J-Moscito

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Inspired by: Honeymoon Moscito by Peter Buchen, Moscito 2001 as described by Richard Willey, and discussions with Kurt Häggblom.

1 Introduction

J-Moscito is a variation of Moscito (Major Oriented Strong Club:ito), originally invented by Paul Marston and Stephen Burgess. The system uses light, limited and major-oriented constructive openings. Four cards is enough for a major opening, and you open in a major even if you hold a longer minor. This means that minor openings promise 5+ in the minor and deny four card majors. The 1 NT opening do not, contrary to other Moscito systems, even deny a solid 5 card major. The only strong opening (below 3NT) is 1♣, which show 15+hcpt and any distribution. Another important property of the system is that it is relay based, that is using one bid (the cheapest bid, with a few exceptions) as the only forcing response. It is possible to use about the same relay system after a limited opening as after the 1♣ opening, which makes it more motivating to learn. The relay system enables accurate description of distribution and controls (= aces, kings and sometimes even queens) in most situations.

As mentioned above, J-Moscito is inspired by other Moscito systems. It is more accurate than Honeymoon, and not as complicated as the 2001 version, but something in between. The shape relay responses are basically natural *transfer* bids, thus avoiding systematic description of declarers hand as in Honeymoon. The limited opening bids are also transfer bids, asking for partner to complete the transfer if he/she wants to know more about openers hand. This serves the same purpose as the shape relays, the declares hand becomes unknown in most cases.

The goal with the relays is to describe the shape of one hand under 3NT, including 5+ card suits, 4 card suits, 3 card suits, voids, singeltons or lack of these. It is seldom possible to describe shortness in two suits, and it is not always possible to make distinction between 2 and 3 cards in a suit. Furthermore, the number and the location of Aces, Kings and Queens are also possible to describe with higher bids.

A special feature with J-Moscito is that hands are initially divided into three groups based on distribution, which each are described somewhat differently

1. NT-hands, which are shown with NT bids. This includes <u>all</u> 4333, 4432 and 5332 hands, also those with a 5 card major.

2. Three suiters (4441 and 5440 distributions, denoted *marmics*), which all are shown by initially showing the longer (or if equal in length, the cheaper) major. On the first relay the short suit is shown in steps from above, starting with raise of relay, cf. the tables in section 5. Due to the limited playing strength of 4441 hands, it is recommended that 11 hcpts are needed for opening with such a hand, as with NT-hands.

3. All other distributions, which are shown with natural *transfers*, similar to the Honeymoon relay responses. The big difference to Honeymoon is that after showing/denying three card suits one start showing shortness instead of two card suits. And that some other space-saving conventions are also used. For example you never show 5+ in a suit by bidding (or actually transferring to) the suit again (as it would only reveal the location of only one card), this is always done indirectly by denying length in the other suits.

As in Moscito 2001, one always show the longer of two 4+ majors first. Longer minors are still possible in major-openings, but the longer of two 5+ minors is also shown first.

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2 Opening Bids

The J-Moscito opening bids are given below, including frequencies obtained with Hans van Staveren's dealer program. Note that 1♣ is the most common opening ! There are a few alternatives on bids from 2♢ to 2NT, probably the best of these highlighted under 3rd/4th hand openings. The openings above 2♣ are anyway free for any preferred preemptive conventions.

J-Moscito Opening Bids, 1st and 2nd seat			relay	frequency
1♣	15+	Any shape		13.7 %
1♢	9–14	4+Hearts, shorter or equal spades, longer m possible	1♡	10.1 %
1♡	9–14	4+Spades, shorter hearts, longer m possible	1♠	9.1 %
1♠	9–14	5+♣ shorter or equal ♢, no 4 card M	2♣	3.1 %
1 NT	11–14	Balanced, standard 4333, 4432 or 5332, 5 card M possible !		13.4 %
2♣	9–14	5+♢ shorter ♣, no 4 card M	2♢	2.8 %
2♢	5–10	Ekren, Majors 4-4, 5-4 or 5-5	2NT	3.2 %
2♡	5–10	5+ Hearts	2NT	4.6 %
2♠	5–10	5+ Spades	2NT	4.6 %
2NT		55+ minors or majors (or Martens)	3♡(3♢)	0.4 %
3♣/♢		4-3-2 preempts (or constructive preempts)		
3♡/♠		4-3-2 preempts (or destructive preempts)		
2♢	5–8	mini-multi, 6+M	2NT	
2♡	5–8	5+ Hearts, 4 Spades (or 5+♡ + 5+ any)	2NT	
2♠	5–8	5 Spades, 4 any suit (or 5+♠ + 5+ minor)	2NT	
2NT	5–8	55+ Any suits (or 55+ minor)	3♡	
3♣/♢		4-3-2 preempts		
3♡/♠		4-3-2 preempts		
3NT		Minor suit preempt	4♢	
4♣/♢		Namyats	4♢/4♡	
4♡/♠		4-3-2 preempts		
4NT		8+ minor, 9+ tricks, not many losers, too slammish for 3NT	5♢	

Transfer openings in 3rd and 4th seats would often lead to trouble, and relay bidding is also quite unlikely against a passed hand. Thus, relays are only on after an 1♣ opening, and other openings are quite natural.

J-Moscito Opening Bids, 3rd and 4th seat			relay
1♣	17+	Any shape	
1♢	11–16	4+Diamonds	
1♡	11–16	4+Hearts	
1♠	11–16	4+Spades	
1 NT	13–16	Balanced, standard 4333, 4432 or 5332, 5 card M possible !	
2♣	11–16	5+♣ and 4 M, or 6+♣	2♢
2♢	0–12	Ekren, Majors 4-4, 5-4 or 5-5	
2♡	0–12	5+ Hearts	
2♠	0–12	5+ Spades	
2NT	0–12	55+ minors or majors	
3♣/♢		4-3-2 preempts	
3♡/♠		4-3-2 preempts	
3NT		Minor suit preempt	
4♣/♢		Namyats	
4♡/♠		4-3-2 preempts	
4NT		8+ minor, 9+ tricks, not many losers, too slammish for 3NT	

In this table the preemptive openings which probably best fit into the rest of the system are displayed. With these openings you can open with (and describe upon relay) all 55+ hands, all 44, 54 and 64 major hands, with 5 hcp and up. It seems that the system using these preemptive conventions cover most of hands with good offensive strength.

3 Hand evaluation

This section is about 1st and 2nd seat openings and responses to these, in 3rd and 4th seat you are naturally allowed to improvise much more.

Based on strength, hands are divided into three groups: strong hands (shown with 1♣), limited opening hands (1♢–2♣), and sub-opening hands (2♢–). At the moment, hand evaluation is done based on hcp (A=4,K=3,D=2,J=1) and the opening table, with the following adjustments based on shape:

1. If you hold a 4333 shape, reduce one point

2. If you hold 10 or more cards in two suits, add one point

3. As mentioned earlier, do not open with a 4441 holding with less than 11 hcpt !

In Moscito 2001 the following point count (denoted c13) is used for hand evaluation: Ace=3, King=2, Queen=1, Jack=0.5, and 10=0.25. An opening should not contain less than 6 c13-points, and an 1♣ opening should not contain less than 9 c13-points. This can be kept in mind, but in J-Moscito two other types of point counts play a more important role:

- AKQ-controls, A=3, K=2, Q=1

- AK-controls, A=2, K=1

After a limited opening or any response to 1♣relayer can ask for number of AKQ or AK controls. In these cases the cheapest response promise the minimal number of controls (the base level) associated with the promised hcpts, see section 5.2 for more details. The most important are limited openings, which promise 5 AKQ controls and 2 AK controls, and positive responses (9+ hcpts) to 1♣ which *guarantee* 6 AKQ and 3 AK controls. It is possible to hold less controls than the base level after a limited opening, but it is unlikely. With QJ in all suits (12 hcp, 4 AKQ controls, c13=6, 0=AK controls) you should open (most likely 1NT), and hope that partner is satisfied with a game. But you must initially make a negative response to 1♣ with this holding, it serves no purpose to lie about controls after a 1♣opening. Note also that if you add a King, you sum up to 15 hcp, but to only 8 c13. So you should not open 1♣ with this holding.

At the moment suit quality is not taken into account in the selection of opening bid. After determination of hand strength the distribution does say which bid you should start with. With AKQJx in a major and 332 in the other suits, you should start with a NT-bid. Otherwise you must show a less balanced distribution (6322 or 5422), which of course can be fine in some case. With xxxx in a major and AKQJxxx in a minor you should start with a bid showing the major, you can't convince partner about your four card major otherwise. This is of course much more important after partner has opened 1♣ than if you are going to open with such a distribution (you won't be be happy when partner leads with the major against a NT-contract).

4 Responses to limited/strong openings

In this section, the initial responses to the limited or strong openings (1♣-2♣) are described. In some cases one use relay responses directly (e.g. 2♢ and higher responses to 1♣), which follow the rules presented under the next section. Recall that all suit openings deny standard NT distributions.

4.1 Responses to 1$\diamondsuit$/1$\heartsuit$

	Responses to 1$\diamondsuit$/$\heartsuit$
1$\heartsuit$/$\spadesuit$	12+hcpts (or 11+ with a fit) Game Invitational Relay (=GIR)
1$\spadesuit$	Natural, round forcing, (after 1$\diamondsuit$, implies often short $\heartsuit$)
1NT	Natural NF, 6–11 hcpts
New suit on 2-level	Natural NF, 5+ suit, 8–11 hcpts
2$\spadesuit$	6+ suit (after 1$\diamondsuit$), 0–5 hcpt
3$\clubsuit$/$\diamondsuit$	9–11 hcpts with good 6+suit. Invites 3NT with a fit.
1-raise	8–11 hcpts 3+ constructive raise
2-raise	Preemptive raise with 4+fit
3-raise	to play
2NT	8–10 hcpts 4+raise with shortage
3$\heartsuit$ – 4$\diamondsuit$	splinter with 11–14 hcpts

Passing a transfer bid without length in transfer suit might be a problem of course. It could be remedied by using 3$\clubsuit$/$\diamondsuit$ as weak jumps (with $\heartsuit$ you can pass the 1$\heartsuit$ opening). With a maximum and a fit, opener won't pass a 2-over-1 bid, so the invitational 3$\clubsuit$/$\diamondsuit$ might be quite obsolete.

