Commitment to Meaning:
A Reframing of Agency in Games

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ABSTRACT

This paper examines the concept of agency within games and proposes a shift from the notion of agency as representing *choice* or *freedom* to one of agency as representing *commitment to meaning*. This conception of agency is aimed at understanding the pleasures of engaging with narratively rich games, and helps to address the tension between player choice and authorial intent. We draw on what speech act theory says about how trust, meaning and communication are achieved in human conversation, applying these notions to interactive storytelling. This new perspective on agency provides us with a better analytical tool for understanding the relationship between interaction and narrative pleasure, and provides a useful metric for designers of story-rich games.

Keywords

Game Studies, Agency, Game Design, Interactive Storytelling, Speech Act Theory

1. INTRODUCTION

The role of narrative in games has been the subject of much debate. One of the central points of this debate positions game narrative as being inherently in conflict with the player's desire to act within the game world. This so-called tension between narrative and interaction has given rise to a vast array of design techniques, intended to either control the actions of the player via various guidance strategies or to shape the evolution of the story via intelligent drama managers.[21, 25-28]

The problem with this approach is that it is rooted in a problematic assumption: that *unrestricted self-agency* is a core pleasure of game experiences. This assumption construes the player as an agent of chaos within the game world: an uncontrollable variable which must be continually corrected for. Espen Aarseth writes:

> "In the adventure games where there is a conflict between narrative and ludic aesthetics, it is typically the simulation that, on its own, allows actions that the story prohibits, or which make the story break down. Players exploit this to invent strategies that make a mockery of the author's intentions."[2]

This is a difficult stance to design from because it places story designers in a position where they must be designing *against* the assumed preferences and desires of their players rather than for them.

The problem of agency is not insurmountable, but it may not be solvable through a brute force application of more realistic modeling or more intelligent programming techniques. Without an understanding of the pleasures of play and story and the assumptions surrounding player preferences, it will be impossible to engineer a way to a solution. Instead, we propose that a solution lies in the careful examination of the idea of agency itself, in order to better understand how to design for pleasurable and meaningful gameplay experiences that also partake of the pleasures of narrative.

This paper examines the concept of agency within games and proposes a shift from the notion of agency as representing *choice* or *freedom* to one of agency as representing *commitment*. By expanding the definition of agency in this direction, we can start to better understand game experiences where a player has limited or restricted actions, but remains fully engaged with the game. This new perspective also allows us to challenge some of the assumptions about what players want from their play experiences, especially where narrative is concerned. We are not arguing that there is no pleasure to be found in the types of playful and unrestricted interactions afforded by many current games, especially those loosely categorized as "sandbox" games (such as Rock Star's *Grand Theft Auto* [29] series or Bethesda's *Elder Scrolls* [9] series). Instead we are suggesting that when play and story intersect, agency is better understood as a *commitment to meaning*, instead of a desire to act freely.

This new perspective on agency builds upon our previous work in exploring the utility of treating interactive narrative and game experiences as improvised performances between the player and the experience designer [36]. Most interactive drama theories have an idealized notion of the interactor as a *performer* in the story; however, most state of the art interactive storytelling systems are designed around the assumption that participants will act selfishly and in contradictory ways. This results in games and storytelling systems which exert various levels of control on the actions of the player in order to bring them in line with the story. In our previous paper, we proposed using the social contract between participants in an improvisational scene as a model for designing interactive dramas. "If we can conceive of the relationship between the author and the interactor as one of equal participants in an improvisation, then the issue of interactor *agency* becomes one of performer *responsibilities*… it is necessary to reframe *agency* as a shared property of all participants in an interactive drama" [36]. In that paper, we

suggested a new direction for thinking about agency, but did not develop the notion fully.

In this paper, we discuss the notion of agency as it has been used in academic discussions within the fields of game studies and new media studies. We also look at more informal treatments of agency from the game design community and popular game culture. We propose our new definition of agency and elaborate on the notions of *commitment* and *meaning* in order to explore the implications of this definition for designers and theorists.

