“The World of Real Emotion”

A study of communication: conveying emotions through narrative in Final Fantasy

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Abstract

This essay investigates the communicative elements video games in the RPG genre utilise in order to convey emotion through narrative, and the difference between older and newer games. The essay focuses on the execution and interplay of verbal and non-verbal communication of the linguistic and semiotic examined in four video games chosen from the Final Fantasy series. It quantitatively compares empirical data collected from each game as well as the execution of the communicative properties in order to establish the conclusion. In addition it conducts a survey of anonymous participants with the purpose of testing the ability to identify emotions in respective games to quantitatively compare the success rates of older and newer games. A majority of participants of the survey consider newer games to be better at conveying emotional meaning than older ones. However, this contrasts strong implications of the results concluding that the difference is not as big as the general impression.

**Keywords:** verbal communication, non-verbal communication, pragmatics, semiotics, ludology, emotion, video games
Acknowledgements

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# Glossary

<table>
<thead>
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<th>Term</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Cutscene</td>
<td>a non-interactive scene in the game via a short clip</td>
</tr>
<tr>
<td>Dialogue</td>
<td>a conversation between a minimum of two individuals</td>
</tr>
<tr>
<td>Gameplay</td>
<td>the act of playing the game and the way it is played</td>
</tr>
<tr>
<td>Gameworld</td>
<td>the virtual world within the game</td>
</tr>
<tr>
<td>Ludology</td>
<td>the study of games and play</td>
</tr>
<tr>
<td>Monologue</td>
<td>a one-sided speech of one person</td>
</tr>
<tr>
<td>Narrative</td>
<td>a story told through either written or spoken means</td>
</tr>
<tr>
<td>Narratology</td>
<td>the study of narrative</td>
</tr>
<tr>
<td>Non-player character</td>
<td>a character in a game not controlled by the player</td>
</tr>
<tr>
<td>PlayStation</td>
<td>a game console franchise</td>
</tr>
<tr>
<td>Pre-rendered</td>
<td>a cutscene using more detailed graphics than the gameplay</td>
</tr>
<tr>
<td>Protagonist</td>
<td>a game’s main character the player controls</td>
</tr>
<tr>
<td>Real-time rendered</td>
<td>a cutscene using the graphics in the gameplay</td>
</tr>
<tr>
<td>Remake</td>
<td>a video game improved to fit modern standards</td>
</tr>
<tr>
<td>Remaster</td>
<td>a video game refined mainly in terms of graphics</td>
</tr>
<tr>
<td>Retro</td>
<td>older games generally at the very least twenty years old</td>
</tr>
<tr>
<td>Role-playing game</td>
<td>a genre where the player takes on the role of a character</td>
</tr>
<tr>
<td>Soliloquy</td>
<td>a speech of a person’s thoughts spoken aloud</td>
</tr>
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# Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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<tbody>
<tr>
<td>NPC</td>
<td>Non-player character</td>
</tr>
<tr>
<td>RPG</td>
<td>Role-playing game</td>
</tr>
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</table>
1. Introduction

This thesis will conduct a study of how video games from the role-playing game (RPG) genre utilise linguistic and paralinguistic expressions to communicate emotion through narrative, how they correlate, and the difference between older and newer games. The hypothesis is that modern games are not as superior to the old ones as people tend to believe, an opinion reflected in the survey. This thesis rather theorises that the older are equally successful, even by lesser means. To investigate this, it will examine the most common expressions of verbal and non-verbal codes and signals including: dialogue, gestures, facial expressions, and prosody defined in section 2. These will be reviewed in a comparative study of four video games, two retro and two modern, in the Final Fantasy series. The empirical data will consist of dialogue compiled into corpora and lists of non-verbal features cross-referenced to find potential patterns. More on the methodology can be found in section 3. Said section shall also present a survey in the form of a questionnaire meant to investigate the perception of these expressions by anonymous takers to determine the success rates across the games. The results presented in section 4 will be used to give answers to the following research questions:

- In what ways do RPGs utilise verbal and non-verbal signals of communication to express emotions and how do these correlate?
- How do retro and modern RPG video games differ in terms of utilising communicative signals?
- Are modern video game RPGs superior to retro ones in terms of successfully communicating emotions through verbal and non-verbal signals?

