

Focalised Story Sifting: A Matter of Perspective

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Introduction

Emergent narrative (EN) is a form of procedural storytelling, where drama emerges 'bottom up' from the simulated interactions of autonomous NPCs. **Story sifters** are the tools that recognise and retell the procedurally generated stories of an underlying EN simulation. At present, sifting techniques are generally omniscient, each operating over a complete sequence (or, **trace**) of simulated events.

This research introduces **focalised story sifting**: an alternative approach, grounded in narratological theory, that works from only the subsequence of events observed by a given 'in-world' character. The hope is to achieve a more subjective framing of EN, one that allows for unreliable, *Rashomon*-style narration.

Aim

The project sets out to answer three key research questions:

- **RQ1. How might existing sifting techniques be focalised?**
- **RQ2. What meaning might focalised story sifting add to an individual EN artifact?**
- **RQ3. What meaning might focalised story sifting add across a range of EN artifacts?**

In other words, it aims, in implementing focalisation (**RQ1.**), to both explore how the technique enhances individual narrative artifacts (**RQ2.**), and to extrapolate their cumulative effect (**RQ3.**).

Given the subjective nature of the field, results are evaluated by questionnaire, both qualitatively and quantitatively.

Method

Focalised story sifting will first require something to sift. *Men In Grey Suits (MiGS)* is a custom-made simulation, set against a backdrop of Cold War intrigue, modelling:

- **Dialogue**, with an adaptation of waypoint narrative (Short 2016)
- **Movement**, on a discrete graph
- **Characterisation**, with agents using utility-based decision-making

Select the Unexpected (or *StU*; Kreminski et al. 2022) is an existing sifting heuristic. From a pre-generated sample of traces, it makes a statistical assessment of how likely a given story is, surfacing the most surprising examples.

To focalise *StU*, we restrict it to work from a sample of traces **as observed by a given NPC** in *MiGS*. Not only does this return stories from their (subjective, sometimes unreliable) perspective, but, using different statistical samples, different characters therefore end up with different definitions of 'surprisingness'. Where sifting has previously been imposed from the top down, here it is carried out autonomously.

7.00pm, the dining room: Sir Geoffrey Coward, Gordon Gray, Seb Slater, Port Bishop, and a bartender.

7.00pm, the dining room: Sir Geoffrey Coward segues to making small talk about The Ashes

7.01pm, the dining room: Gordon Gray segues to divulging that Henry Salzman was in a Marxist reading group back at Balliol

7.02pm, the dining room: Sir Geoffrey Coward segues to ruminating on Henry Salzman's very public allegations that Communists have penetrated the upper echelons of Her Majesty's government

7.03pm, the dining room: Seb Slater segues to saying that Henry Salzman's got a 'star witness' ready to names names, by all accounts (a rumour hitherto unheard by Sir Geoffrey Coward)

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Left: the (interactive) simulation, midway through a run.

Right: A short story from the simulation, surfaced by focalised story sifting.

Whenever a conversation just ends, segues to saying that Henry Salzman's got a 'star witness' ready to names names, by all accounts. The conversation takes place behind closed doors, with no one else around. No one overhears. Olivia Spencer recalls...

In the kitchens, Olivia Spencer is talking with Old Bill, Peter Tweedie, and three bartenders. They are making small talk about The Ashes. A bartender segues to saying that Henry Salzman's got a 'star witness' ready to names names, by all accounts (a rumour hitherto unheard by Olivia Spencer). The conversation takes place behind closed doors, with no one else around. No one overhears.

Later, in the lounge, Olivia Spencer is talking with Sir Geoffrey Coward. They are making small talk about The Ashes. Olivia Spencer segues to saying that Henry Salzman's got a 'star witness' ready to names names, by all accounts. The conversation takes place one-on-one. No one overhears.

