# Playful Narrative: A Toolbox for Story-Rich Mechanics

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# The Opportunity Space: Playful Narrative

Under the workgroup topic of "playful narrative", our group met to discuss a framework for analysing and facilitating deeper ways of "playing" with narrative, or creating more meaningful interactions between story and game mechanics. "Playful" in this context was used not to define an aesthetic or a tone, but rather as a means for describing interactive and mechanical avenues for further experiencing story in video games.

Our approach began from the position that game mechanics are a tool for storytelling, with the aim to explore ways of deepening this relationship beyond traditional narrative devices (traditional narrative devices here being elements of games such as dialogue trees, cutscenes, and so forth). We became concerned with delving deeper into topic areas such as: story existing as a mechanic and not just a layer over top of interactivity, what story looks like in different contexts, how heavily system design interacts with narrative design, and understanding the friction points in these to know what pulls players deeper into story and what pulls them out of story. Exploring these topics led us to our approach, namely that many games are already achieving this sort of playfulness with story, which we then used as an analytical framework to let us begin building lenses and tools for re-imagining traditional game mechanics as avenues for storytelling.

With that approach in mind, this paper is focused on presenting the analytical framework as a jumping off point to explore practical applications of this playful mentality. The goal of this paper is to provide lenses or prompts to inspire and encourage a more playful relationship with story in games, one that takes the deep craft learnings from traditional narrative devices and applies it to other systems and mechanics and vice versa. Note: these lenses are not exhaustive, but are rather just a starting point, one that barely scratches the surface of how deep we can go in more fully interconnecting story and gameplay.

# Existing Narrative and Mechanical Structures

For the purposes of this discussion and paper, we found it helpful to clearly articulate the differences between story (an account of a thing, person, or place), plot (a sequence of events within a story), narrative (the expression and articulation of story), and world (the context in which story, plot, and mechanics exist in). Games include all four to specific degrees, but all operate within similar realms to each other in how they depict and create meaning and context above and beyond game mechanics and systems. For the purposes of shorthand, we often default to just using "story", but it's worthwhile when considering this framework to be specific about whether you are engaging with story, plot, world, and what narrative devices you are employing.

In the same vein as defining what we mean when we say "story" versus "narrative", we also defined what we mean when we say "mechanics." Mechanics are the actions (shooting, running, matching, giving a hug) the player undertakes in a game. Just as in life, the same action can have different meanings given the context around it. Let's say your game is a peaceful gardening game, tending to the garden by pruning, watering, planting new seeds are all acts of mindfulness and care. But what if the pruning action instead of being a simple button press required the player to quickly and repeatedly press the button?

To further interrogate the relationship between these elements, we decided to look at how these elements speak to each other, i.e. what do mechanics say about story and what does story say about mechanics? This led us to the path of understanding ways of facilitating

interactions between player, systems, and the story/world as an ongoing conversation, something that is dynamic and not static.

## Models for Creating Meaning

When we began discussing the ways in which story and mechanics talk to each other, we immediately found that we were discussing them as being in conversation with each other. Conversation, as the exchange of meaning between two entities, provided a useful structure for analysing and speculating on how mechanics and story reference each other and how we can deepen the existent conversation between the two.

Games already employ a variety of models for different ways story and mechanics talk to each other. Some speak intimately with each other, whereas others don't. The depth of the conversation between mechanics and story isn't a reflection of quality, but rather the intent of the experience of the game. Some games want more richly told stories; others are primarily focused on the mechanical loop. But in order to discuss ways of deepening the conversation between story and mechanics for games that wish to do so, we found it useful to understand how games are currently already depicting the conversation between story and mechanics. That led us to the four following models of meaning making:

- Divergent meaning
- Parallel meaning
- Congruent meaning
- Coalescent meaning

Let's briefly look at each one and their model for how story and mechanics connect.

### Divergent Meaning



In the divergent meaning model, mechanics and story are having opposing conversations. This means that rarely do the story and mechanics speak to each other directly. This can be when moments of ludonarrative dissonance emerge, or when the story is a wrapper for the game versus context for the mechanics. In this model, the story and the mechanics are often totally separate and distinct from each other.

Games like the early Uncharted series employ the divergent meaning model–players are tasked with killing large numbers of sentient enemies in quick succession to progress the game, but the story frames Nathan Drake as a morally heroic person. There are rarely story elements which highlight the dissonance until later in the series.

Final Fantasy 7 also has elements of the divergent meaning model. Phoenix Downs can revive any character–except for Aerith in that iconic death scene. The game's story

requires her death, and therefore she cannot be brought back, but players have spent the game learning that the Phoenix Down mechanic should work in this exact scenario. Despite lore justifying this divergence, the dissonance is notable to players.

