Dramatic Situations for Emergent Narrative System Authorship

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Abstract. When designing and developing an emergent narrative system, one finds themselves in the difficult situation of working with low-level mechanisms while aspiring for high-level, longer-term emergent outcomes. To complicate things further, the desired output is not a concrete artifact but an ambiguous mental construct: something potentially recognized as a story. We think that dramatic situations, as conceptualized by Georges Polti, can act as a useful in-between heuristic: they are sufficiently formalized to inform the design of low-level operations, but abstract enough so as not to overdetermine the output.

In this paper, we re-theorize Polti's dramatic situations in the context of emergent narrative systems design. We posit that their generative potential arises from the fact that they are both sequence-independent and sequence-productive; as well as character-independent and character-productive. We then consider the qualitative aspects of their generativity against the narratological notions of "tellability" and "eventfulness".

To substantiate this theoretical proposition, we use dramatic situations as emergent narrative design heuristics in the development of the *Chroniqueur* project. We then analyze three emergent story retellings against our proposed generative and qualitative criteria. We find that identifying a dramatic situation prompts the construction of a story as it incites tracing its causes and discovering its outcome. Observing the behavior of the involved parties significantly contributes to their characterization. As dramatic situations are relatively rare in a character's life and typically have high stakes, they are likely to be noteworthy.

Keywords: Emergent Narrative, Dramatic Situations, Authoring, Tellability, Retellings

1 Authoring Heuristics for Emergent Narrative Systems

The notion of emergent narrative is not new to interactive storytelling researchers, and it is now gaining traction in the general public (see Gordon 2020, for example). Yet it remains an open design problem. While there are examples of digital games recognized for their emergent narrative potential, they are relatively rare and heterogeneous. For the would-be designer of an emergent narrative game, there are still no basic templates to follow and very few general design guidelines available. Where does the design of an emergent narrative system (ENS) even begin?

According to James Ryan, a common approach hinges on the hope for "stories to emerge bottom-up from the behavior of autonomous characters in a simulated storyworld" (2015). In other words, the authoring does not actually happen at the narrative level, but at the much lower level of world modeling and computational simulation. The question is then: what can inform the design of low-level mechanisms to maximize the chances of seeing "good stories" emerge once everything has been put together? Are we bound to time-consuming, expensive trial and error? A key problem with this form of second-order authoring is well summed up by early emergent narrative (EN) theorist Ruth Aylett: "one of the risks of emergent narrative is that it may not emerge" (1999). How can we avoid this?

Louchart *et al.* (2008) frame emergent narrative systems (ENS) as "story land-scapes" in which peaks would represent states of "dramatic intensity" connected by more relaxed and open-ended valleys. As they navigate the possibility space, players end up ascending these hills which culminate in some narrative climax. They note, however, that this metaphor is mostly useful to conceptualize the problem space and "provides no obvious authoring solutions because the author creates this story land-scape only indirectly". If we want to make sure some memorable moments emerge out of interacting with my ENS, how do we go about concretely authoring for those peaks? What are "rules of thumb" that EN authors can follow to improve the likelihood of interesting stories emerging from their system?

Tarn Adams, designer of *Dwarf Fortress*—a game often lauded for its emergent narrative potential—recommends considering potential player stories first, and then proceed to deduct the low-level components that would be required for their emergence (2019). He gives as an example: "A kobold crept into the workshop and stole Urist's masterpiece scepter. Urist was distraught for days afterward." From this he can identify the need for characters that steal, stealth mechanics, item ownership, item value, character feelings, etc.

The Sims series—arguably the most successful emergent narrative games—approaches this concretely by authoring and embedding virtual story trees in the event-space. Studio creative director Matt Brown gives the example of the player-driven "star-gazing" action which can trigger a sequence of potential desires: own a telescope, use it, discover a new planet, join a science career, and ultimately become an astronaut (2018). When realized, this chain generates a satisfying player-driven narrative: "I gave her a telescope when she was a kid and now, she's an astronaut!"

