

**Genres:** *The Magic Hat* belongs to the 2D asymmetric co-op, run and gun (shoot 'em up), "boss hell" genres.

\*\*Boss hell is a genre where progression is based heavily on continuously defeating bosses.

*Cuphead* is 2D, run and gun "boss hell" where two brothers must fight a series of challenging debtors to escape the clutches of the devil. Claim the souls of these debtors, or the devil will claim yours!

*Furi* is an action, run and gun "boss hell" where the player must fight intense, one-on-one battles to reclaim his freedom. All the while, as the player endures these battles, they unravel the mystery of why they were imprisoned/tortured to begin with.

*Star Fox Zero* is a 3D shoot 'em up where Fox McCloud, and his cohort, must blast their way through the universe to save it from an evil empire. Face off with enemies through multidimensional dogfights, and pilot multiple vehicles to dominate both the land and the sky.

*Metal Slug* is a run-and-gun, scrolling arcade-style game starring Marco Rossi of the Peregrine Falcons Special Forces Squad. The player must plough through ruthless waves of rebel army soldiers to free prisoners of war and restore peace on the planet!

*Contra* is a run and gun game where players have to shoot enemies while moving from one platform to another. The player only has one health, but can respawn several times to try and get through a stage and take out boss enemies.

*Ghosts 'n Goblins* is a run and gun game where players have to save a kidnapped princess by progressing through multiple stages. The player can pick up different types of weapons that are advantageous against different foes.

*The Binding of Isaac: Rebirth* is an unforgiving run and gun roguelike which follows the story of Isaac, a boy trying to escape his basement after his mother tried to take his life after the Lord instructed her to do so.

*Bloodborne* is an action role-playing game with boss rush influences developed by FromSoftware, which drops players in the gothic city of Yharnam. Upon arriving, it's discovered that the people of Yharnam have been plagued with a bloodborne illness, which transforms them into beast-like creatures.

### **Cuphead and Furi**

3 mechanic Differences: Cuphead and Furi have different mechanisms for rewarding players for completing levels: Cuphead grades players performances and awards them a ranking at the end of the level. Furi, on the other hand, relies on satisfying finishers on bosses/cutscenes to keep them engaged. Another difference lies in how the games

convey their story; while Furi depends heavily on cutscenes to tell players the story, Cuphead establishes its story in only an opening scene, then relies on its gameplay to tell the story from there. A third difference: Cuphead's boss fight levels transitions between 3 bosses, while Furi's boss battles are one-on-one, where the one boss will alter their attack behaviors as their health decreases.

Manifest of differences: As players play through both of these games, they would notice a substantial difference in how they are rewarded in either game. In Cuphead, your overall performance is used to reward a certain grade at the end of a level. Time, number of attacks from the boss you parried, and the difficulty you played the level on is factor into the score; you ultimately get a grade between a D- to a S rank. The grading system encourages you to improve your skills playing the game by repeating levels to get better grades. These replays also allow for you to collect "coins" in the environment that you missed previously, allowing you to save money to buy weapon upgrades for your characters. Furi, on the other hand, does not appear to have an explicit reward system. It does not have a system for grading players in the normal game (only for a boss rush mode that is unlocked after completing the game once) that has a visual benefit. There are no upgrades for weapons or character abilities, and all the tools and combat abilities in the player's arsenal are static (do not change). Instead of having an explicit reward system, Furi features a satisfying combat system that revolves around the usage of finishing moves on the bosses. Whenever a boss is in a vulnerable state, or their health has reached a certain threshold, the player's next attacks trigger a short

cutscene where the boss is stylishly attacked to move the battle to its next stage. These transitions are rewarding in how reassuring they are to the player: they indicate to the player that they are making progress in each boss, and encourages them to keep going until they kill the boss. Overall, cupheads system seems to be built more towards replayability/multiple playthroughs and trying out different upgrades, while Furi is designed to be a memorable/intimate experience the first time you play it, with optional game modes available to dedicated players who want to master the fixed mechanics of the game.

