Chess++: An Elegant Variant of Standard Chess

Rajdeep Das

rjdpdas131@gmail.com

April 17, 2025

Abstract

Chess++(Chess Plus Plus) is a novel chess variant designed to reinvigorate strategic thinking by introducing a new piece called the **Gulti**. The Gulti combines limited movement capabilities with powerful teleportation mechanics, enabling dynamic repositioning of pieces and creating new layers of offensive and defensive possibilities. Each player starts with two Gultis that act as paired portals, allowing non-pawn pieces to teleport between them under specific conditions. This innovation addresses key drawbacks of standard chess—particularly the overemphasis on memorization and the tendency toward predictable gameplay in engine-assisted preparation. By increasing the complexity and reducing reliance on rigid theory, Chess++ encourages creativity, deeper calculation, and spontaneous decision-making. The variant remains easy to set up and play with minor modifications to traditional equipment, making it accessible for casual and competitive players alike. This paper outlines the rules, motivations, strategic implications, and future scope of Chess++, proposing it as a candidate for global adoption and potential inclusion in freestyle or world championship formats.

—

Motivation

While playing a game of chess, I often experience situations where I face seemingly impossible to penetrate defenses. This inspired the creation of the *Gulti*, which allows for strategic reposition, giving players more dynamic options for attack and sometimes defense. The name Chess++ is inspired by the coding language C++. Where the author of the language improves the language C and renamed it C++. The name Gulti (which is a word in Bengali language) actually means Catapult. The idea is of catapulting one piece from one place to another place in chessboard bypassing the defenses.A player might call Gulti any name they are comfortable with.

Click **here** to directly jump to Rules of Chess++.

—

Why World needs Chess++

Chess++ addresses the limitations of standard chess while introducing elegant and innovative mechanics. Here's why Chess++ stands out:

Drawbacks of Standard Chess

While chess is a masterpiece of strategy, it has some limitations:

- **High Draw Rate at the Professional Level**: Many games at the highest level of chess end in draws, leading to less decisive outcomes and reducing the excitement of competitive play.

  - Example: Magnus Carlsen, during his reign as World Champion, criticized how draw-heavy elite chess has become.

  - This is why formats like Armageddon Chess or faster time controls (Rapid & Blitz) are becoming more popular.

  - In the 2024 World Chess Championship between India's **D. Gukesh** and China's **Ding Liren**, a total of 9 out of 14 classical games ended in draws.

- **Memorization Plays a Major Role at highest levels of Chess**: Mastery of pre-existing opening theory and move sequences provides a significant advantage, leading to a heavy reliance on memorization rather than creative play. Which sometimes leads to predictable gameplay.

  - This favors players who can memorize and weakens the role of pure creativity in the early game.

  - **Viswanathan Anand** has spoken about how memorization dominates modern preparation, making games predictable.

  - This is why **Bobby Fischer** created Chess960, also known as Fischer Random Chess, to reduce the reliance on memorized opening moves and encourage more creative play in chess. He believed that the emphasis on

opening theory was hindering the true potential of chess as a game of strategy and calculation. In one of his recent interview he also mentioned "I hate Chess. I know what chess is all about, Its all about memorization, Its all about prearrangement, Creativity is way down the line." Interview **link.**

– In standard chess, players often rely heavily on memorizing opening lines and known endgames, aided by powerful chess engines. This can sometimes lead to games that feel more rehearsed than creative. Top players like **Magnus Carlsen** and **Hikaru Nakamura** have often criticized how chess at the elite level has become heavily dependent on memorized opening theory and engine prep.

- **Material Advantage Decides Most Games**: In most board positions, the player with a material advantage is highly likely to win, making comebacks difficult and reducing strategic depth in certain situations.

    – Even if having single pawn advantage gives a player significant upper hand in elite level chess most of the time. Leading to a slow and boring moving predictable game that eventually leads to victory of materially ahead player.

    – Comebacks do happen, but they're rare compared to games where the leading side converts smoothly. Depicting Unforgiving nature of Chess.

    – Dutch Grandmaster **Jan Hein Donner** reflected on the harsh realities of chess, stating, "It is mainly the irreparability of a mistake that distinguishes chess from other sports." He emphasized that a single error can negate hours of effort, highlighting the game's unforgiving nature and the psychological toll it can take on players. wiki **link.**

How Chess++ Addresses These Drawbacks?

- **Fewer Draws**: The introduction of new mechanics might lead to fewer forced draws because

    – New introduced piece will allow players to bypass defensive structure.

    – Chess++ introduces more room for mistakes and opportunities, making decisive results more common.

    – Many chess draws happen due to perpetual checks, fortress positions, or threefold repetition—the new Gulti mechanic could disrupt these patterns.

- **Increased complexity reduces Memorization Advantage**: Chess++ introduces additional piece which significantly increases the number of possible board states and variations making it much harder to rely purely on memorized opening sequences. Players must adapt dynamically rather than following pre-learned lines.

    – In standard chess, opening theory is well-mapped for 20+ moves in many cases. But in Chess++, the added teleportation mechanics disrupt pre-planned move orders. This forces players to think more creatively rather than just relying on book moves.

    – The introduction of the Gulti adds new layers of strategic possibilities, making traditional memorization approaches assisted via computer engines less effective. While a Chess++ engine might still be possible to build, the added complexity of portal mechanics and new positional considerations would make it significantly harder for players to benefit from engine-prepared lines.

- **Chess++ is way more comeback friendly than Standard Chess**: Even if a player is behind in material, the teleportation ability of the Gulti piece allows for creative counterplay, increasing the chances of turning the game around.

