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Can Video Games Promote Moral Cognition? Supporting Epistemic Play in *Papers, Please* through Dialogue

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Abstract: Research shows an increasing interest in video game use for educational purposes. However, their use does not always give rise to positive learning, particularly when moral learning is analysed. This result can be explained since video games promote pragmatic goals aimed at success. Therefore, we believe that to facilitate moral learning, it is necessary to promote a moral cognition focus on epistemic goals oriented towards reflection on the actions and events that take place in the game. To identify if epistemic goals can promote moral cognition with a video game, we used *Papers, Please*. In this game, players take on the role of a customs officer who should face moral dilemmas related to allowing immigrants to cross the border into their country. We analysed the dialogues and decisions made by 12 pairs of students through a category system. The dialogue between players facilitated greater moral activation compared to studies that analysed spontaneous play. In addition, we identified that the game mechanics that promoted moral conflicts between players fostered more moral dialogue. Likewise, when the players empathised with the immigrants, the moral dialogue was more frequent. Therefore, we believe that these characteristics should be considered when designing educational practices using video games to promote moral cognition.

Keywords: epistemic play; game-based learning; higher education; moral cognition; scaffolding

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1. Introduction

Video games are one of the most commonly used digital resources by young people, thanks to their recreational and entertainment opportunities [1]. However, their potential exceeds this, as they can promote learning in an environment that is often decontextualised and lacking in any meaning for students [2].

We believe this type of learning can be facilitated by the possibilities of video games to favour a 4e cognition: *embodied*, *enactive*, *embedded* and *extended* [3,4]. During their use, players can become embodied in a character who carries out actions in a given context, and this active role can have extended consequences in this context. It is therefore not surprising that researchers have increasingly considered their potential to provide different types of learning [5–9].

Several meta-analyses have found that video games promote moderate learning of facts and data [5,9], improvements in processes such as attention, visuospatial coordination, processing speed or problem solving [5,10–13] and in prosocial learning [14–17] and of healthy self-behaviours [18].

However, research does not only highlight the positive effects on learning when using video games. Several studies not only fail to identify such effects [19–21] but also report undesirable effects of their use which are often accentuated in learning aimed at the acquisition of inter and intrapersonal behaviours. For example, several authors, see [22–27], have identified that video games promote antisocial and aggressive attitudes and behaviours. Bavelier and Greenfield, see [23,28], point to problems associated with

addiction in their use and the negative consequences that this entails. They have even sometimes been linked to the development of mental illness [23,29,30].

We believe that two reasons may explain video game-associated dangers. First, the use of intrinsically violent video games and second, a lack of conscious use that does not favour a reflective moral cognition on the events presented and the actions carried out, thus hindering deep and lasting learning [19–21]. We propose that when using video games to enhance positive attitudinal change-type learning, it is necessary to promote a moral cognition focus on making explicit the morality that underlies the players in such a way as to construct values that favour new forms of moral event representation.

To do this, we are going to focus on the case of a particular game, *Papers, Please* [31], which has been considered a prosocial videogame, critical of totalitarian and closed states where the arrival of immigrants is considered a threat and they are mistreated and subjected to humiliation by customs officers [32]. Here we are dealing with events that are not so far removed from some of the excesses of authority seen in many of today's states. Immersed in this context, players must adopt the role of a customs officer who must allow or not allow certain immigrants to pass through the border, according to whether they comply with strict bureaucratic rules. The player's correct review of the immigrants' papers will lead to success in the game. However, if mistakes are made, the customs officer will be reprimanded financially until his family suffers and may even starve to death. In addition, throughout the game, many migrants will also begin to narrate the difficult circumstances that have led them to cross the border, giving rise to different moral dilemmas as to whether or not these citizens should be allowed to pass through or not.

Several studies, for example, Cuhadar and Kampf [2], have highlighted the potential of dilemmas to promote the moral cognition that can promote learning. However, in the case of *Papers, Please*, these moral dilemmas do not seem to have generated learning. On the contrary, pernicious effects have been observed. For example, some authors, see [33,34], identified that spontaneous use of this game resulted in more negative attitudes towards immigrants. Similar results were identified by Chen and Koek [35]. These authors again identified more discriminatory and prejudiced attitudes towards immigrants when the customs officer's perspective was accepted. However, when the players positioned themselves in the immigrants' role, attitudes towards them were more positive.

As a result, in a previous paper [36], we wanted to go a step further and analyse the moral cognition promoted by the spontaneous play of *Papers, Please* rather than attitudes. To do so, we analysed a series of reviews posted on STEAM, the main video game platform provider of *Papers, Please* in Spain. However, the results were not encouraging, identifying only 5% of reviews with moral cognition. This may have been because the mechanics of *Papers, Please* are a video game oriented towards pragmatic goals [37] of success which require adopting attitudes in favour of the state and consequently against immigrants. Pragmatic goals do not require awareness of the decisions that are made so there is no need to reflect on what happens in the game, partly because the very immediacy of the game makes this task difficult. It is therefore not surprising that learning is not very prosocial and implicit, acquired by the association of events that occur in the context of the game itself.

If the aim is to promote moral development, we believe it is necessary to promote explicitness and reflection on the implicit activity facilitated in video games. Thus, the goal has to be epistemic, not pragmatic [37]. Epistemic goals would be oriented towards video game use that promotes the development of the players' previous moral schemas.

In this paper, we propose to identify to what extent *Papers, Please* can be used with epistemic goals that favour this moral explicitness and reflection. Our study is therefore aimed at analysing the moral cognition made explicit whilst using *Papers, Please* through the joint decisions discussed in pairs.

We believe that paired moral dialogue can promote these epistemic goals since the justification of the moral judgements made explicit is required to seek a joint decision in the game. In this sense, studies such as Krcmar and Cingel [38] have identified the dialogue potential to promote moral cognition when using video games. However, although this

dialogue will be considered a scaffolding that favours a more epistemic use of the video game, it will also be necessary to analyse the moral cognition that is activated during the use of *Papers, Please.*

1.1. Levels of Moral Cognition Explicitness through Dialogue and How It Is Promoted in Papers, Please

To analyse the dialogue's moral cognition, the level of explicitness and reasoning within a moral schema from which a given event is interpreted needs to be determined. According to Haidt [39], we can distinguish two moral cognition levels: moral intuitions and moral reflections. A moral intuition consists of a moral appraisal, often associated with an emotion triggered by an event. This will give rise to moral judgements, without any conscious reasoning being necessary.

From Haidt's point of view, these moral intuitions are assessments or visceral emotions. However, this author also considers that they are the basis of moral reasoning, a more advanced level of moral cognition that implies the justification by which a moral judgement is made. In other words, people reason by their moral judgements, based on these prior moral intuitions. We can therefore say that moral reasoning is contingent upon prior moral intuition. However, because this moral reasoning is explicit, it can help to modify someone else's moral intuition, which would involve moral learning. Likewise, we consider that this explicit moral reasoning can be accentuated by the role of dialogue in promoting moral development since it allows contrasting different points of view on the same fact.

