

REACTIVE COMBAT

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The motivation behind reactive combat

Reactive combat allows for bigger and more interesting combat experiences, and solves a lot of problems with existing combat systems.

But before we start, let's briefly recall how a combat system works in D&D and Pathfinder, and talk about the main problem.

In Pathfinder and D&D, combat is sequential, not really *reactive*. It is difficult to react to an action. All the creatures/players participating in the fight launch their initiative during the first turn, a value that must then be followed, and even adapted when certain *delays* occur on the turn. The management job for the GM is complex and gives very little in return!

A sequential combat system is bad for storytelling because it becomes disconnected from the story being told by the GM and their players.

Players will optimize their character's actions for *sequential combat*, not the combat they want to do.

Before going any further, it should be noted that reactions exist in D&D and Pathfinder. With Pathfinder, the reactions are in practice never used, and moreover, it is a very strange system which gives a lot of information to the GM.

For example, if a mage wants to cast the *Dispel Magic spell* to cancel a spell that comes from a spellcaster that plays after him, he must announce that he is doing a *ready action* with a certain condition attached to it. The condition is either communicated to the GM or written down on a piece of paper.

With D&D 5, we write on the sheet of a monster if its action gives the players a reaction. It's a simple and effective system, but almost creates a pre-scripted fight.

In short, these existing combat systems require a good amount of management, and in return essentially only offer very sequential combat. The consequence is obvious: players will optimize to play sequentially. Which limits the possibilities of our characters; and therefore, prevents the fight scenes from telling our story properly.

I found a solution to this problem with my group of players. This combat system is called reactive combat.

The difference between roleplay mode and combat mode

First of all, it should be noted that the majority of game time is spent in *Roleplay mode*, because the primary interest of D&D is to embody a character in a fantasy world.

In *Roleplay mode*, players perform actions with their characters and participate in dialogues with each other, or with the GM. It is a game mode that allows you to progress the game at any rate: seconds, minutes, hours and even years.

On the other hand, we need a turn-based game mode to skillfully play our character in situations where he competes with other creatures (combats for example). We will name this game mode *Combat mode*. Here, we can imagine that each round takes around six seconds of actual game time. We will now explain how this turn-based system works, which we will also call the combat system.

Reactive Combat

In our combat system, we need to focus on several elements:

1. The actions that our characters have. Certain characters or creatures, of higher level, or of a different class, will have a greater number of actions.
2. The duration of their actions. Some actions are faster than others to perform.
3. If two characters perform an action of the same duration at the same time, which action is played first?

If we can answer all these questions correctly, then we will have an interesting combat system.

A character's actions

- Each turn, a character can perform *all* of their actions.

- With exceptions, characters have two actions per turn: the *Full action* and the *Swift action*.
- These two actions can then be freely transformed into other actions with the grammar described below.
- Actions have a duration which is expressed in a unit of time called a *tick*.
- Simple actions have a duration of 1 tick, and more complex actions have a duration of 3 ticks.

Here are the rules for transforming actions:

Full Action	→	Standard Action
Standard Action	→	n iterative attacks*
Standard Action	→	Swift Action
Swift action	→	1 iterative attack

Regarding the duration of these actions, we can immediately give a quick list of the durations of the actions in *ticks*:

- 1 tick: Swift action or iterative attack
- 2 ticks: Standard Action
- 3 ticks: Full Action

*: A character with a lot of experience (feats or BAB) will have many iterative attacks, while a level 1 character will only have one.

The *ticks* of a round

The character with the most *swift* actions in a given turn (example: a monk with six attacks), dictates the maximum number of ticks for the turn.

For example, if character A can do 4 *swift* actions, and character B can do 5 *swift actions*, the turn will last a maximum of 5 ticks.

Example: Wall of Stone vs. Arrow

Magician wants to cast the *Wall of Stone spell*. Casting this spell consumes its Standard action and takes a duration of two *ticks*.

Archer tries to stop him from creating his Wall of Stone, by sending an arrow through his knee.