Lastly section 5 shall conclude the study motivated by the scarcity of research in the linguistic field concerning video games from this angle. Though there is an increasing amount of research executed on video games across several fields of study, it is far from extensively explored where this thesis tentatively aims to fill a cavity in the greater gap of knowledge in this particular field. Moreover, the RPG genre was selected as the niche due to it being heavily dependent on narrative expressing emotions through a range of codes and signals. Before the study can begin, the background needs to be established.
2. Background

This section will present previous research on verbal and non-verbal communication of emotions in terms of linguistics, semiotics, and ludology. The points presented in the forthcoming sub-sections will serve as the basis for the empirical part of the thesis, and be used as a frame for what to collect and evaluate. Nonetheless, to initiate a study on communication one must first answer what communication is.

2.1 Linguistics: an Overview

Despite its diversity complicating the definition and the wide range of interpretations, there are certain elements that make the concept easier to grasp. Communication is a social process that requires the efforts of a minimum of two individuals where a message produces some type of response (Gumperz, 1982, p. 1). For video games, a character can have a monologue or soliloquy and still be considered communication since the player is a constant participant (Juul, 2001). Communication consists of an exchange of codes and signals producing messages passing between interlocutors, or encoder(s) and decoder(s), in a process several scholars, like Shannon and Weaver (Fiske, 1990, p. 6–10), have made models for. Some codes are more structural whereas others are based on culture (Saville-Troike, 2003, p. 19) and are paralinguistic that will be examined further.

2.1.1 Verbal communication

In linguistics communication is naturally dominated by the verbal. The ways codes and signals are transmitted are through either oral, written, or manual channels, in other words, sign language (Saville-Troike, 2003, p. 19). Scholars like Mehrabian (1972) highlight the consequence of immediacy and time pressure for oral dialogue, and the significance of conversational flow whereas immediacy is not an issue in the same manner for the written (p. 31). As will be seen in section 3, this is of high relevance to the development of video games as the eras diverge.

In pragmatics, the speech act theory is a well-established concept regarding verbal communication. Though refined by Searle, it was introduced by Austin who advocates it involving illocutionary acts referring to the act of speech (Austin, 1955, pp. 98–100), locutionary acts being the utterance itself (ibid, pp. 98–102), and perlocutionary acts concerning the effects it has on the addressed (Searle, 1969, p. 25). The speech acts one can utter are, according to Searle, as follows:
1. *assertives*—making statements about things  
2. *commissives*—commitment to future action  
3. *directives*—attempting to make someone do something  
4. *declaratives*—affecting or changing a situation  
5. *expressives*—expressing emotional state or feelings  

(Searle & Vanderveken, 1985, pp. 182–211)

Linguists like Geis (1995) contribute criticism, saying these are not as much *speech acts* as they are *social acts* where some properties, like state, are not of a linguistic nature but rather psychological (p. 15). Furthering this, Grice (1989) famously established the concept of *saying-implicating* where there is not always agreement in an utterance and what it implies (pp. 24–31). Points like these highlight the importance of communicative interplay, as this also applies to verbal and non-verbal signals. Disagreement can cause dissonance or misinterpretation, which will be seen in the result section.

Prosody is another important property that transcends into the non-verbal. Crystal (1969) brings attention to a divide manifested in two schools concerning the prosodic functions (p. 36–47). Whereas the grammatical approach focuses on the grammatical functions, the attitudinal approach considers emotional or affective meaning (Crystal, 1969, pp. 37–38; 45). Though the properties and terminology vary between scholars, there are some components most linguists consider prosodic elements including: *length* usually in relation to phonemes or syllables, *accent* concerning lexical stress or emphasis, *tone* whether high and low, rising or falling, and *intonation* being the system and patterns of tones (Fox, 2000, p. 180). Naturally, these features can be represented in written form as well, such as italicising, bolding or capitalising words to represent accent. More examples will be presented in the results.