Based on this theoretical framework, the appearance in *Papers, Please* of various moral dilemmas or conflicts is an activating element for these moral intuitions, because viewpoints are required. If we also promote the need to argue this positioning through dialogue, we can facilitate moral reflection, which, as we have seen, is necessary for moral change.

In this sense, some studies, see [2,40], have pointed out that certain video games focused on showing social conflicts like *Peace Maker* or *Global Conflict* promote this moral development. These moral conflicts occur specifically due to the activation of various moral foundations that come into conflict. Here, Haidt [41] distinguishes five moral foundations: Care/Harm, Fairness/Cheating, Loyalty/Betrayal, Authority/Subversion and Sanctity/Degradation. In *Papers, Please*, as we have seen, we encounter a central foundation, that of respect for Authority and Non-Subversion to the rules of the state to succeed in the game. These may clash with the other moral foundations as the problems faced by the immigrants occur, promoting these moral conflicts. As we have seen, another key aspect related to moral cognition, and specifically to the activation of moral intuitions, is emotion—in many cases, the trigger for pursuing moral judgements. However, at this point, we will highlight one specific emotion that we believe may be closely related to the activation of the moral conflicts observed in the game: empathy.

Empathy involves sharing the emotion perceived in the other, either by identifying a person's affective state from certain external perceptual cues (e.g., through clear expressions or verbal information provided) or as a result of inference from the situation in which a person finds themself [42].

In this sense, we can refer to two types of empathy: emotional empathy and cognitive empathy [43]. Emotional empathy involves an affective reaction to a person's perceived feelings, which occurs mainly in face-to-face situations automatically and unconsciously [43,44]. Therefore, this empathy will be activated when dialogues occur in *Papers, Please* with migrants who are confronted with difficult situations. In particular, it will be a parallel empathy, which elicits an emotion congruent with the situation observed [45]. In contrast, cognitive empathy can be considered a more elaborate empathy related to the theory of mind use [46]. It involves more cognitive effort as it requires the intentional taking of a person's point of view. This empathy is conscious and deliberate and requires the player to consider the cultural norms, values and beliefs of the person trying to cross through customs [43,44].

Finally, it is also important to highlight that for a game to promote a complex moral cognition, its ability to transfer real-life content must be considered [47]. In the case of

Papers, Please, this would imply that the situations of injustice presented in the game bear some sort of analogy with the player's daily life. This is linked to meaningful learning overcoming the limitations of formal teaching contexts in terms of teaching–learning that is decontextualised and meaningless for students [2].

1.2. How to Analyse Decisions Made in Papers, Please

So far, we have focused on the characteristics of *Papers, Please,* which can be related to moral cognition activation and may be detected and enhanced through dialogue. However, we should not forget that dialogue will aim to justify certain decisions or behaviours in the game. As we have seen, these decisions can be justified by pragmatic or epistemic goals. Pragmatic goals, or goals of success in the game itself, involve complying with the law of the state. On the other hand, epistemic goals require taking a moral stance towards the moral dilemmas presented in the game, considering principles such as Fairness or Care for immigrants. For this reason, it is interesting to identify to what extent the dialogue promoted during the use of *Papers, Please* will lead to a change from these pragmatic actions required for game success to others that are more epistemic and focused on decisions based on the immigrants' needs. For this, we will take into account not only the decision finally taken but also the intention of carrying out one action or another.

Likewise, for the analysis of these decisions as well as the moral dialogue promoted during the game, we will focus on comparing and analysing four critical moments of *Papers, Please*, which differ in aspects such as the topic of the dilemma presented, the moral foundations involved, the possible decisions taken and the interaction carried out with the victim. Our analysis will be based on identifying moral cognition from explicit moral intuitions and moral reflections. Furthermore, we will consider which characteristics of the game are more related to moral cognition activation and to what extent the dialogue can promote a change in decisions. These aspects are summarized in the following objectives:

- To analyse the level of explicitness of the dialogues' moral cognition through the moral intuitions and moral reflections promoted during the game and whether this moral cognition differs in the four selected cases.
- To analyse which game features appear more frequently when more moral cognition is activated and how these differ between the four selected cases.
- To analyse the potential of dialogue to promote decision making based on epistemic goals and how these decisions differ in the four selected cases.

2. Materials and Methods

2.1. Task and Procedure

As part of a larger research, 30 psychology students were asked to play *Papers, Please* in pairs on the 5th, 6th and 7th days of the game. In addition, they were instructed to make joint decisions on whether or not to allow different migrants to pass. The dialogues were recorded with the informed consent of all participants. This study was approved by the Ethics Committee of the Autonomous University of Madrid.

Once the dialogues obtained by the 15 pairs of students were collected, we eliminated the dialogues of 3 pairs as they presented technical problems during the recording. Our final sample was 12 pairs. In Table 1, we have included the main characteristics of the participants.

The analysis conducted was focused on the dialogue, as previously indicated, of four specific moments in the game where one interacted with the murderer Vince Lestrade, the refugee from Antegria, the pimp Dari Ludum and the smuggler Shaddy Safadi. A summary of each case context, the events analysed and the possible decisions allowed by the game are given in Table 2 below. Likewise, a transcript of the game dialogues can be found in Table A1 of the Appendix A section.

Table 1. Characteristics of the participants.

Variable		**Categorical Variables**	**Continuous Variables**	
Name	**Categories**	**Frequency**	**M**	**SD**
Gender	Males	7	-	-
	Females	16	-	-
Frequency of video game use in daily life	Never	11	-	-
	Several days a month	9	-	-
	Several days a week	3	-	-
	Every day	1	-	-
Expertise using video games	Very little expert	9	-	-
	Little expert	7	-	-
	something expert	7	-	-
	Quite expert	1	-	-
Age		-	20.63	3.66
Level of autoritarism (1)–libertarisim (10)		-	7.33	1.31
Level of right ideology (1)–left ideology (10)		-	7.29	2.07
Level of individual thinking (1)–collectivist thinking (10)		-	6.25	1.87
Level of globalist thinking (1)–nationalist thinking (10)		-	4.75	1.94

Table 3 summarises the characteristics of the four cases that we consider necessary for the result interpretation. In the case of the murderer, the game topic is the murder, which implies a conflict between the moral foundation of Care/Harm and Authority/Subversion since the immigrant has everything in order. Therefore, the game rules direct us to allow him to pass despite the crime he has committed. However, in this case, there is the option to detain the character, which avoids the conflict by offering an option compatible with making a moral decision without being penalised in the game. In addition, there is no interaction with the victim to empathise with, as although we are informed of the partner's murder, she does not appear in the game beforehand.

Table 2. Summary of the four moments analysed in *Papers, Please*.