Over the 2NT shortage bid showing a Major suit fit, opener bids the suit in which a shortage would help. Opener's sign-off at the 3-level denies any game interest regardless of responder's shortage. A direct bid to game implies that opener does not care where the shortage is.

Alternative responses to the 2NT shortage bid could be to let suit bids show the suit where the shortness would help the least. Opener would then be positive to two suits and not only one, which would increase the likelihood for winding up in game. The responder will be declarer in both systems, so it might actually be so that bidding the suit where the shortness would help the least helps the opponents the most in finding the correct lead.

There are a few special situations which are not that uncommon, which need some clarifications:

1$\diamondsuit$-1$\spadesuit$-? : 1NT = 4$\heartsuit$, longer minor (possibly $\spadesuit$-marmic), 2$\clubsuit$/$\diamondsuit$ = 5+$\heartsuit$, 4+suit 2$\heartsuit$ = 6+$\heartsuit$, 2$\spadesuit$= 4+$\spadesuit$, 2NT–3$\spadesuit$= same as one level lower but super-maximum.

1$\diamondsuit$/$\heartsuit$-1NT-? : 2 in suit = as above, 2NT = 4M, longer minor or marmic, maximum, 3 in suit = as above

1$\diamondsuit$-2$\clubsuit$/$\diamondsuit$-? : 2NT = 4M, 4+ other minor (could be $\clubsuit$/$\diamondsuit$-marmic), 3NT = 4M, super-maximum

As can be seen, NT-rebids by opener deny additional length in opening suit, and show 4+ in a minor (usually 5+, but it can be a 4441). Other bids are natural.

4.1.1 Passed hand responses

Opener uses almost natural openings in 3rd and 4th hand, as responder has denied opening strength. Thus, the only conventional bid used is the 2NT mini-splinter.

4.2 Responses to 1$\spadesuit$/2$\clubsuit$

Recall that these openings show 5+$\clubsuit$/$\diamondsuit$and deny 4 M.

	Responses to 1$\spadesuit$
1NT	Natural NF
2$\clubsuit$	12+ hcpts (or 11+ with fit) GIR
2$\diamondsuit$/$\heartsuit$/$\spadesuit$	8–11 hcpts 5+ suits
2NT	Invitational, asks for stoppers for 3NT
3$\clubsuit$	preemptive
3$\diamondsuit$/$\heartsuit$/$\spadesuit$	weak

Responses to 2♣	
2♢	12+ hcpts (or 11+ with fit) GIR
2♡/♠	8–11 hcpts 5+ suits
2NT	Invitational, asks for stoppers for 3NT
3♣	8–11 hcpts 5+ suit
3♢	preemptive
3♡/♠	weak

As can be seen, it is somewhat difficult to stop in a safe contract at a safe level after the minor openings. Weak jumps to the three-level is in practice rarely used, and are probably not good. The 2♣ opening lack the 1NT response, and passing is also more dangerous. In Moscito 2001 the suits are reversed, and 2♣+ always promise 6+ cards in ♣, and thus 1♠ is only 4+ in ♢, longer ♣ possible. This would probably be better, but it is of course a deviation from the transfer principle.

Asking for stoppers with 2NT is invitational and should always deny slam-interest, thus a somewhat undisciplined 3NT response is allowed. Regarding side suit stoppers, recall that opener should either have a solid suit or at least one stopper.

Responses to 1♠/2♣-2NT	
pass	minimum, only 5 card opening suit (i.e. minors 5-4)
3♣	one stopper/minimum, 3M/3NT asks if it is in M or other m
3♢	stopper in both majors
3♡	stopper in hearts + other minor
3♠	stopper in spades + other minor
3NT	6+ solid opening suit or other maximum+ hands

The pass-option could be useful, as it is possible that 2NT is the last contract making (if responder is invitational without a fit). But this means that 2NT would always be invitational, and with game-forcing strength responder must relay or gamble with 3NT.

4.2.1 Passed hand responses

Opener uses almost natural openings in 3rd and 4th hand, and responder has denied opening strength. The only conventional bid used is 2♢ after the 2♣ opening. The responses to 2♢ are 2♡/♠ = 4 card suit, 2NT = 6+ in ♣, maximum (two side-suit stoppers, 3C asks, responses as in the previous table), 3C = 6+ in ♣, minimum, 3♢/♡/♠ = 6-4, maximum, 3NT = 6+ solid ♣.

4.3 Responses to 1♣

Responses to 1♣ are either negative (0–8 hcpts), shapely semi-positive (5–8 hcpts) or positive (9+ hcpts). All positive responses are GF. The semi-positive responses should probably be replaced with positive relay steps with a club suit, both alternatives are given below, together with response frequencies.

Negative and positive responses to 1♣			frequency
1♢	0–8	1st Negative	56.2 %
1♡	9+	4+Spades (longer minors possible)	8.6 %
1♠	9+	4+Hearts (shorter Spades)	7.7 %
1NT	9+	Balanced, standard 4333, 4432 or 5332, 5M possible !	18.6%
2♣	9+	5+♢ (No 4 M)	2.6%
2♢	9+	5+♣ (No 4 M)	2.3%

If the semi-positive bids are not used, the frequency of 1♢ rises to 60.2 %.

Semi-Positive Responses to 1♣			frequency
2♡	5–8	55+ Hearts + other	1.15 %
2♠	5–8	55+ Spades + minor	0.77 %
2NT	5–8	55+ Both minors	0.38 %
3-Any	5–8	7+ suit	0.42%

These frequencies were calculated without taking into account the location of the points. It would be good to use the semi-positive responses only when the majority of the points is located in the long suit(s). The responses between 2♢ and 3NT could all show positive hands with club as longest suit, and would be exactly as the relay responses to the 2♣ relay after the 1♠ opening (showing 5+♣ and denying 4 M):

Positive responses to 1♣ showing club			frequency
2♢	9+	5+♣, 3♡	0.76 %
2♡	9+	5+♣, 3♠	0.62 %
2♠	9+	5+♣, 4+♢	0.59 %
2NT	9+	6+♣, 3♢	0.27 %
3♣	9+	9+♣, an unspecified void	0.0008 %
3♢	9+	2227	0.05 %
3♡	9+	8+♣, 1♠	0.008 %
3♠	9+	8+♣, 2♠, 1♡	0.006%
3NT	9+	2218	0.006%

As can be seen, many of these bids become almost unused if this alternative is used. Thus the semi-positive responses should actually be better in practice. For example, the sequence 1♣-3♣ occurred 8 times in the simulations consisting of 1 million 1♣ openings, which were selected among 7.3 million random hands. That is, it is a less than once in a lifetime thing.

A compromise between these two could be as follows:

Compromise version for the bids 1♣-2♢+			frequency
2♡	5–8	6+♣5+♢	low
2♠	5–8	5+ ♣+ 5+ another suit	1.15 %
2NT	5–8	The remaining 55+ two-suiters	1.15 %
3-Any	5–8	7+ suit	0.42%

This table uses same shapely semi-positive responses as after 1♣-1♢, which is of course good (see the next section). And the 2♡ must be used for something, and a 65 the in minors cannot be distinguished from a 6421 otherwise. Although it is possible to show a 55 by showing ♢ first with 2♣.

In the latest version of Moscito 2001 (from october 2002), another version is used:

Moscito 2002 version of 1♣-2♢+			frequency
2♡/♠	5–8	singlesuiter	-
2NT	5–8	two-suiter not including ♣ (same as my version)	- %
3♣/♢	5–8	singlesuiter	-%
3♡/♠	5–8	two-suiter M+♣	- %

Good things are the ability to pass or invite on 2M, less good thing is the inability to show 55+ in the minors. But the latter should actually not be that important. And 2♡ is also used up, compared with the previous table.

4.3.1   Bidding after a negative response

After 1♣-1♢ relayer's bids are as follows:
1♡ = Strong relay 19+hcpts with 1♠ = 0–5 2nd negative
        Other responses are 6–8 natural transfers and GF
1NT = 15–18 NT distribution, Joppe NT is used
1♠/2♣/♢/♡= 15–18 5+ suits, non-forcing.
Jump bids could be used for hands with extreme distributions, one- or two-suiters with a trick-taking capacity almost enough for a game. The three level bids are not round forcing, without any positive values responder may pass. The two-suited bids are constructed to be round forcing with an option for playing a 3-level contract in any of the two suits. The rule for the responses to two-suiter bids are 1st step = relay and GF, 2nd step = weak, lowest possible suit ok, 3rd step = weak, short in lowest possible suit. As 2♠ and 2NT are the bids available for two-suited bids, and 2NT can't include ♣ as 3♣ is the

relay, 2♠ must show all two-suited combinations including clubs. And 2NT then naturally show all the other combinations.

2♠ = two-suiter including ♣, responders 3♣ and 3♢ are negative correctable bids (with a good hand responder may go on), 2NT is GF and asks for the other suit (3♣ shows ♠+♣)

2NT = two-suiter not including ♣, responders 3♢ and 3♡ are negative correctable bids (with a good hand responder may go on), 3♣ is GF and openers responses are then

$$3♢ = ♢+♡$$
$$3♡ = ♡+♠$$
$$3♠ = ♠+♢$$

3♣/♢/♡/♠ = 7+ suit, responder may pass with a blank hand

3NT = to play, possibly with a solid minor

Responses to 1♣-1♢-1♡		
1♠	0–5	2nd Negative, others are GF
1NT	6–8	NT distribution (including all 4441)
2♣	6–8	4+♢(nothing about Majors !)
2♢	6–8	4+♡
2♡	6–8	4+♠
2♠	6–8	3♠, 6+♣
2NT	6–8	3♡, 6+♣
3♣	6–8	a void, 8+♣
3♢	6–8	2227 or 2236
3♡	6–8	1♠, 7+♣
3♠	6–8	1♡, 7+♣
3NT	6–8	1♢, 2218

One should notice that after one or several negative responses there is no longer enough space for showing 4441 or 5440 distributions, one have to show them as a 4432, 5431, or a 6430, depending on suit qualities. Note that the 4441-distributions could easily be included in the 1NT response, see section 4.4. It could be good if opener may assume 2-cards in all suits, but this might be most important in competitive situations. And in this particular case opps have had earlier chances for competition, and they will most unlikely not do it now after that we have been allowed to establish GF. A more important aspect is that it is good that 1NT denies shortness, and bidding like 1NT-3NT is more safe. But as it is impossible to describe 4441:s after a negative response otherwise, it should be ok to show 4441:s with 1NT.