When it comes to expressing emotion, the field of semantics demonstrates how expressives can be more indirect than the non-verbal (Bowers et al., 1985, p. 503–504; 527). Psychological state can, however, frequently be found in, for example, word choice that Bowers (ibid, p. 526) brings up while emphasising the crucial role of the verbal in conveying emotion. He lists the ways it can be expressed as follows:
1. **Immediacy** — of the verbal in relation to topics
2. **Language intensity** — an indicator of the speaker’s opinion toward something through their language use
3. **Lexical diversity** — the extent and use of vocabulary
4. **Maledicta** — use of profanity
5. **Metaphor and Imagery** — emotive or cognitive
6. **Synthesis** — the interplay of intensity, immediacy, and diversity

(Bowers et al., 1985, pp. 526–528)

These categories demonstrate the very point where the non-verbal is often considered more straightforward, yet the verbal covers complexities the non-verbal cannot convey, like cause of emotional state (Bowers et al., 1985, pp. 532). More on the non-verbal functions will be investigated in the following sections.

### 2.1.2 Non-verbal Communication

Apart from pragmatics, this section focuses on semiotics, the study of production, exchange, and meaning of signs. Similarities to pragmatics make the two schools overlap in some regards though semiotics also studies non-linguistic aspects. Psychologist Ekman’s research together with Friesen (1969, pp. 49–92) has concluded five categories of non-verbal behaviour: affect displays (emotional displays like facial expressions), adaptors (innate, purely practical movements), emblems (gestures with commonly understood meaning), illustrators (movements accompanying speech to illustrate the verbal), and regulators (acts maintaining the cues of interaction). Similarly, Fiske (1990) highlights Argyle’s list of the main ways this is executed that he lists as follows:

1. **Bodily contact** — whom, when and where we touch
2. **Proximity** — relation of distance between individuals
3. **Orientation** — positioning of individuals in relation to others (facing/turning away)
4. **Appearance** — voluntary (attire, makeup) and involuntary (height, shape)
5. **Head nods** — frequency and meaning
6. **Facial Expression** — facial muscle contractions with
emotive meaning
7. *Kinesics*: gestures, both indexical and symbolic
8. *Posture*: the way individuals keep themselves
9. *Eye movement and eye-contact*—how, when, and the frequency of
10. *Non-verbal aspects of speech*: prosody (pitch and stress) and paralinguistic codes (tone, volume, accent, speed)

(Fiske, 1990, pp. 68–70)

If one considers how antique perception of gesture included dynamics like “carriage of the body” (Kendon, 2004, p. 18), several of Argyle’s components could fall under ‘kinesics’. Kendon (2007), an esteemed authority regarding gestures, categorises gesture process as: *excursions*, movement away that subsequently returns to its original position (like a shrug), *effort-shape* relating to manner (like the speed of waving one’s hand), and lastly *phase* that goes from preparation to *expression* when fulfilled (p. 6). Taking the aforementioned into account, *body contact, proximity, orientation*, and *posture* falls under gesture according to Kendon’s definition, which includes Argyle’s *head nods*. The function of these is primarily two things: *conveying indexical information* such as status, identity, and emotion essential for social interaction (Ekman & Friesen, 1969, pp. 70–81; Kendon, 2004, p. 1; Fiske, 1990, p. 68), and *interactional management* concerning interplay between the participants’ wants and aims (Fiske, 1990, p. 67).