	Summary of the case
Murderer Vince Lestrade	• Context: Day 5 of the game begins with a newspaper headline that Vince Lestrade is wanted for murdering his partner. • Event analysed: Once Vince Lestrade arrives at the checkpoint, he will hand over his documentation, which is in order. • Decisions: At this point, we can decide whether to let him enter the country regardless of the charge as his papers are in order, not to let you enter despite having everything in order and receiving a warning or to detain him for committing an alleged crime.
The Antegria refugee	• Context: At the end of day 5, a man from the country of Antegria appears who has all his papers in order, so we can expect to let him in. Once he is allowed in, he will tell us to be polite to his wife, who is next in the queue. • Event analysed: Once the woman arrives, we realise that she does not have an entry permit, but she tells us that if she does not manage to cross the border, she will be killed. • Decisions: At this point, we can decide whether to let her pass into the country despite not having her papers in order (and receiving a warning) or not to let her pass.

Table 2. *Cont.*

The pimp Dari Ludum	• Context: On day 6, a woman appears at the sentry box who has all her documents in order. Among the papers she hands over to the customs officer, it can be seen that she provides a card for a nightclub. Once the customs officer accepts the entry, which is to be expected considering that she has everything in order, the girl asks for his help and hands him a note in which she says that a certain Dari Ludum is planning to prostitute her and her sister. • Event analysed: A few characters later, Dari Ludum appears, who has all his documents in order. He also gives the customs officer the same hostess club card and points out that he can provide him with a girl. • Decisions: At this point, the customs officer can decide to let him pass since he has everything in order, not let him pass and receive a warning or report him for human trafficking.
Smuggler Shaddy Safadi	• Context: On day 7, mandatory scanning of the population of Kolechia begins, which involves taking pictures of the naked bodies of migrants. • Event analysed: A man from Kolechia arrives, and when scanned, we see that he is carrying something that the immigrant claims to be medicines, and he offers the customs officer 10 credits if he lets him pass. • Decisions: At this point, the customs officer can choose between letting him pass and receiving the 10 credits but receiving a warning for allowing smuggling, not letting him pass or detaining him for smuggling.

The case of the refugee also deals with the murder topic. Therefore, a conflict between the moral foundations of Care/Harm and Authority/Subversion can be observed, as allowing her to pass will mean not complying with the Authority of the state and consequently a penalisation in the game. However, in this case, the conflict is not diluted by detention since we are talking directly to the victim. We only have the choice of complying with the state's rules and condemning this person to death or not complying with them, letting them live and being penalised.

The case of the pimp would include the human trafficking topic. Therefore, the conflicting grounds would be Sanctity/Degradation and Authority/Subversion. At this point in the game, we can either allow the pimp to pass, which involves two women being prostitutes against their will, or not allow him to pass, which involves infringing the Authority of the state and being reprimanded. However, in this case, the conflict can be avoided by arresting the pimp, thus avoiding criminalisation by the state and in turn human trafficking. As for the interaction with the victim (the trafficked girl), this occurs before the appearance of the pimp.

Finally, the smuggler's case deals not only with smuggling but also with ethnic discrimination and the invasion of privacy. By having to subject a person to an unauthorised scanning simply because they are from Kolechia, the smuggling of what appear to be medicines is discovered. There are three different conflicts in this case. On the one hand, the conflict between Care/Harm and Authority/Subversion can be highlighted by not allowing the carrying of medicines, which could improve someone's life quality. On the other hand, the conflict between Sanctity/Degradation and Authority/Subversion can be observed by forcing citizens to submit to scanning by showing their naked bodies to the customs officer. Finally, the conflict between Fairness/Cheating and Authority/Subversion can also be identified by scanning solely based on ethnicity. In addition, the interaction with the victim can be interpreted in two ways. First, the victim can be considered as the person who can benefit from the medicines, who is not mentioned at any point in the game. On the other hand, the victim can also be considered the smuggler himself, who is forced to undergo the scanning. However, this immigrant does not refer to how he feels about being scanned.

Table 3. Main characteristics of the four moments analysed in *Papers, Please*.

Dimensions	**Categories of Analysis**	
Fixed themes	Murderer	Murder
	Refugee	Murder
	Pimp	Human Trafficking
	Smuggler	Smuggling/Bribery/Discrimination/Invasion of privacy
Conflicting fundamentals	Murderer	Care/Harm; Authority/Subversion
	Refugee	Care/Harm; Authority
	Pimp	Sanctity/Degradation; Authority/Subversion
	Smuggler	Care/Harm; Sanctity/Degradation; Fairness/Cheating; Authority/Subversion
Relationship between the decision and its typology	Murderer	Enter—Pragmatic; Do not enter—Moral; Arrest—Moral/Pragmatic
	Refugee	Enter—Moral; Do not enter—Pragmatic
	Pimp	Enter—Pragmatic; Do not enter—Moral; Arrest—Moral/Pragmatic
	Smuggler	Enter—Moral; Do not enter—Pragmatic; Arrest—Pragmatic
Interaction with the victim	Murderer	No (his partner)
	Refugee	Yes (the refugee herself)
	Pimp	Yes, but you talk to the prostitute girls before you talk to the pimp
	Smuggler	No (whoever requires the medicines)/Yes (himself)

In this study, the dialogues were analysed based on a system of previously designed categories used by the research team [36]. To adapt it to the characteristics of this study, two expert judges carried out an inter-judge evaluation of the dialogues of 2 of the 12 pairs. During this evaluation, the judges discussed their discrepancies and adjusted the category system to the current task, as can be seen in Table 4. However, more information on the category definitions can be found in Table A2 of the Appendix A. Finally, one of the judges analysed the dialogues of the 12 pairs in each of the four cases.

Table 4. Category system used to analyse participants' dialogues.

		Categories of Analysis
Level of moral cognition		Moral intuition
		Moral reasoning
Game features	Moral foundations	Care/Harm
		Fairness/Cheating
		Loyalty/Betrayal
		Authority/Subversion
		Sanctity/Degradation

Table 4. *Cont.*

		Categories of Analysis		
Game features	Emotions	Positive	Fun	
			Satisfaction	
			Sympathy	
		Negatives	Despair	
			Doubt	
			Sadness	
			Repentance	
			Fear	
	Empathy	Emotional		
		Cognitive		
	Social system	Social system involved	Family	
			State	
			Immigrants	Threat
				Victim
				Indefinite
		Relationship between systems	Conflict	
	Transfer			
Actions in the game	Decision	Action	Allow the entry	
			Not allow the entry	
			Arrest	
		Type	Pragmatics	
			Moral	
	Intention	Action	Allow the entry	
			Not allow the entry	
			Arrest	
		Type	Pragmatics	
			Moral	

2.2. Data Analysis

To carry out the proposed objectives, we calculated the frequencies of the different categories in the dialogues. In addition, the frequencies of moral cognition, game characteristics and decisions made for each of the four game moments were compared using the McNemar statistic with SPSS version 26. Examples of the most relevant results of this study have also been added.