Note the syntax used here. Described in order:

1. The tick of this action
2. The character performing the action
3. A brief description of the action performed
4. The percentage of completion of the action, when it is an action longer than one tick
5. The action consumed in the character's action bank (Swift Action, Standard/Full Action or iterative attack)

Round 1

1- Magician casts *Wall of Stone (1/2 done, consumes Standard Action)*

1- Archer equips his bow (consumes Action *Swift*)

2- Magician completes his *Wall of Stone (100% complete, consumes Standard Action)*

2- Archer shoots an arrow on Bob's knee (consumes iterative attack)

Here a question arises: does Bob complete his *Wall of Stone* before the arrow hits him? To answer this question, we therefore introduce the notion of *reactivity* in combat. This notion of reactivity works as follows: when we have several actions having the same duration being in competition, we make *Reflex rolls* for each one in order to know which action is carried out first ¹.

¹ It should also be noted that the owner of the action (a player, or the GM) may decide to voluntarily lose their place in the stack of actions (to advance the game more quickly, or because the result of going first or last is the same for him).

Reactivity

As discussed in the previous example, in order to distinguish between two actions that have the same remaining duration, we roll a *Reflex save*. A *Reflex save* represents a creature's supernatural ability to react quickly. A creature's dexterity as well as its level of experience (HD, feats) plays a huge role in the final score of *the Reflex roll*.

To make this opposite reflex roll, we therefore take Magician's *Reflex save*, and Archer's *Reflex save*, and we compare the values, which lets us know which action ends first. Distinguishing actions of the same remaining duration in this way works with any number of actions being in competition. Simply roll the *Reflex Save scores*, and sort them in descending order, to find out which action has priority.

So let's continue the **Example: *Wall of Stone versus Arrow***. In this example, at tick 2, the *Wall of Stone spell* ends its cast, but Jerome's arrow is almost there as well. Which event comes first?

If Archer is a 10 warrior, with +3 in dexterity, he will have a *Reflex Save* equal to:

$1d20 + \frac{1}{2} (\text{level } 10) + 3 \text{ dexterity} = 1d20+8 \text{ or } +8$

And now give Magician a *Reflex Save* of $1d20+10$

Now in possession of both *Reflex Saves*, we *roll against*. If the roll is equal, the roll is repeated.

The jets are now launched, here are the two possible scenarios:

- If Archer wins the *Reflex Save*, then his arrow hits Wizard while casting the *Wall of Stone spell*. Also, if this arrow does enough damage (25% of Magician's total hp), then the spell is canceled.
- If Magician wins the *Reflex Save*, then his stone wall is erected, and Jerome's arrow, then in full flight, is planted in it².

² This is a good way for the GM to interpret the order of these events but note that it is the GM who interprets this sequence of events based on the score, and based on what makes sense. for the situation.

Flat-footed

The concept of the *surprise round* no longer exists. Now an opponent is always *flat-footed*, when the opponent is unconcerned about an attack or action. When an opponent is *flat-footed*, he loses his dexterity bonus to his armor (AC), and to his *Reflex Save* . He also leaves himself vulnerable to certain special actions that guarantee a *critical hit*.

Example: Stealth for critical hit

The dwarf Valin is hidden in a tree. The Owlbear is in full combat with Merenin, rune warrior and prince of *Kaz 'Nakaram*. Valin drops from the tree into the sinking snow and moves silently into the Owlbear's back. Valin opposes his *Reflex* roll to the Owlbear 's *Perception roll*. If Valin's roll succeeds, then the Owlbear hasn't noticed. Valin goes 10ft from the Owlbear, and activates his *Head Hole special action*. He fires two fatal bullets into the Owlbear's head and lands two critical hits.

Movement

In the new combat system, the character can move, and use its movement during any normal action. The standard behavior is that the character can move 1x its speed during an action. This limit can be specified for a given action. A character's movement limit, for a whole turn, is equal to 2x its speed.

Special Conditions (Stunned, Paralyzed etc.)

When a creature suffers a special condition, the condition almost always lasts for a certain number of turns. In order to correctly represent the start and end of these conditions, the GM or player responsible for the creature must correctly note when the condition begins, noting the turn and the tick.