A note: Ludonarrative dissonance is almost always framed among developers as a thing to avoid, but this paper does not adopt that framing–instead, we feel that ludonarrative dissonance can be purposeful, and are interested in identifying the degree to which it is present.

## Parallel Meaning
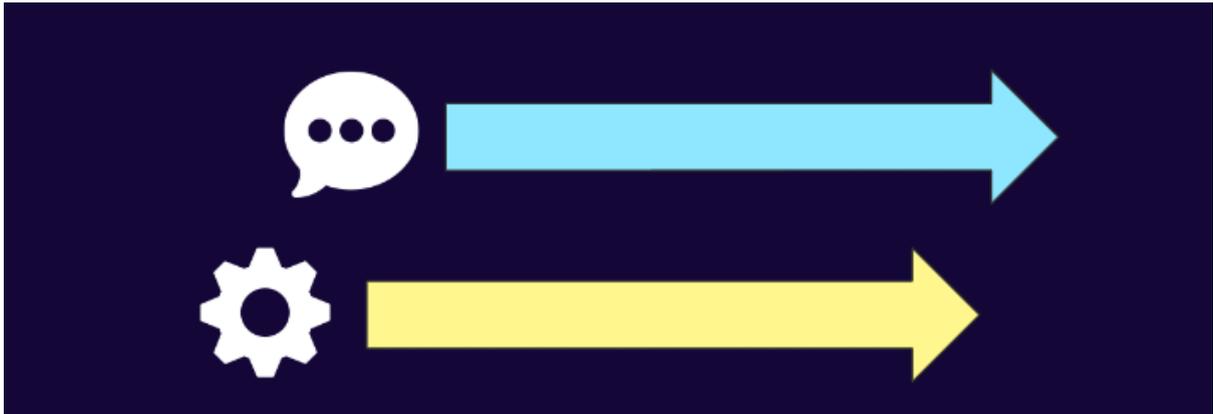


In the parallel meaning model, mechanics and story have distinct conversations in the same direction. Here both story and mechanics are not entirely distinct or separate from each other, but aren't directly speaking to each other, either. They both progress in the same direction, but one can still be experienced without the other.

A game like *Mass Effect 1* employs the parallel meaning model. Conversations with crewmates and exploration lead to new missions that progress the storyline, and choices made lead to meaningful changes within the events that unfold. But other mechanics like shooting and collecting do not. However, the stories unfolding through shooting, collecting, upgrading, and dialogue choices tell an overall cohesive narrative in parallel. Dialogue choices open up new stories involving squad members, but those conversations are not directly correlated with combat bonuses, as they are in a game like *Fire Emblem:Awakening*.

## Congruent Meaning
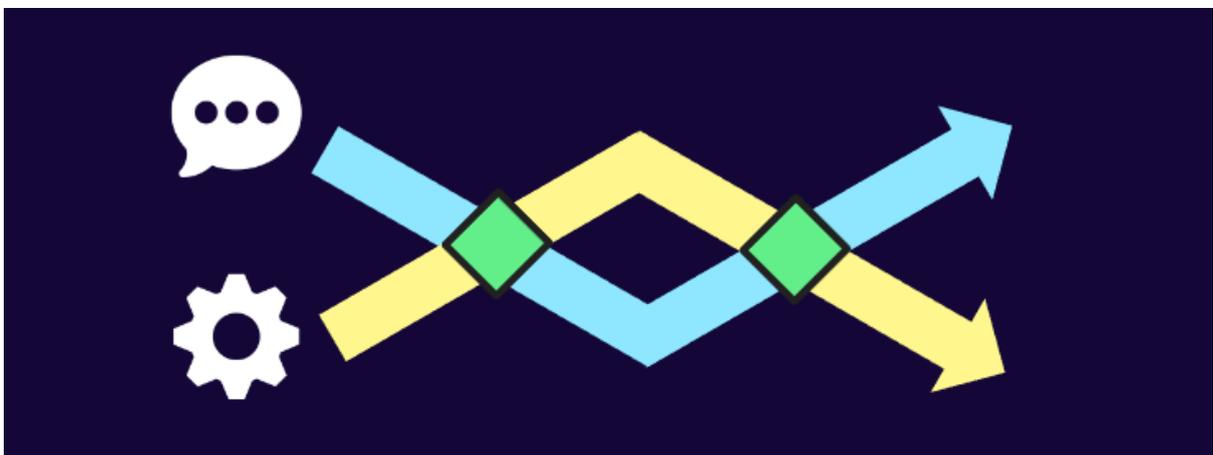
In the congruent meaning model, the story and mechanics are two intertwined conversations that meet regularly. They often speak directly to each other (i.e. a mechanic deliberately reinforces a story point or beat), but sometimes they can still be separate. Like parallel meaning, they are both progressing in the same direction, but they are more integrated with each other than in the parallel meaning model. Here you cannot fully separate story from mechanics or vice versa, although there are moments where they don't connect.