3. Results

3.1. The Explicitness of the Moral Cognition in the Four Cases of the Game

We observed more moral cognition in the dialogues promoted by the pimp and the refugee cases than those by the smuggler and the murderer. Specifically, as can be seen in Table 5, we found significant differences in the activation of moral intuitions in favour of the refugee, in which more moral judgements were identified than in the smuggler case.

Table 5. Comparisons in the amount of moral cognition for the four moments of the game.

	Murderer	**Refugee**	**Pimp**	**Smuggler**
Explicit moral intuitions	5 (41.7%)	9 (75%) ^{**S}(+)	6 (50%)	1 (8.3%) ^{**R}(-)
Implicit and explicit moral intuitions	6 (50.0%) ^{*P} (-)	11 (91.7%) ^{**S}(+)	12 (100.0%) ^{***S}; ^{*M}(+)	1 (8.3%) ^{***P}; ^{**R}(-)
Moral reflection	1 (8.3%) ^{*R}(-)	7 (58.3%) $^{*M.S}$(+)	4 (33.3%)	0 (0%) ^{*R}(-)

* ≤ 0.05; ** ≤ 0.01; *** ≤ 0.001; Differences with: ^{P} = Pimp; ^{R} = Refugee; ^{S} = Smuggler; ^{M} = Murderer; (+) = Significantly higher frequency; (-) = Significantly lower frequency.

An example can be seen below:

Student 1: —This one is pitiful… I mean, her husband has come in, and she hasn't… and, they're going to kill her for sure. (pair 1)

However, in some cases, moral intuitions were not explicit in the dialogue but were found to be implicitly activated in people's minds. This happened when the participants engaged in dialogue according to certain value judgements that could be inferred, as we can observe in the following:

Student 1:—Yes, I'm sure his documentation is fine. That's the question, to let him pass or not because of the woman. We don't let him pass, do we? […]. I mean about the whorehouse; he gives himself away. (pair 2)

In this moral judgement, an implicit negative moral assessment of pimping was made. However, not all cases activated these moral intuitions that did not appear explicitly with the same frequency. For example, in the case of the pimp, it was observed that of the six cases that did not have explicit moral intuitions, all of them presented them implicitly. Similarly, in the case of the refugee, of the three cases that did not have explicit intuitions, two had moral intuitions that appeared implicitly. In contrast, this was not as frequent in the case of the smuggler or the murderer where only one more case was found in both cases to have implicit moral intuitions. This resulted in differences between the four cases (see Table 5). Regarding implicit and explicit moral intuitions, it was the case of the pimp that generated significantly more moral intuitions when compared to those of the smuggler and the murderer. However, significant differences also remained between the case of the refugee and the smuggler, with the former triggering more moral intuitions.

Again, significant differences were observed between the refugee, the smuggler and the murderer cases, with greater moral reflection in the former. An example can be seen in:

Student 1: —So, what do we do? I would let her come in […].

Student 2: —Let's see, at the level of your job, if it were machine learning, I wouldn't let her come in […]. So that's why there must be people. Eh… you don't argue what you would do and why.

Student 1: —So, I mean, what we have is a reprimand if […] Sure, for a reprimand, I would take a gamble […] We don't know what the reprimand is, maybe it's a dismissal, you know, and your family will go hungry. […] Look, these three are coming, and if you mess up, they'll take you out of here. We're taking too long and that's already suspicious. And her husband came in.

Student 2: —Yes, on top of that, we have granted it to him, so it means in a way that it is like there is no irregularity of her being a criminal. (pair 3)

However, it can also be noted that although there were no significant differences with the pimp, the frequency of moral reflection, in this case, was again quite high.

This leads us to consider that the refugee case and also, although to a lesser extent, the pimp case promote much more moral cognition than the murderer and the smuggler cases. We will now try to identify which aspects could justify this difference in activation and moral reflection.

3.2. Game Features That Are Highlighted in the Four Game Cases

The smuggler and murderer cases, which had the least moral cognition, also promoted significantly fewer moral conflicts when compared to the refugee case, as can be seen in Table 6.

Table 6. Comparisons in the categories linked to *Papers, Please* for the four moments of the game.

Cases with High Moral Cognition					**Cases with Little Moral Cognition**	
			Refugee	**Pimp**	**Murderer**	**Smuggler**
Conflict			11 (91.7%) ^{***M}; ^{**S}(+)	5 (41.7%)	0 (0%) ^{***R}(-)	1 (8.3%) ^{**R}(-)
Moral foundations	Care/Harm		11 (91.7%) $^{**P.S}$(+)	1 (8.3%) ^{**R}(-)	6 (50.0%)	2 (16.7%) ^{**R}(-)
	Fairness/Cheating		3 (25.0%)	1 (8.3%)	2 (16.7%)	1 (8.3%)
	Loyalty/Betrayal		0 (0%)	0 (0%)	0 (0%)	1 (8.3%)
	Authority/Subversion		10 (83.3%) $^{**M.S}$; ^{*P}(+)	2 (16.7%) ^{*R}(-)	1 (8.3%) ^{**R}(-)	2 (16.7%) ^{**R}(-)
	Sanctity/Degradation		0 (0%) ^{**P}(-)	9 (75.0%) $^{**R.M}$(+)	0 (0%) ^{**P}(-)	3 (25.0%)
Emotions	Positive emotions		5 (41.7%)	5 (41.7%)	5 (41.7%)	4 (33.3%)
	Negative emotions		11 (91.7%) $^{**M.S}$(+)	6 (50.0%)	5 (41.7%) ^{**R}(-)	3 (25.0%) ^{**R}(-)
Empathy	Affective empathy		8 (66.7%) $^{*P.M.S}$(+)	0 (0%) ^{*M}(-)	0 (0%) ^{*R}(-)	0 (0%) ^{*R} (-)
	Cognitive empathy		1 (8.3%)	0 (0%)	0 (0%)	0 (0%)
Social system	State		4 (33.3%)	1 (8.3%)	1 (8.3%)	1 (8.3%)
	Family		1 (8.3%)	1 (8.3%)	0 (0%)	0 (0%)
	Immigrants	Threat	2 (16.7%) ^{**M}(-)	9 (75.0%)	10 (83.3%) ^{**R}(+)	5 (41.7%)
		Victim	10 (83.3%) $^{**P.M.S}$(+)	0 (0%) ^{**R}(-)	0 (0%) ^{**R}(-)	1 (8.3%) ^{**R}(-)
		Indefinite	3 (25.0%)	3 (25.0%)	2 (16.7%)	6 (50.0%)
Transfer			2 (16.7%)	1 (8.3%)	0 (0%)	0 (0%)

* ≤ 0.05; ** ≤ 0.01; *** ≤ 0.001; Differences with: ^{P} = Pimp; ^{R} = Refugee; ^{S} = Smuggler; ^{M} = Murderer; (+) = Significantly higher frequency; (-) = Significantly lower frequency.

