suggests good trumps but inability to make another useful cuebid).
 - 4nt = Cuebid in the one-up suit, denies ability to make any cuebid cheaper than this. Hopefully partner can take charge.

When some bid other than 4nt is used as RKC, the following rules apply to continuations:

- Returning to trumps at the cheapest level is *always* to play.
- If a minor is trump and the response is 0 or 1, 4nt is an offer to play.
- Otherwise, the cheapest bid other than a return to trumps is the queen-ask (if applicable).
- The next available (i.e. not one of the above) bid confirms all the keycards and shows interest in a grand. Typically responder shows side kings up the line, as above, but there may be an obvious substitution principle in effect, e.g. with clubs trump, it might go 4d 4nt (2 without) 5d (king ask) 5nt (diamond K, no major K).
- Higher bids at the 5-level are 3rd-round control asks, as usual. Again, the substitution principle may apply, so make sure you figure out what all of the other bids would mean so you know what is being substituted.

Double RKC

Double RKC applies when two suits have been agreed. The responses are as usual, with the modification that possession of both key queens constitutes an extra keycard; thus 1/4, 0/3, 2/5 with neither (or 1/4 with both), 2/5 with exactly one. Currently there are a very limited number of dRKC auctions:

- After 1M-2x-3x-3M, a subsequent 4nt by either player later is dRKC.
- After 1M-2m-splinter-3M, same thing. But there's also a new twist: if it goes 1M-2msplinter, an immediate 4nt by responder is dRKC because he may not be able to support the major in a forcing way. (Note also that 4m+1 by responder is RKC in the minor, except after 1h-2d-3s; then 4h is to play, and 4s becomes RKC in diamonds.)

• After a fit jump and opener supports responder's suit.

Follow-ups are very much like you would expect them. However the king-ask has different responses, optimized for the fact that there are only two side kings: none, lower, higher, both. Generally speaking, dRKC asker can sign off in either agreed suit.

Void-showing responses

If partner of RKC bidder has a useful void that he wishes to show, the response structure depends on whether the void suit is absolutely already known from the previous bidding (e.g. responder has already splintered, or has shown length in the other three suits). Assume that 4nt was used to ask for keycards. Then if the short suit is NOT 100% known, the responses with a void are 5nt to show an even number of keycards (not counting the trump Q), and 6 of a suit to show an odd number and a void in that suit. If the void is higher than the trump suit, 6 trumps is used. Over responder's 5nt, 6c asks for the void suit (HL responses).

If the identity of the short suit IS 100% known, the responses are simply the regular 1430 responses shifted up by 4 steps (so 5nt = 1 or 4, 6c = 0 or 3, 6d = 2 without, 6h = 2 with).

Continuations are not well-defined in all cases and depend on the amount of available space. In general, bids other than 6 trumps are grand slam tries, obviously, and as natural as possible.

5nt

When strain is still in doubt, 5nt in general is "pick a slam." Partner of the 5nt bidder should suggest a strain from among the reasonable options, usually based on suit quality, and secondarily on extra length than previously indicated from the earlier auction.

When exactly one suit has been bid and raised, 5nt is the grand slam force, asking for top honors in the trump suit. The responses depend on the trump suit, but there are three guiding rules:

- 7c always shows 2 of the top 3 honors. (Note that we do not jump to 7 of the trump suit in case partner was being cute with GSF and has other plans in mind.)
- With 0 or 1 of the top 3, you may not bypass 6 of the trump suit.
- 6 of the trump suit is always the weakest possible holding, with lower bids being stronger.

So if clubs are trump, then 6c must include all hands with 0 or 1. Otherwise 6c shows the A, 6d shows the K (unless diamonds are trump in which case it shows K, Q, or none), 6h shows the Q (unless hearts are trump in which case it shows Q or none), and 6s shows none. 6nt is undiscussed and probably not a good idea to trot out unless you hate your partner; if I had to guess I would say it shows 2 of the top 3 and a possible source of tricks for 7nt.

Competitive Agreements

Doubles

Doubles in competitive auctions tend not to be penalty if there is another likely logical alternative. Most low level doubles are card-showing or competitive, and maybe at best optional. 1h-p-1s-(2x)-X and 1s-p-1n-(2x)-X are takeout (but not total minimums) as are the reopening doubles if opener passes.