A game like *Spiritfarer* employs the congruent meaning model. Sometimes mechanics like fishing can introduce new characters or build out story moments–but sometimes fishing is also just fishing. Narrative and gameplay can diverge (story moments that are just story moments with no gameplay and gameplay moments that do not carry story weight), but they are also brought together regularly enough to be continually reinforcing each other.

## Coalescent Meaning



In the coalescent meaning model, mechanics and story are having a single conversation. They speak to each other consistently and regularly; friction in one reinforces a significant moment in the other, and they are completely integrated with each other and are almost never acting separately.

A game like *Kenshi* employs a coalescent meaning model, in that gameplay and story/world are constantly in dialogue with each other and are never separate. Story is continually being built by the mechanics and the player actions and player actions are continually building the story. Frequently player actions contribute to story and rarely does story exist outside of player actions.

# Coalescent Meaning & Reframing Traditional Mechanics

In this section, we break down a series of specific design scenarios and examples to pursue different angles of this model of coalescent meaning between mechanics and story. These design scenarios and examples are meant as a lens to begin thinking about reframing traditional mechanics into narrative devices, and how we can actively pursue a more playful experience with story, world, and character. These are not rules. They're scenarios meant to be a springboard, a jumping off point for considering ways in which meaning gets made in games and potential avenues for exploring a more playful and reciprocal relationship between story and mechanics.

In all of these examples, it's important to begin by asking yourself: what are the tools you have available to you to tell a story? These will include traditional narrative devices, like

cutscenes, dialogue, dialogue systems, and so forth, but they can also contain other tools as well, including different systems and mechanics. But beginning with a survey of what tools and places you have to tell your story will help guide determining how you can tell your story.

## Expressive Mechanics

To dig into the concept of expressive mechanics and exploring the ways in which traditional game mechanics can be rethought of as narrative mechanics, we discussed what a framework could look like if we explored beyond "verbs" but into "adverbs" and "adjectives" and assigning emotional expression to mechanics. This prompted the question of "what does it mean to cook resentfully?" or "how can I explore joyfully?" What does "wrathful fishing" look like? We know and are operating from an assumption that all verbs are contributing in some sense to story (not necessarily plot, which is a sequence of events, but to story, which is just the general account). Verbs contain and convey small bits of story by dictating what actions are available to characters and why and what this means for the world around the character. So then what does it look like to build more story meaning into verbs?

In this vein, we decided to frame the above questions by comparing non-narrative mechanics (i.e. cooking, fishing, etc.) to what we know of dialogue systems. As a narrative device, there is a lot of flexibility for emotional expression in dialogue systems. Dialogue systems are an excellent narrative device because they are easily able to communicate stakes, emotional reactions, character motivations, plot points, etc. Dialogue is one of the most fundamental ways we tell a story. And in interactive media, dialogue systems are robust in the ways they support storytelling, create mechanical interactions for narrative delivery, and build compounding and interlocking systems of meaning. Dialogue systems are capable of achieving a lot of flexibility in mechanical play when it comes to interactive story in that they are capable of a lot of expression. They can be used to persuade other characters, to charm or intimidate characters, to confirm an action, to interrogate characters, to choose a side, to express an emotion about an unchangeable system, to express character details, and so forth. Dialogue systems are layered and robust and tailored to delivering expressive play.

So then how could we apply what we know of playing with and designing dialogue systems to other mechanics that are traditionally thought of as non-narrative or typically containing very little story information? What does it mean to use a traditional mechanic, like fishing or cooking or shooting, to persuade someone? To charm or intimidate someone? To choose a side? To interrogate? To get more information?

Shooting as a verb is already loaded with emotional resonances, but there is still plenty that can be unpacked when retrofitting affordances of a dialogue system to combat mechanics. One example of this is in *The Quarry*'s use of guns. *The Quarry* does not have a combat system, but it does have a shooting mechanic and associated mini-game tutorial. *The Quarry* employs "shooting" as a verb, not in service of combat, but rather as a choice point. *The Quarry* is a story-driven game designed around making choices to survive the classic slasher set up of teens at a summer camp. Players make a variety of choices, including paths to follow, dialogue options, and when and who to shoot. Shooting in *The Quarry* is not in service to skill or competition; shooting is in service to character development and acts as a method for making a plot choice.