Argyle also lists facial expressions where Ekman dominates the field. In his book with Friesen on this topic, they explain how facial expressions are built up by multiple signals functioning as building blocks combining into codes, the expressions (Ekman & Friesen, 2003, pp. 10–14). Furthermore, the signals do not necessarily follow a definite pattern but meaning varies depending on their combination (ibid. p. 10). In addition are emblems (like winking) that despite not being facial expressions remain a relevant property (ibid. pp. 12–13). Ekman and Friesen (2003) furthermore divide the signals into three categories: *static* that remains unchanged (like the shape of the face), *slow* that develop over time (such as wrinkles), and *rapid* referring to shifts in the face (p. 11). As the two first are involuntary, facial expressions will be considered *expressive, rapid signals*.

Lastly, there is prosody already addressed in section 2.1.1, being an aspect that intertwines the two schools. Fiske (1990) refers to ‘prosody’ as codes that “affect the meaning of the words used” (p. 69) while the ‘paralinguistic’ codes provide information about the speaker
(pp. 69–70) including, but is not limited to, emotions. Crystal, in his book with Quirk (1964), lists the most prosodic features to the most paralinguistic as follows:

Prosodic: *tone, tempo, prominence, pitch range, rhythmicality*
Paralinguistic: *tension, quality, qualification, pause, vocalisation* 

(pp. 64)

In other works, Crystal (1969) lists these slightly differently where he adds *volume* he calls ‘loudness’ (p. 140) in the paralinguistic range. Game makers utilise this range as well as the other non-verbal properties, as the coming ludology section will demonstrate.

2.2 Ludology: An Overview
Ludology is the study of games and play. The study of video games, in particular, and their functions paved by ludologists like Juul (2005) has, amongst other things, resulted in what is called the “ludology vs. narratology debate”. Whereas narratology wishes to classify video games as another form of narrative, ludology advocates against it, claiming it disregards the qualities that define video games (Domsch, 2013, p. 13). Juul (2001) pinpoints narratologists’ motivations being that: games and narrative share many similar traits, narrative is everywhere, and most video games feature narrative. He likewise highlights the arguments ludologists use to counter those claims, such as how video game narrative diverges significantly from other forms in aspects like execution, time, and the protagonist that can be absent from the game but manifest itself in the player (Juul, 2001). In later works Juul (2005) draws upon extensive research that establishes mutual properties that defines video games. This strays too much into the technical to be relevant for this thesis, but is recommended as further read.

For RPGs the debate is of high relevance as the genre heavily depends on narrative, making it a crucial component. Regardless of their disagreement with narratologists, ludologists have concluded ways in which narrative occurs in video games including: *passive narrative* through non-interactive scenes the player is exposed to such as cutscenes, *spatial narrative* Domsch classifies as “visual clues” and “evocative spaces”, *embedded narrative* like diaries and letters found in the game, *NPC dialogue* which is rich in RPGs, and finally *protagonist interactions with the gameworld* essentially including ‘the rest’ (Domsch, 2013, p. 29). Despite this, research on the narrative functions has not been angled the way this thesis proposes. Smith (2002), for example, investigates the dialogue functions in *Final Fantasy VII* (Squaresoft, 1997), though it concerns the narrative functions rather than the linguistic.
Moreover, the distinction between old and new video games has no unanimous definition within the ludology department, so this thesis can only make a distinction for games on the PlayStation console, the platform of the chosen games. Thus, a retro game is considered one made for the first console in the PlayStation franchise commonly known as PlayStation 1 released in the mid 90’s. All games for later generations, the first successor (PlayStation 2) released in 2000, are considered modern.

2.2.1 Virtual Emotions
Katherine Isbister (2016) in her studies on video game emotion targets a recurrent topic of the ways video games can elicit emotional responses in players as well as portray them. It concerns how games have varying effect on players’ reactions and interpretations depending on what communicative techniques they utilise. Isbister (2016) includes results of her dissertation that showed contrasting reactions to a non-player character (NPC) depending on its use and combination of word choice and gesture signals (pp. 20–22), which relates to the purpose of the thesis’ questionnaire. A common research topic in ludology that Isbister touches upon is how to achieve immersion in play. To achieve this, the game needs to successfully portray certain qualities, such as the communicative channels. Most video games utilise an old narrative-technique playing into the ludology vs. narratology debate, being the use of protagonists the player is meant to identify with, to facilitate immersion (Isbister, 2016, pp. 9–12). The protagonist, and/or other characters in the game express emotion through a range and combination of signals. Ibsister’s (2016) research targets a range of different games where the results often feature a combination of: facial expressions, body language, dialogue, and action, very similar to this thesis’ research topic.

