

The Great Fire: Experiments in Moral Decision-Making

Malcolm Ryan

Mitchell McEwan

School of Computing
Macquarie University

malcolm.ryan@mq.edu.au

mitchell.mcewan@mq.edu.au

Paul Formosa

Dept of Philosophy
Macquarie University

paul.formosa@mq.edu.au

Stephanie Howarth

School of Psychological Sciences
Macquarie University

stephanie.howarth@mq.edu.au

Jane Messer

Department of Media,
Communications, Creative Arts
Language and Literature

jane.messer@mq.edu.au

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INTRODUCTION

Ethical decisions are a common feature in narrative-driven video games including adventure and role-playing games such as *Life is Strange* (Dontnod Entertainment, 2015) or *Mass Effect* (BioWare, 2007). Such decisions are commonly implemented as branching narratives. The player is presented with a morally charged scenario and provided a set of alternative actions to select between with different moral outcomes. Such decisions may be influenced by mechanics that provide moral feedback to the player, including morality meters, reputation systems, or comparison with other players' choices.

Much ink has been spilled reflecting on how players make these decisions and what design factors may influence them, including player psychology (Hodge et al., 2019), narrative structure (Sicart, 2013) and feedback mechanics such as morality meters (Schrier, 2017). To better examine these factors, we have launched on a project to build our own ethical decision-making game, *The Great Fire*, and empirically examine how design factors influence players decisions. In this presentation, we will provide an overview of the project so far.

THE GREAT FIRE

Rather than investigate existing games we decided to prioritise making our own. This provided us with control over the narrative design and allowed us to implement multiple variations of key mechanics. For ecological validity, we made sure the game was completed with a level of polish expected from an independent game of this scope, including quality writing, art, audio and UI design. The result was *The Great Fire* (Messer et al., 2019), a visual novel game with a strong film-noir aesthetic (Figure 1). The player controls the protagonist, Frankie, an usher at the Orpheum, a 1940s cinema in country Australia. Frankie faces many challenges throughout the game, requiring the player to make difficult ethical decisions that affect the lives of other townsfolk.

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Figure 1: A scene from *The Great Fire* in which the player encounters the villain, Harry.

The game includes eight major decisions designed to present moral and non-moral choices, including both *moral temptations* (choices between acting morally or self-interestedly) and *moral dilemmas* (choices in which the best moral option was debatable) as outlined in Table 1. The decision screen optionally includes different feedback interfaces, including a morality meter (Figure 2) and a social choice interface (Figure 3).

Table 1: The eight major decisions in the game.

Decision	Name	Type	Description
D1	Eat a Sausage	Training	A training example to introduce the decision interface.
D2	Steal From Mick	Self-interest (no contact)	The player chooses whether to steal money from a sleeping man.
D3	Kick The Dog	Harm (no provocation)	The player chooses whether to kick a dog.
D4	Coin Flip	Non-moral	The player calls 'heads' or 'tails' in a coin flip.
D5	Steal From Andy	Self-interest (contact)	The player chooses whether to steal money from a man by deliberately tripping him.
D6	Pull The Lever	Trolley problem (no contact)	The player chooses whether to sacrifice the life of one child to save three others.
D7	Kick the Chair	Trolley problem (contact)	The player chooses whether to explicitly kill their boss in order to save the lives of three unknown people.
D8	Shoot Harry	Harm (provocation)	The player chooses whether to kill the antagonist or hand him over to the police.