For example, one scene early on has a few characters standing around a campfire while there is rustling in the nearby woods. The rustling is approaching the group of teens, and the character currently holding the gun has a decision to make: shoot or not shoot. The choice to shoot here isn't about traditional combat per se, but rather an expression of fear and anxiety. How fearful is the character in this moment? Is this character likely to shoot out of

fear or wait and see who (or what) is approaching them? How in control do they feel? And, additionally, how anxious is the player about making the right choice to survive (or purposefully trying to kill the characters)? Shooting the gun here is an expression of the emotional tension of the moment and the player motives for the game's extensive branching story. The gun is not about shooting, it is about protecting and it is an anxious, nervous, fearful protection versus a confident, skilled one. It is a character defining moment that sets plot in motion, but also creates a specific texture to the character holding the gun, determines their attributes (are they confident, are they hesitant, etc.), attributes which the game acknowledges and tracks as a way of building character arcs in response to player choices.

Another example of this type of expression is the cooking mechanic in *Cult of the Lamb*. In *Cult of the Lamb* players are tasked with developing and maintaining a following of cultists in order to grow stronger and to ultimately get vengeance on those who tried to sacrifice the player character at the start of the game. The game provides plenty of thematic ways of building your cult. You can put them to work, you can ask them to worship you, you can let them socialise, you can respond to their requests (for beds or outhouses). And, of course, as the game progresses, your followers will get hungry and the player can make a variety of meals based on available food options, such as berries, fish, meat (including follower meat), and so forth. Like life sim games before it, cooking is a major part of *Cult of the Lamb*'s building aspect, because followers can starve to death.

At certain times throughout the game, certain followers can start to dissent. Dissenting followers begin spreading ill will around the cult, dropping the overall loyalty of your followers. There are a few avenues for dealing with dissenters. Players can lock them in prison. They can re-educate them. They can sacrifice them. Or they can cook a meal made out of dead follower meat. All of these options (except sacrificing, of course) contain a chance of immediately making the dissenter stop and return to being loyal to you. The choice of which route to go is interesting in and of itself, but the use of cooking here is specifically one that is full of story expression. Choosing to feed a dissenter a meal of follower meat applies a variety of adverbs to the verb of cooking. It's threatening, it's intimidating, it's resentful, it's aggressive. When that element of cooking and feeding is combined with different game-wide perks, such as the cannibal perk which actually encourages more loyalty from followers who eat other followers, this use of cooking becomes coercive and manipulative. This moment is loaded with story meaning as it defines how you as a cult leader choose to respond to dissent and how you express and assert control. You could've imprisoned them, but the choice of cannibalism provides a specific depth of expression. It's all the same system: it's cooking and feeding your followers, but the choice of when to cook what gets imbued with expression that feeds back into the overall story of *Cult of the Lamb*: you are a cult leader who has to grow and maintain a loyal following, and how you do so establishes the tonal expressions of your cult.

But if we think about dialogue systems, dialogue systems are used for more than just expression. And *Cult of the Lamb*'s cooking mechanic contains a whole lot of these different types of expression, even above the ability to feed a dissenter coercively. The cooking mechanic can be used to charm or support followers (by making the meal they request of you, particularly when they get tired of eating only one meal repeatedly). The cooking mechanic can also be used to take sides in interpersonal conflict. Some followers will ask the player to help them play a prank by making another follower eat a stew made out of poop. Doing so (or not doing so) takes a side in the interpersonal relationships between followers. Players don't have to listen to their followers. They can cook whatever they want. But doing so, and determining how to do so, contributes to the fabric of the story of the game and what type of cult leader you are and what type of cult you are running. It's not terribly plot-focused, but it's contributing to the story details.

To get deeper into other ways of applying the narrative affordances of dialogue systems to traditional game mechanics, we have an exercise included at the end of this paper that showcases the process we developed and used during our discussions.

## Player-World Reciprocity

Another way of providing deeper levels of interactions between players and story is to consider how the world itself and world states can convey story, and then, building on that, how players and the world can mutually interact with each other. This reciprocity can deepen the ways in which players engage in participating in the general story of a game (versus strict plot-based engagement), creating friction and interactions that buff out what meaning gets generated in a game.

To dig more into this, let's talk about *Kenshi*. As a sandbox RPG, *Kenshi* has layers of interaction between its major components:

- World
- Zone
- Faction
- Player & NPC

This interaction moves in both directions (world to player and player to world) through all the components. The player can interact with every single layer all the way up to changing the entire game world. These world level changes are called world states. The world state has cascading effects that interact with all of the components, which end up having major consequences for the player. One example of a world state is the apocalypse, which is triggered by taking out too many of the major faction leaders. This causes all NPC towns to be destroyed and monster populations to increase everywhere.

The world contains zones that have states that determine population numbers and factions. Each zone has its own unique biome, which causes different populations to thrive or struggle. Each faction has major influence over the zones they reside in. Factions also have relations with the player, such as friends or enemies, and factions contain NPCs and the player character. If the player joins a faction they will inherit that faction's allies and enemies, permanently changing their game experience.