These precedents certainly point towards the fruitful path of identifying higher-order phenomena as targets to inform the design of the lower-level mechanisms that will allow them to emerge. However, the examples are both very specific and contextual, one being very "dwarf-fortressy" with its allusions to workshops and craftsmanship, and the other very "simsy" with its focus on object ownership and career choice. How does one "come up" with these stories? How does one know whether a story candidate will eventually allow the generation of a variety of interesting emergent narratives and not just the repeated actualization of itself?

In a discussion on avoiding "boringness" in ENS authoring, Ryan evokes one of his later intuitions:

While early on I did model (either explicitly or implicitly) some basic Schankian absolute interests (sex, danger, death), it is at a higher level of dynamic interaction between the actions that produce such intrigue that literary themes such as betrayal emerge. [...] It is possible to target tried-and-true literary themes like underdog stories, narratives of betrayal, and so forth. Again, this is a matter of sculpting the simulation's narrative possibility space [...] to support emergent phenomena that matches these themes (p.112).

Ryan describes this at work in his latest simulation, *Hennepin*, but does not discuss the idea further. This notion of "literary theme" is compelling because it is more general than an actual story, less idiosyncratic, and potentially more generative. However, it is also vague and lacks the immediate actionability of "we want stories about thieving kobolds and so we need kobolds that thieve and things to steal". In this paper, we intend to follow this thread and theorize a more operational mid-level narrative concept that would help inform ENS design while not committing to overly specific story candidates.

Our hypothesis is that the notion of dramatic situation (DS), as initially proposed by Georges Polti (1912), could prove to be a fruitful emergent narrative authoring heuristic: a mid-level phenomenon that could bridge the design of low-level mechanics to the desired output of actualized narratives. Polti considered dramatic situations useful for playwrighting because they were matrices for plot generation (rather than being actual plots), and had strong dramatic potential as evidenced by their prevalence in popular works.

The next section of our paper will provide a theory of dramatic situations for emergent narrative systems. We will discuss how these structures are "compatible" with ENS and support plot generation. Of course, quantity and variability are not the only criteria in generative systems, and so we will also address the elusive question of evaluating the "interestingness" of emergent plots. For this, we will introduce narratological criteria that will help us discuss the quality of plots emerging from dramatic situations.

In the third section, we will test the theoretical propositions in the context of an actual emergent narrative system (*Chroniqueur*). We will explain how that system was informed by dramatic situations and analyze three story outputs in terms of the concepts defined in the first section.

2 Dramatic Situations for Emergent Narrative

The dramaturgical notion of "dramatic situations" is usually traced to George Polti's Les Trente-six Situations Dramatiques (1912) in which the playwright and theatre theoretician proposed a tentatively exhaustive list as could be extracted from a large range of historical and (then) contemporary works. These encapsulate a set of abstract character roles, their relationships, and conflicting aspirations. For example, the first situation described, "the supplication", requires a persecutor, a supplicant, and an "indecisive power". This work has been often cited and is still a common staple of screenwriting manuals and even digital games writing resources (Higgins 2008).

Although this list might suggest a "cookie-cutter" approach to authoring, Polti's ambition was not to provide a static inventory of all possible intrigues, but rather encourage the generation of new ideas. His position was that relying on one's "imagination" (he derides this romantic notion) only leads to the endless rehashing of one's own repertoire of themes. He advocates for a more "scientific" method of voluntary combinations of situations leading to an almost infinite variety of new plots. In a sense, he was an early enthusiast of procedural storytelling. Here we identify features of dramatic situations that support their potential as heuristics for authoring emergent narrative systems.

2.1 Sequence-independent / Sequence-productive

Stories are generally understood as meaningful causal sequences of events. The problem with using actual stories as templates for ENS authoring is that they are stifled by dependencies and leave little room for variation and significant emergence. For Oedipus to end up marrying his own mother, he must have been born from a king, there must have been a sinister prophecy, a failed attempt to kill him as baby, adopters keeping him in ignorance of his heritage and the unsuspecting murder of his own father. Now if we wanted to generate stories *like* Oedipus, how would we break away from this specific chain of events?

Szilas et al. (2016) had already noted that "a dramatic situation describes a narrative in a static manner" which can "provide potentialities for interesting developments of the story so far, without explicitly providing a temporal order". In other words, dramatic situations are not sequences but states; they are independent of the specific circumstances that have led to them; and of the consequences that will result from their outcome.

