Liar's Poker – Bid Interpretation Guide

Overview

In **Liar's Poker (Collective Hold'em variant)**, a player may bid a 5-card hand that they believe exists within the combined pool of all players' private cards. Each bid references a valid 5-card poker hand. The bid does **not** claim that this hand is unique, nor that stronger cards aren't present elsewhere — only that **such a hand can be formed from the pool**.

Understanding what each bid **means** — and just as importantly, what it **doesn't** mean — is key to accurate gameplay.

Important Clarifications:

- The **5-card hand** that satisfies a bid must match the declared hand **exactly**, and **must not qualify as a stronger hand**.

- This means a bid like **Three of a Kind, 9s** must be satisfied by a 5-card hand with **exactly three 9s and two unrelated cards** — not a Full House or higher.

Example:

- Pool includes: 9♥, 9♦, 9♠, 4♥, 4♣
  → This is a **Full House, 9s over 4s** → **Does NOT satisfy** a "Three of a Kind" bid.

- Pool includes: 9♥, 9♦, 9♠, 4♥, 3♣
  → This is a valid **Three of a Kind (9s)** → **Does satisfy** the bid.

This same logic applies across hand types. The simulator checks if any 5-card hand exactly matches the bid — no more, no less.

Flush Example: *Flush, Hearts, High Queen*

This bid asserts:

> "There exists at least one 5-card hand made up entirely of Hearts, and the highest card in that hand is a Queen."

Important Notes:

- It does **not** mean that no Hearts higher than Queen exist in the pool.

- For example, if the pool contains 2♥, 4♥, 6♥, 9♥, Q♥, A♥, a valid flush may be 2♥, 4♥, 6♥, 9♥, Q♥.

- Even though A♥ is present, it's not part of the *best available 5-card flush* (maybe it's used in a different hand).

- The bid only requires **a** flush with Queen high — not **the** best possible flush.

High Card Example: *High Card, High 6*

This bid asserts:

> "There exists a 5-card hand where the highest card is a 6, and the hand qualifies as a High Card (i.e., not a Pair or better, and not a Straight)."

Why this is impossible:

- If the hand is [2, 3, 4, 5, 6], that's a **Straight**, not a High Card.

- If any card repeats (e.g., two 4s), it's a **Pair** — also not a High Card.

- So to satisfy this bid:

  - You need five distinct cards ≤ 6

  - That **do not** form a Straight

○ That **do not** contain any duplicate ranks

Conclusion:

- A "High Card, High 6" bid is never valid.

- In most real games, it's **impossible**.

Bid Evaluation Clarification

- **All bids are evaluated on 5-card poker hands** only.

- A bid is successful if **at least one valid 5-card hand** in the total pool matches it.

- Stronger hands are allowed in the pool, but they must not be used to justify a lower bid.

- The simulator tracks **all 5-card combinations** in sampled pools and compares each one directly to the last bid.

Tie-Breaking and Bid Progression

Bids of the same hand type must progress by value. Examples:

- **Pair of Jacks** > **Pair of Tens**

- **Flush, High Card King** > **Flush, High Card Queen**

- **Straight 3 to 7** > **Straight A to 5**

- **Two Pair, Aces and Threes** > **Two Pair, Kings and Sevens**

Additional Notes:

- Kickers are **not considered** when comparing bids — only hand type and main value(s).

- **Royal Flush** is considered the highest form of Straight Flush (10-J-Q-K-A).

- No suit hierarchy is used in comparisons.