The player is completely equivalent to NPCs. You start the game with all available abilities and actions. Progression happens by doing things in the game world such as getting beat up to increase your natural toughness and resilience or by lifting heavy objects and carrying them around. The only form of gating in the game is through the crafting and building systems, which require you to unlock recipes and level up your crafting skill. By making the player equivalent to an NPC, this counters the "Truman Show"-effect, aka the feeling that the world isn't a believable place but is rather a construct just for the player to be a hero in.

The player can interact with NPCs through conversation, combat, and trading. NPC interactions are shallow, which keeps the player focused on interacting with the larger systems. The player can interact with factions by helping or harming members of factions, joining factions, or killing faction leaders. When a faction leader is killed, it has major effects on the entire faction and zone. The player can also create their own factions and player towns. The dominant faction in the area will respond to the player moving in. Some factions will be hostile if the player has not pledged their allegiance to the dominant faction, others will ask for regular payment for occupation, and others will be welcoming.

The effect players have on factions affects zone states. The factions the player is aligned with influences what happens when zone state changes occur. For instance, if the player has joined one faction and then kills the entire population of an enemy faction's fortress, the player's allied faction may take over ownership of that town. This changes the zone population, the layout of the town, the shops within the town, and more.

Zone states influence the whole game state. When the player has made enough zone state changes a world state may be triggered. This includes helping a faction become the dominant faction in the world or eliminating all of the universally hostile factions allowing the neutral factions to thrive.

By creating a reciprocity between player actions and world states, *Kenshi* encourages a deliberate playfulness to the way in which story is created and experienced in the game. Story is not static, nor is it defined via explicit plot choices, but is created and moulded via the ways in which the player changes the world and the world exerts pressure on the player. The world uses the same mechanics to talk to the player that the player uses to talk to the world, creating a coherent dialogue between player actions and meaning making in *Kenshi.*

## Resonant Discomfort and Recontextualizing Mechanics

Another avenue we discussed for exploring more playful interactions between story and mechanics is in intentionally creating moments of resonant discomfort. Building out from concepts like ludonarrative dissonance, which aim to bring story and player actions more in alignment, the idea of resonant discomfort involves invoking specific moments of discomfort or break between story, character identity, and gameplay for a particular effect. Rather than identifying these moments as dissonant, the impulse here is to explore when and where a change in verb, context, or state creates a purposefully uncomfortable moment for player fantasy, which then in turn reveals deeper layers of meaning within the story and the world.

For an example of this, we discussed *Little Inferno,* a game about burning everything you own in a fireplace. *Little Inferno* begins by encouraging players to burn the letters that the tutorials come in, as well as burning the terms and services agreement (without reading it), which introduces a sort of playfulness to the way in which the central mechanic (burn all of your possessions) works. You are burning important things, but it's all tongue-in-cheek. Burning items gives you coins, and you use coins to order more items from a catalogue, to then burn. The point of the game is to burn every item in every catalogue.

*Little Inferno* starts by having players burn fairly neutral objects, like a piece of corn, a credit card, some wooden idols, quickly ramping up to more emotionally charged items like stuffed toys to gifts given from a pen pal to a mini-school bus that, when burned, simulates having its engine exploding to the scream of little kids. These moments are uncomfortable, but they aren't dissonant. *Little Inferno* exists in a world where the only possible interactions include ordering items to stay warm enough in an apocalyptically cold environment. It's a compulsion loop, one that encourages burning the same object repeatedly and in different combinations with other objects to earn more coins and stamps (stamps reducing the wait time for new objects to be delivered). And because the loop is so tight, some players may not blink twice at burning sentimental objects or objects with horrific connotations, but there is space for the horror of these moments to exist both plainly and playfully.

These horrific moments (kids screaming, engines exploding, sentimental objects being burnt to a crisp) aren't dissonant in the world of *Little Inferno*, but they do intentionally create a shift in the context, a shift that reframes the player's relationship to the mechanics in that moment. You are not just burning things. You are (and you must) burn everything, no matter what it is or what meaning, explicit or implicit, it holds. That sweet gift from a pen pal? Into the fire. That picture from your camera's own camera roll? Into the fire. Stuffed

animals and sentimental letters? Into the fire. What these moments of destruction mean shift and change. Sometimes burning an item is immensely pleasurable. It crackles nicely, creates a specific beautiful response. Or sometimes burning an item can be difficult, it can take awhile to start, lingering just long enough to start considering the emotional consequences of reducing everything in your life to ash. These can be uncomfortable moments and by being uncomfortable they add in new meaning to the world and the story of *Little Inferno*. This isn't just a cold world filled with loneliness and boredom; it's a cold world where survival depends on burning anything and everything, no matter what.