2. AGENCY
2.1 Academic Definitions
2.1.1 Agency as Choice
Perhaps the most well known definition of agency comes from Janet Murray, who describes it as "the satisfying power to take meaningful action and see the results of our decisions and choices" [24]. Murray identifies agency as one of the central pleasures of interacting with digital environments (along with immersion and transformation), but is careful to qualify her definition, reminding the reader that "interactors can only act within the possibilities that have been established by the writing and programming."[24] This clause is important to Murray, as she is invested in the notion of the author/designer as a privileged role, distinct from the creative roles available to interactors.

More recently, Salen and Zimmerman write: "Playing a game means making choices and taking actions. All of this activity occurs within a game-system designed to support meaningful kinds of choice-making." [31] Like Murray, Salen and Zimmerman describe a relationship between *making choices* and *taking actions,* placing the emphasis on player activity. Both definitions also have some notion of *meaningful* actions, which we will return to later in this paper.

Mateas and Stern provide a more instrumental approach to agency, building on Murray but proposing a more restricted definition.

> "A player in an interactive drama becomes a kind of author, and…contributes both materially to the plot and formally to elements at the level of character on down. But these contributions are constrained by the material and formal causes (viewed as affordances by the author of the interactive drama). Hopefully, if these constraints are balanced, the *constrained freedom* of the player will be productive of agency" [22].

Mateas and Stern view agency as arising from the ways in which the design of the game experience *constrains* and *affords* actions. They divide the potential constraints in an experience into two categories: material constraints (such as the functional limitations of the interactive system) and formal constraints (the possibilities motivated by the "dramatic probability in the plot"). Thus the potential for player agency is largely determined by the design of the system.

It has been more than a decade since Murray published her definition of agency, and in that time one of the things that has changed most dramatically in games has been the rise of simulated worlds in which no author or designer could possibly anticipate all of the actions that a player might take. Assuming that the design of the game will limit the actions of the player also fails to account for the well documented possibility of the player

deliberately subverting the design of the digital environment, either by exploiting "bugs" or by hacking and patching the game. While the possibility of the interactor acting outside the parameters or expectations defined by the author did exist at the writing of *Hamlet on the Holodeck*, it was much less prevalent then it has since become. Today, not only is it *possible* for unanticipated and emergent player actions to occur, in many games it is *expected*. These expectations have given rise to a shift in the notion of agency, away from *choice* and toward *freedom*.

2.1.2 Agency as Freedom
None of the above definitions of agency talk about providing the player with unlimited freedom to act. If anything, each of these definitions provides room for agency to operate within highly constrained parameters. However, many discussions of agency, especially those from theorists who identify as "ludologists", overlook this, instead construing agency as freedom from restrictions. Perhaps the most extreme variation on this comes from Gonzalo Frasca, who completely disassociates agency from narrative meaning. He writes: "the more freedom the player is given, the less personality the character will have. It just becomes a 'cursor' for the player's actions." [15] Frasca goes on to describe a variation on the game *The Sims* [23] in which players have control over the behavioral algorithms that govern the character's actions, directly challenging definitions of agency that incorporate any pre-existing authorial constraints.

Barry Atkins suggests that the pleasures of play are rooted in a sort of "cause and effect" relationship in which the player is actively testing the boundaries of the simulation. He writes:

> "Video games prioritize the participation of the player as he or she plays, and that player always apprehends the game as a matrix of future possibility. The focus, always, is not on what is before us or the 'what happens next' of traditionally unfolding narrative but on the 'what happens next if I' that places the player at the center of experience as its principle creator, necessarily engaged in an imaginative act…"[6]

This notion of agency construes the player as "creative investigator' whose central interest is in uncovering new responses from the system. The player, in this case, is primarily interested in taking actions, and experiencing their outcomes.

