# **Chess Notes**

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# **Preface**

These are my notes on various topics in chess, aggregated from a variety of sources.

This is a Quarto book. To learn more about Quarto books visit <a href="https://quarto.org/docs/books">https://quarto.org/docs/books</a>.

# Part I Openings

# 1 The Scotch

```
board_setup = function(data, title) {
 var game = data.find(d => d.title === title)
 // if there's just one variation, need to put in array
 var variations = game.variations
 var pos = game.start - 1
  var moved = false
 var onDragMove = function() {
   moved = true
    d3.select('#reset-' + title)
      .classed('btn-outline-secondary', false)
      .classed('btn-success', true)
    d3.select('#analyze-' + title).property("disabled", true)
    d3.select('#prev-' + title).property("disabled", true)
    d3.select('#next-' + title).property("disabled", true)
  }
  // Note: boolean arrays don't survive transpose(), need to use characters ("show" and "h
  var board = Chessboard(title, {showNotation: game.notation === 'show', position: game.pd
  // flip initial orientation if needed
  if (game.orientation === "black") {
   board.flip()
  }
  // resize board if window is resized
  $(window).resize(board.resize)
  d3.select('#prev-' + title).property("disabled", pos == 0)
```

```
d3.select('#next-' + title).property("disabled", pos == game.positions.length - 1)
$('#next-' + title).on('click', function () {
  if (pos < game.positions.length - 1) {
   pos = pos + 1
   board.position(game.positions[pos])
  d3.select('#analyze-' + title).property("disabled", false)
  d3.select('#prev-' + title).property("disabled", false)
 d3.select('#next-' + title).property("disabled", pos == game.positions.length - 1)
})
$('#prev-' + title).on('click', function () {
  if (pos > 0) {
   pos = pos - 1
   board.position(game.positions[pos])
  d3.select('#analyze-' + title).property("disabled", false)
  d3.select('#prev-' + title).property("disabled", pos == 0)
  d3.select('#next-' + title).property("disabled", false)
})
$('#reset-' + title).on('click', function() {
  // if pieces have not been moved, reset to beginning of line
  if (!moved) {
   // if looking at a variation, reset to main line
    if (!(variations === undefined) && variations.includes(game.title)) {
      d3.select('#' + game.title)
        .style("box-shadow", null)
        .style("color", null)
      game = data.find(d => d.title === title)
      pos = game.start - 1
      d3.select('#reset-' + title)
```

```
.classed('btn-primary', false)
      .classed('btn-outline-secondary', true)
  // Otherwise, reset main line (possibly to start of game)
  } else {
    // if reset button is pressed at starting position, totally reset board
    if (pos === game.start - 1) {
     pos = 0
    } else {
      pos = game.start - 1
  }
} else {
  // color reset button correctly if pieces are moved:
  if (!(variations === undefined) && variations.includes(game.title)) {
    d3.select('#reset-' + title)
      .classed('btn-primary', true)
      .classed('btn-success', false)
  } else {
    d3.select('#reset-' + title)
      .classed('btn-outline-secondary', true)
      .classed('btn-success', false)
 }
}
board.position(game.positions[pos])
d3.select('#analyze-' + title).property("disabled", false)
d3.select('#prev-' + title).property("disabled", pos == 0)
d3.select('#next-' + title).property("disabled", pos == game.positions.length - 1)
moved = false
```

```
})
$('#analyze-' + title).on('click', function() {
  window.open(game.link[pos], '_blank');
})
$('#flip-' + title).on('click', board.flip)
if (!(variations === undefined)) {
  if (!(Array.isArray(variations))) {
    variations = [variations]
  }
  for (let k = 0; k < variations.length; k++) {</pre>
    $('#' + variations[k]).on('click', function() {
      // if clicked on active variation, reset to main line
      if (game.title === variations[k]) {
        d3.select('#' + game.title)
          .style("box-shadow", null)
          .style("color", null)
        game = data.find(d => d.title === title)
        // Don't reset position if before start of game
        if (pos >= game.start) {
          pos = game.start - 1
        board.position(game.positions[pos])
        d3.select('#reset-' + title)
          .classed('btn-primary', false)
          .classed('btn-outline-secondary', true)
      // otherwise, set to selected variation
      } else {
```

```
game = data.find(d => d.title === variations[k])
        // Don't reset position if before start
        // (this allows for the complete viewing of variations)
        if (pos >= game.start) {
          pos = game.start - 1
        }
        board.position(game.positions[pos])
        d3.select('#reset-' + title)
          .classed('btn-outline-secondary', false)
          .classed('btn-success', false)
          .classed('btn-primary', true)
      // need to unset styling for other variations
      variations.filter(name => !(name === variations[k]))
        .map(name => {
          d3.select('#' + name)
            .style("box-shadow", null)
            .style("color", null)
            //.style("box-shadow", "inset 0 0 0 0 #2780e3")
            //.style("color", "#2780e3")
        })
      // indicate variation is selected
      d3.select('#' + variations[k])
        .style("box-shadow", "inset 10vw 0 0 0 #2780e3")
        .style("color", "white")
      }
      // activate/deactivate UI
      d3.select('#analyze-' + title).property("disabled", false)
      d3.select('#prev-' + title).property("disabled", pos == 0)
      d3.select('#next-' + title).property("disabled", pos == game.positions.length - 1)
   })
  }
}
```

```
scotch = transpose(scotch_t)

scotch.filter(d => d.type === 'main')
   .map(d => board_setup(scotch, d.title))
```

### 1.1 Introduction

## 1.2 Main Line (4.Nxd4)

#### 1.2.1 Classical Variation (4...Bc5)

- After 4.Nxd4 Bc5 there are three main lines:
  - 5.Nxc6
  - -5.Be3
  - -5.Nb3

#### 1.2.2 Schmidt Variation (4...Nf6)

- After 4.Nxd4 Nf6 there are two options:
  - The Mieses Variation: 5.Nxc6
  - The Scotch Four Knights Game: 5.Nc3

#### 1.2.3 Steinitz Variation (4...Qh4!?)

• Black wins a pawn here but gives white a lead in development and ends up with their king in a slightly awkward spot.