    – In Chess++, a well-placed Gulti teleportation can allow a weaker player to Launch a sudden counterattack,Reposition pieces instantly for better defense/offense.

    – This makes games more tactical, rather than just a slow grind to victory for the player with more material.

Elegance of Chess++ Over Other Variants

Chess++ stands out among chess variants:

- **Chess++ Maintains Simplicity While Adding Depth**: Unlike many chess variants that introduce overly complex rules, Chess++ retains the fundamental mechanics of standard chess while introducing only one new piece, making it easy to learn yet strategically deep.

    – Chess++, keeps the standard board and all existing pieces while introducing only one new piece (Gulti) with a simple yet impactful teleportation mechanic.

    – Many chess variants drastically alter the game, making them feel like entirely different board games. Chess++ enhances strategic depth without overdoing changes, ensuring that it remains true to the essence of chess while adding new dimensions of play.

- **Chess++ is *almost proper superset of Standard Chess**: Mathematically, the set of all possible games in standard chess is almost proper subset of all possible games in Chess++, meaning that Chess++ includes all standard chess positions and games, plus new possibilities created by the Gulti piece.

  - **Implication :** Professional players won't feel alienated by Chess++ because their existing skills and experience in chess still remain relevant. Chess++ is simply chess with an additional strategic layer, rather than a chaotic departure from it like most of the chess variants.

- **Chess++ is very easy to set up:** Given that Chess++ builds directly on standard chess, it requires minimal additional components. With a standard chessboard and pieces already in place, a player can easily begin a game of Chess++ by simply adding four distinguishable square shaped cutouts, two for White and two for Black—to represent the Gultis. This simplicity makes the variant highly accessible and ready for casual or tournament play with little preparation.

—

Refer next page for Game Rules.

---

*Almost because there exists some sequence of moves in Chess++ which is not possible in Standard chess. Such sequence of moves are highly irrelevant in practical games and it is extremely unlikely that such move sequences will ever be played between two rational players trying to win the game.

Rules

Chess++ introduces a new piece called **The Gulti**, keeping all the other rules of Standard Chess same.

This Section only explains the Newly Introduced Piece and Its Interactions with standard chess pieces, Hence Knowing Standard Chess Rules is a prerequisite to understanding Chess++.

To understand Standard chess rules please click here.

Initial Board Configuration

For all standard chess pieces, Initial Board configuration of chess++ is exact same as standard chess. The newly introduced piece Gulti initially takes up the squares b1, f1 (for white Gulti), b8, f8 (for black Gulti).Shown below
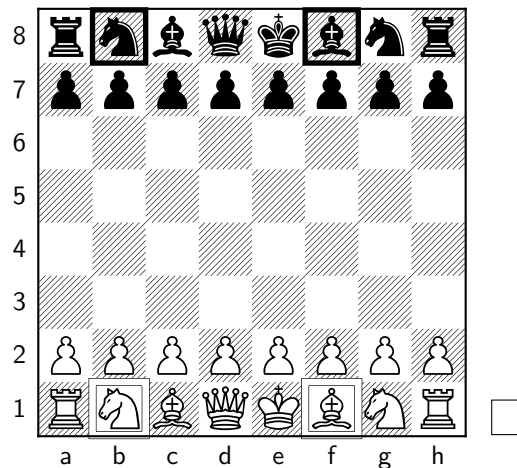
Starting Configuration

(Notice Black Gulti is represented by Black boundary square at b8, f8 square & White Gulti is represented by White boundary square at b1, f1 square.)

The Gulti: A Revolutionary Piece

The Gulti is the heart of Chess++. Here's how it works:

Movement

- **Basic Movement :** The Gulti moves one square in any direction and can only move to Empty Square.
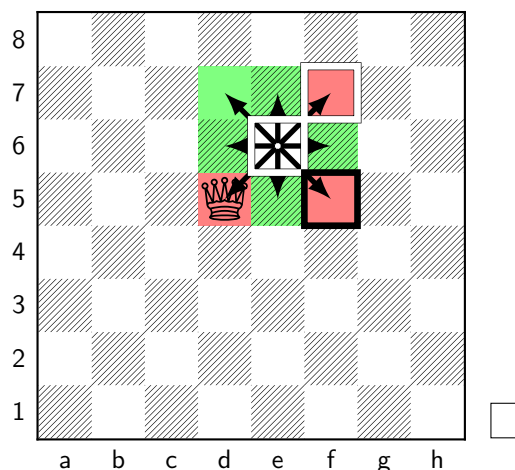
Valid squares to move shown in **GREEN**, Invalid squares to move shown in **RED**.

Note that: As Gulti is only allowed to move to empty square thus no possibility of capturing any piece by Gulti is arising. Hence Gulti is not capable of capturing any piece at any point of time through out the gameplay.