If 4441:s are bid with 1NT, the responses to a relay after one negative response and one positive response becomes like this:

Responses to 1♣-1♢-1♡-2♣-2♢		
2♡	6–8	4+♠
2♠	6–8	4+♡
2NT	6–8	4+♣
3♣	6–8	a void, 8+♢
3♢	6–8	2272 or a 2263
3♡	6–8	1♠, 7+♣
3♠	6–8	1♡, 7+♣
3NT	6–8	1♣, 2281

As can be seen there will be some redundancy regarding the responses 3♣-3NT and the direct semi-positive responses telling a long suit (and similarly one cannot have a 55+ two-suiter). One can introduce some suit-quality restrictions in the direct semi-positive responses, if one wish.

After 2nd Negative relayer's bids are:

1NT = 19–22 NT distribution, Joppe NT is used

2♣= Strong relay 23+hcpts with 2♢ = 0–2 3rd negative

Other bids are 19–22, natural and non-forcing.

Responses to 1♣-1◇-1♡-1♠-2♣		
2◇	0–2	3rd negative, others GF
2♡	3–5	4+♠
2♠	3–5	4+♡
2NT	3–5	NT distribution (3♣ is Baron)
3♣	3–5	4+◇
3◇	3–5	2227 or a 2236
3♡	3–5	0-1♠, 6+♣
3♠	3–5	0-1♡, 6+♣
3NT	3–5	0-1◇, 6+♣

After 3rd Negative, relayer may GF with the super strong relay 2♡ and responder is forced to describe his hand, even with a Yarborough. Other bids are natural and virtually GF.

Responses on 1♣-1◇-1♡-1♠-2♣-2◇-2♡		
2♠	0–2	5+♠
2NT	0–2	NT distribution (3♣is Baron)
3♣	0–2	5+♣
3◇	0–2	5+◇
3♡	0–2	5+♡

The table is completely natural as can be seen, the level is too high for relays. One could use the next relay as a shortness ask, as this is by far the most useful feature in a hand with 0–2 hcpts ! As earlier, first bid denies, the following bids show in steps from above.

4.3.2   Passed Hand Responses to 1♣

The 1♣ opening in 3rd seat now shows 17+ hcpts as responder has denied 10 or more hcpts. The responses are then:
1◇ = 0–6 1st negative (and corresp. HCP adjustment for later bids)
1♡ + = 7–9 GF (1NT = 7–10 hcp)
The control base counts (see section 5.2) are 3 and 1 respectively for 7–9 hcpts (same as 6–8), and 1 and 0 for 4–6.

4.4   Responses to 1NT

Three versions of NT-responses are suggested:

1. Joppe-NT (http://www.abo.fi/~jboling/bridge/joppeNT.pdf) when GF is not already established (i.e 1NT, 1♣-1◇-1NT, 1♣-1◇-1♡-1♠-1NT, in all cases when opener show NT-distribution on the 1 level).

2. When NT distribution is revealed at the 2 level (i.e. 1♣-1◇-1♡-1♠-2♣-2NT, 1♣-1◇-1♡-1♠-2♣-2◇-2NT, or 1♣-1◇-1♡-1♠-2♣-2◇-2♡-2NT) Baron 3♣is used.

3. The system below when GF is established (i.e. 1♣-1NT and 1♣-1◇-1♡-1NT, when responder show NT-distribution on the 1 level after an 1♣ opening)

Responses to 1♣-(1◇-1♡-)1 NT-2♣, GF is established	
2◇	4+♡
2♡	4+♠ (denies 4♡)
2♠	4+♣ (denies 4 M)
2NT	4+◇ (denies other 4 suit)
Responses to (...-)1 NT-2♣-2◇-2♡	
2♠	4♣
2NT	4♠
3♣	4◇
3◇	3523 (2-card suits are bid directly, cf. Joppe-NT)
3♡	3532 (long suit replaces ♣)
3♠	2533
3 NT	3433
Responses to (...-)1 NT-2♣-2◇-2♡-2♠-2NT	
3♣	3424 (3-card-suit shown from above in steps, ...)
3◇	2434 (... as unbalanced two-suiters)
3♡	1444 (shortness from above in steps)
3♠	4414

Other distributions are shown using the same principle (4+suit-relay-3NT is always 4333, 4+suit-relay-3◇/♡/♠ is always 5332 with 2 cards in bid suit, long suit replacing ♣ when necessary, lower bids are transfers to second 4-suit, when upon relay 3-card suit is shown from above in steps)

If 4441-distributions are included in the 1NT bid (as were suggested after 1♣-1◇-1♡-1NT, in order to save space). Bidding of two of the 4441:s are shown in the table, the other twos are shown with the following sequences:

1♣-1◇-1♡-1NT-2♣-2◇-2♡-2NT-3♣-3♠ = 4441
1♣-1◇-1♡-1NT-2♣-2♡-2♠-2NT-3♣-3♠ = 4144

Other responses after game forcing 1NT are not decided, the easiest way is to use Joppe-NT for the other responses (which makes weaker hand declarer). The bid 2NT would be undefined however (cannot be invitational), could be used as minimum balanced (15–18 or 19–22), please bid 3NT if no further investigation is needed. The bids 3♣-3♠ could probably be 5431 bids, that is showing a 5431-like distribution with shortness in bid suit, 5+ in a minor, at least 3 in the unbid major(s). Another possibility is to use all other bids except 2♣ as reverse relays, describing openers hand, which naturally is unbalanced with shortness (no-shortness bid would fall out).

Relay bids above those defined in the 1 NT-systems are control relays, see section 5.2. for definition of control relays. The highest possible bid defined as a shape relay is 3◇, but it is also the lowest possible control relay. That is, all relays above 3◇ are control relays, and all relays below 3◇ are always shape relays. The meaning of 3◇ relay depends on the situation, in the GF 1NT version above does control relays start after you have described your exact shape. In Joppe-NT it is not always to describe your exact shape, for example in 1NT-2♣-2♡-2NT-3♣-3◇ the last bid is a control relay, as it is not defined as a shape relay.

After Baron 3♣ it is probably not beneficial to use any control relays, standard natural techniques (cue bids and RKCB) should be enough. One could possibly define 4♣ and 4◇ as AKQ and AK control asking bids respectively, but this is for now considered an unnecessary complication.

5 Relays

The following is a list of rules which apply in all relay auctions:

1. Relayer initiates and continues relays by bidding the lowest available bid (which is usually the same as completing the transfer). There are a few exceptions, 3NT is always to play, 1NT is usually natural and non forcing (if GF is not already established) and 1♣ initiates relays immediately.

2. Relayer may break-out of relays by bidding anything other than the relay. A break-out is a natural bid and tends to deny slam interest. Note also that break-outs to 4NT and 5NT are to play.

3. All relay auctions are GF (even after a break-out) with two exceptions:

   (a) After 1♣ Opening: Break-out after a negative response.
   (b) Other Openings: Break-out after only one relay.

4. There are two types of relays: shape relays and control relays. The last shape relay allowed is 3♢, except when 3♢ shows a unspecified void when 3♡ ask for location of the void (occurs only with two-suited hands). All relays from 3♡ and up to 6♠ are control relays.

5.1 Shape Responses

This section concerns mainly unbalanced hands, NT-distributions are shown by lowest NT-bid in all situations (e.g. 1NT and 1♣-1NT), responses to 1 NT are described under section 4.4. Failing to bid lowest NT at first possible instance shows an unbalanced pattern. The objective with shape responses is to get as much of your shape across to the relayer as possible, so that your last response finishes somewhere in the range 3♢ to 3NT.

1. In relay bidding, the motivating principle is *space–saving*. That is, responder should try to make the cheapest bid available which is consistent with the hand pattern. In fact, failing to make the cheapest bid, implies that this bid is incompatible with the hand pattern held.

2. The general principle is to first show/deny 4+ card suits, then exactly three card suits, and then switch to showing/denying shortness. This means that two cards in a suit are never shown directly (there are exceptions in the NT-systems, e.g. 5332 is shown by bidding the short suit), only indirectly by denying three cards and shortness ! This can also mean that additional length in the primary suit is seldom directly shown, in most cases this is shown by denying length in some suits and/or showing shortness in other suits.

3. There are a number of artificial responses:

   (a) Three suiters (marmics), which are showed by opening a major and upon relay: raise of relay = other-major marmic, raise of relay + 1 = diamond marmic, raise of relay + 2 = club marmic. That is, shortness is shown from above in steps. The bid below raise of relay (= raise of opening bid) is a borderline bid, which deny 4 cards in all side suits, and thus promises 6+ in openings suit (5332 and 4333 are shown with 1NT).

   (b) After showing two 4+ suits, the first relay response show exactly four in opening suit and longer second suit (i.e. a canape). This is only possible after showing a Major+minor hand, with M+M and m+m the second suit cannot be longer, and this canape-step drops out. The second step after relay show a 5-5 or a better distribution. All higher responses show exactly 4 in second suit, and another feature (three cards, an unspecified void, no shortness, or a specific singelton, see below) and indirectly the length in the first suit.

   (c) An unspecified void and a hand without shortness are shown with two bids between showing three cards in all suits and showing specific singeltons. The original idea was to show a void, then singeltons, and finally deny shortness with 3NT. It was however found that after showing a hand without shortness one often want to play 3NT if responder is minimum, but still want to check if responder has a little bit extra. After showing a specific singelton (which also is less common than no shortness at all) 3NT is less likely to be the optimal final contract. Furthermore, after showing an unspecified void the no-shortness-bid becomes a relay bid, and the same bids which as direct bids show specific singeltons now shows void in the same suit.

4. 4+ suits (and 3 in M, after a minor opening) are showed using natural transfers, but obviously there is some redundancy in the use of ♠ or NT. After showing length in one suit (see the examples) and a relay by relayer, the three first relay response steps show length in the side suits. The following rules are used for showing 4+ suits in the situations when there is no obvious transfer to a suit:

   (a) If ♡ is the first available response, it shows ♠, ♠ show ♡, NT show ♣, ♣ show ◇.

   (b) Related to the previous, after showing ♡ with 1♠ and 1NT relay: 2◇ does not show hearts again, it shows the suit which is not otherwise possible to show in the three first steps: clubs ! Other suits can in this situation be shown with natural transfers; 2♣=◇, 2♡=♠.

   (c) If ♠ is the first available response, ♠ show clubs and NT spades (don't want to bid spades with spades). For example 1◇-1♡-1♠= ♡+♣, and 1◇-1♡-1NT = ♡+♠.

