Designing Missions with Meaningful Choices: Postmortem

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Introduction

Many role-playing games allow players to manipulate the course of narrative events and some gameplay elements by allowing player choices. Those choices become "meaningful choices" when the player is making an informed decision [4], where that decision has an impact on gameplay and/or narrative [1] [2] [3], and the player is aware of the consequences of those choices. [2] This thesis articulates a set of design goals and best practices for demonstrating an architecture for meaningful choice at the mission level, and how those missions fit into a campaign, as demonstrated in the artifact.

Design Goals and Best Practices

The following design goals were my foundation for designing missions with meaningful choices. These are some necessary building blocks for making effective meaningful choices.

Informed Decisions

Each choice should give players information about each option available, otherwise the choice is arbitrary and cannot be meaningful. [4] [7] Players should be able to articulate their own rationale for why they chose one choice over another. [7] Players should be able to estimate the consequences of their choice before they make it, so they can make an informed decision. [4] Ideally, a player should have gameplay and narrative consequences depending on each option. [1] When players read into the game's systems or narrative to attribute their own reasoning to a choice, they ascribe meaning to it and find those choices meaningful. [5] [6]

Best Practices for Informed Decisions

- **Mutually-Exclusive Choice**: Player choices should be easily distinguishable from one another and have largely predictable outcomes. Making choices as different from each other as possible allows players to weigh their options more easily.
- **Breadcrumb Information:** The mission should give player the information they need to make an informed decision right before the options are presented so that the information is fresh in the player's mind. One example is to do this in dialog is by giving players a non-playable character that explains the different options available. Placing this character right before the decision point makes it easier for them to parse the relevant information and make a deliberate choice. (See Appendix)

Lasting Consequences

Each choice should have a clear, permanent impact on the game directly related to the choice. [2] Players should be reminded of the results of their choices multiple times. [2] Consequences should be mostly predictable, but some aspects can be used to surprise players within reason. [2] Players should be able to speculate how the consequences would have played out differently.

Best Practices for Lasting Consequences

- **Chunking Choices**: The player needs to be able to predict the consequences of their choices and articulate the cause/effect relationships at play. [2] Each mission must clearly establish the extent to which the player has control over the course of events, usually through dialog. One example is framing the quest through

dialog at the beginning and end of each quest to clearly define the boundaries of what the player can affect.

- **Changing Environment**: Each meaningful choice that the player makes should result in a permanent change to the game's world at a predictable interval. This could happen at the end of a mission or at some point in the middle that is clearly communicated to the player and meets player expectations. This allows players to view their progress towards their over-arching goal at any time, as well as contextualize the choices they have made to this point. [3]

Long-Term Progression

Choices and consequences should all be contextualized by a sense of ongoing progression to a desired ending state. [4] [7] Players should be able to see reminders of their overall progress at any point during the mission or campaign. [2]

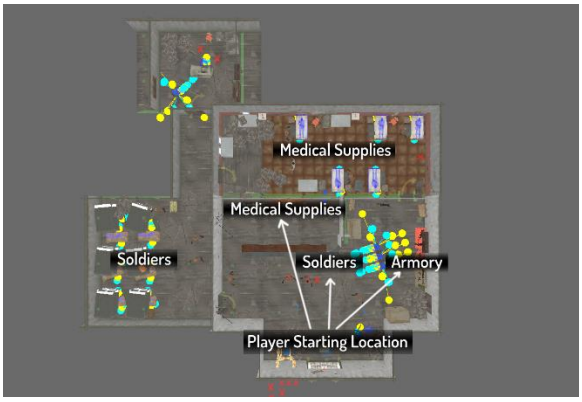
Best Practices for Long-Term Progression

- **Establish Broader Context**: For the player to make an effective informed decision in pursuit of specific consequences, they need to understand the broader context that the mission is trying to serve. Dialog and design should establish this context at the beginning of each mission or section using "hook-in" phrases that connect each mission to the player's over-arching goal in the campaign. [7] Effective hook-in phrases give the player a small chunk of information contextualized with the broader context that is expanded on later in greater detail. This helps players organize how their decisions made locally in the context of one section affects their long-term progress.
- **Recaps**: The player needs to be reminded of how their choices factor into their over-arching goals. One common application is including dialog at regular intervals that reflects on the most relevant choices the player made. [7]

Artifact

The artifact demonstrates these ideas in a 3-mission campaign in Fallout 4. The story follows the player as they accomplish missions for the Brotherhood of Steel to assist them in developing a new and struggling outpost in their war against a local raider group. The player makes informed decisions in each mission that have lasting consequences on the long-term progression of the outpost.