At some level, this idea of unrestricted agency has been idealized within the academic community, as when Rushkoff writes:

> "I'd place my renaissance bet on the gamers' perspective: the very notion that our world is open source, and that reality itself is up for grabs. For, more than anyone else, a real gamer knows that we are the ones creating the rules." [30]

This idea of "creating the rules", along with Frasca's suggestion to give the player control over the behavior algorithms, pushes the notion of agency to the point where the distinction between player and designer collapses. Nowhere is this notion of agency more prevalent than within the game design community.

2.2 Agency in Design and Gamer Culture
Outside of academic discussions, there is a thriving discourse on the design of games that is comprised primarily of working game designers and some vocal communities of game players. It is

within this domain that we find some of the most hardline approaches to agency as well as some of the most interesting alternative framings.

2.2.1 Agency as Freedom II

Shortly after Murray published *Hamlet on the Holodeck*, game designer and theorist Ernest Adams wrote "...the player and her actions are the most important things in the game. In computer gaming you subordinate the player to the plot at your own peril. It's not our job to *tell* stories. It's our job to build worlds in which players can live a story of their own creation" [3]. This lionization of pure simulation, similar to the academic definitions discussed in 2.1.2, has persisted within games culture. In 2008, Steve Gaynor, another prominent designer and blogger, wrote:

> "The player is an agent of chaos, making the medium ill-equipped to convey a pre-authored narrative with anywhere near the effectiveness of books or film...the game designer's role is to provide the player with an intriguing place to be, and then give them tools to perform interactions they'd logically be able to as a person in that place—to fully express their agency within the gameworld that's been provided. In pursuit of these values, the game designer's highest ideal should be verisimilitude of potential experience."[16]

In this treatment of agency, there is no attempt at limiting agency through a series of designed constraints. The pleasure that is being designed for here is one of unrestricted action. We see evidence of this design philosophy at work in the ways in which the current generation of games relies more on simulation than on linear scripting. They focus on enhancing player enjoyment by expanding the range of available choices, construing agency as the "freedom to act upon the world without restriction".

The ultimate game from this perspective becomes nothing more than an empty game engine wherein players are invited to build their own rules, worlds, characters and stories. While there is undoubtedly some appeal in this notion (as the success of community moddable games such as *Neverwinter Nights* [10], and "interactive toys" such as *The Sims* [23] can attest), it is not the same as engaging in a fictional world constructed by someone else, and this notion of agency does not help understand the pleasures of interacting with authored content. The problem with this approach is that all meaningful content in a game world involves a restriction of the player's freedom at some level. The moment a designer chooses to place walls and textures in an environment, or to simulate human characters, the freedom of the player has been limited and constrained. In fact, as Chris Crawford has pointed out, the ultimate interactive narrative software system already exists: Microsoft Word [13]. If the goal of game design was to make games that were simply toys, bereft of meaning or message, this notion of unrestricted agency would be sufficient. However, we *need* constraints in order to make interactive experiences meaningful and pleasurable. Most formal definitions of games rely on the presence of rules and constraints in order to define and bound the play experience [17, 31]. The notion of unrestrained agency conflicts with a game designer's ability to make games with stories or processes that require specific actions and responses from the player. The notion of agency as freedom needlessly forces an opposition between player agency and the designer's ability to author a compelling work, be that work primarily ludic or narrative in nature.

2.2.2 Agency as Illusion

In spite of the freedom-based rhetoric that the design community has constructed around agency, there are plenty of examples of ways in which games limit player actions in order to support a richer experience. Some games, such as *God of War II* [32] and *Kingdom Hearts* [34], do this by introducing "quicktime events" or other mechanics of interaction which afford the "illusion of agency" but serve as a mechanism for limiting player choices. While the term "illusion of agency" has a negative flavor, it has also been noted within the gaming community that this illusion is often quite convincing.

In a recent column for the popular gaming magazine *The Escapist* Anthony Burch describes a number of game experiences where the illusion of agency provides players with powerful play experiences, in spite of their ultimate inability to affect the outcome of the game events.

> "Here's how it works: Present players with a scenario, and actively trick them into believing they have more control over the events than they actually do. The experience will have the emotional impact the designer intended, and players will (mistakenly) believe that they were in complete control the entire time. It sounds difficult, dishonest and more than a little cheap. But when it works? It can be nothing short of goddamned magical" [12].