Example: Merenin vs Owlbear

Merenin confronts a gigantic Owlbear alone. Merenin has four iterative actions in its *Standard action*, and has a *Swift action*. This gives the turn a maximum of 5 ticks. On turn 2 and tick 2, Merenin uses *Stunning Fist*, and stuns the Owlbear for one turn. The Owlbear therefore starts playing again on turn 3, tick 2. Since Merenin can make five iterative attacks by combining his *Standard Action* and *Swift Action*, Merenin can attack a stunned *Owlbear* at tick 3,4,5 and tick 1 of the third turn.

Free Action

The *Free action* is an action that runs faster than the *Swift action*. This action is automatically performed, when you want to do it, and there is never any competition between different *Free actions*.

Example: A very useful perception

Valin, Portin and Merenin fight Vlad's bandits. Portin, the dwarf of the number, is not a fighter, and therefore leaves his two companions to face the bandits alone, he sticks against the wall of a house in order to protect his rear. Suddenly, Valin, the merchant dwarf, sees a bandit with a bow on the roof of a house. Portin did not see him. The bandit targets Portin. Valin yells, "Careful Portin, look at the roof!" (Free Action for Valin)

Portin then sees the bandit and moves just in time to avoid the arrow (He is not flat-footed).

Advanced combat concepts

1. Some characters can do several actions at the same time (so more than one action in the same *tick*)
2. You can cancel an action, and change it for another, but this action must always be **faster**. Also, you can't undo a *Swift action*. Note that if you cast a spell and cancel it, you have lost that spell slot. One

cannot therefore bluff with the incantation of long spells, without losing out on the exchange.

Examples

Combat turn, Pathfinder vs Cerberus RPG

PATHFINDER

Characters:

- Christophe Leblanc, Magician
- Merenin, Monk
- Owlbear (Opponent)

Initiatives:

Christophe Leblanc: roll 10 on initiative

Merenin: roll 15 in initiative

Owlbear: roll 2 in initiative

Round 1:

First to play, **Merenin** charges the Owlbear. It makes an attack on the Owlbear at the end of its charge. The Owlbear is *flat-footed* against Merenin's attack.

Christophe Leblanc summons *Summon Monster IV* to spawn a *Dire Tiger*. The Dire Tiger spawns at the start of the next turn.

The Owlbear attacks Merenin with a bite attack and 2 claws (Full-round attack)
The round is over. We go to round two.

CERBERUS RPG

Characters:

- Christophe Leblanc, Magician
- Merenin, Monk
- Owlbear (Opponent)

Round 1:

Tick #1

Christophe Leblanc, Merenin and the Owlbear roll their *Reflex Save* to know the order of play. It is advisable to roll this *Reflex Save* once per situation of competition between actions, but this roll can also be rolled once for the whole turn. The player with the highest Reflex roll score may announce his action last.

Christophe Leblanc: roll 10 in Reflex

Merenin: roll 15 in Reflex

Owlbear: roll 2 in Reflex

(Players decide to use their reaction privilege for this swift). The GM plays therefore declares the action of his Owlbear right away.

1- The Owlbear charges Christophe Leblanc

1- Merenin charges the Owlbear, and intercepts it. Merenin's attack goes before the Owlbear's. The Owlbear decides to switch targets to attack Merenin.

1 - Christophe Leblanc as his spell *Summon Monster IV* - 1st swift out of 3

Tick #2

Here characters and the Owlbear can re-roll their *Reflex Save*

2- The Owlbear makes another attack on Merenin

2- Merenin blocks the Owlbear's attack (Parry action has a +10 bonus on *Reflex Save*)

2- Christophe Leblanc continues his spell *Summon Monster IV* - 2nd swift out of 3

Tick #3

Here, the characters and the Owlbear can re-roll their *Reflex Saves*.

This time, Christophe Leblanc gets the highest score on his Reflex roll, which causes his spell to trigger before the other actions are played. He therefore has the right to place his action in an advantageous place in terms of reactivity.

3 - The Owlbear attacks Merenin with its bite.