5. After showing/denying 4+ cards in every suit (or showing a 5-3 minor-major after a minor opening), and excluding all artificial responses mentioned above, the following general principle is to show/deny features in steps, starting with the highest possible suit. This includes 3 card suits (or even 4+ in the above 5-3 example), specific shortness, and the last unrevealed card (e.g after showing 444, or 543).

6. After showing/denying three cards in all suits, one start showing/denying shortness instead of two cards. This occurs in a number of situations, which are illustrated in the following tables (which also illustrate all artificial responses but the three-suiters):

Responses after denying length in 3 suits	
3♣	an unspecified void (if there is enough space for this bid)
3◇	corresponding 7222 (or sometimes a 6322)
3♡	1 or 0-1 in highest suit
3♠	1 or 0-1 in middle suit
3NT	1 or 0-1 in lowest suit

Responses after showing 6+ in one suit and exactly 3 cards in another suit	
3◇	an unspecified void (if there is enough space for this bid)
3♡	corresponding 6322
3♠	1 or 0-1 in the highest suit
3NT	1 or 0-1 in the lowest suit

Responses after showing 4+ in two suits	
2♡	canape
2♠	55+
2NT	3 cards in highest suit
2♣	3 cards in lowest suit
3◇	an unspecified void (if 55+ is already denied)
3♡	corresponding 5422
3♠	1 or 0-1 in the highest suit
3NT	1 or 0-1 in the lowest suit

Note in the last table that after showing canape and a relay bid, the following bids show the same as the direct bids, except that the two long suits exchange places. Similarly, when showing a void and a relay bid, the same bids which as direct bids show singelton in a suit, now show a void in the same suit.

There are situations when bids drop out due to lack of space, and then one prioritize as follows: a) no shortness + shortness bids b) 4+ suits or canape/55+ bids (only one is possible at a time) c) void-bid d) three card suits (lower suits drop out first).

There are also situations where these bids start at a lower level, when there will be undefined bids. For example 1◇-1♡-1♠-2♣-?, when 2◇ show canape, and all other bids are also one step lower (3♠ being the last defined bid). One could also let lower bids be undefined (e.g. 2◇ in the example above), which would give the bids 3◇- 3NT always the same meaning, which could be easier to remember.

Summing up, these rules apply both for openings and responses to a 1♣ opening. The logic is that if you don't show, then you deny.

1. Show a NT distribution (4432, 5332 or 4333) by bidding lowest NT-bid.

   - NT responses apply, Joppe, Baron or full precision relay, see under section 4.4.

2. Show a 4+ major, and after a relay

   (a) Show a three suited distribution with artificial responses (shortness from above, starting with the fifth step = raise of relay bid), see below.

   (b) Show an other 4+ suit

      i. Show canape, if it is possible (M+m and not M+M or m+m) by bidding lowest bid
      ii. Show 55 (65, if one suit is known to be longer) or better by bidding next bid
      iii. Show 3 card suits in steps, starting with highest suit
      iv. Show an unspecified void, upon relay show from above
      v. Show two cards in the remaining suits (corresponding 5422)
      vi. Show a specific singelton from above

   (c) Show 6+ in opening suit with the fourth step (needed as a borderline before three suited responses)

      i. Show a 3 card suit from above
      ii. Show an unspecified void
      iii. Show two cards in the remaining suits (7222)
      iv. Show a specific singelton from above

3. Show a 5+ minor, and after a relay

   (a) Show a 3 card major with 2◇(=♡) and 2♡(=♠) or with 2♡(=♠) and 2♠(=♡), not from above as in all other situations ! As three cards in a major is the maximal number after a minor opening, it is shown as a 4+ in other situations.

      i. Show 4+ card other minor
      ii. Show another 3 card suit from above (starting with other major, which thus come after 4+ other minor and before 3 card other minor)
      iii. Show an unspecified void
      iv. Show two cards in the remaining suits (6322)
      v. Show a specific singelton from above

   (b) Show 4+ card other minor

      i. Show 55 or better
      ii. Show an unspecified void
      iii. Show two cards in the remaining suits (5422)
      iv. Show a specific singelton from above

   (c) Show 3 cards in other minor

   (d) Show an unspecified void

   (e) Show (at least) two cards in the remaining suits (7222 or sometimes a 6322)

(f) Show a specific singelton from above

If there is not enough bidding space, prioritize as follows (concerns the bids 2NT to 3NT):

1. No shortness bid + shortness bids

2. 4+ suits or 55+ bid (only one of these is possible at a time)

3. any void

4. 3 card suits (lower drops out first)

After one (or several) negative responses to 1♣ there are some slight (or, after several negatives, large) modifications in the bidding, see under responses to 1♣.

5.2 Control Responses

Shape responses will always finish somewhere in the range 3♢ to 3NT. Relayer's further relays are control relays. There are two control relays based on what relayer feels he needs to know:

1. 1st step = AKQ–ask (using A=3,K=2,Q=1)

2. 2nd step = AK–ask (using A=2,K=1)

Naturally, one can exclusively use one type of controls, if this is preferred. However, in all cases one must remember that 3NT by relayer always is to play (if responder has less than 15 hcpt, otherwise responder must zoom, c.f. section 5.3). For example, if the last shape response is 3♠, 4♣ is a AKQ-ask and 4♢ is a AK-ask. If the bidding started with 1♣, responder replies according to the following table:

Control responses after an 1♣ opening					
HCPs	0–2	3–5	6–8	9+	15+
AKQ	0	1	3	6	9
AK	0	0	1	3	4

Thus, if responder is known to hold 9+ hcpts and relayer asks for AKQ controls, the first step shows 6, the 2nd-step shows 7, the 3rd-step 8, etc.

Originally the base levels were 0, 2, 4, 6, 9 and 0, 1, 2, 3, 4, which would have been easier to remember. A good memory rule is that holding one Ace, one King and one Queen (=9hcp) sums up to both base levels for a positive response to 1♣. After this it is easy to deduce the original table, and then subtract one for each limited hand. This concerns also a limited opening (9-14 hcpt), the base level is 5 for the AKQ and 2 for the AK controls. A hand with 9 hcpt almost always reach these lower base levels, while a positive response to 1♣ explicitly promise 6 AKQ- and 3 AK-controls. A hand with four queens and four jacks and nothing else is problematic, but one cannot give a 9+ positive response to 1♣ with such a hand. It is too little slam-oriented for this purpose, and if 1♣ opener has almost all relevant Aces and Kings, he will most certainly ask for AKQ-controls even if you start with a negative response ! And in all other cases you simply do not stop below game.

Relayer often uses the AKQ ask just to check on responders hand strength. A good rule is: Total hcpts = 1.5 times AKQ count (a bit pessimistic, jacks are not taken into account).

NOTE: If relay responder show ten or more cards in two suits and 9+ or 15+ hcpts, subtract one point from the AKQ-base counts ($6 \leftarrow 5$ for 9+ hands and $9 \leftarrow 8$ for 15+ hands). This is a quite good rule, but if it seems too difficult to remember, it is of course possible to not use the rule.

1. Having obtained the number of controls, later relays request their location by *denial cues*. That is, each bid deny a control in a specific suit. The control denied always matches relayer's control ask (i.e. AKQ or AK). Any bids skipped infer that a control is held in that suit. Suits are placed in length order, starting with higher suits if equal length is shown, see the examples.

2. Relayer may continue requesting denial cues to locate second and third controls held in a given suit. If responder has denied a control in a suit, then that suit of course drops out of later cycles. The last possible denial cue relay is 6♠. All bids from 6NT and up are to play.

5.3 Zooming

Sometimes, after getting responder's shape, relayer will attempt to sign-off in game without checking for controls. Over all openings other than 1♣ this will not present a problem, because relay-responder cannot have more than 14 hcpts. However, a positive response to a 1♣ opening shows 9+ hcpts and is unlimited. Relayer's sign off in game (without checking for controls) is based on the assumption that responder is limited to 9–14 hcpts. If responder has in fact more than 14 hcpts, he must not Pass the sign-off. Responder must then *zoom*, that is bid on. His bids are based on the assumption that relayer's sign-off is an AK-control ask. Since responder has 15+ hcpts the first step shows 4 controls. Similarly does relay responses above 3NT show the distribution that 3NT would show, and 15+ hcpt, and 4+ AK controls. This allows the relayer to pass on a 3NT response, as it denies 15 hcpt. It is of course possible to use AKQ-controls as well, must be decided.

5.4 Reverse relays

This is a nice and quite necessary part of the system, but it is still somewhat under construction.

After a 1♣ opening and a positive response, you normally continue the relay sequence for gathering as much information about responders hand as possible. There are however situations when slam evaluation from the openers point of view is especially difficult (below 3NT). This occurs when opener is short (0-1 cards) in responders first suit, does responder have xxxx or KQJx in his suit ? Opener can't decide this below 3NT (which could be the last resort), while responder knows it by looking at his cards. Reverse relays are suggested in these situations in Moscito 2001. This means that the 1♣ opener starts to describe his hand (bids above the first step) instead of asking about responders (which he does with the first bid). This promises always 0–1 cards in responders suit. An example hand (from Moscito 2001), first with normal relays:

Hand		Auction	
Opener	Responder	Opener	Responder
♠ —	♠ Qxxxxx	1♣	1♡(=4♠)
♡ Axxx	♡ KQJ	1♠	2♡, (=6+ ♠)
◇ KQJxxx	◇ Axx	2♠	2NT, (=3 ♡)
♣ Axx	♣K	3♣	3NT (=1 ♣, 2-3 ◇
		???	