Burch provides two examples of games in which this approach is effective. In his first example, *Half-Life 2: Episode 2* [37], he describes a climactic scene in which the player must defend a base from an onslaught of alien "striders". [Figure 1] In order to provide the desired emotional arc, the designers carefully stage the pace at which the aliens progress through the base, modifying the density of the enemies and the efficacy of the AI resistance on the player's side. The stated goal of this design is for the player to feel a sense of heroic effort *without actually being able to fail the mission* (except through exceptionally bad play). In this example, taking control over the outcome out of the hands of the player is used to craft a more intense play experience and a more intense narrative experience.

Figure 1. Defending the White Forest base against Striders in
Half Life 2: Episode 2

The other example given by Burch is even more telling. He describes a sequence at the end of *Metal Gear Solid 4* [19] in which the hero, *Old Snake,* must traverse a tunnel filled with deadly microwave radiation in order to prevent the destruction of the planet. [Figure 2] The microwave tunnel sequence is widely regarded as one of the most powerful and emotional moments in contemporary games; a quick search of the Playstation 3 forums or of the many YouTube videos in which the sequence may be viewed reveals hundreds of players talking about how they cried during it [4, 5].

Figure 2. Solid Snake struggling through the microwave tunnel in *Metal Gear Solid 4*

What makes this sequence remarkable is how little control the player has over any aspect of the experience. In it, the player is told that he must maneuver Snake down the tunnel quickly or he will die. As the character moves through the gauntlet of microwaves, the top half of the screen shows the final moments of a climactic battle in another location. Suddenly, there is a flash of sparks from the wall of the tunnel and Snake collapses to the floor. A voice over the radio implores "Don't give up on me, Snake!" and the player is prompted to tap the Triangle button on the controller in order to keep Snake moving forward. Over the next moments of gameplay this escalates: Snake grows ever more crippled, the corridor becomes more and more hazardous, and the prompting from the system demands ever increasing button mashing in order to move the character forward. Burch describes the final moments of the sequence, writing:

> "Snake goes down again, presumably for the last time. He inches forward pathetically, just barely crawling as his health meter speeds down to its last few millimeters of life. The triangle button animation appears for a moment – "press it, or he'll die!" – but disappears once you press the button even faster, even harder. Then it appears again, the animation running twice as fast as before, sending a clear message: As fast as you were pressing it before, you're not pressing it fast enough now – for Christ's sake, press triangle faster or **everyone you love is going to die**."[12]

This sequence leads the player to buy into the drama and the desperation of the situation. Through carefully arranged cues the player is invited to frantically mash a single button in order to advance the game. The beauty and irony of this is that even this limited set of interactive possibilities – to rapidly push the button or not – is not actually required by the system.

> "Snake's ever-decreasing health bar cannot possibly reach zero before the end of the corridor so long as you press the triangle button once every few seconds. In purely mechanical terms, you might as well be holding a DVD player remote that has been jury rigged to only continue playing a film if the viewer presses "play" every so often" [12].

Even when a player's actions have no real impact on the world—in the sense that there is nothing she could have done that would have yielded a different result—players nevertheless come out of the experience feeling as if their actions were meaningful and the game was enjoyable. This leads us to the question: is this a violation of the player's agency, or simply another form of agency? In order to begin answering this question we must first consider the different types of game players, and the different sources of pleasure that motivate players.

2.3 Agency and Player Types

One of the sources of these problematic assumptions about agency is a tendency to group all players under a unified heading, to assume that there is a singular ur-gamer that represents the stereotypical audience for all games. There is, however, a rich body of literature that is focused on understanding the different personality types, drives, motivating factors, and preferences distinguish individual players from each other.