3- Christophe Leblanc summons his summon, a Large Dire Tiger, just in front of Merenin.

3- The Tiger attacks the Owlbear with its bite.

3- Merenin rolls and moves behind the Owlbear to be *flanking*. It attacks once.

Tick #4

Now the Owlbear has used its three attacks and can't attack for the rest of the turn. However, there are still shares in Merenin and Christophe Leblanc. Merenin, being a monk, can still attack once. And Christophe Leblanc can use his Swift action to cast a small spell, and his Tiger can also attack.

4- Merenin attacks the Owlbear.

4- Christophe Leblanc attacks the Owlbear with a *cantrip*: Acid Splash.

4- The Tiger attacks the Owlbear with its two claws.

Merenin no longer owns shares, The Owlbear no longer owns shares, and neither does the Tiger. Round 1 ends, and round 2 begins.

The Summoner vs. The Evocator

The Summoner wants at all costs to prevent the Summoner from succeeding in his spell, because the creature he wants to summon is terribly powerful. Important Note: Summons are 25% harder to *Dispel Magic* when they have formed. It is therefore easier to perform a *Dispel Magic* on a *Summon Monster type* spell when the spell is being cast.

Round 1

T1: The Summoner begins the *Summon Monster spell* (1/3)

T1: The Evoker throws *Quickened Fireball* (1 / 1)

T2: The Summoner continues *Summon Monster* (2/3)

T2: The Evoker casts *Dispel Magic* (1 / 2)

T3: The Summoner completes *Summon Monster* (3/3)

T3: The Evoker completes *Dispel Magic* (2/2)

If The Evoker wins the *Reflex Save* joust, he can then dispel the spell with a normal *dispel check* . Otherwise, the *dispel check* will be 25% more difficult.

Gyllyn and Glandir vs. Skarde

Here's a fight start, inspired by a recent game. I present some actions that were made in the first round.

Round 1.

Skarde begins concentrating to cast *Psychic Barrier*. This is a Standard Action, which the GM announces to players.³

Glandir decides to attack **Skarde** with his bow. It uses its *Attack action* which runs in one tick.

Gyllyn casts the Haste spell, a Standard Actions.

Round 1

Tick1

Skarde - Cast *Psychic Barrier* - 1 of 2

Glimpse - Attack

Gyllyn - Cast *Haste* - 1 of 2

Skarde sees **Glandir** attacking him while he concentrates, and changes plans. It cancels *Psychic Barrier*. He decides to attack **Glandir** with his special action,

³The GM can also say that Skarde is preparing to cast a psychic spell, leaving players in doubt as to how quickly this action will take place.

Dimension Door + Psychic Blade attack. **Glandir** and **Skarde** will therefore make an opposing Reflex roll to determine who acts first.

Round 1

Tick1

Skarde - Dimension Door + Attack

Glimpse - Attack

Gyllyn - Cast Haste - 1 of 2

Skarde wins the *Reflex save*, and therefore acts first. He teleports next to **Glandir** and attacks him with a *Psychic Blade swing*, but it's an illusion. **Glandir** 's action is therefore triggered immediately afterwards, and he attacks **Skarde** 's **new position**. The GM could also have played the scene with Glandir's arrows leaving **Glandir** 's **bow**, and **Skarde** teleporting away afterwards, which would also negate **Glandir** 's **attack** . We'll leave that sort of important detail to the GM's consideration during combat. We can also make this kind of determination by considering the respective Reflex values. If the Reflex roll is largely defeated, the advantage given to whoever reacted earlier is maximum.

Tick2:

Skarde - Telekinesis

Flounder - Skard Attack

Gyllyn - Cast Haste - 2 of 2

Here we have a situation with three *Reflex saves*, to know in which sequence the actions are carried out.

Example: Aldor fights Jerome the Radiant (1 turn)

Here we have a fictional mini scenario, with an Aldor fighting Jerome the Radiant. This fight is special, because Aldor, being a *Lazy Wizard*, is able to cast two spells at the same time, and has two actions.

A few details, first, on the abilities of these two mages.