It should be remembered that a moral conflict occurs when two moral foundations are set against each other. Therefore, it is essential to know to what extent the participants have considered these moral foundations in their moral dialogue (Table 6). The case of the refugee presented a mention of the conflict favoured by the activation of the Care/Harm and Authority/Subversion moral foundations, which is consistent with the characteristics of the case itself. This is due to the need to avoid the harm that the refugee may suffer if she is not granted an entry permit which is opposed to compliance with the rules imposed by the State Authority, as observed in the following example:

> *Student 1:—Is there no way to say "Hey, if you try to go somewhere else, look, I don't have a choice"? [. . .] Do you have to choose legality or a person's life?* (pair 4)

Similarly, we can also highlight a moderate (though insignificant) number of conflicts in the pimp case. In this event, the moral foundation that was activated is the Sanctity/Degradation in wishing to maintain the physical integrity of the girls while highlighting the displeasure of the pimp's attitude. However, Sanctity/Degradation was not necessarily in conflict with respecting the law of the state, as the game gives the option of arresting the pimp without a warning, which could explain the less explicit conflict, as seen in the following example:

> *Student 1: —Oh, this man is here [. . .] This is the one who comes to prostitute.*
>
> *Student 2: —What an asshole!*

Student 1: —You still have to check it out. Well, well. We have to check it but come on... He's got the right documentation but you'll see what this Dari is like [...].

Student 2: —Aha. Oh, Dari Ludum, bye-bye [Detect discrepancy and arrest]. (pair 5)

Finally, it is worth noting the scarce references to moral foundations in the cases of the smuggler and the murderer, which could be related to the lack of conflicts observed previously. This result is interesting because it does not imply that there are no conflicting moral foundations but that they are not detected. For example, the case of the murderer, who has killed his partner, would be related to the Care/Harm moral foundation, just as we observed with the refugee. Moreover, the level of seriousness would be similar since, in both cases, both physical harm and someone's death are at stake. However, we observed very few references to this moral foundation. Furthermore, we also observed a low reference to Authority. This can again be explained because allowing the arrest of the murderer without any admonishment reduces the conflict between the moral foundations involved.

The smuggler case is also analogous to the pimp. In both cases, one of the moral foundations that can be highlighted is Sanctity/Degradation. In the case of the pimp, we have already seen that this moral foundation was activated by the sexual exploitation to which he intended to subject two girls and, in the case of the smuggler, by subjecting an individual to a non-consensual scan where the citizens' genitalia were explicitly observed. Furthermore, in this second case, one could highlight the lack of Fairness suffered by the Kolechia's citizens who are scanned solely on ethnic grounds. However, in the smuggler case, it seems that these moral foundations were hardly perceived. There were also fewer references than expected to Care/Harm, which is curious since the smuggled material is referred to as medicines. Finally, there were hardly any references to Authority, which can be explained by the non-promotion of any other moral foundations. Explicit State Authority was therefore unnecessary since the rules were complied with without any prior questioning.

In the cases of the smuggler and the murderer, which had less moral cognition, there were also far fewer negative emotions than in the case of the refugee (Table 6), which promoted numerous references to negative emotions of doubt (n = 10) or sadness (n = 11), as can be seen in the following:

Student 1:—Don't let me take the blame. If she is innocent and we deny her entry, she will die.

Student 2: —I just feel so sorry for her. (pair 5)

The pimp case also presented quite negative emotions, although these differences are insignificant. Likewise, the positive emotions were discrete and similar in the four cases.

In terms of empathising with migrants, it was observed that the refugee case promoted significantly more affective empathy than the murderer and smuggler cases (Table 6). This empathy was related to the occurrence of negative emotions such as grief or sadness when the refugee pointed out her harsh future in the case of not crossing the border, as can be observed in the following dialogue:

Student 1: —You think so? Even though we didn't let others in. Because [they] didn't tell us their situation.

Student 2: —Yeah, but she was...

Student 1: —She is pitiful.

Student 2: —I mean, her husband came in, and she didn't... and they're going to kill her for sure. (pair 6)

However, cognitive empathy was almost non-existent, occurring only once in the refugee case.

It should be noted that empathy is an emotion closely linked to the status of the immigrant perceived as a victim. When we analyse the references to the social system, we see that the refugee is the only one who is significantly considered a victim (Table 6).

The other three characters are perceived as threats, although we only identify significant differences between the murderer and the refugee who was considered a victim. An example of the migrant as a threat can be seen in the following:

Student 1 —It's Vince.

Student 2 —Ah, it's the bad guy. (pair 5)

Finally, it is important to highlight that there were no differences between the four cases when it came to promoting the transfer of game situations to the player's real life, a necessary circumstance to promote learning that can be extrapolated to contexts other than those of the game, as can again be seen in Table 6.

3.3. Decision Making in the Four Game Cases

In objective three, we focused on identifying whether the dialogue might have promoted the intention to perform actions based on epistemic goals aimed at making moral cognition explicit and whether these actions were carried out or whether the players remained pragmatic in the game. As we can see in Table 7, in the cases of the pimp and the murderer, the players showed a significantly higher intention towards moral behaviour than in the smuggler case. Likewise, it was also observed that the pimp and the murderer cases also promoted significantly less intention to resolve conflicts pragmatically than the smuggler case. When decisions were analysed instead of intended action, the results were similar, as were the differences.

Table 7. Comparisons in the categories linked to the type of intention or decision made for the four moments of the game.

Cases with High Moral Cognition				**Cases with Little Moral Cognition**	
		Refugee	**Pimp**	**Murderer**	**Smuggler**
Morality of action	Moral intention	10 (83.3%) ^{**S}(+)	11 (91.7%) ^{**S}(+)	10 (83.3%) ^{**S}(+)	1 (8.3%) ^{**PRM} (-)
	Pragmatic intent	10 (83.3%) ^{*PM}(+)	3 (25.0%) ^{*R}; ^{**S}(-)	3 (25.0%) ^{*R}; ^{**S}(-)	12 (100.0%) ^{**PM}(+)
	Moral decision	5 (41.7%)	9 (75.0%) ^{**S}(+)	10 (83.3%) ^{**S}(+)	0 (0%) ^{**PS}
	Pragmatic decision	7 (58.3%)	3 (25.0%) ^{**S}(-)	2 (16.7%) ^{**S}(-)	12 (100.0%) ^{**PM} (+)
Type of action [1]	Intention to allow the pass	10 (83.3%) (M)	3 (25.0%) (P)	2 (16.7%) (P)	2 (16.7%) (M)
	Intention to not allow the pass	10 (83.3%) (P)	4 (33.3%) (M)	2 (16.7%) (M)	1 (8.3%) (P)
	Intention to arrest	0 (0%)	11 (91.7%) (MP)	10 (83.3%) (MP)	10 (83.3%) (P)
	Decision to allow the pass	5 (41.7%) (M)	3 (25.0%)	2 (16.7%)	1 (8.3%)
	Decision to not allow pass	7 (58.3%)	3 (25.0%)	0 (0%)	1 (8.3%)
	Decision to arrest	0 (0%)	6 (50.0%)	10 (83.3%)	11 (91.7%)

* $\leq$ 0.05; ** $\leq$ 0.01; Differences with: ^{P} = Pimp; ^{R} = Refugee; ^{S} = Smuggler; ^{M} = Murderer (+) = Significantly higher frequency; (-) = Significantly lower frequency; (M) = Moral; (P) = Pragmatic; (MP) = Moral without conflict with Pragmatic; [1]: The type of action is not comparable since, depending on the case, it will be driven by moral or pragmatic goals.