Another interesting difference in both games is how they both convey story telling. Cuphead is a game with very little cutscenes; there is a strong, yet simple, cutscene to introduce the main characters, their dilemma, and the antagonists that they will face. After that, the game depends on its gameplay loop to move the player forward. Essentially, the game revolves around fighting multiple bosses (called debtors to the devil) in order to reclaim your soul for the devil. Although every boss is significantly different in their aesthetics, the player know beforehand that their only purpose is to defeat them, and claim their souls. Moreover, no deeper plot development is necessary for the player to understand why these bosses are a threat, or how they became in debt to the devil in the first place. With Furi, on the other hand, there is a strong emphasis on linear story-telling in closed environments. Before every boss, there is a long cutscene to unravel more of the games story, and to slowly update the player on the game world's status before they face the boss battle. In addition, during the boss fights themselves, the characters often have dialogs which further explain the background of

the story, and their motives for fighting the protagonists. Overall, the story methods that both games employ are effective, and make both games accommodating to players of different tastes. Those interested in a more arcade, casual, experience, may prefer Cuphead since its story does not require much effort to understand, and it is easier to jump in and play levels quickly. On the other hand, those who prefer linear storytelling and like to procedurally progress through gameplay to unravel the mysteries of a story's plot may prefer Furi since it has a greater emphasis on story, and features a mythos the player can immerse themselves in.

It was also interesting to see how both games' boss battles progressed as the player fought them. In Cuphead, each boss battle is composed of a chain of mini-bosses. Sometimes, the main boss evolved into another boss who exhibited completely different behaviors from what it originally had. Other boss battles literally have 3 sub bosses the player had to fight where the attack patterns of each were uncommon. In Furi, on the other hand, the bosses procedurally unlock behaviors that extend their previous attack patterns. In Furi, there is a greater emphasis on grueling, intense, one on one battles. Each boss will begin with basic attack patterns that set the stage for how the player must approach defeating them. As the player begins to lower the bosses health bar to fixed thresholds, the bosses begin to extend their previous attack patterns. These extended behaviors are similar to previous attack patterns that the player fought against; however, they are trickier to solve for, faster, and may evolve the player changing their main strategy to accommodate more techniques available their arsenal. Furthermore, each boss has a desperation move where the battle essentially

becomes a bullet hell: the bosses will begin to fire many types of projectiles at once, and the player must use dodging maneuvers and the battle arena to avoid them. Overall, Cuphead seems to require players to be prepared for almost unpredictable situations; the first time you encounter a boss level, it is hard to telegraph each boss' attack patterns. Trial and error (dying multiple times) may be necessary for players to progress through Cuphead's boss battles. In Furi, on the other hand, players have more leeway to adapt to the bosses attack patterns the first time they face the boss. As the battles progress, the player only needs to incorporate different attack/dodging techniques to adjust to the new attack variations the boss exhibits.

### **Metal Slug and Star Fox Zero**

Enemy density differs greatly between *Metal Slug* and *Star Fox Zero*. More broadly, the density of destructible objects in the game view differs greatly between the two games. In *Metal Slug*, enemies and destructible environmental objects are packed tightly within the game view. This means every shot fired is likely to take out or damage an enemy, blow up an environmental object, or free a prisoner-of-war. Coupled with the fact that the player's default pistol has infinite ammo (and ammo for more powerful weapons is easy to acquire), the player constantly receives instant gratification as long as they keep firing their weapon. Since there's therefore not much skill involved in fighting, and the game view abounds with potential targets, the game ironically becomes one of enemy avoidance. In comparison, enemies in *Star Fox Zero* are sparse

throughout the game environment. Although the reticule can lock-on to enemies to make attacking easier, the player generally has to aim carefully to damage an enemy. Thus, gratification comes from the fact that every hit requires some level of skill. The sparsity of enemies (with the exception of boss battles) dually means the player doesn't have to worry as much about enemy avoidance compared to *Metal Slug*, and must instead focus their efforts on precision in battle.