- **Restriction :** The Gulti is only allowed to move when no piece is sitting on it. A piece sitting on Gulti can also be referred as "The gulti is locked by some piece" or "The Gulti is Occupied by some piece".
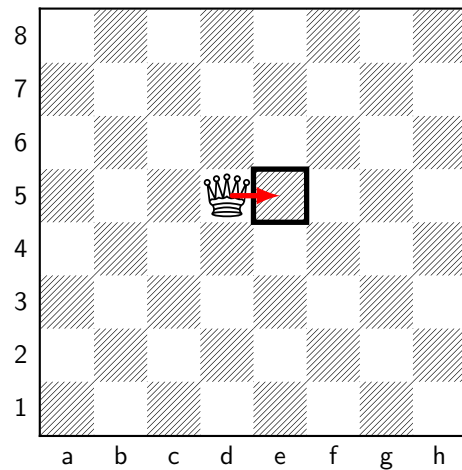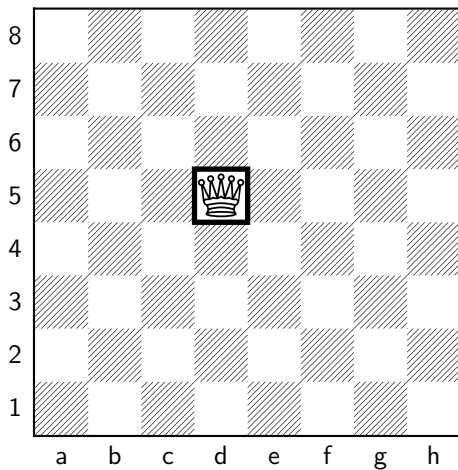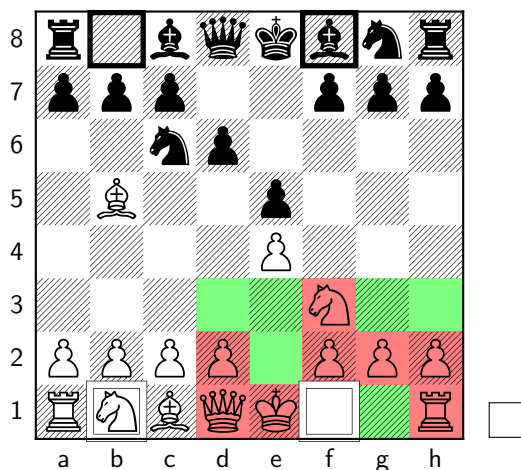

Shown above is an **ILLEGAL** move. The Gulti moved to e5 square even though A piece was sitting on it. **NOT ALLOWED IN CHESS++**
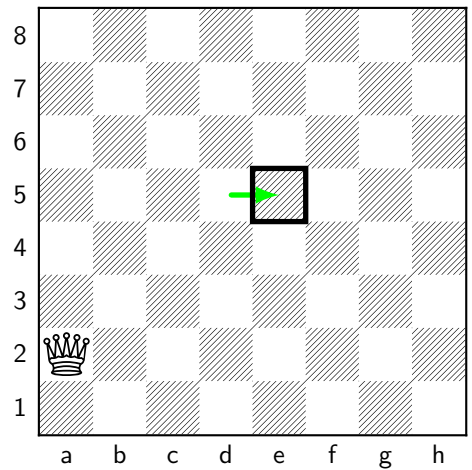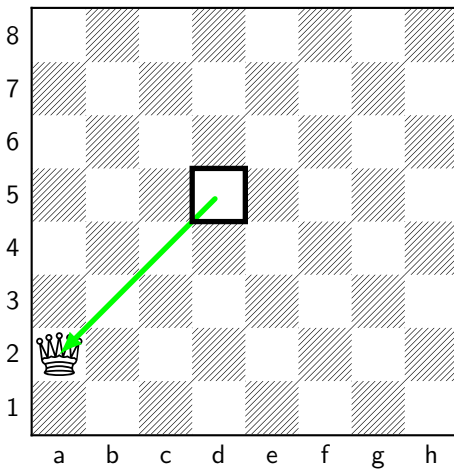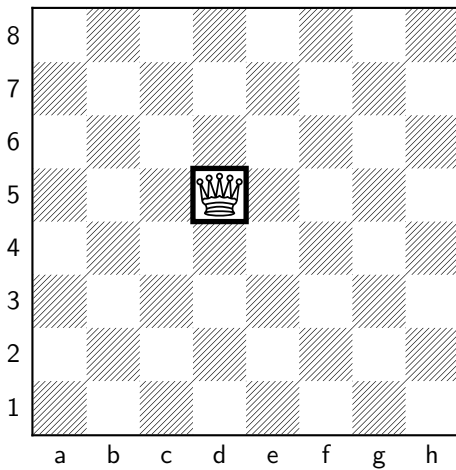

The sequence of Moves shown in above diagram are **LEGAL**. Notice that first queen moved to a2 and then only d5 Gulti moved to e5 square.

- **Initial Mobility Move :** In its 1st turn Gulti can move within any empty 2 square proximity.