Jerome is a more experienced mage, but Aldor can cast two Standard time spells per turn, and he is able to maintain his focus on one spell, while doing something else at the same time.

Thanks to his Lazy Wizard class, Aldor is therefore able to cast a Full action time spell by casting only the verbal components, which leaves his hands free to do something else: Fight or cast a spell that does not require verbal components.

So, we have a situation where a character progresses several actions at the same time.

Actions at the start of the turn

Aldor: Standard Action, Standard Action

JLR: Stock Standard, Stock Swift

Jerome the Radiant casts *Wolves of Light* (time = standard). He uses his Standard action.

Aldor casts *Summon Monster* (time = full round). He uses his first Standard action to cast this spell.

Aldor also casts *Barrier* (time = standard). He uses his second Standard action to cast this spell.

Round 1

Tick1

Aldor - Summon Monster - 1 of 3

Aldor - Barrier - 1 of 2

JLR - Wolves of Light - 1 of 2

Jerome guesses that Aldor is preparing a big spell because he sees that the latter used a rare material component to cast his spell, and he sees that his verbal components are important, so he decides to cast the *Quickened Silence spell* to cancel the spell. 'Aldor. He cancels his *Wolves of Light spell*.

Round 1

Tick1

Aldor - Summon Monster - 1 of 3

Aldor - Barrier - 1 of 2

JLR - Quickened Silence

For Aldor, there is no question of having his spell canceled by a simple Silence. The barrier will wait. Aldor cancels *Barrier* and changes to *Quickened Dispel Magic*.

Round 1

Tick1

Aldor - Summon Monster - 1 of 3

Aldor - Quickened Dispel Magic

JLR - Quickened Silence

Aldor wins the Reflex roll and triggers his *Quickened Dispel Magic* in time. His higher caster level gives him advantage on the Dispel roll even though he is not an abjuration specialist. Guessing that he has little time left, Jerome flies close to Aldor in order to use a powerful spell that requires being close in order to use it. Meanwhile, Aldor continues to make progress on his *Summon Monster spell*.

Round 1

Tick2

Aldor - Summon Monster - 2 of 3

JLR - Move 100ft

Jerome is now close to Aldor, and is ready to unleash his powerful spell called *Illuminate*, a very powerful ball of energy that must be cast at close range. This spell Jerome casts with his Swift action and his Rod of Quicken, but he will have to win Reflex's roll against Aldor to hit it before his Summon appears, as the incantation is almost complete. Additionally, if Jerome can do enough damage to Aldor, he can undo his spell by breaking his concentration.

Round 1

Tick3

Aldor - Summon Monster - 3 of 3

JLR - Illuminate

Aldor wins the Reflex roll. He spawns his creature directly in front of Jerome's attack to protect himself. Round 1 is over.

Common actions and their duration

Here is a list that contains many popular actions for magicians and warriors.

All these actions are described in the same way: Their time class, and what you need to play it. It should be noted that this list does not contain special actions, which are unique to each character.

These actions can also have their behavior modified by feats or class features. An example of an action modified by a feat or class feature is the basic attack. A higher-level character will be able to do multiple attacks during this action, while a level 1 character will only do one.

Other details

1. Jumping horizontally or vertically counts as one move
2. You can jump during a movement
3. Getting up, lying down also counts as a movement
4. Moving stealthily decreases speed by half. To detect a stealth move, the other creatures must pass the Perception roll against the Stealth roll of the creature making the stealth move. It is not possible to make a stealth movement in all situations, you must have a favorable situation: shadow, an obstacle or an invisibility spell

Free time

Drop item

We drop an object that is in our hands.

speak

We talk for a few seconds.

Swift Action (1 tick)

Parry

We defend ourselves with our weapon. You must equalize or beat the attack roll of the attack to successfully parry. You can also move with the parry.

Consumes: One or more iterative attacks

Bonus: +5 Reflex

Attack

You can move 1x your movement and make an attack at any time. The more powerful the character, the more attacks he can make during this action. One can also use these iterative attacks to make grappling moves.

Consumes: one or more iterative attacks

Move

You can move 1x your move.