3. Methods and Materials
This section gives an outline on the methodology as well as the materials used, starting off by introducing the games, as it will put the data and questionnaire in context as well as make the methodology more comprehensible.

3.1 Materials
This section will present the materials, initiating with the games.
3.1.1 Final Fantasy VII

*Final Fantasy VII* (furthermore FFVII) is a *Playstation 1* retro RPG that relies fully on the written in terms of dialogue and prosody. The story is provided mainly through white text appearing in blue boxes. This relates back to section 2.1.1 that excludes most of the time pressure by allowing the player to read and advance the dialogue at their own pace by pressing a button. It being the most sold game in the series (Video Game Sales Wiki) contributed to why it was chosen for the study. Given how it maintains its popularity despite the undeniable properties of being a retro game with those restrictions, it was deemed fitting for it to be compared to the newer generations.

![Final Fantasy VII Dialogue](image)

Figure 3.1 Final Fantasy VII Dialogue
©Square Enix, Co., Ltd. All rights reserved.

3.1.2 Final Fantasy IX

*Final Fantasy IX* (hereafter FFIX) is the last retro game in the *Final Fantasy* series according to this thesis’ definition. On the cusp of modernity, it is the final game in the series without voice actors. Like FFVII, it features boxes of text containing dialogue and other text one can advance through at one’s own pace. The figures are more advanced than FFVII but are far from anatomically proportionate. They have more defined features and details but the expressions are static and only have the ability to open and close the eyes except for in cutscenes. It was chosen due to its position in the divide, being the last retro *Final Fantasy* game.
3.1.4 Final Fantasy X

*Final Fantasy X* (henceforth FFX) is the first modern game in the series released for the *PlayStation 2*, being FFIX’s opposite in relation to the divide. With the improved technology, it features clearer facial expressions, more anatomically accurate characters as well as voice actors. The dialogue has taken a step closer in the direction of cinema where the dialogue squares have become subtitles at the bottom of the screen. It also brings more realism as voice actors enable the verbal immediacy Mehrabian (1972) spoke of. Due to this the dialogue progresses at the pace of the spoken rather than the player’s reading capacity lest the player skips forward. It was chosen for this study due to it being the first modern game in the series, where the remaster for the *PlayStation 4* was used.
3.1.5 Final Fantasy XV

*Final Fantasy XV* (furthermore FFXV) is the newest game in the series released for the newest console *PlayStation 4*. The graphics are cutting-edge and superior to its predecessors in terms of realism; it features voice actors for practically all dialogue including NPCs, and the game itself is bigger in terms of content. Instead of speech squares there are subtitles, as the figure below demonstrates. This game took ten years to develop and its status as the newest title in the series motived it being appropriate for this study.

![Final Fantasy XV Dialogue](image)

*Figure 3.4 Final Fantasy XV Dialogue ©Square Enix, Co., Ltd. All rights reserved.*

3.1.6 Data

The purpose of the data was to provide an answer the first research question: “*In what ways do RPGs utilise verbal and non-verbal signals of communication to express emotions and how do these correlate?*” by recording and analysing how it was executed in the games. It also meant to answer: “*How do retro and modern RPG video games differ in terms of utilising communicative signals?*” by comparing the results afterwards. The empirical data consisted of corpora from aforementioned games comprising the dialogue of respective games’ first hour. The gestures, facial expressions, and prosody occurring during this hour were counted and categorised. Due to rules of copyright infringement the corpora will not be included in the appendix, but a visual representation of the composition is shown below.
Table 3.1 Distribution of communication channels across Final Fantasy