Negative Doubles

In general, doubles are negative in the standard situations with one exception: 1d-(1h)-X shows 4+ spades, and 1s shows 0-3 spades but enough values to compete (usually without a heart stopper).

1s-(2h)-X-2s: could be only 5 cards

1s-(2h)-X-2s-2nt: specifically choice of minors (since a hand with both minors and hearts stopped, and the correct values to bid 2nt you would bid 2nt directly); 3m: to play.

Responsive Doubles

Our responsive doubles are takeout-oriented, with at least 2 places to play. They may include some suppressed support (especially if partner has overcalled in a minor).

Support Doubles and Redoubles

We play obligatory support doubles and redoubles (unless opener was 3rd seat, obviously) as long as we can still play in 2m.

After 1nt overcalls,

- If they play sandwich NT, then X is extras with at least some penalty interest; the cheapest cue is 3-card support for partner.
- If they play strong NT overcalls, then X is support with extra values (not obligatory).

After cuebids,

- 1d-(p)-1h-(2d): X = support
- 1d-(p)-1h-(2h): X expresses penalty interest.
- 1d-(1h)-X (showing 4+ spades)-(2d): X = support

Support by inference: 1d-(1s)-X-(2m)- X = support.

Non-obligatory support doubles:

1d-(p)-1h-(2s)-X = card-showing, but to have a good enough hand after the precision 1d, you must have support. So: support, but with significant extras.

Maximal Doubles

When we have bid and raised a suit (1st bid as opener or overcaller) then when at our second opportunity there is no room we play maximal doubles, and if there is room: bidding in the room = potentially artificial game try.

Auctions like: 1d-(1h)- X -(2h)-2s-(3h)-X = maximal also.

Lead Inhibiting doubles

If we have shown extra length/values in an auction (make sure there is absolutely no ambiguity about length/strength) then if presented with the opportunity to double a cuebid by the opponent do so only if you would prefer a different lead. Do not double simply to suggest that your suit quality/top honors are not stellar.

Transfer Advances after Takeout Doubles

1d (X) - ...

Transfers start with XX, complete low level transfers only with 3+ card support (or fewer with no other reasonable rebid)

- XX: 4+ hearts, unlimited strength (support doubles on)
- 1h: 4+ spades, unlimited strength (support doubles on)
- 1s: transfer to NT
- 1nt: transfer to clubs. Good hands with both minors start this way.
- 2c: good raise to 2D (unlimited, in fact)
- 2d: competitive
- 2m: Fit Showing (5+M, 4+D, INV, but NF)
- 2nt: natural
- 3c: weak, both minors
- 3d: weak

1h (X) - ...

Transfers start with 1nt, accept with 2+ cards, jump with 4+ card support (or 3 with extras)

- 1s: 4+ spades, natural, forcing
- 1nt: 5+ clubs (or H raise with club values)
- 2c: 5+ diamonds (or H raise with diamond values)
- 2d: good raise to 2H (including minimum 3 card limit raises)
- 2h: weak raise to 2H

- 2s: fit showing (usually 5+ spades, 4+ hearts, decent spades, inv)
- 2nt: limit+ (systems on, except 3c-3h/3nt to play and 3c-3s asks for shortness)
- 3m: fit showing
- 3h: weak

1s (X) - ...

Transfers start with 1nt, accept with 2+ cards, jump with 4+ card support (or 3 with extras)

- 1nt: 5+ clubs (or S raise with club values)
- 2c: 5+ diamonds (or S raise with diamond values)
- 2d: 5+ hearts
- 2h: good raise to 2S (including minimum 3 card limit raises)
- 2s: weak raise to 2S
- 2nt: limit+ (systems on, except 3c-3s/3nt to play)
- 3m, 3H: fit showing
- 3s: weak

Interference over 1nt

If they double (artificial) or bid 2c: systems on. If 2c showed the majors, we play UVU instead; double basically shows penalty interest in lieu of just Stayman. Obviously, just pass with a garbage Stayman hand. Pass and then double is takeout.

If they show two known suits, neither of which is the bid suit: UVU; double and then double (by either partner) is penalty; pass and then double is takeout.

If they show the bid suit and another unknown suit: treat the bid as natural, and play systems on if 2c or lebensohl/transfer lebensohl if 2d/2M (see below). Same goes if the other suit is known, but the bid suit is known to be better/longer.