Oedipus showcases at least two of Polti's situations: "Slaying of kin unrecognized" (#19) and "Involuntary crimes of love" (#18). We could generate Oedipus-resembling stories by implementing one or both—that is creating the low-level mechanics that would embed the possibility for these situations to occur in the simulation's possibility space. For "Slaying of kin unrecognized" we would need notions of kinship, murder, as well as a knowledge model allowing characters to not be always fully aware of kin relationships. This would lead to a wide array of potential stories: siblings separated at birth then killing each other on the battlefield as enemies, or an old woman coming back from a long trip and having a fatal dispute with her unrecognized grandchild.

Of course, these stories are quite different from Oedipus, but they retain one of the dramatic features that make this story poignant. And, of course, that the stories be different is exactly the point of the whole process. We want emergent narrative systems to surprise us. If we really wanted exactly Oedipus, we could just adapt it as is. Let's note, however, that the salt of Oedipus' story is the succession of these two dramatic situations, one leading to the other, and in the process refreshing and renewing each other in their interaction. This is how Polti saw the generative efficacy of his situations: in their modularity and great potential for combinations, interactions, enfolding, etc. It is through the process of their actualization in concrete contexts that dramatic situations give rise to stories: specific sequences of events.

In short: dramatic situations allow for emergence by being independent from specific sequences of events upstream and downstream; however, they are generative of such recognizable story sequences through their actualization.

2.2 Character-independent / Character-productive

Many narratives hinge on the psychology of characters to make sense and seem plausible. Swiper, the fox villain of *Dora the Explorer*, is a kleptomaniac; this fact explains and justifies that in every circumstance, he will attempt to steal something. That's just how he is. This characterization constitutes a dependency for these stories. Polti, who is concerned with stage drama, sees things differently: "a unique process creates at the same time the episodes, or actions of the characters, and the characters themselves, because they are on the stage only what they do" (p. 206, my translation). In other words, "character" does not necessarily precede a dramatic situation (and so is not a strong requirement) but can instead be its product. In his existentialist theorization of theatre, Sartre also proposed a "theater of situations" (1976). He argued that a psychology-driven theater is deterministic and void of liberty: characters act because of what they are and therefore nothing is at stake since everything is already played out. To this, he opposes:

[B]ut if it's true that man is free in a given situation and that in and through that situation he chooses what he will be, then what we have to show in the theater are simple and human situations and free individuals in these situations choosing what they will be. [...] The most moving thing the theater can show is a character creating himself the moment of choice, of the free decision which commits him to a moral code and a whole way of life (p.4).

Can someone be said to be courageous before ever facing a dangerous situation? Beyond philosophical considerations, this is useful for emergent narratives. Dramatic situations can accommodate a very wide range of potential characters, thus affording many variations. The actors of a "slaying of kin unrecognized" can be young, old, smart, dumb, attractive, jealous, vengeful, ambitious, introverted, etc. as long as they are kin, don't know they are kin, and that one of them kills the other. Perhaps the killer was already known to be violent, but we can also find out that they "had that in them" by witnessing their chosen course of action when faced with the dramatic situation. Perhaps this is the salt of this specific story: who knew they had that in them? They had never hurt a fly before that moment! This is particularly valuable in a medium (digital games) that does not always shine at conveying subtle psychological internal states but can deliver a good visual spectacle: "show, don't tell".

This approach is not necessarily incompatible with a character personality model. Our project, for example, does have a "trait" system that will influence the behavior of characters. However, we can choose whether some traits are "innate" while some are acquired depending on the course of action chosen by the character when faced with a specific situation. This means that once a precedent has been established, chances of repeated behavior are increased.

An additional bonus of dramatic situations' character independence is they can therefore easily connect to the player-character. In traditional interactive storytelling, we need to ensure the player-character enacts the key beats of the story; this is what Fernandez-Vara calls "restoration of behavior" (2009). If dramatic situations are part of the possibility space, player-characters will eventually stumble in them and, in the process, genuinely participate in the generation of their own story.

In sum, dramatic situations do not require prior characterization and are therefore compatible with a wide range of potential characters (allowing for emergence and player-involvement); as they face the situation, however, these characters acquire characterization for the observers.

