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Bringing all the merits of a typical great first-person puzzle game together, the game Portal has made itself a milestone in both FPS and puzzle game genres. The innovations that it achieved have made it even more influential and taught a lesson to later games, and one of the creativities is using momentum to solve puzzles.

Like most games, Portal has a physics engine that simulates real-world physical phenomena. Even though the main theme of the game is about space, the gravity law still applies. Players could use the gravitational energy of falling and transform it to momentum to help them move forward with the right method of using portals. Some levels in the earlier chapters of the game even require you to use momentum to solve problem, which is the only way to progress. During my playthrough of Portal, I remembered in chapter II, there is a tutorial level about using momentum. In the tutorial, I was standing on a high platform and my goal was to get to the other platform in front of me, though with a huge gap between. Jumping to the platform was not an option regarding the distance between the two platforms. At the bottom there was an orange portal, and it served as a clue to make me jump into it. There was a surface that was portal-friendly behind me on the wall, so I created a blue portal on the wall, and then jumped into the orange one from the high platform. Because the gravitational energy had transformed to momentum, I was able to maintain the speed of the free falling into the orange portal, and the speed was fast enough to let me reach my destination. Of course, this was the simplest puzzle in the game that using momentum was required. There were much harder puzzles in which using momentum was just one of the many steps toward solving the problem, and that was the challenging and innovational part of the game.

Portal has opened the gateway of the combination of FPS and puzzle games for later games, and thanks to Portal the innovations in puzzle games have been a blossom since then. Great games like The Witness today have made puzzle games much more fun and various in themes. I hope the creativity in puzzle game will eventually help this genre more popular than only played by core players.