First, I had to set the broader context and expectations for the entire campaign. The main NPCs communicate the backstory for the campaign, specifically the several factors that the player can affect through the campaign with their gameplay decisions: the outpost needs (1) weapons, (2) medical supplies, and (3) soldiers to aid them in (4) their war against the local raiders. Each of these hook-in phrases establishes context for each mission in the quest. (See Appendix)



1: The player can see the consequences of their actions permanently displayed in the hub area for the campaign.

Mission #1: Emergency

Once the player understands the backstory and their over-arching goal, the player accepts their first mission. The player must go to a besieged hospital to either (A) steal weapon schematics

from the raiders to stock the outpost's armory or (B) rescue the hospital's medical staff to stock the outpost's medical supply. Either of these options will have unique benefits for the outpost These options are mutually-exclusive: if players seize the weapon schematics then the Raiders will kill all the doctors in the hospital, but if the player saves the doctors then the Raiders will seal off access to the weapons vault. Depending on the player's actions, one of these two resources will appear in the outpost with gameplay and narrative consequences and the other will not. These consequences are permanent and are reflected later in dialog recapping the player's actions.

The biggest challenge I faced developing this mission was that players were forgetting critical information before they had the opportunity to make a choice. I needed a way to remind players of the choices they could make, forecast potential consequences of those choices, and allow the player to factor those consequences into their long-term goals for the campaign. My solution was to add a "breadcrumb" character at the hospital to separate the overview information at the beginning of the mission with the detailed information the player needs to make an informed decision. This separation between different tiers of information helped clarify what options were available to the player when, and how their choices led directly to specific consequences.

Mission #2: Hostile Negotiations

The second mission tasks the player with saving Brotherhood of Steel soldiers who have been taken hostage by the raiders. This calls back to the hook-in phrase from the beginning of the campaign about how the outpost needs soldiers and communicates that the player's choices could gain soldiers for the outpost.

2: The player confronts Mantis to save the hostages.

Before the player can save the hostages, they must confront the raiders' leader, Mantis. This character serves as the "breadcrumb" character who gives players all the relevant information right when they need to make an informed decision for this mission. Mantis forces the player to choose between saving the hostages and sparing Mantis or sacrificing the hostages for the opportunity to kill Mantis. The player can either (A) save the hostages who will enlist as soldiers at the outpost and assist the player on the next mission, but spare Mantis who will continue to kill innocent people and appear as a final boss in the next mission, or (B) allow the hostages to die and lose their support at the outpost, but kill Mantis now before she can be a threat later on. This decision has permanent consequences that directly affect the player's short-term (mission-specific) and long-term (campaign-wide) goals.

This mission was consistently the most effective at communicating which options were available to the player and forecasting potential consequences. The biggest challenge was weighing the two options evenly to the player, who would most likely choose to save the hostages. I addressed this by placing much more emphasis on Mantis' character before her reveal, so players would view her as the primary villain of the story and value the opportunity to kill her when she is in a vulnerable state.

Mission #3: Ain't No Grave

This mission had to demonstrate all the long-term consequences of the player's choices up to this point to contextualize how all the player's actions contributed to their long-term progress. If the player secured weapons in the first mission, their allies will be carrying the upgraded weapons. If the player secured medical support, they have an abundance of medical supplies to stock up on. If the player secured soldiers in the second mission, they appear as allies in this mission. If the player spared the Mantis character, she will return during this mission.

The third mission begins with a recap of the campaign and the player's choices to this point. This recap directs the player's attention to those consequences, so they are more aware of the lasting consequences of their actions, as well as reflecting the details of their overall progress at one time.