2.3 Tellable and eventful

Let's reiterate that our goal is to maximize the likelihood of interesting, story-like sequences emerging amongst what James Ryan calls "the morass of data that [the game's] simulation produces" (2015 p.7). The field of narratology conceptualizes this as the "tellability" of a story, it's "noteworthiness", "narratability", "reportability", or "it's point" (Baroni 2004). When zooming in on the proceedings that constitute story, we can also evoke notion of "eventfulness": when does an event become an *event* (Hühn 2013)? What's the qualitative difference between closing a door, and closing a door definitely when leaving a long-term relationship? The latter, which Hühn designates as "type II events", makes a tellable story.

What evidence do we have that embedding dramatic situations in our ENS' possibility space might increase the likelihood of "type II events" occurring? The first argument is the empirical one defended by Polti (who predates narratology): these situations appear in many classical and popular narratives. This prevalence in successful works suggests a participation in their interestingness. How many plays, novels, and films hinge on "crime pursued by vengeance", for example?

Theories on eventfulness also tends to support that these situations are likely to constitute "type II events". For example, Hühn (2013) cites Schmid's five properties that modulate eventfulness: unpredictability (deviation from expectations), effect (consequences), irreversibility, non-iterativity (singularity) and relevance. *Oedipus'* "slaying of kin, unrecognized", for example, checks all these boxes. These situations are called "dramatic" for a reason, they capture moments of high-stake tensions. It seems reasonable that within a specific story, a dramatic situation is likely to constitute a "tellable" moment. At the very least, it seems better than nothing; or, as *Dwarf Fortress* designer Tarn Adams phrases: "[adding] a tangle of mechanics, throwing everything in a jar and shaking it and hoping a story comes out" (2019).

Having strong reasons to believe in their potential, we set out to experiment with dramatic situations as authoring heuristics for our emergent narrative system.

3 Dramatic Situations in Chroniqueur

The context of this research is the development of *Chroniqueur*, our emergent narrative system project. This project is founded on a world generator, a social simulation, and an encyclopedia-inspired interface for the investigation of the generated histories. The problem of "interestingness" arose when it became obvious that the basic simulated actions of character sustenance, mobility, and reproduction rarely amounted to anything very "tellable". The question was then: how can we spice things up?

We set out to implement the conditions of possibility for as many of Polti's 36 dramatic situations as possible. Following a bottom-up approach to emergent narrative, these situations are not scripted in or planned for by some higher-order drama manager. We only made sure that in the natural course of the simulation, these states are reachable. In other words, dramatic situations are not modelled or tracked in the system, they solely informed the design of its mechanics. For example, a married person can still fall in love with another person. If this love is reciprocated, they become adulterous lovers (#25 – adultery). If one of the matrimonial partners of the duo discovers this, they may opt to challenge their rival in a duel, which can turn out to be fatal (#15 –murderous adultery). It might happen that the rivals were siblings (#14 – Rivalry of kin) and that a third sibling decides to avenge this death (#4 – Vengeance of kin upon kin). Although our system is not yet "Polti Complete", close to 50% of the dramatic situations can possibly occur in one form or another.

Our objective at this stage is to document whether actualizations of these dramatic situations in the system indeed present our predicted features of being sequence and character productive, and, more generally, contribute to generating "tellable" events. To do this, we have put the system to a retelling test. These retellings are accounts of noteworthy events having occurred during a player's engagement with a game. Eladhari *et al.* (2018) have argued that the existence of such retellings constitute evidence of the emergent story potential of the games they are derived from. In this case, they speak of retellings occurring spontaneously "in the wild". Kreminski *et al.* however have also used them as part of an active research protocol, requesting testers to produce such retellings after engaging with specific games (2019).

As our project is still in development and not ready for general user tests, we have opted that one of the team members (familiar with the system) would proceed to search for stories and produce retellings. We added a time constraint to the process to get a better sense of the general prevalence and "discoverability" of such stories. We also wanted to focus on a single type of dramatic situation to assess whether they could show the kind of variability we are looking for in their actualization, as well as their potential interplay with other situations.