# 1.3 Scotch Gambit (4.Bc4)

- Black can accept with 4...Bc5 5.c3 dxc3.
  - Alternatively, 5...Nf6 transitions into the Italian Game
- 4...Bb4+ is the London Defense

## 1.4 Traps

## 1.4.1 Classical Variation (4.Nxd4 Bc5)

- If black doesn't defend the bishop on c5 after 4.Nxd5 Bc5 5.Be3, white can take the knight on c6, winning the bishop!
  - For example,  $\ 5....{\rm Nf}6$  loses the bishop
  - 5....d6 defends the bishop, but it's not pretty

# References

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# 2 Scandinavian Defense

```
board_setup = function(data, title) {
 var game = data.find(d => d.title === title)
 // if there's just one variation, need to put in array
  var variations = game.variations
 var pos = game.start - 1
  var moved = false
 var onDragMove = function() {
   moved = true
    d3.select('#reset-' + title)
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  }
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  if (game.orientation === "black") {
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  }
  // resize board if window is resized
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  d3.select('#prev-' + title).property("disabled", pos == 0)
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d3.select('#next-' + title).property("disabled", pos == game.positions.length - 1)
$('#next-' + title).on('click', function () {
  if (pos < game.positions.length - 1) {
   pos = pos + 1
   board.position(game.positions[pos])
  d3.select('#analyze-' + title).property("disabled", false)
  d3.select('#prev-' + title).property("disabled", false)
 d3.select('#next-' + title).property("disabled", pos == game.positions.length - 1)
})
$('#prev-' + title).on('click', function () {
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      .classed('btn-success', false)
  } else {
    d3.select('#reset-' + title)
      .classed('btn-outline-secondary', true)
      .classed('btn-success', false)
 }
}
board.position(game.positions[pos])
d3.select('#analyze-' + title).property("disabled", false)
d3.select('#prev-' + title).property("disabled", pos == 0)
d3.select('#next-' + title).property("disabled", pos == game.positions.length - 1)
moved = false
```

```
})
$('#analyze-' + title).on('click', function() {
  window.open(game.link[pos], '_blank');
})
$('#flip-' + title).on('click', board.flip)
if (!(variations === undefined)) {
  if (!(Array.isArray(variations))) {
    variations = [variations]
  }
  for (let k = 0; k < variations.length; k++) {</pre>
    $('#' + variations[k]).on('click', function() {
      // if clicked on active variation, reset to main line
      if (game.title === variations[k]) {
        d3.select('#' + game.title)
          .style("box-shadow", null)
          .style("color", null)
        game = data.find(d => d.title === title)
        // Don't reset position if before start of game
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          pos = game.start - 1
        board.position(game.positions[pos])
        d3.select('#reset-' + title)
          .classed('btn-primary', false)
          .classed('btn-outline-secondary', true)
      // otherwise, set to selected variation
      } else {
```

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game = data.find(d => d.title === variations[k])
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        // (this allows for the complete viewing of variations)
        if (pos >= game.start) {
          pos = game.start - 1
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        board.position(game.positions[pos])
        d3.select('#reset-' + title)
          .classed('btn-outline-secondary', false)
          .classed('btn-success', false)
          .classed('btn-primary', true)
      // need to unset styling for other variations
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        .map(name => {
          d3.select('#' + name)
            .style("box-shadow", null)
            .style("color", null)
            //.style("box-shadow", "inset 0 0 0 0 #2780e3")
            //.style("color", "#2780e3")
        })
      // indicate variation is selected
      d3.select('#' + variations[k])
        .style("box-shadow", "inset 10vw 0 0 0 #2780e3")
        .style("color", "white")
      }
      // activate/deactivate UI
      d3.select('#analyze-' + title).property("disabled", false)
      d3.select('#prev-' + title).property("disabled", pos == 0)
      d3.select('#next-' + title).property("disabled", pos == game.positions.length - 1)
   })
  }
}
```

```
transpose(scandi_t).filter(d => d.type === 'main')
.map(d => board_setup(transpose(scandi_t), d.title))
```

#### 2.1 Introduction

The Scandinavian Defense begins with 1.e4 d5. Then, white typically captures 2.exd5 and black recaptures with 2...Qxd5. Here, we will mainly be looking at at lines following 3.Nc3 Qd8. While there are other options after 3.Nc3 (3...Qa5, 3...Qd6), I am focusing on 3...Qd8 for now.

## 2.2 Main Line (2.exd5 Qxd5)

#### 2.2.1 4.d4 Nf6

#### 2.2.1.1 5.Nf3 Bg4

5.Nf3 is the most common response to 4.d4 Nf6. Meet this with 5...Bg4 to put pressure on d4 with the queen.

- 6.Bc4 threatens 7.Bxf7+ then 8.Ne5+
- 6.Be2 placeholder

#### 2.2.1.2 5.Bc4 a6

#### References

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# References