<table>
<thead>
<tr>
<th></th>
<th>Dialogue</th>
<th>Gesture</th>
<th>Facial expression</th>
<th>Prosody</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFVII</td>
<td>570</td>
<td>265</td>
<td>0</td>
<td>354</td>
</tr>
<tr>
<td>FFIX</td>
<td>532</td>
<td>256</td>
<td>26</td>
<td>485</td>
</tr>
<tr>
<td>FFX</td>
<td>261</td>
<td>123</td>
<td>43</td>
<td>164</td>
</tr>
<tr>
<td>FFIXV</td>
<td>522</td>
<td>149</td>
<td>56</td>
<td>167</td>
</tr>
</tbody>
</table>

This shows, for example, how FFX had at least half as much dialogue as the other games where FFVII had the most. Important to note is that the data is inevitably affected by the player. The outcome is a direct reflection of how the author played the game determining the amount and type of dialogue, and at times emotive reactions.

3.1.7 Questionnaire

The questionnaire’s purpose was similarly to answer the final question: “Are modern video game RPGs superior to retro ones in terms of successfully communicating emotions through verbal and non-verbal signals?”, its aim to test how successful the games were in conveying emotive meaning by having participants identify emotions in the games. The questionnaire, whose template can be found in the appendix, was electronic, including a total of 30 questions. The participant’s age and prior experience with video games were asked before initiating. It included three clips per game under a minute long from the gameplay to consider participant fatigue. These clips were emotionally expressive moments where the participants were meant to choose what emotion(s) a targeted character felt, and what motivated their answer. Out of three, two clips per game were meant to be of the same emotion where the third could differ partially due to contrasting storylines as well as to avoid a noticeable pattern. Towards the end, the participants were asked which game(s) they thought were clearest in conveying emotion, as well as which one they would be most likely to play, and why. Only the motivation for the last questions was optional whereas the others
were obligatory, and all questions save for the first two were multiple-choice.

3.2 Methodology

To compile the corpus, the four games were played for a timed hour while recorded. The text of the video clips was then transcribed. Only passive narrative and NPC dialogue was included due to relevance of the research topic. Dialogue instances were counted as one instance per speech square/line including soliloquys and monologues for reasons mentioned in 2.1. The speech acts were identified, counted, and categorised according to the author’s judgement, as were gestures, facial expressions, and prosody. The latter categories were subsequently combined with respective corpus and put into context in order to investigate the correlation. Finally, the results were compared and converted into percentage.

Since Searle’s definition of assertives and declaratives were at times hard to separate, declaratives was considered “institutionalized performatives” pertaining to authoritative utterances like firing or declarations of war (Huang, 2014, p. 134). Gesture was divided into the categorisation established in section 2, though the ‘other’ section was labelled kinesics for simplicity. Since many of the prosodic properties were difficult to distinguish and record by ear, what was considered included linguistic accent and length in addition to the paralinguistic volume, pause, and vocalisation.

The questionnaire was piloted on a selected test-group of six members of friends and family resulting in minor alterations like the ‘surprise’ alternative to ‘shock’ due to a pattern of indecisiveness over how to label some emotions. With the supervisor’s approval the finished version was spread via various online media as well as sent via e-mail to domestic and international schools of higher education. A risk, aside from insincere responses, was prior knowledge influencing the results rather than the impressions. A question on this was initially included but mistakenly removed before the survey was distributed.

Structuring of the questionnaire was done with consideration of the participants, meaning the explanation of ‘prosody’ only included auditory aspects whereas the written went under ‘dialogue’. In turn, ‘gestures’ went under the label ‘body language’ for simplicity. Brief explanations were given within brackets to minimise possible misinterpretation. The emotion options in the questionnaire used Ekman and Friesen’s (2003) list of basic emotions as it named emotions people with proficient knowledge of English would understand. In addition, the ‘score’ alternative was a remnant from the initial research topic.
4. Results and Discussion

This section will be divided into two sub-sections where 4.1 presents the results of the study discussed in 4.2.