Squares in **Red** & **Green** are 2 square proximity squares of f1 gulti and Squares in green specifically are the squares where f1 Gulti can move to in its first turn.
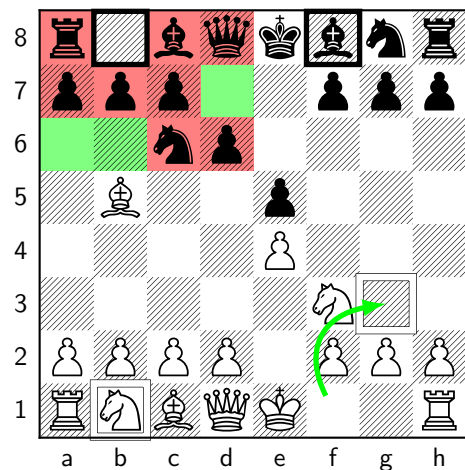
Gulti at f1 moved to d3 square and valid squares of b8 Gulti are shown. Notice that b1 & f8 gultis cannot be moved now as some pieces are sitting on them. Also g3 gulti cannot move to any 2 square proximity now because it already turned its first turn.
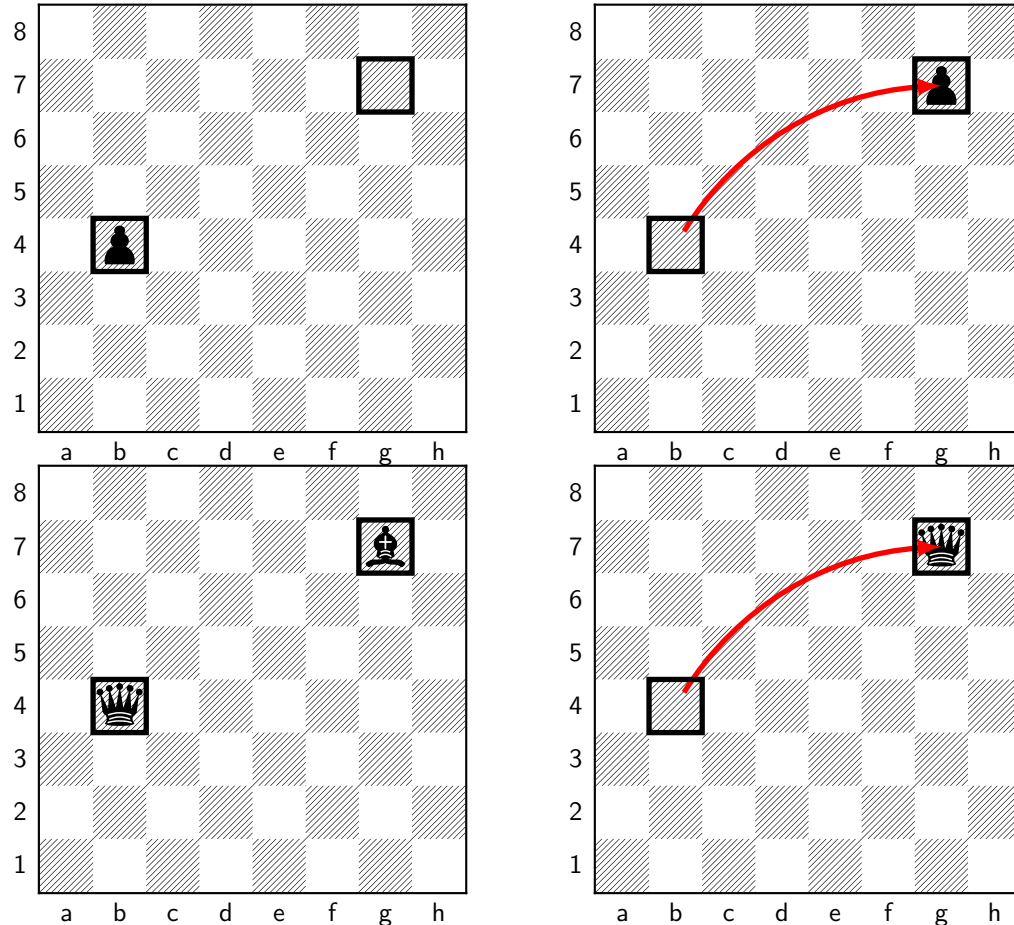
Teleportation

- **Mechanism:** The Gulti allows players to move any of his/her non-pawn piece sitting on his/her own Gulti to The other end (Destination Gulti)of his/her own Gulti (Given the destination gulti is not occupied by players own piece[Going to be discussed shortly]).

  Note That : Teleportation do not happen Instantly. It Takes players one turn(That is after you done teleporting its your opponent's turn to move. Follow the move indicator beside the diagrams shown below for better understanding.)
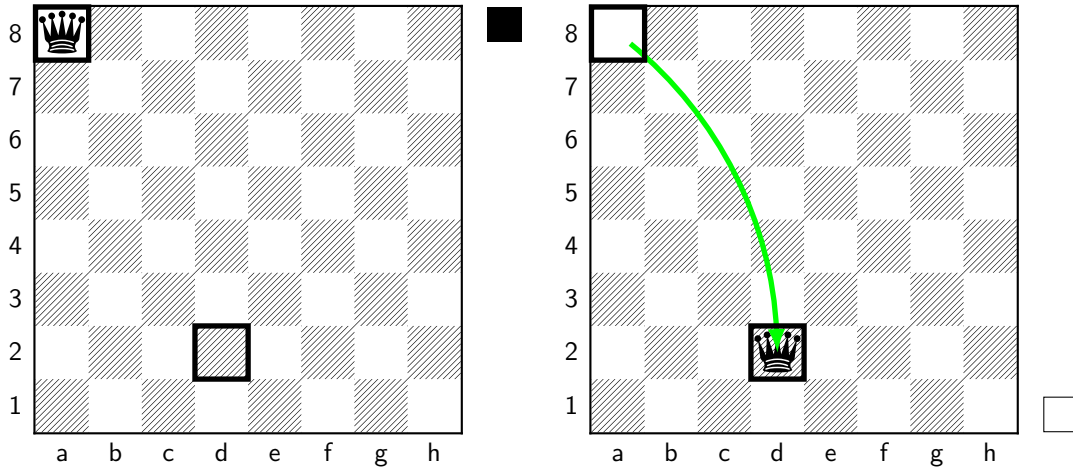
The above Diagram shows Teleportation Mechanism In action.

- **Eligibility and Restriction :** You are allowed to Teleport your own pieces except pawn through your own Gulti. You cannot use your opponents gulti for Teleporting your pieces neither your opponent can use yours. While teleporting, The destination Gulti must be unoccupied by players own piece. If instead some opponents piece is sitting on there It will be captured(Going to be discussed shortly).