The responder could almost zoom in this case, but if you remove queen of spades, it is definitely wrong to zoom, and it does not change the fact that 7◇ is easy. A reverse relay auction could follow the same principles as usual:

Hand		Auction	
Opener	Responder	Opener	Responder
♠ —	♠ Qxxxxx	1♣	1♡
♡ Axxx	♡ KQJ	2♣(=4+◇, 0–3 ♣, 0–1 ♠)	2◇
◇ KQJxxx	◇ Axx	2♡(=4+♡)	2♠
♣ Axx	♣K	3◇(=4♡, 6+◇, a void)	3♡(= show which void from above)
		3♠(=0 ♠, 6–9 ◇, 0-3♣)	4♣
		4♡(=9 AKQ controls)	4♠(♣or ◇Q ?)
		5♠(=◇♡♣◇+no 2nd ♡)	7◇

Note that opener has shown 10 cards in ◇+♡, which means that his base AKQ count is 8. The trickiest part is that one have to take into account that it is known that the ♠-suit is short, and thus falls out from suit length responses. After the first response (2♣) it is known that opener has less than 4 ♣ and 4+◇. Thus the opener must have 4+♡ or a one suited 6+◇-hand, and the responses on 2◇ should be 2♡ =4+♡, 2♠ = 3♡, 2NT = 3♣, 3♣ = a void, 3◇ = 1282, 3♡ = 1♠(a bit noninformative, but any new complications are avoided), 3♠ = 1♡, 3NT = 1-2-10-1. The responses on the 2♠ relay are: 2NT = canape, 3♣ = 55+, 3◇ = an unspecified void, 3♡ = 1462 or 1453, 3♠ = 1♠ (i.e. the same as 3♡, complications are avoided ...), 3NT = 1471.

Reverse relays are problematic if responder with a positive club-hand show side-features directly using the bids 2◇–3NT. This would speak for using 2◇ as the only positive club bid (and higher bids as shapely semi-positives).

5.5   Responses to major relays

After showing a 4+ major, and relay by responder, the three first steps show 4+ in another suit with transfers. The fourth step denies 4+ in all side suits, and it thus indirectly shows 6+ in the opening suit (5332 and 4333 are shown with initial NT-bids).

Three-suiters (4441 or 5440, marmics) are shown with the following three bids, by bidding shortness in steps from above. That is, raise of relay is a major-marmic, the next step is a diamond marmic, and the step after that is a club marmic. Note that you start with showing the longer major, or if they are equal, you start with the cheaper. This implies that after showing the more expensive major and a minor marmic, it means that you hold a 5440.

The benefit with these specific Marmic-bids is that after showing two 4+suits in a normal fashion, 4 cards are denied in the remaining suits ! The precision of the relays-answers are improved quite much this way. The drawback is that it is sometimes difficult to stop below game after a Marmic-response, so one need to be prepared for a three level contract against a 12 misfit. That is, a 4441-hand should not be opened with less than 11+hcpts (which is in line with the 11-14 1NT).

Responses to 1◇-1♡	
1♠	4+♣ (Spades are not bid directly)
1NT	4+♠ and 5+♡ (4-4 impossible)
2♣	4+◇
2◇	6+♡(5332 and 4333 are opened 1NT)
2♡	♠-Marmic
2♠	◇-Marmic
2NT	♣-Marmic

A Marmic-showing bid specifies 12 of 13 cards, the location of the last card can be found by relaying, upon which the last card is shown from above in steps. Note that 5440 and 5404 are shown with an initial 1♡ bid (cf. the following table) ! That is, the last card cannot be a ♠ in a ◇ and ♣ Marmic opened with 1◇.

Responses to 1♡-1♠	
1NT	4+♣
2♣	4+◇
2◇	4+♡and 5+♠(44 impossible)
2♡	6+♠(5332 and 4333 are opened 1NT)
2♠	♡-Marmic
2NT	5404 (with 4414, you open 1◇)
3♣	5440

As can be seen from these tables, if one after the first relay find that opener has a 6+M, the next relay is always 2M. And if one wants to invite in the major, you have to bid 3M. It could be possible to use the relay response 2M as 6+M and minimum, and move marmics one step up (which already promise 11-14 or a void). And thus avoid the dangerous 3-level, when no game is likely. But this is a complication, of course ...

If your partner has opened 1♣, hearts and spades exchange roles, as spades can be shown at a lower level in this case ! Otherwise, the tables are very similar.

Responses to 1♣-1♡-1♠	
1NT	4+♣
2♣	4+♢
2♢	4+♡ and 5+♠ (44 impossible)
2♡	6+♠ (5332 and 4333 are shown with 1NT)
2♠	♡-Marmic
2NT	♢-Marmic
3♣	♣-Marmic

Responses to 1♣-1♠-1NT	
2♣	4+♢
2♢	4+♣ ("♡-bid" replaces "impossible" suit)
2♡	4+♠ and 5+♡ (44 impossible)
2♠	6+♡ (5332 and 4333 are opened 1NT)
2NT	♠-Marmic
3♣	4504
3♢	4540

If four cards are denied in all suits but the opening suit (which then is known to be 6+), one start to show/deny three card suits and then shortness.

Responses to 1♢-1♡-2♢-2♡	
2♠	3 ♠
2NT	3 ♢
3♣	an unspecified void, 9+♡
3♢	2722
3♡	1♠
3♠	1♢
3NT	1♣ = 2821

Three card suits are always (with one exception, after minor openings, see later) shown from above. The void is specified, upon 3♢ relay, using the same bids and same descending suit order as the singleton-showing bids. In the case of lack of space, shortness is prioritized in front of 3 card suits, here the case with least bidding space.

Responses to 1♣-1♠-1NT-2♠-2NT	
3♣	an unspecified void
3♢	2722 or any 3622
3♡	1♠
3♠	1♢
3NT	1♣

When receiving the response 3♡, showing 1♠ and denying voids, the possible distributions occur with the following likelihoods (not taking into account which of ♣ and ♢ is longer): 1633 = 61 %, 1732 = 33 %, 1822 = 3.4 %, 1831 = 2.1 %, 1921 = 0.32 %, 1-10-1-1 = 0.007 %.
After showing a exactly three card suit (and indirectly a 6+ or sometimes a 5+ suit after a minor opening) another three card suit and shortness are shown/denied using the same logic:

Responses to 1♢-1♡-2♢-2♡-2♠-2NT	
3♣	3 ♢
3♢	an unspecified void, 8+ ♡
3♡	3622
3♠	1♢
3NT	1♣= 3721

5.5.1 Relay responses after showing two 4+suits

After learning about that responder has two 4+ suits, the responder cannot have 4 cards in any of the remaining suits. Thus, responders next task is to inform relayer about three things: a) The length of the two long suits (54, 45, or 55+) b) three card side suits c) shortness in the other two suits. These features are shown in steps. The rules for the order in which this is done has been given in section 5.1, here some examples are given:

Responses to 1♢-1♡-1♠-2♣(=4+♡+4+♣)	
2♢	4♡and 5+♣
2♡	55+
2♠	3♠
2NT	3♢
3♣	an unspecified void
3♢	2524
3♡	1♠, 1624 or 1714
3♠	1♢, exactly 2416

Note here that 1♢-1♡-1♠-1NT is natural and invitational, probably a misfit, and not a relay ! Note also that the void-bid is the same as raise of relay (=fifth step), but it is never higher than 3♢. With 2♡ and 2♠ as relays after showing two 4+ suits, 3♢ is always the void bid (three card bids drop out). With even higher relays, the void bid drop out.

After the canape bid and a relay, the bids show exactly the same distribution in the other suits, but the long suits exchange length. Similarly, after showing a void and a relay bid from relayer, the same bids which earlier showed a singelton now show a void in the same suit. Note also that if at most one card is unrevealed (after 2♠and 2NT), the last card is shown in steps in descending order. Furthermore, the number of cards in two suits are almost always known, so only two relay responses are needed. An example:

1♢-1♡-1♠-2♣-2♠-2NT-?
3♣= 3604
3♢= 3514

After the 55+ response, the same logic as earlier is used:

The 55+ scheme, an example	
Responses to 1♢-1♡-1♠-2♣-2♡-2♠(=5+♡+5+♣)	
2NT	3♠= 3505
3♣	3♢= 0535
3♢	an unspecified void
3♡	1615 or 1516
3♠	1♠= 1525
3NT	1♢= 2515

The only discrepancy with earlier is that the no-shortness bid is replaced with a equal-length bid, when the former is not possible. A drawback the suggested 55+ scheme is that you never learn which suit is longer, hopefully 5 cards is enough in one of the suits. The likelihoods for the possible 55+ distributions are (not taking into account which of the short suits is longer): 5521 = 56.5 %, 5530 = 15.9 %, 6511 = 12.6 %, 6520 = 11.6 %, 7510 = 1.9 %, 6610 = 1.3 %, 7600 = 0.1 %, 8500 = 0.055 %.

The tables above showed the "lowest" 4+-4+, how about the others ? Lets try the most space consuming 4-4:

Responses to 1♣-1♠-1NT-2♦-2♡ (=4+♡+4+♣)	
2♠	4♡ and 5+♣
2NT	55+
3♣	3♠
3♦	an unspecified void
3♡	2524
3♠	1♠, 1534, 1624 or 1714
3NT	1♦, exactly 2416

Here we lose the ability to show 3♦, which introduces some inaccuracy. The responses after showing other 4-4 holdings are not any higher. Note that after a positive response on an 1♣ opening does 1NT not have to be natural and nonforcing when GF already is established ! All major-minor combinations, including the second relay:

1♦-1♡-1♠-2♣= 4+♡ and 4+♣
1♦-1♡-2♣-2♦= 4+♡ and 4+♦
(1♣-)1♡-1♠-1NT-2♣ = 4+♠ and 4+♣
(1♣-)1♡-1♠-2♣-2♦ = 4+♠ and 4+♦
1♣-1♠-1NT-2♣-2♦ = 4+♡ and 4+♦
1♣-1♠-1NT-2♦-2♡ = 4+♡ and 4+♣

When showing both majors or both minors, it is known that the suit shown first is longer or equal, at least 5 cards, and a canape is impossible. Thus the first bid shows 5+ in the second suit.

Responses to 1♦-1♡-1NT-2♣(=5+♡+4+♠)	
2♦	5+♠, 55+ scheme apply, others show exactly 4 ♠
2♡	3♦
2♠	3♣
2NT	an unspecified void
3♣	4522
3♦	1♦ = 4612 or 4711
3♡	1♣ = 4621

If the suits are shown in a uneconomical order it means that it is known that one suit is longer, and 5+ in the shorter suit implies 6+ that is you know that the suits are 65 at least. Then it is no longer possible to have three card suits, and these steps fall out from the 55+ scheme. Some other small modifications occur also:

Responses to 1♡-1♠-2♦-2♡ (=5+♠+4+♡)	
2♠	5+♡ and 6+♠, modified 55+ scheme apply, others show exactly 4 ♡
2NT	3♦
3♣	3♣
3♦	an unspecified void
3♡	5422
3♠	1♦
3NT	1♣

Modified 55+ scheme, an example	
Responses to 1♡-1♠-2♦-2♡-2♠-2NT (=6+♠+5+♡)	
3♣	7501 or 7510, void is shown from above
3♦	6511
3♡	0♦= 6502
3♠	0♣= 6520

This is bit nonstandard, but what else could it be when we have at most two cards in two suits ?

