Catchup

Invented by Nick Bentley in 2010

Catchup is a simple abstract game with a devilish dynamic. The goal is to have the largest group of stones on the board when the board is full of stones, but as you get closer to winning, your opponent gets more powerful. Whereas most stone-placement games are about position, Catchup is about timing, position, and the interplay between them.

Definitions:

1. Group – a set of connected, like-colored stones on the board. A single stone is also considered a group.

2. Score - your score is the number of stones contained in your largest group. At the beginning of the game, both players' scores are set to 1

Rules:

1. One player owns the white stones and the other owns the black. White begins by placing 1 stone on any empty space.

2. From then on, starting with black, players take turns. On your turn, you may place 1 or 2 stones, or up to 3 if your opponent's score increased on their last turn and is, at the beginning of your turn, greater than or equal to your score.

3. After taking your turn, if your score has changed, move your pawn to the corresponding spot on the scoring track.

4. The game ends when the board is full. The player with the largest group wins. If the players' largest groups are the same size, compare their second-largest groups, and so on, until you come to a pair which aren't the same size. Whoever owns the larger of the two wins.

[from https://docs.littlegolem.net/games/catchup/]

This game has seen many versions up to the current one. Check some versions at [r.g.c backup](#) (search for **Ketchup**, its older name).

But besides that, there are also some predecessors to consider about its history.

It seems to me that there is a kind of path connecting Catchup to an older Nick's game, **Product**, where there is also the idea of gaining with the biggest group, but in this case, but players drop two stones of either color.

The next draft games post of r.g.a could point to where his design was evolving along this path:

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https://groups.google.com/g/rec.games.abstract/c/fFyAiuipn6Q

https://rec.games.abstract.narkive.com/NZaFY2c1/plur#

Nick Bentley, Apr 15, 2009, 8:14:43PM

Plur: Another untested idea. Plur is short for Plurality. Rules:

For two players, played with black and white stones on a hexagonal tiling. I don't know what the optimal board shape/size will be yet.

Player 1 owns the black stones and player 2 owns the white.

1. Board begins empty.

2. Starting with black, players take turns putting a stone onto any empty space.

3. Game ends when board is full.

4. Whichever player owns the majority of the three largest connected groups on the board wins. If it's impossible to clearly identify the three largest groups because two or more groups are tied for "third largest group", then the player who has the majority of the 5 largest groups wins, and so on. If you go all the way down the line without a tie-break, the game is a draw.

It may need a pie rule. I don't know.

Nick proposed before another game: Too

https://rec.games.abstract.narkive.com/6ko6erhR/too#

Rules:

1) Starting with player 1, the players take turns.

2) On his turn, a player must place a stone of either color onto any empty space.

3) The game ends when board is full.

4) If the 2nd-largest black group is bigger than the 2nd largest white group, then player 1 wins. Player 2 wins otherwise. (If the board contains only one group of a given color, that color's 2nd largest group is said to be zero.)

Note: if two or more groups of the same color are tied for "nth-largest" group of that color, then one is arbitrarily considered the nth largest group of that color, another is considered the (n+1)th largest, and so on.

Ok, these rules are simpler, and although they may look like they lead to an unbalanced game, I'm not sure this is so. Here's why I think so: Player 1 has the decisive advantage on small boards. Consider the 7-cell hexhex board. Player 1 can win easily by placing a white stone on the central hex (thus ensuring that there will only be one white group at game's and). Player 1's advantage springs from the fact that on small board, he can make it impossible for two white groups to exist. As the board size grows, there's an increasing amount of space to ensure a second white group, and in fact in certain positions the extra white stone on the board could be a liability for player 1, since it could allow the 2nd largest white group to be one stone bigger or the second largest black group to be one stone smaller, or both. So as board size grows, player 1's advantage decreases, and possibly even reverses at some point. If white's advantages decreases sufficiently smoothly as board size grows, then there should be some board size where player 1's advantage is pretty nearly offset by the "tiebreak" advantage given to player 2 in this new version of the rules. If that's the case, it could be that there is symmetry where it really matters, in the winning chances, even if the goals are slightly asymmetrical. Let me know if I've said anything stupid, and which version of the game you think you'd prefer.

Also : https://rec.games.abstract.narkive.com/b3Bfiw1d/brink#

Another unplayed, untested idea. I love the idea of the win condition "largest group wins", because it's one of the most intuitive ideas in all of game-dom. But it needs a tweak to make an interesting game. One attempt follows. I hope this one works out because I like its concept.

For two players, played with black and white stones on a hexagonal tiling. I don't know what the optimal board shape/size will be yet.

Player 1 owns the black stones and player 2 owns the white.

1. Board begins empty.

2. Starting with black, players take turns putting a stone onto any empty space.

3. Game ends when board is full.

4. The player with the largest connected group on the board loses, *unless* that group is at least X stones larger than the largest connected group of the other color. In that case, the player with the largest group wins.

If the largest groups of both colors are of the same size, then compare second-largest groups. Whoever's second-largest group is bigger wins. If *those* are tied, compare 3rd largest groups, etc.

If it's tied all the way down the line, the game is a draw.

The idea is to set the value of X so that there is a good balance between trying to make the smallest group and trying to make the largest group in order to win. Obviously, the ideal value for X will depend on the board you're playing on.

Finally, let's me place here a variant of (an early version) of Catchup, made in 2010 by Bill Taylor and play-tested by Bill and me (João Neto), called **Sauce**.

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SAUCE
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After a turn is made, the largest connected groups for each player
must be of different sizes.  The exception is if both players have
only singles. While both players have only singles, the moves per turn
are 12*. Otherwise, the player about to move places three stones on
any vacant cells, if he has the smaller largest-connected-group;
otherwise two stones. Passes are always legal instead of placements.

When the board is full, the player with the largest connected group
wins.

A sample game:

:    abcdefghijklmnopq              ___B_____J___
:        . . . B j          1.   ... i5        g3   f6
:       j . j j b .         2.   f4  l7        k5   d4
:      b j j b b . .        3.   i3  i7        d2   n4
:      . j b b j b j .      4.   l2  c3        j2   k7
:     . b j j b j . . .     5.   l4  c5        g5   j4
:      . j j . b b . .      6.  h4 k3 j6    g2 e3 e5
:       j b b b j . .       7.   e7  g7     d6 c7 m1
:        B . . . . .        8.   d8  k1        resign
:         . . . . .         9.
:    abcdefghijklmnopq
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