The researcher launched the game, generated a new world and let the simulation run for ~100 years of game time (2-3 minutes). He then had 10 minutes to identify a cluster of events that he considered "tellable" and that included a character pleading their cause to another (instances of the "supplication" dramatic situation). This was done through a mode of our interface which allows the interactive exploration of all important entities and events that have occurred in the world: the chronicles (Lessard & Beauchesne 2022). At this point, the researcher could take his time to produce a textual narrative,

checking facts and details in the game's chronicles as needed (but sticking to the identified plot). The researcher had full liberty in the narration of the story but could not derogate from the simulated facts. As all emergent narrative systems, *Chroniqueur* only provides so much information, allowing players to "fill in the blanks". This is often considered to be essential for players to engage in co-creation with the system (Brown 2018, Grinblat 2019). In the reported stories, it can be assumed that all concrete character actions and events were drawn from the simulation while psychological considerations were likely to be projected by the writer.

The process was done three times in a row, all in the same world, at the same time period. These three narratives are reported in the next. Each is followed by an analysis addressing mainly our three criteria. The results are discussed as a whole in the subsequent section

3.1 Story #1: Valentel Lanuit, Rowdy Drunkard and Master Manipulator

At 63 years old, Valentel Lanuit, powerful leader of the Tristecourant clan, already had a long history of throwing magnificent feasts generally ending in drunken fighting. It was business as usual when, amidst her 278 guests, she suddenly attacked Elandre Lanuit, a peaceful 19 years old gatherer.

This time, Valentel went too far and killed the poor young woman. In her drunken stupor, Valentel could still sense trouble as more than ten relatives of Elandre immediately swore vengeance for this gratuitous act of violence. She fled to the nearby Black Clump region to find refuge with the Elès clan leader Virgilde Spendipersona. There would surely be some solidarity between fellow clan leaders.

What Valentel did not know, however, was that Elandre (the victim) was Virgilde's step-sister and that she herself had also sworn vengeance for Valentel's heinous deed. We can understand Valentel's oversight as in her youth, Virgilde had been adopted no less than two times after the successive demise of her parents, then foster parents. She had, through this process, accumulated up to 34 siblings and step-siblings.

Convincing Virgilde to grant her asylum would definitely be an uphill struggle. Yet, Valentel was not only a wild party animal that doubled with a formidable fighter (a dangerous combination), she also had an extremely smooth tongue. No one knows exactly what was said behind closed doors but Valentel got her way and became a regular (if not respected) member of the Elès clan. Many think Virgilde's judgment had been altered by her recent encounter with a swarm of dangerous insects.

- Accident: I accidentally ventured into dangerous territory. I was chased out by a swarm of bugs, and I lost 58 health.
- Vendetta: Valentel Lanuit () is a murderer and a miscreant. The bemoaned Elandre Lanuit (), my a foreigner, will be sorely missed. I shall do my best to tie up these loose ends.
- Plea: Valentel Lanuit () attempted to convince me, hoping that I would let them join the Elès clan. I have to admit they made some pretty convincing points. I couldn't help but agree with them in the end.

Fig. 1. Excerpt from Virgilde Spendipersona's Chronicle

Analysis

In this narrative, the "supplication" situation is made noteworthy by the fact that the authority invoked has itself a desire of vengeance against the supplicant. The story then trumps expectations as the supplicant still gets what she wants despite aggravating circumstances. The reasons remain somewhat of a mystery to which the recent accident with a swarm of bugs (see Fig. 1) might offer some explanation (even as an illusory correlation).

Other contextual details help understand Valentel's strange choice of seeking refuge with her victim's stepsister. Here we discover Virgilde has a ridiculous number of siblings. This feature is itself interesting in its unusualness and warrants curiosity for an explanation. The chief's multiple adoptions point towards a proto-story in itself.

In terms of sequence, the supplication situation finds potential explanatory causes both in Valentel's transgressive behavior, and in Virgilde's tumultuous childhood. Its surprising outcome concludes the narrative arc. In terms of characters, we discover that Valentel can be very convincing and that maybe Virgilde is a bit of a pushover.