The classic treatment of player types comes from Richard Bartle, who proposed four different player archetypes for participants in MUDs.[7] The Bartle player types include:

> "**Achievers:** Achievers regard points-gathering and rising in levels as their main goal, and all is ultimately subservient to this.
>
> **Killers:** Killers get their kicks from imposing themselves on others.
>
> **Socialisers:** Socialisers are interested in people, and what they have to say. The game is merely a backdrop, a common ground where things happen to players.
>
> **Explorers:** Explorers delight in having the game expose its internal machinations to them. They try progressively esoteric actions in wild, out-of-the-way places, looking for interesting features (i.e. bugs) and figuring out how things work."[7]

It is possible to see a range of pleasures across Bartle's typology. The pleasures of action are certainly represented, but equally prevalent are pleasures of discovery, socialization, and advancement. From this early parsing of player preferences, it should be evident that there is no singular game player.

Bateman and Boon take a different approach to player preferences. Their book takes the Meyers-Briggs personality typing system and applies it to game playing, reducing it from 16 personality types down to four game playing archetypes. The Meyers-Briggs typology is comprised of four sets of "dichotomies", which may be recombined into 16 possible permutations. These include Extroversion vs. Introversion; Sensing vs. Intuition; Thinking vs. Feeling; and Judging vs. Perceiving. Bateman and Boon draw on the last two dichotomies to structure their typology of player types. These four player types include:

"**Conqueror (Thinking & Judging):** Conqueror play involves winning and "beating the game". [Primary pleasure is *goal* oriented challenge.]

Manager (Thinking & Perceiving): Manager play revolves around a strategic or tactical challenge. [Primary pleasure is *process* oriented challenge.]

Wanderer (Feeling & Perceiving): [The Wanderer] is looking for enjoyment, or a unique experience. They won't play a game they aren't enjoying and, in fact, stop playing the moment it ceases to be fun. [Primary pleasure is aesthetic and emotional play.]

Participant (Feeling & Judging): [Participants] want to participate either in the story the game is offering or with other players in some emotional context. [Primary pleasure is narrative and social play.]" [8]

They further subdivide these categories into "hardcore" and "casual" versions of each play style, which are also associated with a specific Meyers-Briggs type. In this typology, only one player type would derive pleasure from the abovementioned notion of unrestricted agency: the Wanderer. The other play styles, while operating within the pleasures of limited agency, all rely on either the structure of rules or the structure of story to provide the pleasure.

Craig Lindley performs a survey of player preferences in the course of his analysis of the relationship between narrative structures and computer games. He examines "folk" typologies that have arisen from players of tabletop role playing games (RPGs) and live action role playing games (LARPs). One typology in particular stands out, in that it parses player preferences into categories that speak directly to the concerns raised above. The "Threefold Model" from John Kim parses player preferences into three "contracts", or shared play styles in which players have roughly agreed on the same core values and pleasures in their play:

"**Dramatist**: is the style which values how well the in-game action creates a satisfying storyline.

Gamist: is the style which values setting up a fair challenge for the players…The challenges may be tactical combat, intellectual mysteries, politics, or anything else.

Simulationist: is the style which values resolving in-game events based solely on game-world considerations, without allowing any meta-game concerns to affect the decision."[18]

By parsing the pleasures of gaming into these three categories, Kim provides a useful distinction for the analysis of the constituent pleasures of play. Lindley writes, of these categories:

"The mechanics of a computer game may realize the designed formal structures at all three levels, but players may be more or less free to play creatively in a style of their preference, in tune or at odds with the design emphasis in the computer game artifact."[20]

As a model for agency, this is an interesting approach in that it does not say anything about *designing* for player freedoms. Instead, it proposes that the preferences of the individual player will determine the extent to which he engages or subverts the structures of the game experience. Lindley goes on to discuss three different modes of behavior that describe how players engage with the dramatic and narrative aspects of games.