Continuing the mission, the player selects an ally for the mission to act as the "breadcrumb" character for this mission and assist them in combat. The character that the player chooses here has the potential to die during this mission, so I wanted the player to pick a character based on their own preference to make the possibility of that character dying a more significant cost to the player. The player infiltrates the raiders' compound to plant a bomb and obliterate it. The final choice makes players choose if they want to plant the bomb themselves, with the risk of more dangerous combat, or if they want their primary ally to plant the bomb and sacrifice themselves. This choice establishes a large part of the endgame state of the outpost, specifically which characters are alive to run the outpost.

Additionally, if the player chose to spare Mantis in the second mission, she reappears at the end of this mission to confront the player, reflecting how the choice they made in the previous mission had long-term consequences.

Limitations

This artifact faced several limitations. Most significantly, not enough time was available to properly balance each player choice. Further research into how to balance players' motivations for different options could make these choices more effective and meaningful to a player.

Players generally do not make choices with long-term strategic thinking in a lab setting, playtesters did not find those aspects as compelling factors into their decision-making. If players encountered missions that applied meaningful choice principles during regular play, my playtest data suggests that players would be more mindful of the long-term consequences of their choices. The artifact also lacks voice-over and effective stylized writing, which would help players understand the characters and context for their actions better.

Conclusions

The most important elements for designing meaningful choices for missions are communicating enough information to allow players to form their own rationale for the choice, giving the player immediate and lasting feedback reflecting the consequences of their choices that validates those choices as closely as possible, and contextualizing each choice in pursuit of a specific over-arching player goal.

This research can be applied to other areas of design as well. Further research could explore how to use meaningful choices in multiplayer games and how to use meaningful choices in non-linear narratives, among other topics. Any design that is concerned with giving players agency over their play experiences would benefit from a comprehensive study of meaningful choice.