Resonant discomfort can be an avenue for encouraging recontextualizing stakes, story, world, and mechanics, providing these transitory moments of meaning that have a lasting effect on the overall way in which meaning is made in the game. When players burn the school bus, new stakes can be added to the way the player thinks about the character they are playing and the world they are playing in. When a stuffed animal gets burned, new layers of connotation get created. Combos exist in the game purely mechanically (burn certain things together, get specific rewards), but they also exist in creating new contexts. Pockets of meaning are made in combos, meaning that only emerges through this transitory recontextualization. Resonant discomfort is essentially providing a sort of narrative tension, one brokered by the interplay between what the mechanics are saying, what the story is saying, and how what they say to each other can grow and evolve.

This recontextualization of what a mechanic means to both the story world and the player provides a lot of avenues for playful interactions with the story itself, too. *Umurangi Generation* is a game where the core photography mechanic doesn't change, but expands as players progress throughout the game, with the addition of new lenses and photo editing tools. By providing a list of objectives to take pictures of (15 candles, the word "cops", a memorial, etc.), *Umurangi Generation* is tasking players with surveying specific moments in specific settings. It's not until the game progresses and the player learns more about the dystopian world that they are in does the meaning of the things they are being asked to photograph take on greater–and oftentimes, uncomfortable–meanings.

In *Umurangi Generation* the player is there to document a historical event, but they are not given free reign in choosing how to document this. By hyperfocusing on objectives, it's easy to miss very clear signs and signals about the true state of the world. It's not until players take a step back from their objectives to take in the world is more information revealed, creating a playful tension between story/world and mechanics. Once the state of the world is revealed, the photography mechanic itself is recontextualized. The weight of what you as the player are being asked to do changes implicitly and emotionally. Taking pictures of your friends means something different now. Memorials take on greater significance.

This recontextualization can make continuing to take pictures uncomfortable. Even if you want to document the truth of what is happening around you, it doesn't matter. You can, but that won't let you progress. You have to photograph the mundane sundry you are being asked to. Discovery and exploration are inherently playful motivators, acknowledging trial and error in progression, and capitalising on the inherent pleasure in discovering something. Games that provide space or resonant discomfort and moments of mechanical recontextualization through story and world invite in the pleasure of discovery within these existing systems by creating a playful space between what you are asked to do and why you want to do. Recontextualization doesn't negate coherency, but rather provides a different lens to view how characters (and players) are being asked to respond to the events around them. They provide transitory moments of meaning that fundamentally shift the weight of the story around them.

# Rethinking Narrative Progression

Another area of discussion we spent some time in is thinking about narrative progression as a system beyond story structure. Rather than discussing linear structures versus non-linear structures, we explored a bit of what narrative progression that isn't based on plot could look like and how this could facilitate more playful experiences with story.

Progression often is associated with goals in games, a path through which players can chart their mechanical and contextual journey through the game. While progression systems in games often involve a sort of playfulness in terms of how players can react to gaining experience, proficiencies, skills, knowledge, and so forth, progression in a story sense often refers to more of a totality and a resolution. How far in the story are you? What story beats have you experienced? Which characters have you met? The answers to these, when in typical story structures, often imply a resolution that these aspects are building toward. They are markers for orienting where somebody is in the progression of a story, but one that is defined by its relationship to an ending.

This caused us to ask the question of what does narrative progression that isn't primarily focused on resolution look like? What stories and story structures lend themselves well to story progression that doesn't hinge upon the ending as the defining moment of summary? This is obviously a common area for exploration in live, open-world games, like *Sea of Thieves* and *Fortnite*, but we wanted to explore this type of thinking into contained, single-player, story-driven experiences, as well. A game like *Sable* involves a playful narrative progression that is bound up with discovery (both of the world and of a self) rather than resolution. Sable is a game that sets expectations for story and mechanics via the context (Sable must undertake a coming-of-age journey to decide how she wants to contribute to her community as an adult), which then lets the story and game evolve and grow based on player interactions. You can end the game fairly early on, because the ending isn't actually the point of Sable's story.

Who Sable is and who Sable is becoming isn't an end point or a resolution, but is the sum of what the players do, where they explore, which badges they pursue, and so forth. Sable's story is not about the resolution and the progression of her story is found not in story structure, but in mechanical exploration. If players like climbing, then Sable's story becomes one of her as a climber. And while this does follow a non-linear/multi-linear story structure, it differs significantly enough in that the point is not solely to reach the end and discover which ending you receive out of a variety of endings. It is to grow as Sable, to learn the world as Sable, and to make a place for her in this world. The story progression of Sable is about making space in the world versus solving her issue in a climax and resolution. So rather than the branching endings being a discrete bit of story players obtain, players are building the arc and the endings as they play. The endings are being constructed around Sable and the player through mechanical actions.

