

# Simplify the bidding system design

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## Abstract

This paper proposes a few bidding system designs with an extremely short definition. These systems use a distribution coding scheme, unification of the bidding states and only one convention.

This paper uses [1] –Coding the distributions in contract bridge, please read it first!

## Notation:

We use the suit shortness method, close to the method, popularized by Charles Goren [2], to count the *distribution points*:

- -1 point for worst distribution 4-3-3-3
- for distributions 4-4-3-2 and 5-3-3-2, depending on partnership agreement:
  - do nothing (recommended)
  - add a point if not vulnerable
  - add a point
- 1 point for distribution 5-4-2-2
- in other cases – 1 point for doubleton, 2 for singleton and 3 for void
- -1 point for singleton K, D or J.

With *corrected points* or only *points* we note the sum of standard HCP (High card points) and *distribution points*.

*active* bid gives an information for distribution

*passive* bid gives an information only for strength

*relay* bid expects information from the partner

If not specified, we assume that N opens the bidding.

## 1 Opening hand

Using *corrected points* as a main strength measure allow our first unification – to define opening hand minimal strength and strength intervals:

- *dummy hand* is a hand with 0-10 *corrected points*
- *opening hand* is a hand with 11+ *corrected points*

Our *opening hand* definition unifies the requirements for the standard and preemptive openings.

We treat any active opening bid as a message from the opener with two components:

- *constructive* – to give info in an attempt to find the proper contract
- *preemptive* – to thwart the opponents

## 2 Bidding system principles

### 2.1 System as a communication protocol

The bidding system may be treated as a network protocol. The network is the table, players are the nodes. The network channel is extremely narrow – each bid sends few bits.

It is very important the order of information the system provides. At early stages of the bidding more important are the strength and distribution, at later stages information for honors is critical.

We denote as *standard order* the following sequence of possible information for a hand:

- (A) strength of the hand (short interval for points)
- (B) distribution info. For systems in this paper:
  - (B<sub>1</sub>) distribution group or alone fictive (see [1])
  - (B<sub>2</sub>) fictive distribution (see [1])
  - (B<sub>3</sub>) exact distribution
- (C) top honors info. For systems in this paper:
  - (C<sub>A</sub>, C<sub>K</sub>, C<sub>Q</sub>) exact information for aces, kings, queens

All systems start the bidding with messages of type (A) and/or (B). We can classify them, using the order they prefer:

- *light* – when info of type (A) precedes (B)
- *solid* – when info of type (B) precedes or interferes with (A)

Some bidding systems prefer to start with more info about the majors, they are *major oriented*, others are *all suit oriented*.

*Examples:*

**Precision club** is *light, major oriented* system.

**SAYC** is *solid, major oriented* system.

**Acol** is *solid, all suit oriented* system.

### 2.2 States of the bidding

There are few possible states in the bidding phase of the game:

*cooperative* bidding, when both partners send each other information about their hand.

*competitive* bidding, when both pairs send information in an attempt to win the contract or to preempt the opponents.

*relay* bidding, when one player describes his hand to the partner. In this case low level overcall of the opponents may increase the bidding space for relay, while high level overcall will reduce the bidding space.

## 2.3 States of the players

# 3 Few system designs

## 3.1 SDI – Strong Minors for mathematicians

SDI is *light, major oriented* system [4].

Details are published in bulgarian at Strong Minors for mathematicians.

## 3.2 sNT – Strong NoTrump for mathematicians

sNT is *solid, all suit oriented* system [3].

Details are published at Strong NoTrump for mathematicians.

## 3.3 M4M – Strong Majors for Mathematicians

M4M is *semi-solid, major oriented* system, now only project.

It is a modification of SDI in an attempt to avoid its weaknesses.

### Openings:

1♣ – 15+, 0-3 cards in ♠

11-14, weak minor groups 5-3-3-3, 4-4-x-x and 3-5-3-3

1♦ – 15+, 4+ cards in ♠, 0-3 cards in ♥

11-14, 4+ in both ♦ and ♠, L=(x-4-x-4, 0-4-4-4, 4-4-0-4)

1♥ – 11-14, 4+ ♥, 0-3 cards in ♠

L=(3-3-5-3, 4-x-4-x, x-4-4-x, x-x-6-x, 4-4-4-0, x-6-4-x)

1♠ – 11-14, 4+ ♠, 0-3 cards in ♦

L=(4-x-x-4, 3-3-3-5, x-x-4-4, x-x-x-6, x-x-6-4, 4-0-4-4)

1N – 15+, 4+ cards in both majors

2♣ – 11-14, 6+ ♣, L=(6-x-4-x, 6-x-x-4, 6-x-x-x, 6-4-x-x)

2♦ – 11-14, 6+ ♦, 0-3 ♥, L=(x-6-x-4, x-6-x-x, 4-6-x-x, 6-6-0-0)

2♥ – 11-14, 6+ ♥, 4+ minor, L=(x-4-6-x, 4-x-6-x, 0-6-6-0, 6-0-6-0)

2♠ – 11-14, 6+ ♠, 4+ minor, L=(4-x-x-6, x-4-x-6, 6-0-0-6, 0-6-0-6)

2N – 11-14, 6+ ♥, 4+ ♠, L=(x-x-6-4, 0-0-6-6)

## References

- [1] G. Georgiev (Skeleta), V. Babev, Coding the distributions in contract bridge
- [2] Goren, Charles (1949). Point Count Bidding in Contract Bridge. New York: Simon and Schuster Inc. Also: 1950, 1954
- [3] G. Georgiev (Skeleta), Strong NoTrump for mathematicians
- [4] G. Georgiev (Skeleta), Strong Minors for mathematicians