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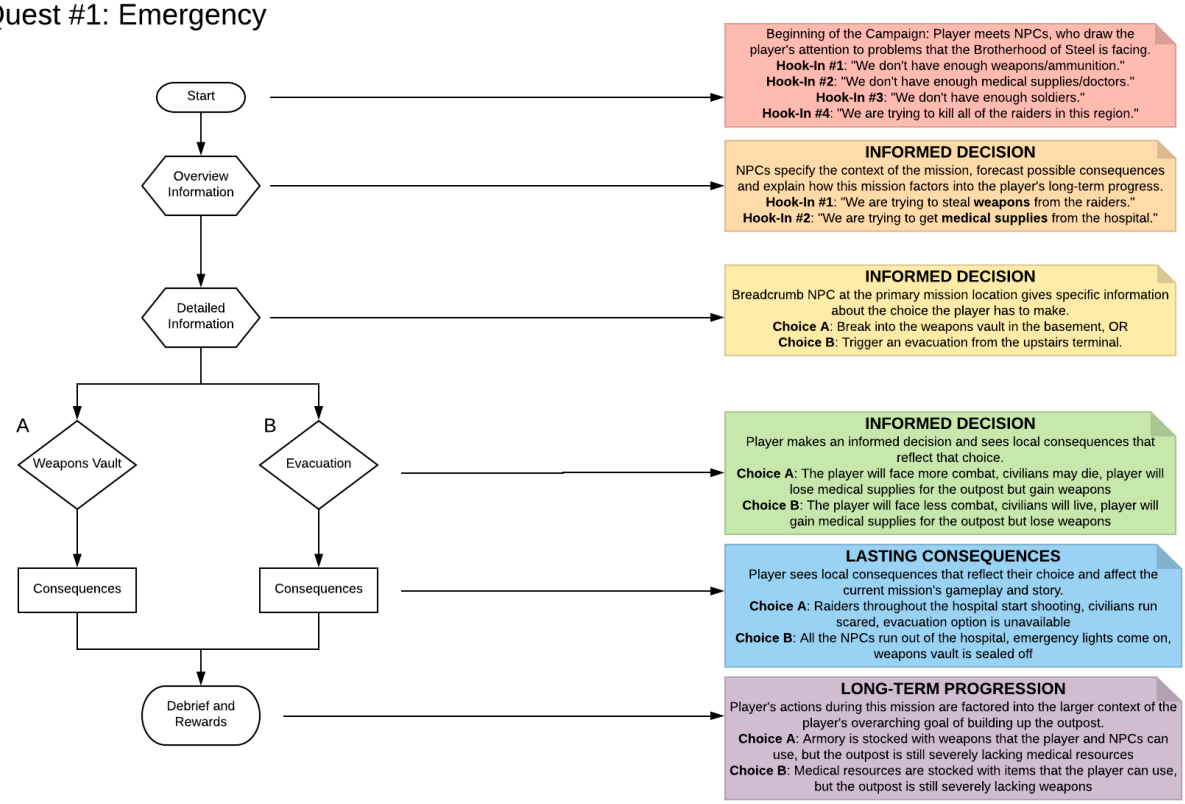
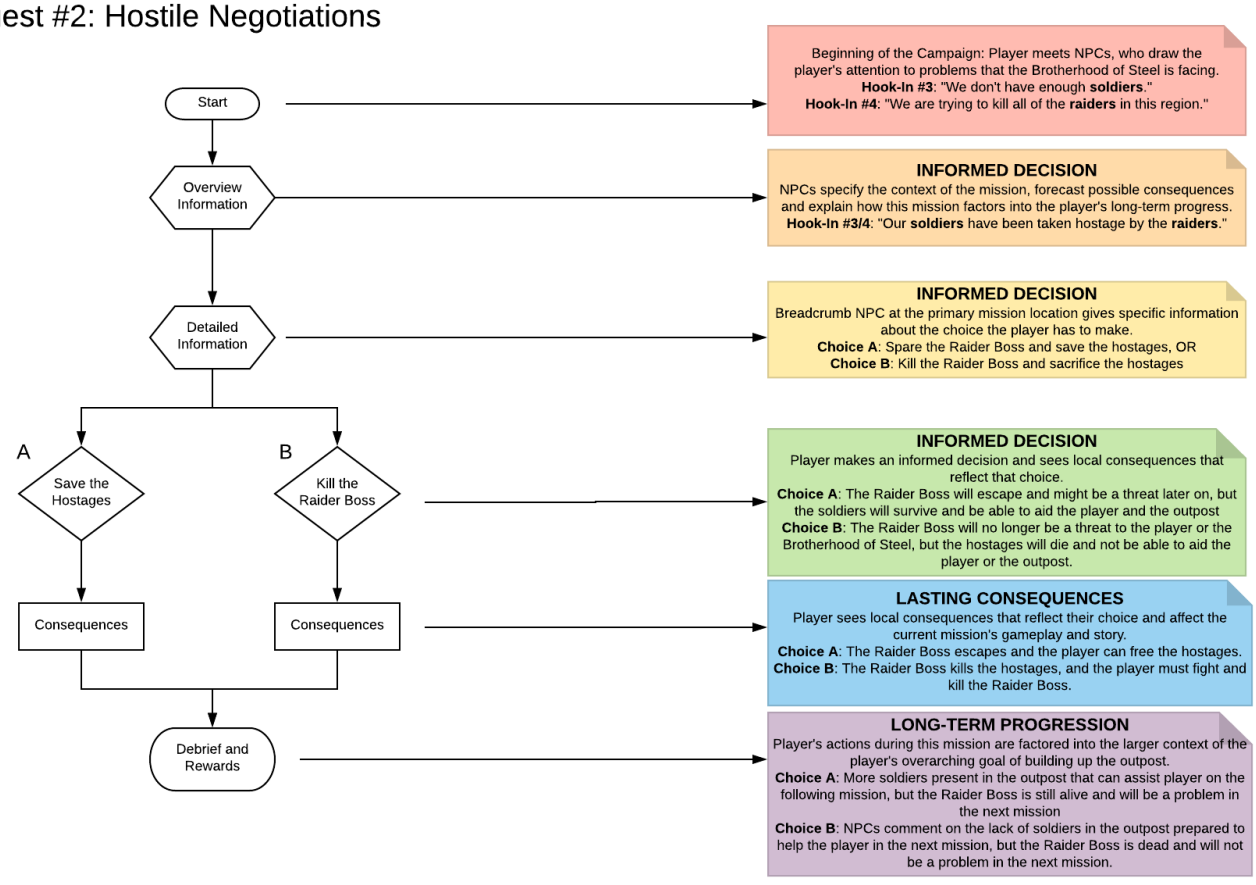