The Top two pictures showing **ILLEGAL** Move because pawns are **NOT ELIGIBLE** for Teleportation. Also Bottom two pictures showing **ILLEGAL** Move Because the destination Gulti square is already occupied by a black piece, Hence The black queen cannot teleport.
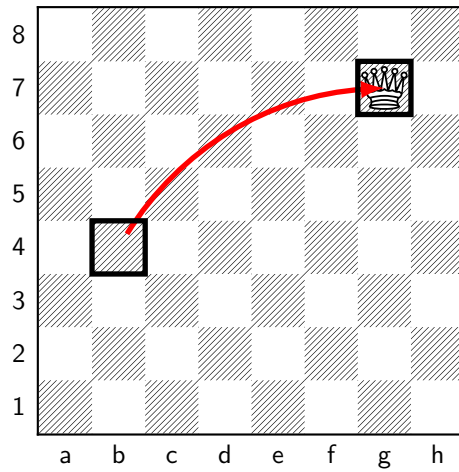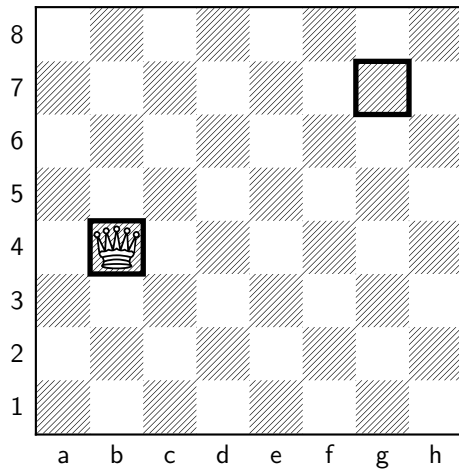
Only black piece can be teleported through a Black Gulti and vice-versa. Hence the above move is **ILLEGAL** to play.
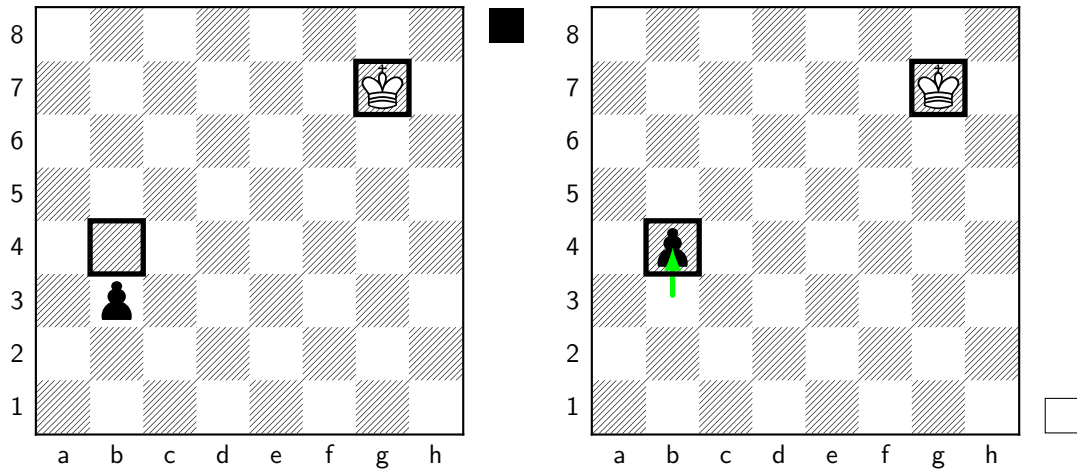
- **Capturing Through Teleportation:** While teleportation if the destination Gulti is occupied by any opponents piece then after teleportation the opponents piece will be replaced with the teleporting piece. (Or in other word the opponents piece will be captured and your teleporting piece will occupy the destination Gulti.)
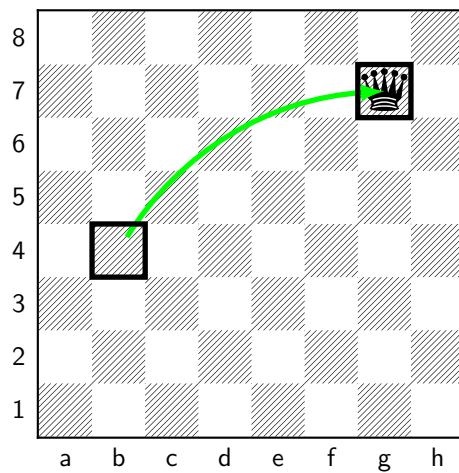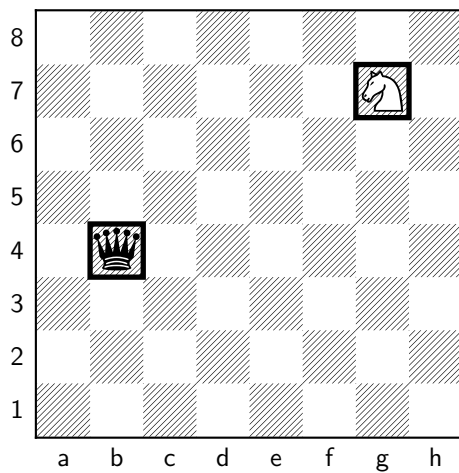