The pimp and the murderer cases have an essential aspect in common that has already been highlighted above. In both cases, the moral justification of an action does not contradict game rule compliance since it is possible to arrest the person without being penalised and also avoid harming third parties. Naturally, therefore, most references regarding the intention and the decision taken in the game are to arrest. An example of the arrest intention is observed in the following case of the pimp:

Student 1: —He needs to be taken into custody.

Student 2: —But how do you take him into custody? [. . .].

Student 1: —Give him the work permit. And what do we do? I just don't want to let him pass. Fuck, but I wanted to arrest him. . . . (pair 7)

On the other hand, as noted above, the smuggler's case differs from the previous ones in that the intentions and decisions taken were driven primarily by pragmatic goals. This can be justified because there is a cost attached to the moral action of avoiding the scanner or allowing him to pass through customs. Therefore, this is 100% resolved with the arrest of the character for smuggling medicine, as can be seen in the following case:

Student 1: —No but get out of there. Go to the rules. See, no weapons or contraband.

Student 2: —Yeah, arrest.

Student 1: —Arrest. (pair 8)

The refugee case is different. In this event, many moral intentions were observed, contrasting significantly, again, with the smuggler case. However, the refugee also presented significantly higher differences in pragmatic decision making when compared to the pimp and murderer case, which, paradoxically, would be less pragmatic. Furthermore, this large number of both pragmatic and epistemic intentions also resulted in the decisions finally taken being varied, with no significant differences concerning the decisions observed in the other cases.

In the refugee case, as in the smuggler case, justification for this may be the lack of an intermediate option for moral action without penalty. Moral intentions were significantly aimed at letting her pass but pragmatic reasoning for not letting her pass was higher when compared to the case of the pimp and the murderer. For example, in the following example, we can observe a moral intention to let her pass:

Student 1: —It expires tomorrow. . . Oh no, a year is missing. Well. . . I think I'm going to let her pass, fuck the cops. . . . (pair 9)

Meanwhile, in this one, we can observe a pragmatic intention in which it is denied:

Student 1:—Yes, they're going to reprimand us. But if we don't let her pass, they will kill her.

Student 2: —I'm not responsible for that. Fuck. . . well, do what you want.

Student 1: —It's a shame. . . But work is work. . . . (pair 10)

In summary, there are considerable differences between the four cases analysed. We saw that the refugee and, to a lesser extent, the pimp cases generated more moral cognition than the murderer and the smuggler. Likewise, we also noted differences among the cases concerning the characteristics that stood out most in the students' discourse. In particular, we saw that the refugee case, which generates more moral activity, is the one that aroused more conflicts between moral foundations, more emotions and empathy, apparently related to the victim status of the woman. Finally, it was also observed that intentions to carry out a specific behaviour and the final decisions seemed to be constrained by the game mechanics of avoiding penalty, as observed in the pimp, smuggler and murderer cases, who were frequently arrested. However, if the game allowed a costless decision, participants preferred moral behaviour to pragmatism. Thus, specifically in the murderer and the pimp cases, the arrest was chosen instead of allowing passage despite having all documentations in order. However, this relationship between the cost of the decisions and the type of behaviour taken varied slightly in the refugee case. In this case, it was observed that not only pragmatic decisions were carried out by not allowing the migrant to enter and avoiding the cost in the game, but also moral decisions by facilitating her entry, even if the customs official was later reprimanded. In the following, we will discuss what the identified outcomes may be due to.

4. Discussion and Conclusions

This study has allowed us to demonstrate the potential of dialogue in promoting moral activation with *Paper, Please* by favouring the explanation of one's moral intuitions

and associated reflections. As we highlighted in the introduction to this article, a previous study carried out by analysing blogs [36] identified only 5% of reviews that contained moral cognition. However, in this paper, we observed 75% (n = 9) of moral intuitions in the refugee case and 50% (n = 6) in the pimp case. Furthermore, we also found that 58.3% (n = 7) of the dialogues in the refugee case and 33% (n = 4) in the pimp case included moral reflection, which was almost non-existent in the first study. Therefore, these data show that the dialogue promoted in pairs has favoured a more epistemic game oriented towards the explicitness and reflection on the moral events that happen in the game. We, therefore, highlight the importance of facilitating dialogue when using video games involving moral dilemmas, as it is a key element for a more epistemic orientation towards the events that take place in the game, as shown in Figure 1.

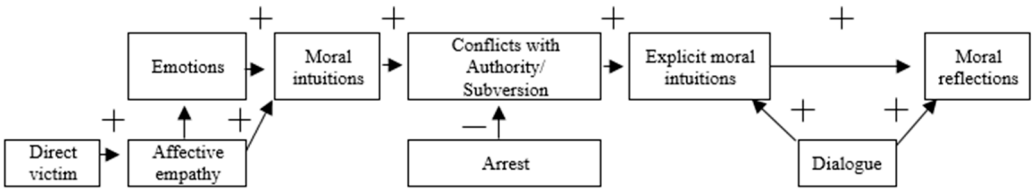


Figure 1. Diagram of the interpretation of the results obtained.

However, the dialogue did not promote the same moral activation in all the situations proposed by *Papers, Please*. In this study, we discovered more moral cognition in the refugee and, to a lesser extent, in the pimp case than in the murderer and the smuggler cases.

In particular, the refugee case, which activated more moral cognition, also promoted more moral foundation conflict detection. This is similar to the results obtained by Cuhadar and Kampf [2,40], who identified the possibilities of moral conflicts in video games to promote moral learning. Therefore, as shown in Figure 1, we believe that conflicts can facilitate a higher amount of moral cognition due to the moral intuitions activated needing to be made explicit to determine the moral judgement made, which will be justified to a greater or lesser extent through moral reflection. However, this potential for identifying conflicts was limited in cases where detention did not lead to a penalty in the game, such as in the pimp and murderer cases. In these events, even though they were related to moral grounds such as Sanctity or Care, the conflict was reduced by not clashing with the State Authority. As a result, we would emphasize the importance of creating conditions where there is an observable cost to the decisions made, as in the case of the refugee.

On the other hand, as can be seen in Figure 1, we believe that the activation of a moral intuition that clashes with the Authority will be due to the emotions that the proposed cases arouse. These emotions, as we will see below, are generally related to feelings provoked by the empathy experienced towards the immigrant.

