

ERROR in Spanish Checkers: The game is not ended as a draw when both players have one piece that are unable to capture each other.

Status: **UNSOLVED** - 04/11/2019

Error in:

Scenario Outline: End of the Game In Draw - Both Players Have One Piece

Given the game is played up to a certain point from file "<file_name>"

Given the player has only one piece on the game board

When the player jumps over one or multiple pieces leaving the opponent with only one piece that is unable to perform a jump move

>>>>>>>> Then the game is ended as a draw

Examples:

	file_name	
	endOfTheGameInDrawBothPlayersHaveOnePiece1	

The game set-up in SpanishCheckers.ini file is specified as follows:

```
[endOfTheGameInDrawBothPlayersHaveOnePiece1]
```

```
boardSetUp=endOfTheGameBoard1
```

```
playerMove=3,3>1,1
```

```
turn=white
```

```
[endOfTheGameBoard1]
```

```
2,2=black-pawn
```

```
3,3=white-pawn
```

```
6,2=black-pawn
```

Expected Behavior:

After the move, both players have one piece and they can not jump over the other.
The game should be ended as a draw.

Actual Behavior:

The game is NOT ended as a draw even though neither player can force a win on the other.

Error:

Players remaining with one piece does not bring the end of the game.

Test Outputs:

Before the move is conducted:

Testing: endOfTheGameInDrawBothPlayersHaveOnePiece1
Player turn: white
Player move: (3,3)->(1,1)
No promote count: 0
No capture count: 0
Best sequence: []
Prior move sequence: []
Game begins ...

	0	1	2	3	4	5	6	7	
7									7
6									6
5									5
4									4
3				W					3
2			B				B		2
1									1
0									0
	0	1	2	3	4	5	6	7	

Test Outputs:

After the move is conducted:

TEST RESULTS

Test: endOfTheGameInDrawBothPlayersHaveOnePiece1

Informers: [Player will NOT be asked for another destination coordinate (previous move was a jump move) because there are no more possibilities for a jump move.]

Final Informers: [Player will NOT be asked for another destination coordinate (previous move was a jump move) because there are no more possibilities for a jump move.]

```
Was player going to make another move?: false
```

End of the game? false

Board:

	0	1	2	3	4	5	6	7	
7									7
6									6
5									5
4									4
3									3
2							B		2
1		W							1
0									0
	0	1	2	3	4	5	6	7	

HOW DOES CUCUMBER HELP US FIND THE PROBLEM?

The following method in `AmericanCheckersScenarioTester` (superclass of `SpanishCheckersScenarioTester`) fails (lines are renumbered):

```
1 @Override
2 public void theGameIsEndedAsADraw() {
3     assertTrue(referee.getInfo().isGameEnded());
4     assertTrue(referee.getInfo().isDraw());
5 }
```

And we know that the game thinks player was still going to make another move.

WHERE IS THE PROBLEM?

In `SpanishReferee`'s `conductGame()` method, while the “game draw situation” is being checked at line 124, it is not checked whether players have one piece or not:

```
endOfGameDraw = (isSatisfied(noPromoteRule, this) );
```

Note: The same error also causes `endOfTheGameInDrawBothPlayersHaveOnePiece1` test to fail.