Above diagram showing white knight sitting on g7 Gulti got captured through Teleportation by Black Queen.
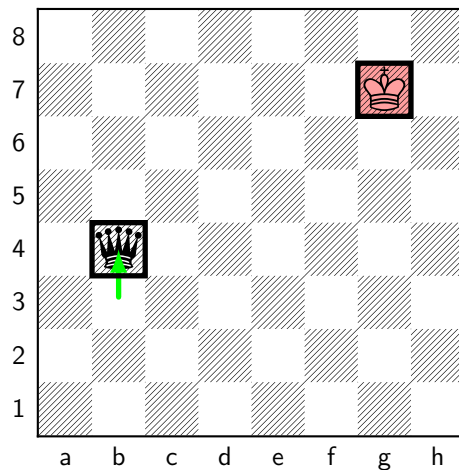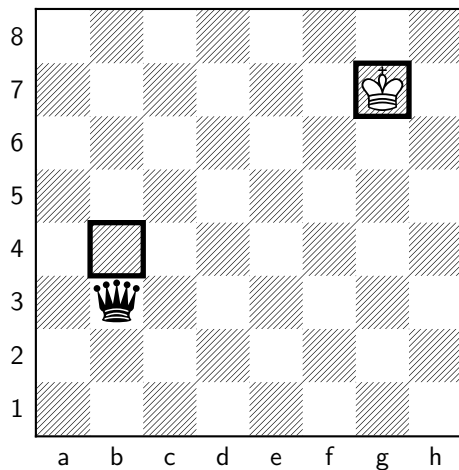
Here Black queen moved to b4 Gulti and threatening to capture white king through teleportation in next move. Hence giving Check to white King.

Here Black Pawn moved to b4 Gulti but cannot threaten to capture white king through teleportation as pawns are ineligible for Teleportation.
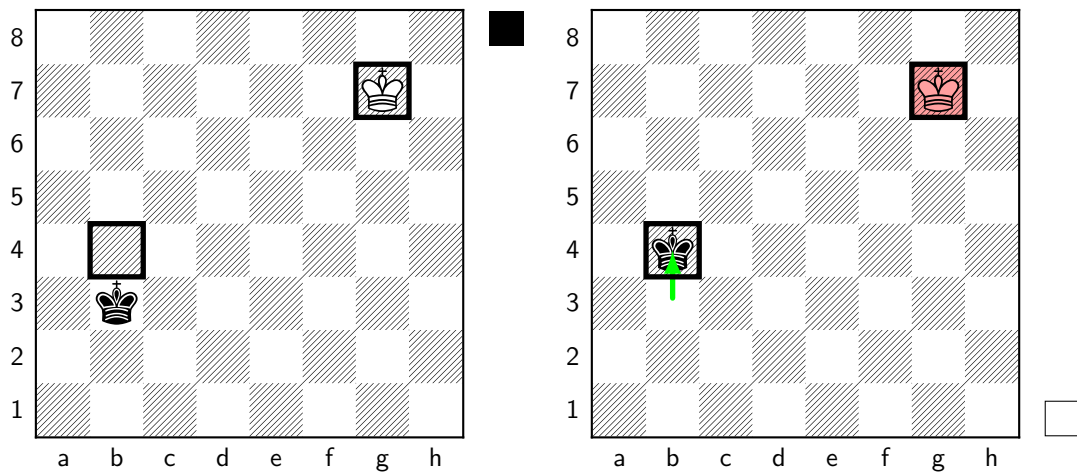
Here Black King moved to b4 Gulti and threatens to capture the white king hence giving check to white king. Whereas white king cant teleport through black Gulti thus cannot give check to black. The above King giving check to another King scenario is completely **ALLOWED IN CHESS++**.

Piece Interaction

- **Standard Chess Pieces :** All the Standard Chess pieces are allowed to jump over any unoccupied Gulti at any point of time.
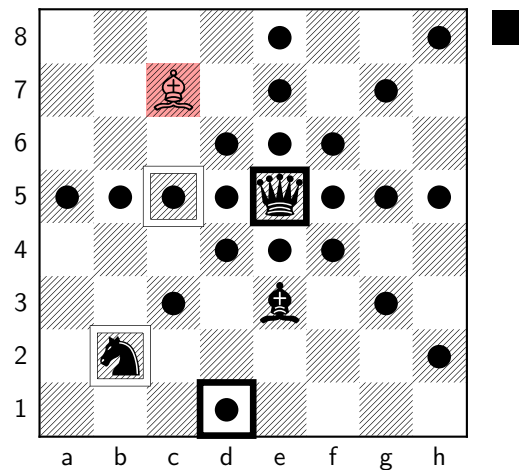
Black dots are representing all the squares where e5 queen can move to. Notice it can jump over unoccupied c5 Gulti but not allowed to jump over b2 gulti because it is occupied by some piece.