5.6 Responses to minor relays

In this case four card majors are already denied in the opening bid. Thus the transfers to majors show exactly three cards. As no marmic bids are needed in this case, one start showing/denying shortness directly, some examples:

	Responses to 1♠-2♣
2♦	3♡
2♡	3♠
2♠	4+♦
2NT	3♦
3♣	void in a suit, 9+♣(3 cards are denied in all side-suits)
3♦	2227
3♡	1♠, 8+♣
3♠	1♡, 8+♣, 2♠
3NT	2218

As 3 cards in a major are showed before 4+ in the other minor the relay responses get the following meanings

	Responses to 1♠-2♣-2♦-2♡
2♠	4+♦
2NT	3♠
2♣	3♦
3♦	void in a suit, 8+♣
3♡	2326
3♠	1♠, 7+♣
3NT	2317

Note that four in other minor are shown using the first response ! Normally one can no longer have four cards in a suit after showing a "two-suiter", thus the situation is quite special.
The responses to 2♣-2♦ and 1♣-2♣-2♦ are identical

	Responses to (1♣-)2♣-2♦
2♡	3♠
2♠	3♡
2NT	4+♣
3♣	an unspecified void
3♦	2272 or 2263
3♡	1♠, 7+♦
3♠	1♡, 7+♦, 2♠
3NT	2281

The following table is obsolete if one suited hands with club are shown directly with the bids 2♦-3NT.

	Responses to 1♣-2♦(= 5+♣ only)-2♡
2♠	3♡
2NT	3♠
3♣	4+♦
3♦	2227 or 2236
3♡	0-1♠, 7+♣ (3 cards are denied in M, 4 in ♦)
3♠	0-1♡, 7+♣, 2♠
3NT	0-1♦, 8+♣, 2♠, 2♡

5.6.1 Minor two-suiters

As with major two suiters (see above), the longer suit (5+) is known, so additional length in the other 4+suit is first shown with the first step (after which 55+ scheme apply). Furthermore, 3 card majors are always shown before showing a 4+ minor, so only 2 card majors are possible !

Responses to 1♠-2♣-2♠-2NT (=5+♣+4+♢)	
3♣	5+♢, 55+ scheme apply, others show exactly 4 ♢
3♢	a void
3♡	2245
3♠	1♠
3NT	1♡

Responses to 1♠-2♣-2♠-2NT-3♣-3♢ (=5+♣+5+♢)	
3♡	1156
3♠	0-1 ♠
3NT	0-1 ♡, 2♠

Responses to 2♣-2♢-2NT-3♣ (=5+♢+4+♣)	
3♢	5+♣and 6+♢, others show 4 ♣
3♡	2254
3♠	0-1♠
3NT	0-1♡

There is unfortunately not enough space for shape responses after 3♢ showing 5+♣and 6+♢, 3♡ is a AKQ-control query. One could use 3♡ as a shape relay (with responses 3♠ = 0-1 ♠, 3NT = 2065), but it would be another exception to the general rule of 3♡and higher being control relays. There is already one exception to this rule, when 3♢shows a unspecified void 3♡asks for its location, but that one is a quite obvious one.

If the bids 2♢-2NT show clubs after an 1♣ opening, it makes later bids identical to the relay responses after 1♠-2♣.

6 Interference by opponents

This is a very important issue in relay based systems, if not clearly agreed, opponents tend to get a lot of easy points by simply interfering at every possible occasion. There are a few quite different situations (x representing interference bid, sometimes the level is included, eg. 2x):

1. 1♣ - (x) - ?

2. 1♣ - (x) - pass - (pass/raise) - ?

3. 1♣ - 1♢ - (x) - ?

4. 1♣ - positive - (x) - ?

5. 1♣ - positive - (x) - pass - ?

6. 1NT - (x) - ?

7. 1NT - 2♣- (x) ?

8. 1NT - 2♢/♡- (x) ?

9. 1NT - 2♠/2NT - (x) ?

10. limited (=1♢/♡/♠/2♣) - (x) - ?

11. limited - relay - (x) - ?

One could of course continue this list, but these should cover the most common situations. If the second opponent is given the opportunity to raise, it it treated as the interference would have been on the higher level. The situations in 6. – 9. are quite different, opener is limited and responder can be weak, so pass is a very likely option unless you see a fit. In the other cases, double is more or less penalty oriented, showing length and/or values in opponents suit(s). If we are in a relay sequence, all remaining features are shown as before, except that the first relay step is pass, and 4+ suits are shown from above without caring who becomes declarer, and that length in the opponents suit is shown with Double (and the suit drops out from the other responses), and that Marmic responses drop out (a x-marmic could be a problem, must be shown as a 5431, pass will anyway be the first bid). If the interference is in front of the relayer (as in 4.), pass is the relay bid, and relay responder shows his hand as the interference would have been in front of him/her (except that pass drops out, as it is no longer an option).

One must also treat natural and artificial bids differently. If an artificial bid show several suits, all known suits drop out from length showing bids (4+ or 3) and are moved to the Double. The Double means in the case of two-suiters that at least one of the opponents suits can be doubled. If a artificial bid show nothing but denying good 1- or 2-suiters (as 1♠ in Larsson) one lose the ability to use any suit as "enemy" suit. Usually these bids are on the one level, so they are actually treated almost as any other bid. If a bid can have multiple meanings, the following two rules are obeyed:

1. If the bid shows a one-suiter or a two- (or a three-)suiter, assume that it is the one suiter (which is simpler to cope with), and bid accordingly.

2. If the bid shows a two-suiter with one combination or the other two, assume that it is the combination containing bid suit (or if the bid is NT, the combination including ♣). That is, the combination including the cheapest suit is assumed.

As a general rule, if the interference situation is at a high level or otherwise seem undefined or impossible, we resort to natural techniques (cue bids, RKCB, ...). Double should be penalty oriented if it is known that we are in a GF-situation. Negative doubles are only used after direct interference over limited suit-openings, and up to 3♢.

In all interference situations one have to start with figuring out what a pass do mean. It can be minimum, 19+, or four cards in the highest free suit, the last one being the one most difficult and the most important to remember.

6.1 Interference over 1♣

6.1.1 1♣ - (x)

When opponents interfere over 1♣, it is quite likely that opener has 15–18 hcpt (82.5 % likelihood), and has a NT-distribution (47.6 % likelihood, combined 39.3 %). If we also include 5422, 6322 and 7222 distributions, the likelihoods become 64.3 % and 53.1 % respectively. If opener has something too far from this, a non-normal action informs partner about it. This means that when the interference is above 1NT, the Rubensohl-convention (see section 6.3) can be used, as after interference on the 1NT opening.

If opponents interfere at a lower level than 2♣, it is probably less awarding to aim at penalties, and no larger damage has been done, so the following guidelines are obeyed:

Pass = 0–4 or penalty oriented, hoping for a negative double by opener

Double = 5–8 (any shape)

Other = 9+ natural *transfers* (J-M style) and GF. The interference suit should probably not drop out from the length responses, as responder can well have four small cards (and opps might psyche). With excessive power and/or length in interference suit, you pass. A common situation is 1♣-(1M)-?, so for the sake of clarity:

Responses to 1♣-(1♠)-?	
pass	0–4 hcpt or penalty oriented, openers double is semi-automatic
double	5–8 hcpt, any shape
1NT	balanced, 9+ hcpt
2♣	4+◇, 9+ hcpt
2◇	4+♡, 9+ hcpt
2♡	4+♠, 9+ hcpt
2♠	6+♣, 3♠, 9+ hcpt
2NT	6+♣, 3♡, 9+ hcpt
3♣	7+♣, any void, 9+ hcpt
3◇	2227 or 2236, 9+ hcpt
3♡	7+♣, 1♠, 9+ hcpt
3♠	7+♣, 2♠, 1♡, 9+ hcpt
3NT	2218, 9+ hcpt

If the interference bid is 1♡ responder can also show 3 card ◇. If the interference bid is 1◇ we can use exactly the same positive bids as without the interference. The interference bid 1NT is a bit difficult, but it probably cannot be natural. Usually it is some kind of two-suiter, and thus should be treated as one.
If opponents double the 1♣ opening, the bids are:
Redouble = penalty oriented, length and values in promised suit(s)
Pass = 0–4
1◇= 5–8 (any shape)
Other = 9+ natural *transfers*, same as if without interference. Here, no bidding space has been lost, so it should be an unnecessary complication to exclude promised suit(s).

If the opponents interfere at a higher level than 2♠ the following guidelines apply (2NT = minors can be treated with Rubensohlish conventions, see under the section about Rubensohl):
double is for penalties (at least invitational strength, if the bidding continues)
suit bids show 5+ cards in bid suit, 2-3 AK controls, more game oriented hands
cue bids show a slam oriented hand, and 4+ AK controls
jumps to suit-game show one-suited hands, no features on the side
3NT is natural, with stopper, less than 4 AK controls.

6.1.2   1♣ - (x) - pass - (pass/raise) - ?

There are three somewhat different situations:
a) 1♣-(1x)-pass-(pass)-?
b) 1♣-(x)-pass-(pass)-? (x > 1NT)
c) 1♣-(x)-pass-(raise)-?
In a), it is possible that responder is hoping for a double, as he can't penalty-double him/herself. So the almost only option is a double. With length in the interference suit, it might be quite unlikely that responder does also have length, so it should be ok to pass, at least if the opponents looks reliable ! Other bids should be as in b) and c).
In b) and c) responder has had the chance to double for penalties (except in some cases in c, but a raise by LHO should make this alternative quite unlikely, and opener is probably looking at a void in these cases, and he will find the red card). The responders bids are as follows:
pass = balanced minimum
double = negative up to 3◇, the higher the level the more penalty oriented it is
suit = one-suiter, non forcing
jump in suit = one-suiter, GF
NT-bid = two-suiter with the lowest suits, 3NT to play
cue = two-suiter with highest + another suit. When the interference is above 3◇, cue should probably be the only forcing bid

6.1.3   1♣ - 1♢ - (x) - ?

Here pass is the 19+ relay, double/redouble is penalty oriented, and all other bids are natural and nonforcing (Joppe is used after 1NT, Baron after 2NT). If x > 2♠ (2♢?) one probably have to use pass as minimum, and other bids as 19+. Double is in this case still penalty oriented.