"The *audience*: passive reception of a narrative, i.e. being told a story; this is the model implicit within the use of predefined *cut scenes* in commercial computer games to convey story elements designed by the game developers

The *performer*: active performance of a character role within an unfolding story; further distinctions here might be made in terms of the degree to which the role and/or the story are predefined, as opposed to being created by the performer prior to or during the performance

The *immersionist*: immersion of the player in the character, i.e. the player/character distinction is dissolved into a unified *persona* within the game world; here too there is a question of the degree of character predefinition required to encourage immersion."[20]

These modes represent a continuum of activity that a player may engage in, while still remaining attentive to the narrative demands of the game. Unlike the ludological arguments about narrative that attempt to frame story as a passive mode of experience that is isolated from the dynamics of the play activity, these three player roles identify ways in which gamers actively engage in game narratives.

Looking at all of the above player typologies, it becomes possible to assemble a type of player with a very different set of desires from those described in section 2.2.1. This new aggregate player type is concerned with participating in a fictional world where her decisions and actions are incorporated meaningfully into that fiction. This player is less concerned with limitless – but meaningless – freedom, and is instead interested in some systematic reification of the meanings which she is performing as an inhabitant of this world. In order to serve this kind of player, we propose a redefinition of agency as **the process by which participants in an interaction commit to meaning**.

3. AGENCY REDEFINED

Our proposed understanding of agency is not meant to suggest new ways of designing games, but rather new ways of understanding how and why existing games work, and new ways of talking about the design of games. It is also not meant to be a universal definition of agency, but rather a definition that applies for a particular subset of narrative-oriented games and the pleasures associated with navigating them. To explore this definition of agency as a *committing to meaning* further, we examine the notions of both *commitment* and *meaning* and their implications for game play and game design.

3.1 Commitment

Central to this definition is the notion of "commitment"; an idea that has its roots in speech act theory and the philosophy of AI. Winograd & Flores, in their critique of artificial intelligence from a phenomenological perspective, argue that machines can never be intelligent because they cannot commit to meanings in the way that human interactors do [39]. Each language act or utterance in a conversation between two or more people has consequences for

the participants, typically related to actions they are about to take or will undertake in the future. Speech act theory categorizes an utterance in terms of its *illocutionary point*, with each kind of point entailing different commitments or attempting to achieve different goals [39]. See Table 1 for definitions and examples of each type.

Table 1. Categories of Illocutionary Point

Type	Definition	Example
Assertive:	Commits the speaker to the truth of the statement	"It is raining outside"
Directive:	Attempts to get the listener to do something.	"Can you close the door?"
Commissive:	Commits the speaker to future action.	"I will rescue the princess."
Expressive:	Expresses the speaker's psychological state	"I am excited about this quest"
Declaration:	Brings reality into alignment with the content of the statement	"I now pronounce you man & wife"

Commitment as entailed by the illuctionary point of an utterance is critical to establishing trust and communication between actors, as seen in improvisational theater as well as everyday conversation. People who make assertive statements that are shown to be false, or who make commissive utterances that they do not follow through on will be judged untrustworthy and unreliable. In our previous paper, we argued for a way of thinking about gaming not as players interacting with a system but as performers improvising within a story. Under this conception, designers and performers are in a type of conversation with each other, mediated by the game. By looking at the ways in which human conversation creates meaning and commits speakers to action, we can gain an interesting perspective on how we might design a game system which provides similarly satisfying ways to engage and commit. Perhaps equally importantly, by looking at ways in which this dialogue breaks down in popular games we can learn important lessons about designing games that support commitment.

Figure 3 *Oblivion* **[9] attempts to interpret the commitments of the player and recommend a class.**

Tanenbaum and Bizzocchi provide a case study of this process in action, in their close reading of the opening sequence of *Oblivion* [35]. In the opening sequence, the player diegetically creates a character by playing through an opening dungeon. At the end of this sequence, the game recommends a class, based on the observed play style and choices of the player.[Figure 3] Over the course of their close reading, the authors identify a number of ways in which the actions of the player fail to result in appropriate responses from the system. We can understand this breakdown as a situation in which the illocutionary point of the player's actions – the communicative commitment embodied in the play – is not meaningfully interpreted or responded to by the system. For example, when the player selects a race and a gender, she is making a *commissive* act because the specialization of the races commits the player to a specific play style for the rest of the game. Similarly, if the player traverses the dungeon entirely in stealth mode, she is making an *expressive* act about her psychological state. In both of these cases, Tanenbaum and Bizzocchi discovered that the system fails to properly interpret these commitments, ignoring the first entirely and misrepresenting the second [35].

