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.
 - o 2M: 4 cards.

- o 2nt: Max, no 4-card major.
- o 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 Error! Bookmark not defined.), usually 0-4 spades and interest in hearing opener bid again; opener's rebids are natural, except that 2nt is actually spades instead of balanced (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: Kxxxxxx or better in the bid suit.

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

- 2h: Either hearts, or a game forcing notrump hand. 2S is forced, then:
 - o 2nt shows notrump hand with systems on (Puppet Stayman, Jacoby transfers, etc.)

All other bids confirm hearts and are forcing to 3h.

- o 3h bid is not forcing and shows 4 spades
- o 3s bid is game forcing and shows 4 spades
- o 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 semi-positive 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 non-standard track due to interference. So on the 2-up track, 3nt would be (6331), 4c would be (7321)—any range and forcing—and 4d would be (7330). Higher bids are also (7330), zooming to controls but not beyond your long suit.

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 14).
 - **•** 3h: (5521).
 - **3**s: (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:

- 1. 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)

1s - 2nt (diamond shortage)

3c - 3h (6313)

3s - 3nt (minimum)

4c - 4d (2 controls)

4h - 5c (A/K S, A/K H, no more controls possible, so 5c denies QS, the next card that would be asked 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)

1s - 1nt (and hearts)

2c - 3d (5431)

3h - 3s (minimum)

4c - 4h (3 controls)

4s - 5c (A/K S, no A/KH)

5d - 5h (no A/K D)
```

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!

```
1c - 1h (spades)
1s - 1nt (and hearts)
2c - 2d (and a minor)
2h - 2nt (club void)
3c - 3d (4450)
3h - 4c (5 controls)
4d - 4h (A+KD or neither)
4s - 4nt (A+KS or neither)
5c - 5d (no QD)
```

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 shown 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. (Note that responder might well have fewer than 4 for his pull of 3nt. In that case, he just shows 4

and hopes to survive.) 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 10+ 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 = 10-11, 5c = 12-13, 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 26.) 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 3+ 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.

- 1. 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 relay-breaking 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 semi-positive 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:

- 1. 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 11, 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 without extreme strength, 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. Even if responder does not have an extreme shape, he does not zoom to controls past 3nt (unless he has significant extra strength). For example, with (443)2, responder's shape-showing bid is 3nt. Even though it is the highest possible shape, he does not zoom to controls. This can also apply to 3-suited hands.

- 7. 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.
- 8. If opener makes an RKC ask, responder can never have two keycards. So the first response set becomes: 0 without, 0 with, 1 without, 1 with.

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, regardless of meaning) -...

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, regardless of meaning) -...

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, regardless of meaning) -...

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.

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1c - (1s/2c/2d) - \dots
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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 semipositive hands so easily, and thus may stretch on the game forcing bids.

 $1c - (2h/2s) - \dots$

Pass = Either nothing to say or a penalty pass.

Double = Card showing, 6-8 hcp usually, more if no good bid. Establishes a force up to 3 of their suit (so that doubles of anything below 3M are penalty).

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.

 $1c - (3c/3d/3h/3s) - \dots$

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.

 $1c - (4c+) - \dots$

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 semi-positive at a low level) and bids are natural and GF; pass and then double is takeout, not necessarily a good hand. In particular, *if the overcall is suction or psychosuction and responder acts directly, subsequent bidding should not assume*

anything about overcaller's hand. If responder passes and then intervenor clarifies his hand (which is not always the case with psychosuction), we can bid as if they have what they have shown.

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. X 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: opener is very aggressive with a 5 card major; he MUST bid his suit below 2N if it is decent. Therefore, responder 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 = interest in penalty + ability to play in 1dXX, and pass = takeout. If the double is artificial (does not show diamonds), 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 psych-exposer (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.