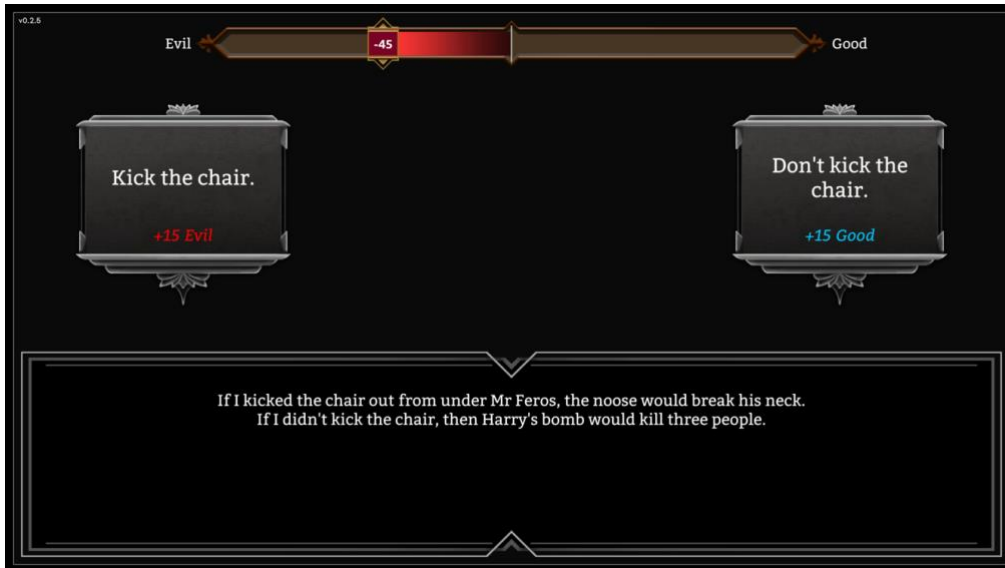


Figure 2: The decision-making screen showing two options which affect the morality meter at the top of screen.

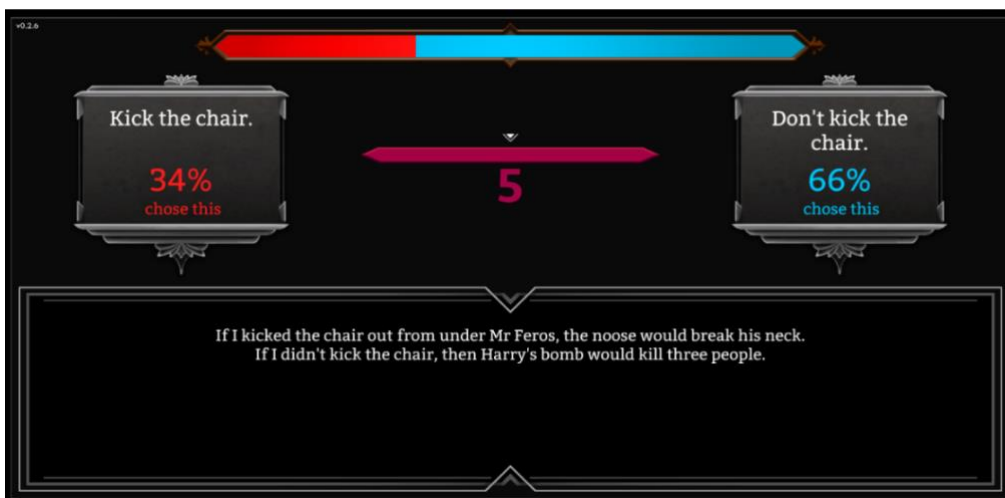


Figure 3: The decision screen showing the social choice interface. Each option is labelled with the percentage of players who previous chose that alternative.

EXPERIMENTS

We have conducted experiments, comparing baseline results (without any feedback mechanics) against a variety of feedback interfaces including both morality meters and the choices of other players. To briefly summarise the results so far:

- When the game is played without any feedback on player choices, players tend to choose options that are intuitively good, i.e. they choose not to steal, not to cause unnecessary harm, and to preserve more lives over fewer. This is in line with previous results (Consalvo et al., 2019) that players tend to play as ‘good’ (at least in their first play through a game).
- Morality meters do not tend to affect this outcome when the moral choice is clear. Players will choose the intuitively moral option even when the meter recommends otherwise.

- However, when a decision is morally ambiguous players appear to be influenced by the meter as a source of moral advice, so long as it has agreed with their moral intuition earlier in the game.
- Players will largely ignore a meter that consistently gives counter-intuitive recommendations but value its feedback enough to follow it when no other major consequences were at stake.
- In a similar fashion, when presented with feedback on what other players chose previously, players are influenced to follow the crowd when decisions are morally ambiguous.

In future experiments, we plan to use biometrics (include gaze-tracking and EEG) to more closely examine players' decision-making processes in the game.

BIO

Dr Malcolm Ryan is Course Director for the Game Design and Development program in the School of Computing at Macquarie University and leads the newly established Games User Research Lab (GURL). He has been working in video games research since 2006, with a primary focus on ethical play.

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