If they show the bid suit and another known suit, but they don't know which is the better/longer one (DONT 2h being the obvious example): double for penalties, since they don't know whether to run. Otherwise transfer lebensohl as below.

If the interference is 2d (natural or natural-ish): regular lebensohl, double for takeout by either partner. If 2d shows either major (Woolsey), regular lebensohl as if they showed diamonds (so that 3d is Stayman), but immediate double is penalty (so that may be a better choice than 3d with balanced hands), and pass followed by double is takeout.

If the interference is 2M (natural or natural-ish, with the exceptions noted above): transfer lebensohl, as follows:

1nt - (2M) - ...

• Pass: Could be a trap pass; opener should reopen with shortness.

- X: Takeout, shows enough values to be convertible by opener. Usually shows interest in the other major with less than GF values, but e.g. 1nt (2h) X could be a hand like x xx ATxxx QJxxx, planning to pull 2s to 3c.
- 2s: To play.
- 2nt: Purely competitive with any 1-suiter lower than the overcall suit, or the stopper-showing "slow" route to 3M or 3nt as in ordinary lebensohl. Opener bids 3c, p/c.
 Exception: 1nt (2h) 2nt 3c 3s = slam try with clubs. If you have the good hand with clubs and they bid 2s, your choices are either bid 3nt and give up on clubs or 2nt and then 4c. Sorry.
- 3c: Inv+ with diamonds. Opener bids 3d to decline the invitation, or makes some descriptive bid to accept. Responder's continuations over 3d are game-forcing (we can't stop in 4d) and show shortness, not a suit. (With 4 in the other major and 5+ diamonds, start with double and convert 3c to 3d if necessary.)
- 3d: Inv+ with the other major, at least 5 cards. Opener can decline the invite by bidding 3 of our suit; anything else is game-forcing and descriptive. Responder's continuations are natural and game-forcing.
- 3M: Stayman with no stopper, just as in ordinary lebensohl.
- 3oM: GF with both minors, 55+.
- 3nt: Denies a stopper, just as in ordinary lebensohl.
- 4c: GF with clubs and the other major, 55+. Hence 3d followed by 4c tends to show 6-4 (or 5-4 and a pretty good idea that 3nt isn't the right spot).
- 4d/h: Texas is still on. The other bid ("Texas into their suit") shows 55+ with diamonds and the other major.
- 4s+: As without interference.

NT overcalls

NT overcalls are a decent 15 to 18. Systems on. ((1X)-P-(1Y)-1N = strong, about 16 to bad19). Lebensohl (or transfer lebensohl) is on if third hand bids. If they have bid 2 suits (1 major and 1 minor) then assume the major was bid for lebensohl. You may transfer to their minor in a natural sense. Transferring into their major is a stopper check.

If they open a weak two and we overcall 2nt, all bids from 3c to 3s are transfers; transfer into their suit is Stayman. If they open Multi and we overcall 2nt, 3c is regular Stayman and 3d/h are transfers.

After overcalls

New suit forcing BUPH. Cue tends to promise support. NT advances are natural and constructive (1N: 8-11, 2N: 12-13). Jump cues are mixed raises. If there are 2 suits available for cuebids, the cheaper one shows a decent raise, and the expensive one shows a much more powerful raise.

If 3^{rd} hand makes a negative double of our overcall, we play transfers just as if overcaller had opened and there was a negative double. Exception: after (1c) 1d (x) we transfer *around* 1nt (1s = clubs, 1nt = notrump) instead of transferring through 1nt. Mnemonic: put the strong hand on lead against notrump.

Michaels

Play pass-or-correct Michaels. For example, after 1s - 2s,

- 2N: constructive for the minor
- 3C: P/C
- 3D: constructive for hearts
- 3H: to play
- 3S: slam interest, usually for hearts

Vs. Artificial Strong Openers

Including Strong 1C/D, and over their control responses; Strong 1C-1D; Strong 2C; Strong 2C-2D; but NOT after 2C – control reponses.

Non-vulnerable, Psycho-Suction

- X: suit being doubled, or the next two consecutive suits (for example, 2C-X shows C or reds)
- Suit bids at all levels: suit bid or the next two consecutive suits.
- NT: non-touching suits.