3.2 Story #2: Ocith Leverre, Who Could Not Live Up to His Mother's Reputation

Paulance Leverre had a difficult childhood; food was scarce, and her family was always on the move, looking for a better place. After having to beg strangers to survive, she eventually resorted to stealing at age 16. This was a revelation to her: she was a natural. The payoff was much higher than anything else, and there seemed to be no consequences. She not only continued living almost solely on theft but could even support a family doing so.

When she turned 30, she gave birth to her third child, Ocith Leverre. From his youngest age (and I really mean that) he was fascinated by his mother's profession, wanting very strongly to emulate her. We do not know whether Paulance encouraged this or not but he was obviously not ready for this line of work when at the age of two he attempted to steal food from Nieu Bettertime—his own father. Contrarily to his wife, Nieu had always been an honest gatherer, having never stolen even a radish in his life. Presumably, he was completely unaware of Paulance' profession as he was outraged by his young son's behavior and asked the clan leader to exile him.

- > StealFood: I was in a really bad situation and I stole 3,4 foods from Nieu Bettertime ()
- Exile: I was banished from the clan because I was caught stealing. Tough, but fair. I shouldn't have done it...
- > Plea: I pleaded my case to Andram Hardwater (), in an official capacity to spare me from being deported from my social group. Paulance Leverre () was a tiger in there, but they were shot down mercilessly. I will always be thankful to them for trying.
- > Migrate: I migrated alone to Vorpa. I was desperate.
- > ClanJoin: I joined the Del Cacciatore clan.

Fig. 2. Excerpt from Ocith Leverre's chronicles

Horrified by this turn of events, Paulance made a moving plea to spare her child, but to no avail. Ocith was exiled to a faraway land where he survived a few years stealing (and getting caught every time) before being exiled again and eaten in the wilderness by a signa (a nightmarish predator of the world of Vitento).

Analysis

Polti's description of the "Supplication" dramatic situation suggests the presence of a third party: the intercessor. In this story, we have the moving display of a mother interceding for her child. Even though the official authority figure is the clan chief, the sequence can suggest to readers that the real target is the child's father. This can be read as a family drama that would also fits the description of "#4 – vengeance taken for kin upon kin".

To make sense of this supplication situation, we question the supplicant's behavior: why did they steal from their father? In the process, we can constitute a sequence: the mother was a professional thief, possibly showing the example to her son. On the contrary, the father is an honest, hard-working man. This is the stage of the drama: the child's action possibly revelated that he had been kept in ignorance for years.

This situation certainly produces an interesting set of characters. What kind of man would request that a two-year old (his own son!) be exiled? And of course, why (and how) would a young toddler steal from his father?

3.3 Story #3: Noëlalis Froidmerde, She Who Lives by the Sword...

In the year 125, the Sentre chiefdom decided to raid a rich but poorly defended village of the small neighboring Chesieur chiefdom. In what was to be called "The Cowardly Campaign of Marite", 43 warriors met 5 defenders and, unsurprisingly, prevailed. There was very little fighting as the Chesieur quickly capitulated.

The only casualty was Clémenté Froidmerde, chief of Chesieur, who, in spite of her honorable age, was always keen to go first to battle. According to Chesais cultural tradition, the succession was to go to the chiefdom's most influential member who then was, according to general opinion, Jest Risquejeune.

Now, Noëlalis Froidmerde, the late chief's daughter, would have none of this. She considered herself to be the rightful heir. She challenged Jest to a duel and regrettably killed him. She soon realized that this brash act generated much resentment amongst her clan and decided it would be safer to leave rather than wake up with a sword in her chest. She supplicated Cornelew Cutlot, leader of the nearby Francianas, to welcome her despite her deeds, which he did.

This would not save her for long, however. Charlonin Frappejoli, one of the attackers of the "Cowardly Campaign" was apparently in a completionist mood. He tracked her down to her new home of Leman to finish the job. She died so unpopular that only her one-year-old son attended the funeral. Ironically, her assassin—who would also die later that year—was sent off by no less than 36 people.

Analysis

In this story the supplication itself is not very noteworthy, but its uncomplicated nature sets the stage for the "caught up by fate" punchline. It would seem Noëlalis got away easily from the mess she made herself. Yet, she will die that same year—not from the hand of those who had sworn vengeance against her (and whom she successfully evaded)—but from some random warrior from a raid that seemed to have taken place a while ago in a different place (#7 – Falling prey to cruelty/misfortune). And to add insult to injury, we discover that she died a complete pariah, while her assassin was apparently the most popular guy in town. This sad fate is exacerbated by what we know of her grand (but illegitimate) ambitions to become chief.