Activating emotions, especially negative ones, are quite frequent whilst playing *Papers, Please*, as was also found in a previous study [36]. However, they are much more frequent in the refugee case, which is to be expected if we take into account that this case subjects players to the moral dilemma of letting a person die. We believe that this fact is enhanced by a significantly high affective empathy with this person, accentuated by her condition as a victim (see Figure 1). Nevertheless, it is also possible to empathise with victims in the other three cases above, although empathy does not seem to be promoted to the same extent. In our opinion, this is caused because affective empathy is activated when interacting directly with the victim to empathise with, as pointed out by Altuna, Belman and Flanagan [42,44]. Therefore, in the murderer or the pimp cases, in which we do not interact with the victim during the moral conflict, this visceral empathy is hindered, following the embodied cognition principles. In the case of the murderer, the victim would be his partner, whom he murders but we have no information about her. In the pimp case, the situation differs slightly since before the dialogue with the pimp, we have spoken with one of the girls he wants to prostitute. Nevertheless, in the interaction where the moral conflict arises, these victims are not present. In the case of the smuggler, we do not meet the person who

receives medicines either. However, the smuggler himself could be considered a victim of the scanning because of his ethnic status, but this does not seem to be perceived by the players as there are hardly any references to the lack of Fairness or Degradation of the smuggler's body. The results seem to indicate the importance of interacting with the victim, as happened in the case of the refugee, to enhance this affective empathy. From our theoretical framework, this would be related to the possibilities offered by 4e cognition [3,4] when using video games [48], which would be favoured by facilitating interactions with the victim.

It should also be noted that a more reflective empathy, cognitive empathy, which would involve holding a view on immigrants' situations, was scarcely promoted. This can be explained by the fact that this type of empathy will require a higher cognitive effort, which does not seem to have been promoted by mere dialogue. Moreover, the dialogue did not promote notable references to the transfer of the moral dilemmas of the game to other contexts, which is essential to ensure functional learning in contexts other than those of the game. Therefore, we consider it necessary to design scaffoldings specifically oriented towards gaining perspective on the conditions and situations faced by immigrants and promoting the transfer of the moral dilemmas provided in the game to other contexts. The scaffolding potential in video games has already been identified in areas such as the sciences [47,49,50]. However, these have not yet been adapted to video games to promote moral cognition.

On another hand, we observed that the selected cases vary in the type of decisions made. This seems to be due not only to the moral activation that favours each case but also to the cost of making moral decisions in the game. For example, in the pimp and murderer cases, it was possible to opt for arrest and avoid punishment since this does not imply non-compliance with Authority. In these cases, the action is morally justified by appealing to the need for justice in the face of crimes such as human trafficking or murder. Nevertheless, this is a double-edged sword because, as we have seen, by raising the detention possibility, the conflict is diluted, which seems to be closely related to the activation of moral intuitions and moral reflection.

The refugee case is different because the choice to let her pass even without papers does have a cost to the player. This means that the decisions are not as moral as in the pimp and the murderer cases (although it should be noted that even when penalised, more than 40% of the decisions were moral). However, in our opinion, it is precisely this conflict that arises in the absence of an intermediate decision that favours a higher moral dialogue. This contrasts with the position adopted by Haidt [39]. According to this author, moral reflection will be oriented towards justifying the moral intuition that is made before a moral judgment. However, in this case, moral reflection was not always oriented towards a moral decision, but both options were considered, and finally, the pragmatic action was chosen. Therefore, this suggests that the pragmatic decision favoured by game mechanisms is not related to lower moral activation.

Finally, in the smuggler case, there is also no middle option that avoids a moral dilemma, as in the refugee case. Notwithstanding, the smuggler case hardly favours moral dialogue, which would explain why 100% of the decisions were pragmatic. Thus, the results obtained allow us to infer that to promote moral cognition, the conflict must not be diluted by arresting, as we have pointed out above. However, this also implies that there are costs to moral decisions in the game, as complex moral dialogues may be promoted that do not manifest themselves in moral decisions. Therefore, we believe that the decision analysis, although relevant, cannot be detached from the moral cognition made explicit in the game context itself. If one wants to use the moral decisions made as a reliable input for moral cognition, additional scaffoldings would be needed to reduce the cost of the pragmatic goal related to success in the game but, in any case, this may involve a dilution of the conflict, as we saw when detention was exercised in the murderer and the pimp cases. Thus, these results show the potential of conflicts to promote moral cognition, as pointed out by Cuhadar and Kampf [2], as well as the difficulty of analysing behaviour

through the decisions made. Therefore, we propose that future studies should specifically analyse the moral cognition promoted by conflicts in different moral video games and how these are resolved through the different options available. This is essential to identify to what extent the decisions made can establish valuable information on the moral change experienced by players when using moral video games.

On another hand, we would like to highlight that this study has not focused on analysing whether the dialogue used in *Papers, Please* modified moral learning, but we have focused on moral cognition measurement. Although we consider that this moral cognition, especially explicit moral cognition, will affect the moral construction of the players, we have not identified to what extent this learning is achieved. Therefore, in future studies, a reliable and valid tool would need to be constructed so that we may compare the moral change in players that use dialogue to make decisions in *Papers, Please* to that of other participants who do not receive such instructions.

Finally, another limitation was that our study only had a sample of 12 pairs. We were therefore unable to identify what relationships existed between the categories involved. The game characteristics that we considered promoted moral cognition were solely based on the frequency with which they appeared in the cases that previously presented greater or lesser moral cognition. New studies with larger sample sizes are required to identify relationships between video game characteristics and explicit moral cognition.

However, despite these limitations, this study has allowed us to identify which aspects of *Papers, Please* favour more moral cognition and how these are enhanced by dialogue. Such results are essential not only to help teachers in the video game choice for moral development but also for the instructional design of scaffoldings that promote the maximum educational potential with these resources.

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Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Ethics Committee of the Autonomous University of Madrid (protocol code, CEI-104-2012; date of approval, 11 February 2022) for studies involving humans.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. Transcriptions of the game dialogues in the four cases analysed.

	Day	Dialogue
Murderer	Day 5	[In the newspaper/narrative of the day the headline appears: Murderer wanted for murdering his partner.] [Murderer arrives at the sentry box.] Customs officer:—Your papers, please, what is the reason for your trip? Murderer: —I'm just passing through. Customs officer:— Duration of your stay? Murderer: —I plan to stay for a couple of weeks. [If you do not identify him/her with the bulletin, he/she does not say anything. If you do, the following dialogue appears.]