Vulnerable, regular Suction

- X: suit above the one being doubled, or the next two consecutive suits (for example, 2C-X shows D or majors)
- Suit bids at all levels: any bid shows the next higher suit or the two above that.
- NT: non-touching suits.

In response to suit bids, bid to the level of the fit. Bids are pass-or-correct. If you want to show a suit of your own, bid NT at the cheapest level (attempting to get partner to relay to clubs). A bid of the "impossible" suit is a constructive try for each of the two shape possibilities.

Unusual vs. Unusual

Cheaper cue = raise, expensive cue = good hand with 4th suit.

Interference over RKC

If they double 4N or (foolish enough to) double an ask using the trump suit (happens, for example, after 2d - 2n – something – 4c - 4d - 4M), XX for business, P to suggest redouble, and other steps as before (but honestly, why waste?).

If they double other rkc asking bids, ROPI in stepwise manner, i.e., XX = 1st step, P = 2nd step, cheapest bid = 3rd step, etc.

If the interference does not reach 5 of our trump suit, then DOPI in stepwise manner, i.e. X =first step, P = 2nd step, cheapest bid = 3rd step, etc.

If they have reached/exceeded our trump suit, then play DEPO, X = even (0/2) P = odd (1/3), with more then 3 just bid more

If they have entered a 2-suit (dRKC) auction, assume the HIGHER is trump for purposes of deciding which interference handling methods to use.

If a response to RKC is doubled, then XX = penalty interest if that is a possible interpretation, P = asking for clarification of holding in X suit (XX for highest round control possible on auction, 5x (not of the trump suit) is a cue, denying 1st round control, showing something else, 5 of our trump suit shows nothing new, no control.) Bids are as they would be in RKC in absence of competition.

Against preempts

- Takeout double through 4h. Double of 4s is optional, (4s)-4n: 2+ suit takeout.
- Lebensohl by the partner of an UPH in response to takeout doubles of weak 2's. If doubler is a passed hand, 2nt is Scrambling.
- Against multi 2d: Defend as if they have shown spades. That is, double = takeout of spades, 2h = natural, 2s = Michaels. Pass and then double of hearts is takeout; pass and then double of spades is penalty.

Competitive 2nt Bids

In auctions where the opps have bid and raised a suit and we are forced to bid at the 2/3 level by partner, or opt to bid on our own under further competition after a takeout by partner, 2nt is Lebensohl. If we have had a chance but fail to bid, or did not compete after a suggestion to bid by partner, then are forced again by partner, 2nt is Scrambling.

Scrambling 2nt

Example sequences are: (1s)-p-(2s)-X-(p)-2nt: did not bid the first time, now forced by partner (1s)-p-(2s)-p-(p)-x-(p)-2nt: did not bid the first time, now forced by partner (1s)-x-(2s)-p-(p)-x-(p)-2nt: did not advance the first time, now forced by partner

Good/Bad 2nt

When one hand has opened 1d, 1h, or 1s, and at that hand's 2nd opportunity to bid his RHO takes a call of 2d or higher then 2nt = Good/Bad. 2nt shows some hand that would like to compete to the 3-level, but may not have full values to do so; it does not apply when partner has made a 2-level free bid in a new suit, thus guaranteeing sufficient partnership values for the 3 level. Responder should decide what he would do over a worst case competitive 3-level bid and bid that.

1d-(1s)-2h-(2s)-2nt = Not Good/Bad, because partner bid 2h 1d-(1s)-p-(2s)-2nt = Good/Bad 1d-(p)-1h-(2s)-2nt = Good/Bad 1d-(2s)-p-(p)-2nt = NOT Good/Bad, because RHO has not bid. Then again, what the hell is

opener doing? This auction makes no sense. I guess it's something like 6-4 in the minors, but preempter's partner is probably waiting to punish you.

Vs their 1NT

Vs strong notrump (guarantees 14+ hcp), OR by a passed hand, we play Woolsey.