6.1.4   1♣ - positive - (x) - ?

The bids are as follows:
pass = relay
double = penalty oriented
cue bid = asks for a stopper, primary for 3NT, but could be interested in a slam in the responders suit
3NT = to play if responder has < 15 hcpts, promises a stopper
game in responders suit = minimum, to play if responder has a minimum
other bids = extreme unbalanced hands without a fit and without defensive values. Suit bids are natural and not transfers, NT-bids (excluding 3NT) show a extreme two-suiter in the unbid suits, asks for preference from responder.

6.2   Interference over 1NT

In the case of direct interference (1NT-(x)-?) the Rubensohl convention is used if 2♣ ≤ x ≤ 2♠. In the case of higher level interference one lose the ability to make to-play and invitational bids, and all bids are natural and forcing. Double probably must be considered as penalty oriented, and cue bid is naturally the strongest possible bid.
If the interference comes after responders 2♣/♢/♡/♠/NT, assume that responder has the weakest alternative, and act accordingly.
When playing weak 1NT, opponents tend to (and should) double frequently, and thus an escape system is also useful. My favourite is DONT-escapes (similar to DONT-defense), which allows playing 1NT doubled when both hands are balanced (which is quite common, as openers hand is it for sure).

DONT-escapes 1NT-(dbl)-?	
2 in a suit	two-suiter, 4-4 or better in bid suit + higher suit. With reasonable strength and a 4432-distribution you should consider passing
2♠	♠-suit, wants to play or preempt, opener may raise with a fit. 2♠ via redouble is a more clear-cut escape (hoping that opponents will bid something).
rdbl	one-suiter, demands 2♣ by opener
pass	balanced 0–13 hcpts, suggesting that 1 NT doubled is the best contract. Redouble by opener promises maximum and a five-card suit (responder removes 1NT-XX if he is too weak). Suit bids by opener promises a good 5 card suit and a minimum.
2NT	GF, asks for four card suits from below (the 2NT bid has never occurred in real life).
3x	6+ suit, invitational
higher bids	as without the double

6.3   The Rubensohl convention

The Rubensohl convention (by Jeff Rubens) is a more accurate variation of Lebensohl, and is normally used after interference after 1NT opening. It is also useful after interference on a 15+ 1♣ opening, as a standard strong 1NT opening is the most likely holding for the 1♣ opener.
In Rubensohl doubles are strongly penalty oriented. Other bids are as follows:

Rubensohl after 1♣/1NT-(2x)-?	
2◇–2♠	to play
2NT	transfer to 3♣, to play in suits below x, 3x and higher are GF and promise a stopper
3♣–3♡	transfers, promises 5+ suits and is at least invitational, a completion of the transfer is negative, all others GF.
3♠	a) minors at least 54, 3 card free major
	b) majors at least 55, if both majors are free

A transfer to a suit shown by the opponents (not necessarily x) asks for a stopper in that suit. A completion of the transfer denies stopper (suits are natural 4+ looking for a fit after that), other bids promise a stopper and (when possible) show/deny 4+ suits. Most problematic is the case 1NT-(2♠)-3♡-3♠-?, when :

3NT = 4 ♡ semi-stopper in ♠(opener is allowed to pass with Jxx or Txxx)

4 ♣= 4+♣, 4♡

4 ◇= 4+◇, 4♡

Higher bids seem to be unnecessary

That is, responders 3♡ after 2♠ interference do always show 4♡, without stopper and without 4♡ responder should bid 3NT !

There are a number of other special cases, which are defined as follows:

Bidding	Stopper	Major length
1♣/NT-(2x)-2NT-3♣-3x	yes	4 (in at least one major)
1♣/NT-(2x)-3NT	shaky	< 4
1♣/NT-(2x)-2NT-3♣-3NT	yes	< 4
1♣/NT-(2x)-2NT-3♣-3y>x	yes	5+y

As a general rule, if responder shows a suit via 2NT it also promises a stopper, direct bids does not say anything or promise a shaky stopper.

The interference bid 2NT does quite often promise both minors, and it possible to use Rubensohl:ish conventions in this case also: 1♣/NT-(2NT)-? :

3♣ = Asks for four card majors, when 3◇ = no 4M, 3NT = no 4M, minors well stopped

3◇♡= transfer, at least invitational, completion most negative

3♠ = 55+ in majors.

After a 1♣ opening the opener can be stronger (19+hcpts) or more distributed, and in these cases the opener cannot complete any of the transfers (apart from the stopper ask, which is anyway GF), because responder can pass. A cue bid from opener is a relay (3NT shows stopper, others are natural), and show 19+hcpts, and is the only forcing bid. Other non-Rubensohl bids are natural and promise more distribution, but are not forcing.

6.4 Interference over limited openings

No special conventions are needed for direct interference, double is negative and 8+ (unlimited), cue is a strong relay, 1-level bids are natural and round forcing, new suits on the 2-level are natural, limited and non forcing. And new suits at the three level bids should probably be forcing.

If opponents interfere in fourth seat the situation is quite different. Consider the following situation, x being the interference bid:

transfer bid (=1D/H/S/2C) - relay - (x) - ?

We have lost valuable bidding space, but gained two extra bids, double and pass. In the cases of x being a bid between 2♣ and 2♠, the meaning of openers bids are

1. dbl = 3+ cards in x-suit, penalty-oriented, optional with xxx

2. pass = 1st relay response

3. step 1 = 2nd relay response and so on, 3NT last step

The relay responses are as follows

1. 4+ in a suit, starting from highest possible suit (excluding x-suit, opening suit and already denied suits)

2. exactly 3 in a suit, from above (excluding x and 4+ suits)

3. an unspecified void

4. no shortness (= 7222)

5. specific singelton

If there is not enough space we drop out bids in normal order, that is a) 3 card suits, and b) void. That is, we use the same logic as usual, but x-suit drops out (length in x is shown with dbl) and 4+ suits are shown from above without caring about who becomes declarer.
Examples:
Opener: xx QJxxxx AKx xx
Relayer: AQT Axx xxxx AQx
Bidding: 1♢ - 1♡ - (2♣) - ?
Meanings: dbl = 3+♣, pass = 4+♠, 2♢= 4+♢, 2♡= 3♠, 2♠= 3♢, 2NT = void, 3♣= 2227, 3♢/3♡/3♠= 1 card ♠/♢/♣.
Right bid is 2♠, 2NT is a relay, upon which 3♣= a void, 3♢= 2632 (right bid this time), 3♡/♠= 1 ♠/♣.
Relayer might even find the optimal contract of 3NT (all finesses probably fail, 9 tricks !).
Opener: Axx x KJTx Qxxxx
Relayer: xx AQT Axx AKJxx
Bidding: 1♠ - 2♣ - (2♠) - ?
Meanings: dbl = 3♠, pass = 4+♢, 2NT = 3♡, 3♣= void, 3♢= 2227, 3♡/3♠/3NT = 1 card ♠/♡/♢
Both pass and double are possible options for North in this case. With Axx in spades one should probably pass and show 4 diamonds (KJx in spades would probably make double the right choice). Anyway, the 2♠ interference does only remove the bid showing 3♢, and it adds the possibility to play 2♠ doubled !
Note that there is no minimum bid, so it might be difficult to not wind up in game. But if we don't have a fit, the opponents does not either have a fit, so we hopefully find the red card in these cases.
There are a few special situations:

1. If the interference is at a low level, for example the extreme case 1D-1H-(1S), one might consider using original bids (pass replacing interference bid). There will be bids which very rarely will be used. In the above mentioned case, 1NT would show 4+ in spades.

2. If the interference bid is 1NT or 2NT, or some other artificial bid (1NT and 2NT can't be natural, or can they ?). This should not be common, but some kind of Michaels seems possible. If two suits are shown one should drop out both suits from the relay steps. Double shows penalty-interest in at least one of the suits. For example, 1♢-1♡-(1NT=minors)-dbl-(2♢)-pass-(pass)-2♡= long ♣ but not long enough ♢. Openers pass naturally denies urge to double 2♢.

3. If the interference bid is 3♣ or higher, when it is no longer possible to show all 4+ suits and all short suits. Should probably use standard natural techniques in this case.

7   Preemptive bids

All opening bids from 2♢ and higher are free for any preemptive type of bids (e.g. strong 2NT is not needed). The range of bids where there are most alternatives is 2♢–2NT, three different alternatives were given in the opening bid table. The alternative highlighted in the 3rd/4th hand opening table has some advantages:
- The Ekren 2♢ opening includes 44 in majors and 9-10 hcpts
- The 2♡/♠ openings include 5332 and 9-10 hcpts.

One can't pass with such powerhouses, can one ? It is also thought that the 2♡/♠ openings can be used with little restrictions, almost any (below opening) distribution with 5+ in M may be ok. Let us describe these conventions closer, and illustrate how they fit in with the rest of the system.

7.1   Ekren 2♢

The Ekren 2♢-convention show 4-4, 5-4 or 5-5 in the majors. The responses are:

Responses to Ekren 2♢	
pass	4+♢, only 4 ♢ implies 2245
2,3,4 ♡/♠	to play
2NT	relay, at least invitational strength
3♣	6+♣, to play
3♢	to play in better Major
3 NT	to play

A quite common scenario after the pass is 2♢-pass-(dbl)-?, when pass = 2+♢ 2♡/♠= 5 cards, rdbl = 5-5, 2NT=4414, 3♣= 4405 (pass does almost always include a few clubs). Redouble in 2♢-pass-(dbl)-pass-(pass)-rdbl must show exactly 2245-distribution. Another common situation is 2♢-(dbl)-?, when redouble asks for opener to bid his longer major, and the meaning of all other bids are unchanged.