This use of context as support and subversion of story via mechanics is also found in *Umurangi Generation*. The actions players take in *Umurangi Generation*, the photos they take, create a story progression based entirely on understanding the world and the main character's inability to affect that world told solely through objectives, environmental storytelling, and mechanics. The story structure of *Umurangi Generation* is told through the levels and is both the sum of photography objectives and environmental storytelling. The depth of the story is not achieved through simply completing the game, and progressing from the first level to the final level. But rather, the depth of story is gained through the depth of engagement with the environmental storytelling and an interrogation of how the stated photograph objectives stack against the events being depicted in each level. Story progression here is measured more in player engagement with details versus traditional narrative devices.

This is similar to why storytelling in *D&D* works so well. Storytelling in *D&D* is player-led, built on improvisation, character traits and goals, and follows more of a story seed structure versus strict plot. Similarly, *I Was A Teenage Exocolonist* plays with narrative progression that is, by nature of the game, constantly resetting itself. Focused on a coming-of-age story, *I Was A Teenage Exocolonist* employs a narrative progression that is constantly being updated and changed. As a player, you are not simply taking your character from point a (start of the game) to point b (end of the game), but you are rather guiding them through significant life moments–moments that, by necessity of being a teenager, can change, build, grow, or entirely reset themselves.

In *I Was A Teenage Exocolonist*, players guide their character through ten years of their life. These ten years have players studying and picking an area of focus, such as biology, botany, engineering, sports and combat, and so forth. Significant moments in the player's life are marked by receiving cards of that memory (such as "Crawling" as a baby, to "Writing an Essay" as a pre-teen, to "Talent Show Champion" a teen, and so forth). These cards then get put into players' decks for the card-battler portion of the game. As players progress through the game, they gain new memories ("Dys's Secret", "Standing Up For Something", "A Mysterious Stranger"), forcing players to remove older cards/memories from their deck. As players gain new cards, they can also shift their area of focus, from science to combat to the arts, and so forth. *I Was A Teenage Exocolonist* encourages re-envisioning who you are as the main character because it is about growing up and understanding yourself more fully, which involves trying out new hobbies, meeting new people, gaining new experiences, and deciding who you want to be and who you want to become. Progression isn't necessarily linear, nor is it necessarily resolution-focused. Progression is about exploring aspects of your identity and experimenting with who you are, which, as we all know, can be a chaotic and disjointed process as a teenager.

## Experimentation In Choices

Designing choices to be meaningful and to encourage thoughtful engagement from players isn't a new area of thought, but it is a place where we can see a lot of coalescent meaning making happening in games. Like with non-resolution focused narrative progression, we were interested in further exploring how we can encourage playful trial and error experimentation with choices that don't pull us out of the story via save-scumming or feeling locked into unintentional consequences. Rather than looking at "how do we make choices meaningful?", we instead focused on "how can we encourage and design for playful trial and error in choice making?"

Part of the desire to address this topic from this frame came from acknowledging how often players save scum to make sure the dialogue choice they make provides an outcome they are happy with, or to experiment with seeing different endings and choice resolutions. Part of the impulse for the former behaviour, at least in some of us in the work group, came from an anxiety of not knowing how to express intention via the choice being made. For example, romancing characters in *Mass Effect* has easy fall off points if a choice was selected that was intended to further the romance, but instead cut it off (or vice versa, a choice being made that seems like the platonic option, but is instead the romantic one).

Trial and error in choice selection is mostly only encouraged via save scumming and not in the design and resolution of choices themselves. One example of a game that focuses more on trial and error in choice selection as a deliberate playful mechanic is *The Yawhg*. In *The Yawhg*, players cannot win the game. At the end of the game, a monster will come and wreak havoc on your home and community. So rather than focusing choice selection on story and mechanical optimization, *The Yawhg* encourages players to experiment, to see what

choice begets what response and how this can create a unique tapestry of responses to the impending, inevitable destruction that creates robustness and texture to the story of each playthrough.

While *The Yawhg* isn't about accurately expressing intention in choice selection, it does encourage trial and error with choice selection and story consequences by design. *The Yawhg* wants players to play with the characters and the story, to see what decisions create which outcomes, in an effort to weather the incoming storm. This design works in *The Yawhg* because it preserves intrinsic motivation for choice-making. *The Yawhg* is all about trying to make decisions to best endure the incoming monster attack, so therefore each decision point is centred around this sort of motivation. It is about the cumulative experience versus optimised decision making.

*Life Is Strange* is another game that deliberately invokes a playful trial and error into the choice-making process of the game. *Life Is Strange*, with its rewind mechanic, tackles this idea of involving the mechanics of save scumming into story delivery and narrative progression. As Max, with the ability to rewind time and make different choices to get different results, there is a playfulness encouraged in engaging with the story. Trial and error is not a player behaviour, but rather a deliberate narrative device. Max learns about her power and herself through this choice-based experimentation and players are encouraged to experiment with choice selection via the rewind ability. *Life Is Strange*'s central conceit (rewind time to make new choices) deliberately folds the act of save scumming into its design, thereby encouraging trial and error with choices and story experimentation.