- X: 4-card major, 5+ minor; or just diamonds. In balancing seat, could be (13)(45). Also, could be a very big hand (18+), planning to rebid 2nt (or double), or a big 5+ major 5+ minor, planning to jump in the major.
 - \circ 2c: pass or correct to diamonds. Over 2d, 2h is p/c for the major.
 - 2d: bid your major (not forcing!)
 - 2M: natural and constructive
 - 2nt: good hand, asking
 - 3c/3h: min/max with clubs
 - 3d/3s: min/max with diamonds
 - 3m: to play
 - 3M: invitational to game, good suit

If they bid, systems on over XX/2c. Otherwise, 2nt = bid your minor, all else natural, including double for penalties.

- 2c: both majors. Generally 5-4, could be a good 44(41).
 - 2d: asking for better/longer major
 - 2M: fairly strong preference
 - 2nt: good hand
 - 3c: min with better hearts, etc.
 - 3m: natural preempt
 - 3M: NOT invitational

If they bid, everything natural, including double for penalties.

- 2d: one major
 - 2M: p/c
 - \circ 2nt: asking (3c = min with hearts, etc.). 4M follow-up = to play.
 - 3m: to play
 - 3M: p/c

If they interfere, 2nt = as before; all else natural, double = penalty.

- 2M: 5+M with a side minor
 - \circ 2s: to play
 - 2nt: asking $(3c = \min \text{ with clubs, etc.})$
 - 3c: p/c
 - 3d: game try in a major
 - 3M: NOT invitational
 - 3oM: preemptive

If they bid, 2nt = asking for minor. All else natural (3c = clubs).

Over any of these bids:

- 3NT: to play
- 4x: Namyats

In GCC events, we can't play Woolsey, so we use Modified Joon. Double and 2c are the same as in Woolsey.

- 2d: hearts and a minor
 - \circ 2s, 3s: to play
 - 2nt: asking
 - 3c: p/c
 - 3d: game try in hearts
 - 3h: NOT invitational
- 2M: natural (2nt = game try). 2h tends to show 6; 2s could be bid on 5 spades and a side minor, which overcaller will bid over 2nt if asked.

Against a weak notrump BUPH, we use Landy: 2c for the majors, all else natural.

Vs their Flannery 2D:

- X: Diamonds.
- 2h: Takeout of hearts.
- 3d: Preemptive.
- Other: Natural.

Vs their Gambling 3NT:

- X: Penalty. Future doubles by either player are also penalty.
- 4c: Both majors, strong.

- 4d: Both majors, competitive.
- 4nt: Major-minor two-suiter, strong.

Runouts after 1NT (X = penalty)

When the opponents double our 1nt for penalty (usually a penalty double of a 1nt overcall but also of our strong notrump opening), we use inverted DONT runouts in both direct and balancing seat:

Pass = to play, or simply nowhere to go. Opener is expected to leave it in. XX = clubs or two-suiter without clubs. 2c = clubs and another 2d = diamonds 2h = hearts 2s = spades

Carding Agreements

Signals

- Upside-Down Count and Attitude vs both. First discard is usually an attitude signal in a new suit, suit preference in suits for which attitude is known/assumed.
- Primary signal to opening lead is attitude, then count, then suit preference.
- Play some trump suit preference. Trump echo may request abnormal play, show ability to ruff, give suit preference, etc.
- Give LOTS of suit preference. Your partner is watching.

Leads

Standard honor opening leads vs suits, Rusinow vs notrump.

Vs Suit

- From length: 3rd from even, low from odd.
- Top of touching honors, including A from AK.
- [xx xxx xxxx xxxx AKx KQx QJx JT9 KQT9 T9x KJTx KT9x QT9x]
- When opponents are playing in a 5+ level contract, or in obvious cash-out situations, K asks for count and should be the preferred lead from AK.

Vs NT

- From length: 4th, unless do not want suit to be led back, then highest or 2nd (when the highest is a 9, or may cost a trick). Sometimes also 5th if 4th is hard to read and if partner's misreading is not likely to cost.
- K is power lead (unblock Q or J, or give count). A asks attitude for the Q. Otherwise Rusinow.
- [xx xxx xxxx xxxx AKx KQx QJx JT9 KQT9 T9x KJTx KT9x QT9x]
- In partner's suit: 3rd from even, low from odd, top of touching honors. Partner is considered to have bid a suit naturally if he opened 1d; if 2d, then he is considered to have bid clubs naturally but not a major.

Subsequent Leads

- From length: 3rd from even, low from odd (in remaining holding) usually, but if attitude is more important, high spots to show negative attitude.
- Top of touching honors.