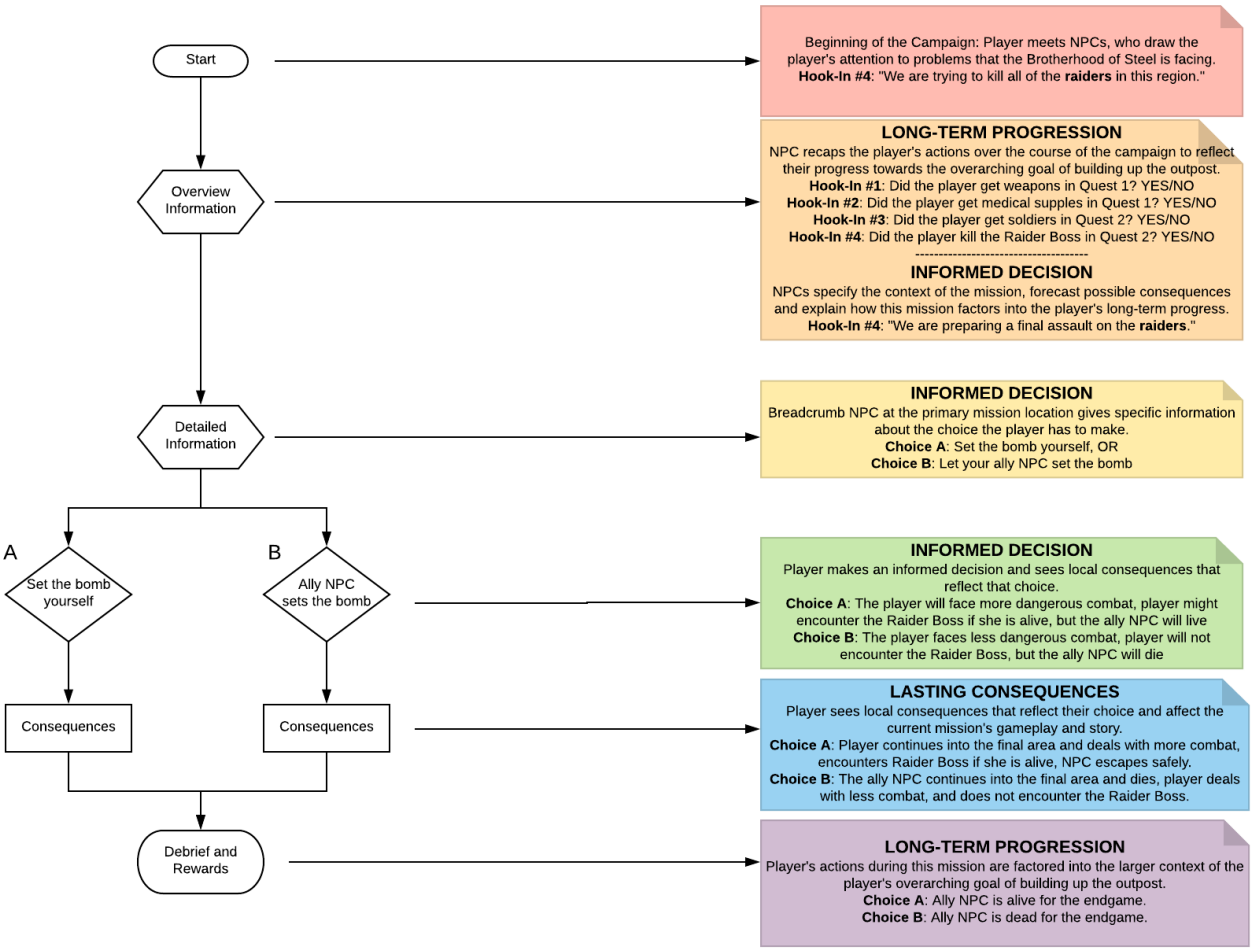
Appendix: Mission Diagrams

Quest #1: Emergency



Quest #2: Hostile Negotiations



Quest #3: Ain't No Grave