Crucially, *Life Is Strange* also signals to players when this experimentation is not available or would break the flow of the story. In the conversation with Kate atop the school, players are forewarned that they do not have the rewind ability and thus decisions they make are permanent. Of course, this doesn't prevent players from save scumming, but the game is making it clear what the intentions are with this scene and the repercussions they have on Max as a character. This moment is about how much effort you put into actually learning about a character in order to convince them that they are worthwhile and worthy of being known. It specifically asks players to engage deeply with the story. In the scene with Kate, players know the stakes and can approach the conversation with past knowledge of both Kate as a character but also how the decision points work and how the conversation tree flows in *Life Is Strange*. By previously allowing for story experimentation and risk-free choice exploration, the game is now encouraging players to sit in this moment and experience it as Max would, with all the responsibility of non-reversible decisions.

Another avenue we discussed when discussing choice making was how to allow for more intentional choices that build off of this story experimentation model. How can we allow players to anticipate the consequences of a choice so that they can be intentional in selecting that choice? Part of this for us was how games can maintain intrinsic motivation in story moments for players, such as with *Disco Elysium*'s recognizing of play pattern and feeding this recognition back to players so players can affirm story motivation and continue making decisions in line with that motivation.

*I Was A Teenage Exocolonist* also encourages this intrinsic motivation recognition in its choices. *I Was A Teenage Exocolonist* rarely makes use of all or nothing choice points, but rather is a game built around accumulation of choices to determine branching paths. *I Was A Teenage Exocolonist* is a coming of age story and invokes the messiness of identity formation as a pre-teen and teen into its design. It wants players to have goals, but doesn't punish players for veering off course from those goals, either. For example, choosing to mostly study biology rewards more story and romance options with specific characters and story beats, but players are still able to participate in these story moments even if they don't exclusively choose to study science or biology. Players can spend a month or two exploring or studying

the humanities or playing sports and still maintain their focus on science and biology. Choices aren't all or nothing in the game, but rather are explicitly designed to mimic the ways in which we as teens try on different identities, experiment with choices and decisions, before settling into who we grow into.

# Practical Exercise: Applying Dialogue Systems Practices to Non-Narrative Mechanics

As mentioned in the previous section, this is an exercise to help your team brainstorm different interactions and come up with opportunities to infuse more meaning into players' actions.

## Step 1: Identify Your Verbs

First: Come up with a list of important narrative actions for your game.

Example:

| | | |
|---|---|---|
| ● Agree<br>● Disagree<br>● Choose a Side<br>● Insist<br>● | ● Betray<br>● Charm<br>● Persuade<br>● Lie<br>● Comfort | ● Amuse<br>● |

Second: Come up with a list of mechanics

Pick mechanics that are varied and representative for your game. The more familiar a player is with a mechanic, the more they will be able to understand variations from its classic use.

Example:

| | | |
|---|---|---|
| Action/Adventure<br>● Throw<br>● Climb<br>● Attack<br>● Dodge<br>● Fishing | Match 3<br>● Simple match<br>● 5+ match<br>● Combo<br>● Clear screen<br>● Store piece | |

## Step 2: Create a Table

Then, create a table with the Narrative actions along the X-Axis and the mechanics along the Y-Axis.

| | Betray | Charm | Persuade | Lie | Comfort |
|---|---|---|---|---|---|
| Throw | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Climb | | | | | |
| Attack | | | | | |
| Dodge | | | | | |
| Fishing | | | | | |

Then, as a group, go through each combination and ask yourself the question:
"What would it look like to [Narrative Action] by [Mechanic]?"

Example:
- What would it look like to **Comfort** by ***Throwing?***
- What would it look like to **Charm** by ***Fishing***?

Have fun with this exercise! It's meant to inspire ways of more deeply integrating story into mechanics and to generate mechanics that carry different expressions and add highly specific texture to your game.

# Conclusion

Everything discussed and explored above are just jumping off points, design thought experiments that we had fun teasing out and discussing, to see whether or not there was richness to be mined in terms of how to facilitate more direct play with story and how we tell story. The goal was not to have developers emulate the exact discussions and examples provided, but rather to use them as a way of exploring how story can be told in games. These examples are meant to ask people to consider the ways in which they are telling stories in their game, and if there are avenues for deepening the ways in which mechanics and story are speaking to each other.

This toolbox is meant to be a point of inspiration and an avenue to ask yourself questions versus a struct how-to. Disagreeing with the discussion points above is encouraged since the purpose of this framework is to inspire interrogations of how we can tell stories in interactive experiences and how we can achieve a possible greater depth of playful interactions with story.

Have fun.