4.1 Results

Following are the results of the study.

4.1.1 Data

This section will briefly present the results in a comparative table before the sub-sections look into the individual results in greater detail before being compared in-depth in section 4.2.

<table>
<thead>
<tr>
<th></th>
<th>FFVII</th>
<th>FFIX</th>
<th>FFX</th>
<th>FFXV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dialogue</td>
<td>47.9%</td>
<td>41%</td>
<td>44.2%</td>
<td>58.5%</td>
</tr>
<tr>
<td>Gesture</td>
<td>22.3%</td>
<td>19.7%</td>
<td>20.8%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Facial expression</td>
<td>0%</td>
<td>2%</td>
<td>7.3%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Prosody</td>
<td>29.8%</td>
<td>37.3%</td>
<td>27.7%</td>
<td>18.5%</td>
</tr>
</tbody>
</table>

Table 4.1 Final Fantasy verbal and non-verbal distribution in percentage

The table above displays the results of the communicative distribution in the games. Although the amount of dialogue varies, as table 3.1 shows, these results demonstrate how the disposition of verbal and non-verbal was never the same despite some being closer than others. The types of signals also vary across the games, as the following sections demonstrate.

4.1.1.1 Final Fantasy VII

As seen in the previous table, the dialogue made up most of the communication whereas there were no facial expressions. To note is that there were also no auditory representations of the prosodic features.
Table 4.1 Verbal and non-verbal distribution in FFVII

To note is that whereas the table demonstrates assertives was the most common speech act, some dialogue consisted of combinations, which applied to all four games. Whenever gestures appeared in the dialogue, they were supplementing speech 43% of the time with 10% unrelated to any dialogue. Certain kinesics like pointing, beckoning, and striking out the hand was typically accompanied by directives: “Push that button over there!” these often supplemented by prosodic volume features represented by exclamation marks, as seen in previous example. This could be an indicator of immediacy or language intensity. Despite this, volume was not restricted to directives, additionally expressed through capitalised words “HALT!! No one is allowed to pass!!” that could also be an accent indicator: “So you DID forget.” Contrasting this, pause seldom supplemented directives but most commonly assertives: “Shinra soldiers……” commissives: “[...] Once this job’s over... I’m outta here.” or the least common speech act, expressives: “When it comes down to it... I’m gutless. I’m still just a no-good kid.”

The final example was also complemented by the head shake gesture, in this case an affect display, though the most frequent kinesics signal was hand gestures adaptors. These were dominantly used together with assertives or commissives. Body contact occurred the least, mainly serving as adaptors but also enforcing previously uttered expressives. Orientation had few patterns involving speech acts, as did proximity. Lastly, posture was executed mainly through crossed arms as well as resting a hand on the hip, which could be adaptors or affect displays reinforcing expressives: “Stop actin’ like a damn kid. [...]”

As for length, the least frequent prosodic feature, it was often in combination with vocalisations: “Aaah! Nothin’ like that first drink after a job.” that could be incorporated in speech acts, like previous assertive example shows, or separately: “...sigh.” In most cases the
verbal and non-verbal worked together harmoniously, though there were instances that could cause confusion. An example for this was when two characters collapsed without any indicator as to why in the dialogue, albeit this was a rare instance. Finally, FFVII featured maledicta: “Oh &$#&@!! What the hell’s wrong tonight!!”

4.1.1.2 Final Fantasy IX

Table 3.1 shows a decrease of dialogue between FFIX and FFVII, yet a prosodic increase in the dialogue as well as instances of facial expressions. The results are shown below.