Table A1. *Cont.*

	Day	Dialogue
Murderer	Day 5	Customs officer: —Are you a murderer? Murderer: —Shit. Hey, I didn't kill her. I was framed. Don't buy Republia's lies. Let me through. Customs officer decides: Allow the entry (without sanction) -> At the end of the game day the next day's newspaper includes the following headline: Murderer seen in Arstotzka. Not allow the entry (with sanction) -> At the end of the game day the next day's newspaper includes the following headline: Murderer arrested in Kolechia. Arrest (without sanction) -> At the end of the game day the next day's newspaper carries the following headline: Murderer arrested in Grestin.
Refugee	Day 5	[A man from Antegria arrives at the sentry box with everything in order.] Customs officer: —Your papers, please, what is the reason for your trip? Antegria man: —Today is a wonderful day, my friend, I am finally free from the tyranny of Antegria! Customs officer decides: Allow the entry (without sanction). Not allow the entry (with sanction, it would be a mistake). [In case of allowing the entry.] Antegria man: —Thank you very much. Please be kind to my wife. She's just the next person. [Woman arrives] Customs officer: —Your papers, please. Refugee: —The gentleman who passed by before was my husband. He passed by, didn't he? [You are asked for an entry permit, which you do not handover.] Customs officer: —Where is your entry permit? Refugee:—Please have mercy. They didn't want o to give me a permit. I have no choice. If I go back to Antegria, they will kill me. Customs officer decides: Allow the entry (you receive an Antegria medal and sanction): Thank you. We will never forget you. Not allow the entry (without sanction): Why? You have sentenced me to death.
Pimp	Day 6	[A woman arrives at the checkpoint with everything in order.] Customs officer: —Your papers, please, what is the reason for your trip? Woman: —I want to work here. Customs officer: —Duration of your stay? Woman: —I plan to stay for half a year. Excuse me. [Handing over a card for a night club.] Customs officer decides: Allow the entry (without sanction). Not allow the entry (with sanction, it would be a mistake). [In case of allowing the entry.] Customs officer: —Behave yourself. Woman: —Please, help me. [He hands over a note that reads: A man called Pimp has promised a good job in Arstotzka to my sister and me. I'm afraid. What if he takes our passports and forces us into prostitution? Please help me. He's in the queue.] [Management of the passports of four immigrants and the Pimp appears.] Pimp: —Hey buddy come see me and I'll give you my best girl [hands over the same card.] Customs officer decides: Allow the entry (without sanction) -> At the end of the game day the next day's newspaper includes the following headline: Dancers murdered in a club in Grestin. Not allow the entry (with sanction) -> At the end of the game day the next day's newspaper carries the following headline: Dancers murdered in a club in Grestin. Arrest (without sanction) -> At the end of the day's play, the next day's newspaper carries the following headline: White slavery ring busted. [If discrepancy detected.] Customs officer:—Are you Dari Ludum? Pimp: —Sure, that's what it says in the passport. [If you arrest.] Pimp: —Wait a minute, what is this shit? Give me back my papers.

Table A1. *Cont.*

	Day	Dialogue
Smuggler	Day 7	[A man arrives from Kolechia, a country from which its members are scanned.] Customs officer:—Your papers, please, what is the reason for your trip? Smuggler: I want to visit some friends. Customs officer: —Duration of your stay? Smuggler: —I will be here for 90 days. [In the case of scanning detects something on his leg.] Customs officer: —We have zero tolerance for smuggling. Smuggler: —I don't know anything. Slow down, my friend. I'm just bringing some harmless medicine. I'll give you 10 credits if you let me pass. Customs officer decides: Allow the entry (with sanction and get 10 credits). Not allow the entry (without sanction). Arrest (without sanction). [If you arrest.] Customs officer: —You cannot bribe a servant of Arstotzka. Smuggler: —They must pay you a lot of money to be so faithful, dog.

Table A2. Definitions of the categories used to analyse the participants' dialogues.

		Categories of Analysis		Definitions
Level of moral cognition		Moral intuition		Assessment of moral event as good or bad or associated emotion.
		Moral reasoning		Moral reflection implies moral justification or moral reasoning about a moral judgement/event. Moral reflection implies that there has been prior activation of a moral intuition, which may or may not have been made explicit.
Game features	Moral foundations	Care/Harm	Care/Harm	Sensitivity to suffering and need.
			Fairness/Cheating	It makes us despise cruelty and want to care for those who suffer.
		Fairness/Cheating	Loyalty/Betrayal	Sensitivity to facts that show differences between various groups and individuals.
			Authority/Subversion	It makes us despise cheaters.
		Loyalty/Betrayal	Sanctity/Degradation	Sensitivity and protection towards people who are part of the group with the same interests and objectives.
			Care/Harm	It makes us despise those who are a threat to our group.
		Authority/Subversion	Fairness/Cheating	Sensitivity to rank or status.
			Loyalty/Betrayal	Lets us know if someone is behaving following their status.
		Sanctity/Degradation	Authority/Subversion	Religious symbols, aspects that cleanse the soul. . . In general, what purifies.
			Sanctity/Degradation	Sensitivity to what may be harmful to the body or soul.
	Emotions	Positive	Fun	Lively entertainment.
			Satisfaction	Well-being or pleasure when a desire is fulfilled or a need is met.
			Sympathy	Affectionate inclination for someone.

Table A2. *Cont.*

		Categories of Analysis			Definitions
Game features	Emotions	Negative	Despair		Mood disturbance due to anger and impotence.
			Doubt		Hesitation and indecision.
			Sadness		Heaviness and painful discomfort.
			Repentance		Regret and guilt for an action done.
			Fear		Dread.
	Empathy	Affective			Emotional empathy involves an affective reaction that is triggered by the other person's feelings. It occurs mainly face to face, involuntarily and unconsciously, as an automatic transfer of emotions.
		Cognitive			Cognitive empathy refers to the experience of intentionally taking another person's point of view. It requires more cognitive effort.
	Social system	Social system involved	Family		Mention of the family's core interactions.
			Estate		Mention of the state/nation figure.
			Immigrant	Threat	The migrant population is referred to as people who reduce security and equality in their country of destination.
				Victim	The migrant population is referred to as people who suffer discrimination, rights violations and situations of economic inequality.
				Indefinite	No comments are made to identify the perception of the immigrant.
		Relationship between systems	Conflict		When reference is made to there being a moral dilemma. The conflict can be between different values (deciding to help migrants despite not complying with the rules), the same value (deciding whether to be loyal to the government or the Ezic).
		Transfer			This refers to some event in the game that can be extrapolated to a real-life situation.
Actions in the game	Decision	Action	Allow the entry		It is decided to allow the immigrant entry.
			Not allow the entry		It is decided to not allow the immigrant entry.
			Arrest		It is decided to arrest a character.
		Type	Pragmatic		A decision is made that favours success in the game. If a decision involves a moral argument, but this does not conflict with the rules of the game, that is, it can be pragmatic, the decision will be considered moral.
			Moral		A decision based on the player's morale is made even if it does not favour success in the game. If a decision involves a moral argument but this does not conflict with the rules of the game, that is, it can be pragmatic, the decision will be considered moral.
	Intention	Action	Allow the entry		It is intended to allow the immigrant entry.
			Not allow the entry		It is intended to not allow the immigrant entry.
			Arrest		It is intended to arrest a character.
		Type	Pragmatic		The intention is to make a decision that is conducive to success in the game.
			Moral		The intention is to make a decision based on the player's morale even if it is not conducive to success in the game.

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