- **The Gulti and Castling :**

  → **Not Allowed Scenario :** If some opponents Gulti is placed between King & Rook such that some opponent's piece can teleport to the Gulti in next move. In such scenario castling is not allowed.
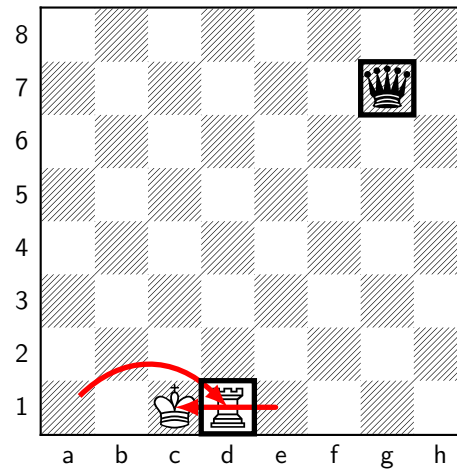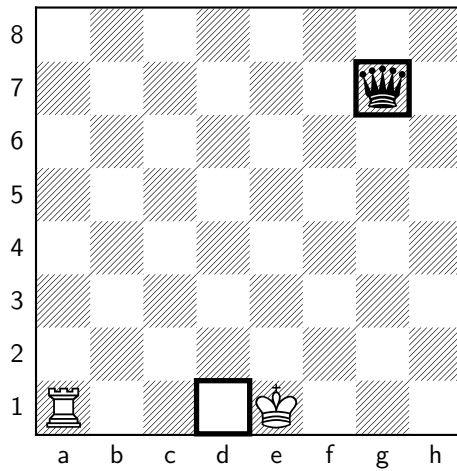
The above scenario captures **NOT ALLOWED** cases of castling. Notice Queen sitting on g7 Gulti can teleport to d1 Gulti in next move Thus Castling is **ILLEGAL** here.

  → **Allowed Scenario :** Casting is always allowed if ones own Gulti(unoccupied) is in between King and Rook. If some opponent's gulti is in between King and Rook then castling is only allowed if no opponents piece can teleport to Gulti.
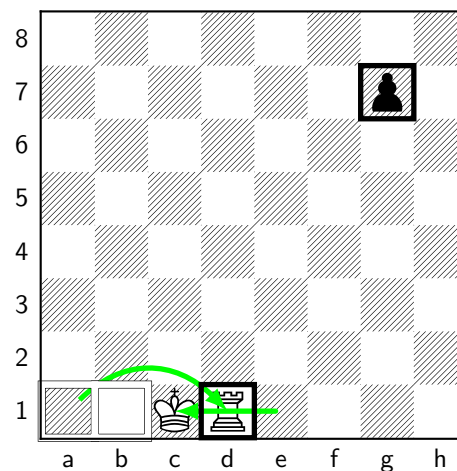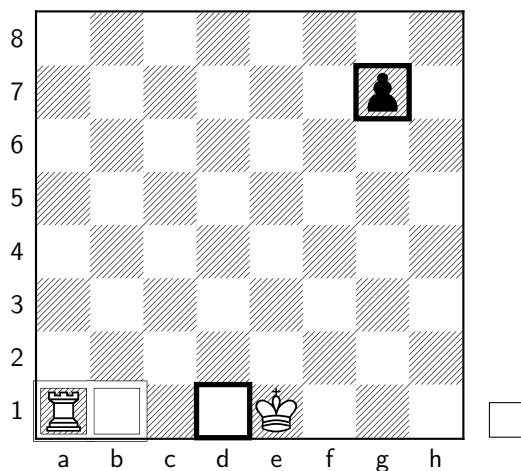

The above scenario captures an allowed cases of castling when some Gulti is in between King and Rook. Notice pawn cannot teleport through Gulti thus castling is **LEGAL** here.(Would have also worked if g7 gulti was unoccupied or occupied by some white piece)

Capturing The Gultis

The Gultis can only be captured both at once. To capture the Gultis both the Gultis must be occupied by some of the Opponent's pieces.
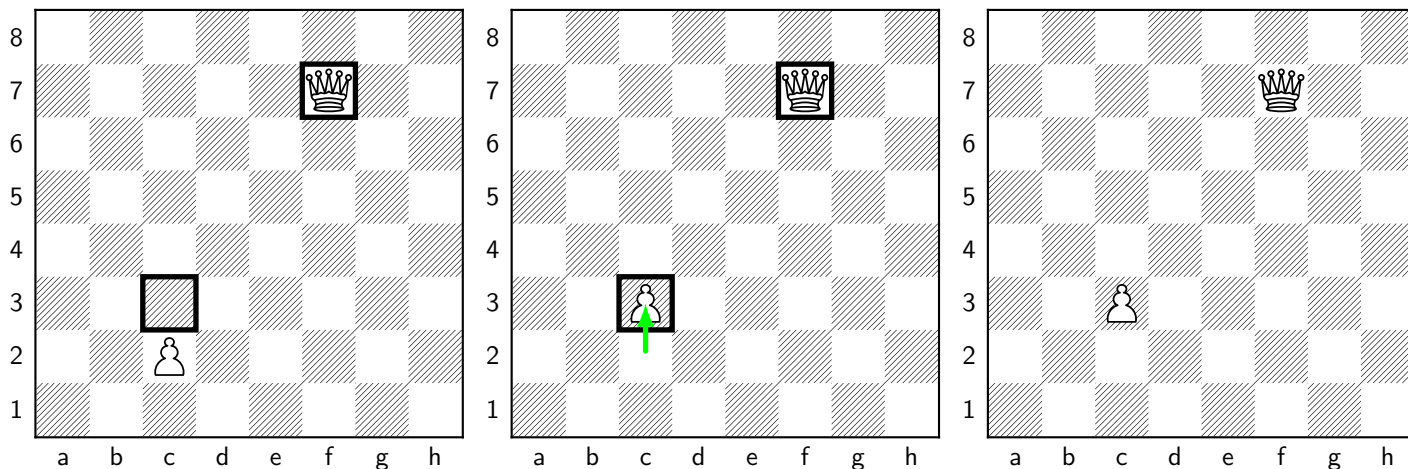
Its whites turn in left scenario. The scenario in the middle showing pawn moved to c3 and occupying c3 Gulti. In right scenario the Two black Gultis are removed from board as they are captured by white now.(All of this happens in single turn by white)
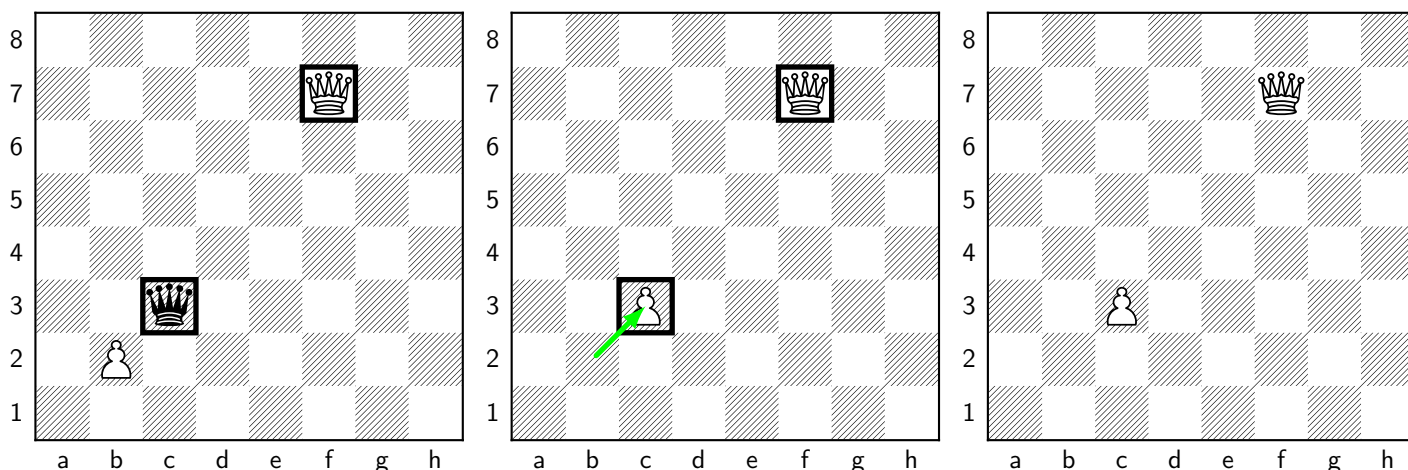
Its whites turn in left board scenario. The middle picture showing pawn captures c3 queen and also occupying c3 Gulti at the same time. In right its showing the Two black Gultis are removed from board as they are captured by white now. Note That one black queen and two black gulti are all captured in a single move by white here, which is completely **ALLOWED IN CHESS++**.