The variety of controls in *Metal Slug* is much less than in *Star Fox Zero*. The player must use a joystick to move, press 'A' to shoot, 'B' to jump, and 'C' to throw a grenade. These simple controls, combined with the fact that there is little to no penalty for spamming them, encourages "Press X to not die" gameplay; but in all fairness, this allows the player to focus on the on-screen chaos caused by the density of enemies. On the other hand, *Star Fox Zero* controls are very involved (note that the game was made for the Nintendo Switch): gamepad motion is used for aiming, ZL enters target mode, ZR fires a laser, 'B' enter all-range mode, 'A' transforms the Arwing vessel into a terrestrial vehicle, X or simultaneously flicking the sticks in opposite directions triggers a somersault, the left stick is used to ascend and descend, and the right stick is used to speed up, brake, and barrel roll. This game uses the fullest possible range of controls to make the player feel as if they're truly in charge of a sleek, intricate, highly capable war vehicle. Indeed, through repeated practice with them in the game's various battles, the player will develop mastery of the controls and garner satisfaction from the maneuvers they'll be able to pull off as a result.

Finally, *Metal Slug* and *Star Fox Zero* handle story progression very differently. *Metal Slug* is a true side- and vertical-scroller (depending on what level the player is in). In a vertical-scrolling level, the player cannot descend after ascending, and in a side-scrolling level, they generally can't go backward past the left edge of the game view. The player is forced to always move "forward," and in doing so, encounters frequent, seamless, beautiful scene changes which make them feel as if they're discovering new areas and making progress. Meanwhile, the all-range mode in *Star Fox Zero*, which pretty much allows the player to move in whatever direction they want, rules out forced motion as a means of story progression. Instead, story progression occurs in the form of constant feedback from the player's NPC peers. For each phase of a mission, NPCs engage in dialogue that clearly outline a task that the player must complete. Throughout the task, they provide dynamic feedback on the player's performance, usually by somehow indicating how close the task is to completion. Upon the task's completion, NPCs will advise the player to go in a certain direction toward the next task. Thus, the game's story progresses through dialogue and implicit "stage directions". These are crucial, as the game would feel incredibly lonely and aimless without it.



## **Contra and Ghosts 'n Goblins**

In *Contra* a player can shoot as many bullets as they want without penalty, but in *Ghosts 'n Goblins*, players can only have a limited number of projectiles on screen at a time. Being able to fire as many projectiles as possible makes *Contra* much more fun to play since, as a player, I don't have to worry about watching how many projectiles I currently have on screen. Having the limit in *Ghosts 'n Goblins* makes the game much more frustrating and forces the player to just dodge enemies rather than attack them since you never know if you can shoot (especially when equipped with the torch or axe).

Players in *Contra* can revive without losing any progress a few times, but in *Ghosts 'n Goblins* a player can only be revived at the last checkpoint they reached, setting them back quite a bit. When revived in *Contra* the player will lose any special weapon they picked up, but they will be in the same location as where they died, which makes progressing much easier since the player can use the invincibility frames they have to move forward. However, after a few revives the player will have to respawn at the closest checkpoint instead, which seems fair. In *Ghosts 'n Goblins* a player has two hit points (the first is the armor), but after they die they will be revived at the previous checkpoint. These checkpoints can sometimes feel far away, especially when the player dies fighting a boss and must then clear the entire area once again to get to the boss, usually arriving not at full health. Having all that progress undone usually makes a player feel cheated and frustrated at the system.

One more significant difference between the two games is that the player in *Contra* can aim his weapon in eight directions, but the player in *Ghosts 'n Goblins* can

only shoot in the direction he is facing. Not having to jump to be able to hit enemies above you or being able to do something about the enemies not on the same platform level as you gives the player more room to explore the level. This is why players are more likely to go for power ups in *Contra*, since they don't have to worry about an enemy on a platform above or below constantly attacking them after they dispose of that enemy without changing platforms. Going for possible weapon or item drops in *Ghosts 'n Goblins* is not as easy since the player will have to try to reach new platforms while constantly avoiding enemy fire because they can't shoot these enemies before reaching the new platform. It is usually just easier to keep going and letting these enemies fade into the background.