Responses to 2♢-2NT	
3♣	minimum, 3♢asks, same responses as below
3♢	5-5, can also be opened 2NT, probably too weak for 3-level
3♡	5♡and 4♠, 3♠asks for shortness, 3NT = 4522, 4m = shortness
3♠	5♠and 4♡4♣asks for shortness, responses two steps up
3 NT	4-4 and maximum (9–10 hcpt)
Responses to 2♢-2NT-3♣-3♢	
3♡	5♡ and 4♠, 3♠asks as above
3♠	5♠ and 4♡, 4♣asks as above
3 NT	4-4

Note that the hcp-range is 2 steps higher if you hold only 4-4 in majors (i.e. 7–10), and 1 step lower if you hold a 5-5. The following is suggested by Chris Ryall:

Responses to 2♢-2NT according Chris Ryall	
3♣	minimum (5–6 hcpt) with a 5 card M, 3♢asks which one
3♢	4-4 minimum (7–8 hcpt)
3♡	5♡and 4♠, maximum (7–8 hcpt)
3♠	5♠and 4♡, maximum (7–8 hcpt)
3 NT	4-4 and maximum (9–10 hcpt)
4♣/♢	5-5, maximum (6–7 hcpt), splinter
4♡	5-5 minimum (4–5 hcpt)
Responses to 2♢-2NT-3♣-3♢	
3♡	5♡ and 4♠
3♠	5♠ and 4♡

The hcpt ranges are as they would be in J-Moscito, as with 4-4 you need 11pt for a one level opening, with 5-4 9 hcpts is enough, and with 5-5 8 hcpts is quite enough.

7.2   Undisciplined 2♡/♠

The bids 2♡/♠ show 5-6 cards in opened suit, and they can be used with little restrictions.

Responses to 2♡/♠-2NT	
3♣	minimum, bad suit
3♢	minimum, good suit
3♡	maximum, bad suit
3♠	maximum, good suit
3NT	5332 distribution, 9–10 hcpt (could be used as AKxxxx-showing)
4♣	5+♣
4♢	5+♢
4♡	majors 6-4

The last three responses (and hand types) can of course be removed from the convention (if considered too undisciplined). The meaning of 3♢ and 3♡ responses are sometimes interchanged, the meanings above should be better. It is also possible to distinguish between 5 and 6 cards in opening suit, see for instance http://www.enteract.com/~kfeiler/bridge/system/catofcX.htm. The whole package of conventions suggested in this document is very nice, and not too difficult to remember. With the suggested conventions one could almost use 2♢ as 5+ in ♢, and use 2NT as Martens or for the extreme two-suiters (especially those with lower suit longer).

In the current system the number of cards in the opening suit is only taken into account when deciding if the suit is good or bad. The following suits are on the limit of being good, remove the Tens and they are bad:

AQTxx
KJTxxx

7.3   Martens 2NT

The Martens 2NT opening brings a whole additional level of preempt, but this might be unnecessary when suit-openings already are light and unbalanced, at this point it is considered to be better to use for 55+ in minors or majors, thus allowing description of all 55+ two-suiters. But it should be noted that Martens 2NT makes the 3♣/♢ bids very constructive, they could for instance always promise two of three top honours.

This convention was invented by Krzysztof Martens, and was brought to my attention by Marcin Skwark (thanks!). The idea is to bring an additional level of preempts below normal (4-3-2) preempts on the 3-level. This means that a minor bid through 2NT and a direct major bid on the 3-level could use a 5-4-3 rule (or the anything goes rule ?). These weaker preempts (should) deny side-suit A or K, and deny four card side-suits, and show suits as good as the following:

Favorable vulnerability (4 tricks, 0–4 hcpts): xxxxxxx, Axxxxx, KJxxxx
Equal vulnerability (5 tricks, 3–5 hcpts): QJxxxxx, Axxxxxx, KJxxxxx, AKxxxx
Unfavorable vulnerability (6 tricks, 3–7 hcpts): QJxxxxxx, AKxxxxx, KQJxxxx
The 3♢ask is game forcing, and thus require about half of all hcpts in favorable vulnerability.

Responses to 2NT-3♢	
3♡	♣-suit
3♠	♢-suit
3 NT	♡-suit (originally 23-24 balanced)
4♣	♠-suit

A relay bid (excluding 3NT) asks for shortness (3NT/4m/4M denies, 4m/4NT replaces relay suit)

8   Example Bidding Sequences

A J-Moscito Auction				
x	Axx	1♣	1♠	Heart suit; shorter spades; 9+ GF
QJxx	AKxx	1NT	2♣	Diamond suit, denies other 4-suits
AKJxx	xxxxx	2◇	2♡	5+ diamonds, 4 hearts
Axx	x	2♠	2NT	3 Spades
		3♣	3♡	1 club, last card shown from above
		4♣	4♠	5-controls (AK-ask; A=2,K=1)
		4NT	5♣	No ◇ control
		5◇	5NT	♡ and ♠ control;no ♣ control
		6♣	6♡	2nd ♡ control,no 2nd ♠ control
		7◇/♡	Pass	Must have AK-Hearts; A-Spades

If the hands would be exchanged, only the first two bids would be exchanged: 1◇-1♡-2♣-... Does this sound familiar: "If you wouldn't have opened with your lousy hand, I could have opened with my super-precision-strong-opening..." Using Moscito, it does not matter that much, same system and almost same bidding sequences are used !

A J-Moscito Auction				
Jx	KQ10x	1♣	1NT	NT-distribution 9+ GF
Qxx	Axx	2♣	2♡	4+ Spades
AKQx	10xxx	2♠	3♣	4 Diamonds 4 Spades
AQ10x	K9	3◇	3♡	3 hearts (from above in steps), 4342
		3♠	4◇	8 AKQ-points (3NT is 6 AKQ points)
		4♡	4NT	♠ control; no ◇ control
		5♣	5NT	♡, ♣ and 2nd Spade control; no 2nd Heart control
		6◇/NT	Pass	♠ AQ+♡ K or ♠ KQ+♡ A, ♣K for sure

An exchange of hands would lose some precision, the auction would go: 1NT-2♣-2♠(=4+♠)-3♣-3◇(=4◇)-3♡=(AKQ ask)-identical sequence but one step lower (apart from the final contract)

A J-Moscito Auction				
x	xxx	1♣	1♠	4+ ♡, 9+ GF
KQx	AJxx	1NT	2◇	4+ ♣ ("♡-bid" = impossible suit)
AQJxxx	K	2♡	2♠	4 ♡, 5+ ♣
Axx	KTxxx	2NT	3♣	3 ♠ (from above in steps)
		3◇	3♡	last card in ◇, 3415
		3♠	4♣	7 AKQ controls, 7 missing
		4◇	4NT	♣+♡control, no ♠ control
		6◇	pass	AKQ in spades + ♣Q missing

Oops, it was quite similar to the first auction. However, it illustrates a possible source of errors (♡+♣-two-suiters after 1♣), and also illustrates how easy it is to avoid 6♣ in this case.
The following is quite different:

A J-Moscito Auction				
Txxx	A9x	1◇	1♡	4+ ♡
AJxx	KQ	2♠	3♣	◇-marmic, 3♣is break-out, natural and invitational
K	J9x	3◇	4♣/5♣	3◇=maximum, asks for stopper
AJxx	Qxxxx	pass		

If we remove a point from relayer, his/her first bid should be 2♣, which should be raised to 3 by opener, possibly followed by 3NT/5♣by responder. If a point is also removed from opener the bidding would probably stop in 2♣ (unless opps bid ◇, which they probably would).
Next one is from the Composite Club advertisement, and illustrates slam bidding after one negative response to 1♣:

A J-Moscito Auction				
AQJxxx	Kxx	1♣	1♢	negative, 0–8 hcpt
Axx	KQxxxx	1♡	2♢	1♡= 19+, 2♢ = 4+♡, less than 4 ♢, 6–8 hcpt
Axx	xx	2♡	3♢	2722 or a 3622, three card suit unknown
Ax	xx	3♡	4♣	5 AKQ controls
		4♢	4NT	♡ and ♠ control, no ♢ control
		5♣	5♢	no ♣ control
		7NT	pass	The last control must be in ♡, 14 tricks !

A slam-technique test as reported by Kari Koistinen in Bridgelehti 2/02:

A J-Moscito Auction				
Ax	KTxx	1♣	1♠	4+♡, 9+hcpt
Jx	AKQTx	1NT	2♡	4+♠, 5+♡
AQT	xxx	2♠	3♣	3♢, exactly 4♠
AKQxxx	x	3♢	3♠	1♣, last card shown in steps from above
		4♣	4♠	8 AKQ-controls
		4NT	5♢	♡+♠ control, no ♢ control
		5♡	5♠	no ♣ control
		5NT	6♢	2nd ♡ control, no 2nd ♠ control
		7♡	pass	AKQ in ♡ + K in ♠ is the only possible control-combination

Note that this illustrates a weakness in J-Moscito: After a 1♣ opening does the responder with 4+♠ and a longer ♡ (and 9+ strength) always bid both majors first ! The system could be changed to always bidding 1♡ with a positive hand with 4♠, meaning in this case that the bidding would go: 1♣-1♡-1♠-2♢-2♡-2♠(=canape)-2NT-3♣(=3♢)-..., the rest same as above. Now responder only capture ♡ (which happens to be the optimal trump suit).

Here is another weak spot in the system, 6331 distributions with 6 in a major (and in the worst case a singelton in the other major).

A J-Moscito Auction				
KQx	x	1♣	1♠	4+♡, 9+hcpt
KJxx	AQxxxx	1NT	2♠	6+♡, denies 4 in other suits
AQx	KJx	2NT	3♡	1♠, 1-3 in the minors
Jxx	Axx	3♠	4♡	9 AKQ-controls
		4♠	5♡	♡+♢+♣ control, no ♠ control
		pass/6♡		

Opener should probably pass on 4♡ already, and he could do it with confidence if he knew for sure that responder has 3-3 in the minors. The likelihood for a singelton in a minor should be below 3 %, and the likelihood for less than three cards in ♣ is also below 20 %. This is anyway the distribution which becomes least accurately described (without interference or negative bids) in J-Moscito.

9   Quiz

What does the following bidding sequences mean ?

1. 1♣-1♢-1♡-1♠-1NT-2♣-2♢-2♡-2♠

2. 1♠-2♣-2♢-2♡-2♠-2NT-3♣-3♢-3♠-4♣-4NT

Answers are found on the next page.

9.1   Answers

1. 1♣-1◇-1♡-1♠-1NT-2♣-2◇-2♡-2♠: Responder has 0–3 hcpts (the second negative 1♠ show 0–5, but he does not invite) with at least 4-4 in majors. Opener has 19-22 and a balanced distribution without a 4 card major, and he prefer ♠ to ♡.

2. 1♠-2♣-2◇-2♡-2♠-2NT-3♣-3◇-3♠-4♣-4NT: Opener has 5♣, 3♡, 4◇and 1♠, 6 AKQ controls, ♣ + ◇ + ♡ control but no ♠ control. Note that the responses to the 2♡-relay are quite special, see section 5.6.