——

Discussion

is Gulti Offensive or Defensive piece?

- **Gulti as an offensive Piece:** The teleportation ability of the Gulti allows a player to reposition pieces quickly, enabling rapid development and coordination of attacking threats. This unique mechanic introduces opportunities for sudden and unexpected offensives , making Gulti a potent tool for aggressive play and very dangerous one in the hands of a creative players.

- **Gulti as a defensive piece:** The Gulti can be strategically used to reposition the king from a vulnerable location to a safer square, enabling more robust defensive play. This flexibility provides an extra layer of protection, especially when traditional escape routes are blocked.
  Verdict: Gultis can be effectively utilized for both defensive and offensive strategies, depending on the player's style of play. However, it is speculated that they will primarily be employed for

offensive purposes due to their ability to enable sudden threats and rapid repositioning. As more high-level Chess++ games are played, the dominant usage pattern of Gultis will become clearer.

Why Chess++ is going to have more longer and interesting games.

- **Extended Strategic Depth :** The newly introduced piece Gulti acts as a supportive unit, enabling repositioning of major pieces across the board. This encourages players to preserve more of their major pieces rather than trade them off early, potentially prolonging the game and deepening its complexity.

- **Reduced Early Resignations :** In standard chess, players often resign when facing a significant material or positional disadvantage. In Chess++, the potential for sudden counterplay through Gulti can inspire players to keep fighting, knowing that creative use of Gulti may turn the tables unexpectedly.

—

Future Scope

The journey of Chess++ has only just begun. While the core rules already introduce a fresh tactical dimension to the traditional game, the future holds countless exciting possibilities. As the community of players grows and strategies evolve. Please feel free to share your thoughts via mailing me at **rjdpdas131@gmail.com**

- **Necessary Rule Addition:** Based on player interest and feedback, several advanced features mentioned below could be added to further enrich gameplay:

  – Letting players freely place their two Gultis at the start on any file of the back rank, enabling personalized opening strategies.

  – Enabling instant teleportation.

  – Also allowing pawns to teleport using Gultis.

  – Allowing pawn promotion to a Gulti, opening up flexible endgame tactics.

  – Adding a third Gulti for each player, dramatically increasing the depth and dynamism of the game.

- **Global Online Platform:** A major step forward will be the development of a dedicated web-based Chess++ platform, allowing players worldwide to compete, experiment, and grow the community together. If you're passionate about this vision and would like to contribute to its development— whether in coding, design or anything please mail me at **rajdeepd261@gmail.com**

- **A Stage for the World's Best:** One of the ultimate dreams for Chess++ is to see it embraced in the world of elite chess. Imagine it featured in Freestyle Chess events, where top grandmasters explore its new frontiers. The day Chess++ is played at the highest level will be the true validation of its depth and elegance.

- **A Championship of Its Own:** why not dream bigger? The vision includes hosting a dedicated Chess++ World Championship, where new legends of this variant will emerge and history will be written.

Chess++ is more than a variant; it's an invitation to rethink the game of chess, to rediscover creativity, and to experience surprise and delight on every square.

—