▶▶

Results

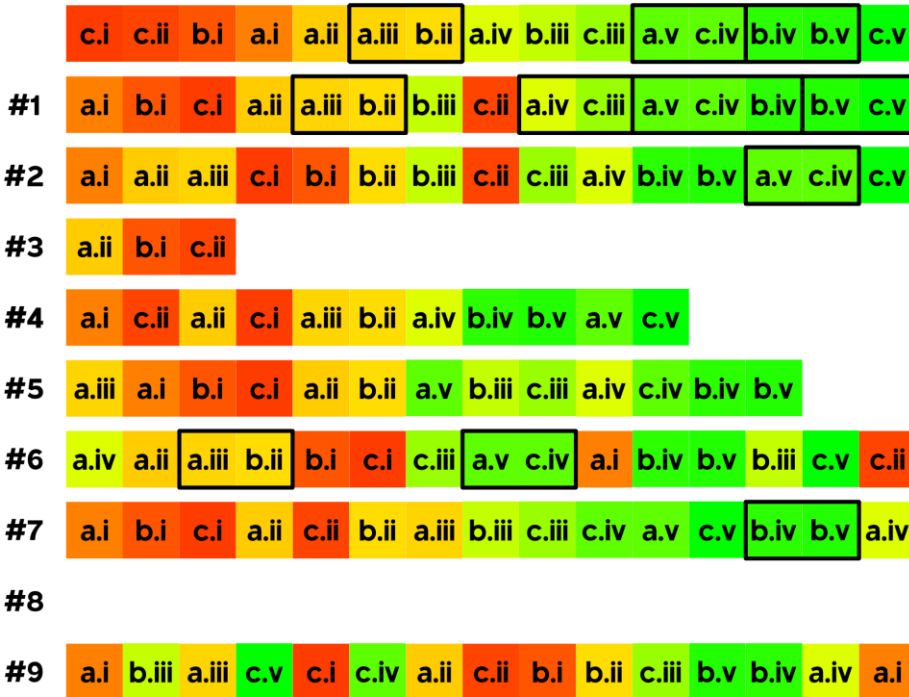
Quantitative Analysis The first half of the questionnaire is a copy of Kreminski et al.'s evaluation of *StU* (2022). Participants are presented with pairs of stories (half surfaced by our focalised heuristic, half at random), and asked which from each pairing is 'more interesting'.

If the heuristic-preferred stories are chosen more than half of the time, that heuristic 'outperforms a random baseline'. Overall, hypothesis testing shows this project's focalised sifter has a **success rate significantly higher than 50%**, replicating Kreminski et al.'s original result.

Sifting Pattern	Success Rate (#)	Success Rate (%)
'Rumour'	37/45	82.22%
'He Said, She Said'	27/45	60.00%
Overall	64/90	71.11%

Above: Success rate of the focalised heuristic (from a sample of 9 participants). "Sifting patterns" refers to different story structures.

Qualitative Analysis Participants were then presented with a long-form text, consisting of three focal characters' recollections of events. They were asked to fit these three narratives into a single timeline of events, and to reflect on the exercise.



Above: The text's 'true' timeline of events (top row), and its reconstruction by each participant.. Each square represents a simulated event, coloured on a spectrum to reflect where it should fall in chronological order.

Discussion

Quantitative analysis (while limited) suggests our focalisation of *StU* retains the benefits of its original implementation.

Qualitatively, participants reflect on multiple features of unreliable narration found in the long-form text:

- **Omissions** of details about oneself
- **Contradictions** between different narrators' perspectives
- **Ambiguities** about non-focal characters

Crucially, **these features are not present in the trace** itself; they can only emerge when the trace is narrated from a focalised perspective.

Participants did not, however, experience a full-on '*Rashomon* effect' in reconstructing the text's timeline – only frustration. This might be resolved by better **curation**, or by better **story sifting**, two concepts from EN with ample scope for future work.

Conclusion

Focalised story sifting shows promise.

Not only is the focalised heuristic quantifiably successful; not only are its artifacts ascribed rich meaning; but its cumulative effect comes in keeping EN true to its 'bottom up', autonomised roots.

References

- Kreminski, M., Dickinson, M. & Wardrip-Fruin, N. (2019), Felt: A Simple Story Sifter, in '12th International Conference on Interactive Digital Storytelling', Little Cottonwood Canyon, UT, USA: 19-22 November, pp. 267-281.
- Short, E. (2016), 'Beyond Branching: Quality-Based, Salience-Based, and Waypoint Narrative Structures', Available at: <https://emshort.blog/2016/04/12/beyond-branching-quality-based-and-salience-based-narrative-structures/>. (Accessed: 1 February 2023).