Some games are more careful about mapping commitments to outcomes in a way that is clear to the player. In *Mass Effect* [11] much of the gameplay revolves around lengthy branching dialogue trees. [Figure 4] However, the player is seldom given access to the actual dialogue that is to be performed by the character. Instead, she is presented with a selection of abstracted and abbreviated conversation options to choose from. Each of these options translates into a much longer utterance on the part of the main character, Commander Shepard.

Figure 4. The Dialogue Wheel in *Mass Effect*

In this interaction, there are two kinds of commitment present: a *directive* act in which the player indicates to Shepard which type of response she wants the character to speak, and more opaque act where the game system responds with an utterance that might use any kind of illocutionary point in order to advance the story. Noah Wardrip Fruin writes that this "makes conversation feel a bit less first person — sometimes more as though we're influencing Shepard (the player character) than playing as Shepard."[38]

For the most part, this two stage relationship between the communicative commitments of the player and of the character works seamlessly. The player commits to a general "flavor" of communication, which is then executed by the character within the predefined conversation possibilities. Occasionally, however, there will be a mismatch: the player will instruct Commander

Shepard in what she believes will result in one type of communication, only to receive something unexpected in response. One player describes this on the Mass Effect forums

> "For the most part, I loved the dialogue wheel... but I'd be lying if I said there weren't a few occasions where I selected a response intending for my character to behave or say something a certain way... only to have them either say or (in worse situations) do something I neither intended or wanted to happen…One case example was when I was tracking the guy who'd gone off to create a cult of biotics. When I confronted him, I highlighted a response that I thought would probe or provoke him a bit... but instead once I selected the response, I drew a weapon and shot his head off."[1]

The communicative commitments of the player may not always align with those of the game designer, as this example shows. For the most part, the game avoids this issue by consistently locating "positive" and "negative" responses in their own quadrant of the user interface, providing the player with additional cues as to what each dialogue option is going to expand into. These two examples begin to show how we can use this notion of commitment to understand player commitments and the way in which player and designer are engaged in a conversation with each other via the game story. The other half of our definition looks at the notion of meaning.

3.2 Meaning

Focusing on the idea of meaning allows us to shift the emphasis in an interaction away from the *outcome* of a choice, and towards the *intent* which underlies that choice. Most of the definitions of agency discussed in section 2.1.1 include some notion of meaning, but this is often overlooked in favor of construing agency as freedom. Paul Dourish says that interaction is "not simply about what people do in the world, but about how those actions accomplish meaningful events" [14]. It is more important to provide the player with the ability to take a single, meaningful action than a dozen trivial ones. Thus, in a sandbox game, such as *Grand Theft Auto III* [29], the player may have a very freeform experience of driving, committing crimes, and resisting arrest. There may be limitless permutations of these activities with enough variation and emergent moments to support hours of unique play, however there is a comparatively small range of meanings to which that player is committing. She may either commit crimes or obey the law; she may follow the structured quests or she may ignore them, in which case the world remains static.

Salen & Zimmerman view meaning as emerging as a result of discernable systematic responses to interactor behavior. They write that "design is the process by which a designer creates a context to be encountered by a participant, from which meaning emerges" and that "The meaning of an action in a game resides in the relationship between action and outcome…Meaningful play occurs when the relationships between actions and outcomes in a game are both discernable and integrated into the larger context of the game" [31] Meaningful choices, then, are the ones in which the illocutionary commitments entailed by the utterance/action are real: the player is held accountable for what they have committed to. Simulational fidelity alone may afford unrestricted player actions, but is not sufficient for meaningful play.