Cast Quickened Spell

A spell is cast with the Quickened Spell metamagic, or by using a Rod of Quicken.

You can move ½ your movement during this action.

Consumes: Swift Action

Get up

The creature rises from the prone position.

Drop Down

The creature throws itself on the ground. This avoids attacks and projectiles.

Drink Potion (Fast)

We get a potion out of a quick access place and drink it. You can move ½ movement during this action.

Consumes: Swift Action

Draw Hidden Object or Weapon

We subtly take out an object, or a weapon, without being seen. We must oppose a Sleight of Hand roll against the Perception roll of a person who observes us directly.

Consumes: Swift Action or Iterative Attack

Throw weapon or object

We throw an object or a weapon that is in hand or very close to us.

Range increment: 10ft.

Consumes: Iterative Attack

Brace & Attack

We're preparing to counter a charge. We receive +25% damage on our first attack. If the charge is countered, the charging player gets no bonus.

Consumes : one or more iterative attacks

Charge

We charge our opponent and make one or more iterative attacks. The speed of the charge improves the power of our first attack: +25% damage. If the charge is countered by an attack, the bonuses of the charge are lost.

Consumes: one or more iterative attacks

Charge (Horse of Cerberus)

We charge our opponent with our Cerberus horse, and we make one or more iterative attacks. The speed of the charge improves the power of our first attack: +100% damage. If the charge is countered by an attack, the bonuses of the charge are lost.

We move at the speed of Cerberus' horse.

Consumes: one or more iterative attacks

Draw weapon or Sheathe Weapon

The creature draws its weapon, which is in a quickly accessible place. We can also sheath our weapon.

Consumes: Swift Action or Iterative Attack

Release Suspended spell

The magician casts a spell cast with Suspend Spell. This released spell then benefits from a +5 bonus. The spell can be kept in the magician's hands for a number of turns equal to his intelligence modifier.

Consumes: Swift Action

Dismiss spell

The magician cancels one of his current spells. You can move $\frac{1}{2}$ your movement during this action.

Consumes: Swift Action

Pick up item from ground

We pick up an object that is on the ground. You can move 1x your movement during this action.

Standard Time**Reload Crossbow**

Reload a crossbow

Consumes: Standard Action

Mount

We climb on a mount.

Consumes: Standard Action

Dismount

We disembark from our mount.

Consumes: Standard Action

Use Scroll

The spell contained in a parchment is triggered

Consumes: Standard Action

Drink potion

We pull out a potion and drink it. You can move 1x move during this action.

Consumes: Standard Action

Cast Spell

We cast a spell. You can move $\frac{1}{2}$ x your movement during this action

Consumes: Standard Action

Assist Spellcaster

We assist another mage with his spellcasting. This allows him to remove components and increase his caster level. See the mechanic for this.

Consumes: Standard Action

Apply poison

We coat our weapon with a poison.

Consumes: Standard Action

Pickup Object

We take an object in our bag

Consumes: Standard Action

Cast Suspended spell

The magician who charges a spell can hold the spell in his hands, in order to release it with a Swift action afterwards. This released spell then benefits from a +5 bonus.

The spell can be kept in the magician's hands for a number of turns equal to his intelligence modifier.

Consumes: Standard Action

Full time

Full time actions take the longest to cast and are often used for very powerful spells for their level. Full actions are also used to represent continuous movement actions.

Reload Heavy Crossbow

We reload a heavy crossbow

Consumes: Full Action

Summon Monster

A Summon Monster spell is cast.

Consumes: Full Action

Cast Suspended spell (For Full time spells)

The magician who charges a spell can hold the spell in his hands, in order to release it with a Swift action afterwards. This released spell then benefits from a +5 bonus. The spell can be kept in the magician's hands for a number of turns equal to his intelligence modifier.

Consumes: Full Action

Some special actions

Dual Scroll Technique

Two scrolls are used at the same time

Consumes: Action Full

Dodge and Dagger

The thief avoids an attack by throwing himself on the ground and throws his two daggers towards the adversary. The thief must be 10ft from their victim to use this technique.

Consumes: Two iterative attacks