### **Bloodborne and the Binding of Isaac**

Both *Bloodborne* and *The Binding of Isaac* are unforgiving in their difficulty and amount of health available. Where they begin to differ is how they allow the player to manage their health. *Bloodborne* takes a more traditional RPG approach, allowing the player to equip items which can be used to regenerate their health. These items cost the player Blood Echoes, the games "currency", which means the player has to decide whether or not healing is worth the cost. *The Binding Of Isaac* is less forgiving, only allowing the player to have health replenished when they collect a heart by defeating enemies. This is determined by RNG, which keeps a player on their toes since they're unaware of when they'll receive one of these items. *Bloodborne's* gameplay feels more like a traditional RPG, allowing a player to take risks if they know they have the items

necessary to take those risks. Players aren't afraid of dying with every room and boss fight they enter. The risk is there, but if they have an inventory full of blood vials, there's less concern about risking getting hit once to get a few additional swipes at a boss. While gameplay in *The Binding of Isaac* is far more full of risk, it's often more rewarding. Venturing into a dangerous room often leads to treasure and rewards. Players really need to weigh the pros and cons before making a decision to enter a room, since rooms are locked while enemies are present in a room. The game gives players a bit of breathing room by using a projectile-based weapon rather than a close-range melee attack. Decisions are made based on rewards rather than accelerating progression.

On the topic of the consequences of health and damage, both *Bloodborne* and *The Binding of Isaac* take pleasure in punishing the player for playing poorly. In *Bloodborne*, the number of Blood Echoes you've collected since you last saved your progress will be relinquished at the site of your death. If the player is able to return to where they died in time, they're able to retrieve the blood echoes. If they die again, the blood echoes are lost forever. In *The Binding of Isaac*, any items collected during a players' run are lost, with no chance of the player regaining their progress. *The Binding of Isaac* has a much more permanent feel to a player's death, since there's no chance for a player to get back to the point they were at in the game. Both mechanics will force a player to play more careful if they've made progress they care about. Progress in both games is a product of a player's work and patience and affect the player's abilities in game. However, in *The Binding of Isaac*, the progression is mostly story-based. (Beating bosses, exploring the dungeons, etc.) This is done BECAUSE the game is so

unforgiving. Dying doesn't necessarily put you at a major disadvantage compared to how you were playing before you died, you just need to redo the work you had put in previously. *Bloodborne's* death system can actually be interpreted as more cruel if a player had been playing for an extended period of time and had a large number of Blood Echoes. The player's progress with the lore may have been saved, but they're now at a major disadvantage because they've effectively lost progress with the player's strength by losing blood echoes.

Both of these games have co-op play, but the way they work aren't as similar as one would think. In *The Binding of Isaac*, co-op play comes at a cost: when another player wants to join the game, Isaac (or the character playing as Player 1) loses a heart container. The additional fire power adds additional risk when compared to solo play. It's not immediately obvious if it's worth completing a run with both players playing at the same time. To give the players a bit more flexibility, the additional players can abandon the game at any time to give Isaac back the heart container they stole to start playing. *Bloodborne* doesn't make co-op an obvious win either. When playing multiplayer, bosses have more health than they do during solo play, but their attacks aren't made any stronger and neither player has their health cut. When playing in co-op in *The Binding of Isaac*, the focus is less on individual survival but rather survival of the whole party. When one of the additional players realizes that Isaac is running low on health or they realize their presence isn't necessary, they can bail and help out Isaac by giving him a heart container back. However, *Bloodborne* co-op makes it an obvious choice to gather a bunch of friends together to take down a difficult boss, especially if you have

friends with different builds based on how a player has leveled up throughout the game. You can get different playstyles and skillsets working on the same boss, accenting each other's strengths and weaknesses. As long as the hosting player is alive, the entire party can continue to work on the boss and all of the players reap the rewards.