It is important to recognize this property of meaningful behaviors as one which can (and should) be applied to the design and operation of the game world as well as the actions of the player within it. In discussing expressive autonomous agents, Phoebe Sengers introduces the notion of "action-expression" instead of "action-selection", arguing that it is more important to "do the thing right" than "do the right thing" [33]. By this, Sengers means that agent behaviors in a simulation should be understood and described in terms of *what they signify* rather than their instrumental components. We can understand this argument as one in which an intelligent system's emphasis is no longer on the actions which are taken within it, but on the expressed meanings of those actions.

In some cases, committing to meaning may even involve sacrificing the ability to chose, or engaging in actions where there are no choices to be made. The *Metal Gear Solid IV* [19] microwave tunnel scene is powerfully affective because it demands that the player commit to the story, not because she has any choice or actual control over what is happening. By pushing the triangle button over and over, she is continually asserting that she is committing to moving Snake down the hallway, to pushing through the character's pain, to finishing the mission. This is not a nuanced or sophisticated narrative meaning, but it is a potent one, and thus, she emerges from the microwave tunnel feeling like she just completed a significant task: an ordeal in which ten years of game storytelling have culminated, and over which she has triumphed. As one fan writes:

> "Ok that hallway that was like a microwave scene was **bleep**ing amazing. It was so dramatic. You could see snake in so much pain through the seering heat as his suit was melting away. And you almost felt like you were struggling just like snake was, because you had to press the traingle button so fast. Than you have the split screen on the top where everything is going on and seems like everyone is out of luck and is about to die and it makes you want to make it even more. But im am just in awww. I have never seen such a movie like dramatic scene playable in a video game. Definetly my favorite part of the game" [*sic*] [4].

This is a perfect example of the player committing to the narrative meaning of the game even when there are no strategic choices available: in this moment of play, the commitments of the player and the meanings represented by the game system come into parity with each-other. We see this as an important form of agency. At a purely cognitive level, the player chooses to engage in this fiction, and to allow the drama of the moment to create the belief that her actions have meaningfully advanced the story.

Similarly, a recent study by Roberts et al looked at using principles of Influence Theory from social psychology as a way of guiding player behavior in an interactive narrative [27]. By adding carefully crafted influence statements to the story, the authors were able to increase the number of people who selected one specific action over another. Crucially, in the post-study questionnaire, players who got the control story and players treated with the influenced stories showed no differences in terms of reported agency or feelings of manipulation. Despite having their actions manipulated and controlled in this way, their engagement with the story and their own commitment and feeling of agency was unaffected.

4. CONCLUSIONS

Throughout this paper, we have examined the notion of agency, looking at its use in academic and games industry discourse and then proposing our own definition. This definition, that agency is the process by which participants in an interaction commit to meaning, is particularly well suited to interactions with narrative and story-based games. This understanding of agency proposes that game designers should strive to create game and narrative experiences in which the player can demonstrate commitment to the experience, and, crucially, where that meaningful commitment is reinforced by the game's behavior. Agency is not about selecting between options in this case, but is instead about expressing intent, and receiving a satisfying response to that intent. Commitment in this sense might be a purely cognitive process, or it might involve player actions.

There is already substantial evidence in games that this type of agency has the potential to create play experiences that are emotionally powerful. Quicktime events and other game mechanics whereby players must take action by pressing a button or performing a specific action may not afford any meaningful choices to the player, but they have the ability to bring the commitments of the player and the commitments of the game into parity with each-other. Rather than being an illusion of agency, then, such mechanics are in fact the vehicle for agency: the way by which player shares in the story creation with the game designer. Framing an interactive narrative as a conversation between the player and the designer allows us to use the notion of illocutionary points as a way to think about different kinds of commitments. By reframing agency in this manner, we hope to provide a basis for the design and analysis of game interactions that supports richer, more meaningful experiences.

One happy consequence of this definition is that it re-imagines the player and designer as collaborators in the game experience. By conceptualizing game design as a conversation in which different meaningful communications are being exchanged, we move away from the problematic notion of the player desiring only to subvert the intentions of the designer. We propose that designers take this definition as an argument to redirect their efforts away from "facilitating player freedom" and towards "facilitating meaningful expression".

5. ACKNOWLEDGMENTS

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