Concretely, Noëlalis' supplication story articulates a sequence beginning (at least) at the raid which caused her chief's death and ends with her own demise. In the process are revealed her ambitious and hubristic nature (#30 – Ambition; #8 – Revolt).

This narrative provides some bonus pleasure from the generated names. The raid that initiates the events certainly deserves its title of "cowardly campaign". And, considering how she ended, we can also say Noëlalis lived up to her surname.

4 Discussion

The deliberate nature of the story search doesn't allow us to conclude on whether actual players would easily and frequently discover stories while engaging with the game. It remains that these sequences of events were indeed generated by the system and as such represent evidence of its potential. The readers will judge for themselves how interesting (or not) these retellings are, but we can still make some general observations on the contribution of embedding dramatic situations in the possibility space of the system.

Assessing Dramatic Situations

In all these stories the identification of a dramatic situation allowed reconstructing a story: how did things lead to this point and what is the outcome? In the process, characters are revealed both by their contribution to the advent of the situation and their action towards its resolution. The stories also show that the same dramatic situation can play out in very different ways depending on the context, and so doesn't constitute a repeated story script. This generativity is amplified by the combinatorial potential of the dramatic situation. In the second story, for example, the supplication is made even more poignant by the fact that its outcome also amounts to "vengeance of kin upon kin".

If these stories have some claims at being tellable, the broader context of an emergent narrative system changes the perspective. Exiling one's two-year old son is certainly an *event* in the lifetime of a person, or within the scope of a specific narrative. However, in the simulation of a full world over hundreds of years, it might turn out to be more common than expected. Being very familiar with our system, we know, for example,

that the first story's point of departure, the drunken feast gratuitous murder leading to a spiral of vendettas, is relatively common (and probably too common).

As players become aware of such recurrent emergent patterns, such stories might become less tellable as they lose in unpredictability. However, factors of relevance might counterbalance this. Vengeance of kin upon kin might not be entirely unusual in this world in general but still be very salient when the player-character, or one of their relatives, is implicated. As a comparison, a last-minute equalizing goal may not be an extreme oddity in hockey, but it remains a very exciting event when you care about the outcome of a match. Further research will be needed to test this hypothesis.

Beyond Polti

We have used Polti's list of dramatic situations because they are convenient and inspirational, but it should not be limitative. In practice, one should consider the genre of fiction they are engaging in, the peculiarities of the world they are modeling, and consider the kind of situations that are likely to be interesting and relevant in the context. Film scholar Higgins, for example, notes that action movies are often built on dramatic situations, but have their own repertoire of particularly spectacular, time-sensitive ones such as the chase and the standoff (2008). A useful, medium-specific source of inspiration is reading actual player retellings, which provides rich information as to what players of existing games have found worthy of narrating. Situations drawn from *The Sims* retellings, for example, often belong to a rather comedic situation spectrum, such as "unlikely lovers", "guests extending their welcome", "small accident, big consequences", etc.

Rather than strictly formalizing and listing these situations, we suggest embracing their heuristic value and consider them as an intermediary authoring goal. Before engaging in actual scripting, one can first attempt to define and describe a set of relevant dramatic situations for their system, drawing inspiration for existing ones if need be. This step would constitute an opportunity for the authors and team to discuss the sorts of intrigues they hope to generate with their system—a moment of prototyping before committing to specific designs and implementations.

5 Conclusion

Considering the current scarcity of models and resources to specifically inform the design and authoring of emergent narrative games, we have found dramatic situations to be a valuable heuristic to help increase the amount of "storyable" content generated by our system. Although we have relied on Polti's canonical list, we think the notion can be generalized to suit a variety of project situations. The idea is to capture a state of the fiction that orchestrates a tension between various roles that can afford multiple backstories and resolutions. Further work will allow us to confirm whether this "tellability" potential is accessible to general players, and whether it will hold under the stress of sustained engagement with the system.

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