<table>
<thead>
<tr>
<th>Dialogue</th>
<th>Assertives</th>
<th>Directives</th>
<th>Commissives</th>
<th>Expressives</th>
<th>Declaratives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50.4%</td>
<td>27.3%</td>
<td>11.7%</td>
<td>10.6%</td>
<td>0%</td>
</tr>
<tr>
<td>Gesture</td>
<td>Kinesics</td>
<td>Proximity</td>
<td>Body contact</td>
<td>Orientation</td>
<td>Posture</td>
</tr>
<tr>
<td></td>
<td>80%</td>
<td>6.3%</td>
<td>1.2%</td>
<td>3.5%</td>
<td>9%</td>
</tr>
<tr>
<td>Facial expression</td>
<td>Brows</td>
<td>Eyes</td>
<td>Mouth</td>
<td>Emblems</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>25.4%</td>
<td>41.2%</td>
<td>27.1%</td>
<td>0%</td>
<td>—</td>
</tr>
<tr>
<td>Prosody</td>
<td>Accent</td>
<td>Volume</td>
<td>Vocalisation</td>
<td>Length</td>
<td>Pause</td>
</tr>
<tr>
<td></td>
<td>0.8%</td>
<td>66.7%</td>
<td>10.8%</td>
<td>3.1%</td>
<td>18.6%</td>
</tr>
</tbody>
</table>

Table 4.2 Verbal and non-verbal distribution in FFIX

As facial expressions appeared solely during pre-rendered cutscenes where characters retained static expressions otherwise, facial expressions never accompanied speech. Instead there was only interplay between facial expressions and gestures, like widened eyes, gaping mouth with flailing arms to convey panic. When they occurred they were very elaborate, if not melodramatic. Most commonly it was interplay between all parts of the face, though one character was without eyebrows and one only had eyes.

32% of gestures directly accompanied speech, a majority of these being kinesics. The most common signal was the generic hand gesture adaptor supplementing mainly assertives: “I can’t stand oglops…” being the most common speech act, or comissives: “Just relax, Princess. We’ll get you outta here!” where pause followed the same pattern. Other common signals were shaking of hands in different manners as well as jumping on the spot complementing mainly anger expressives: “Grrr! Blast it!!!”, where this example could be considered maledicta, but also directives: “ASSEMBLE!!!” or comissives, but seldom assertives. All three speech acts frequently featured volume indicators which did attribute assertives where FFIX had a bit more variety: “WHAT?!?!?!! This calls for immediate
action!!” representative of the melodramatic theme. However, capitalised words were seldom accent features, which the table shows did not occur often.

Furthermore, beckoning, for example, was restricted to directives, though despite being the most common for pointing it was not: “Well, with a face like his, I’d be pretty shocked, too!” Both proximity and orientation had no evident speech act patterns, yet for posture it was more affect displays like cowering and slouching emphasising expressives, the least frequent speech act, like: “Nooooo!” where this example was one of the few length instances. Body contact had similar patterns where most of the non-verbal harmonised with the verbal.

There were some instances where these appeared to clash, one example being a character making chuckling motions with their body to expressive dialogue: “No interruptions! Can’t you see I’m watching the show!?” Where the chuckling indicated a positive emotion, the dialogue clearly did a negative one. Though there were other instances, they remained few.

4.1.1.3 Final Fantasy X

Table 3.1 shows FFX being the game with least instances of all categories save for facial expressions. These were more realistic in terms of exaggeration, but also because of the character design being anatomically proportionate. The dialogue was also considerably scarce, though it took considerably longer to listen to the dialogue than to read it, possibly being a determining factor. The game also featured a great portion of running around alone or battling.

<table>
<thead>
<tr>
<th>Dialogue</th>
<th>Assertives</th>
<th>Directives</th>
<th>Commissives</th>
<th>Expressives</th>
<th>Declaratives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>53.9%</td>
<td>28.5%</td>
<td>5.6%</td>
<td>4.5%</td>
<td>0%</td>
</tr>
<tr>
<td>Kinesics</td>
<td>73.2%</td>
<td>4.1%</td>
<td>7.3%</td>
<td>6.5%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Proximity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facial expression</td>
<td>Brows</td>
<td>Eyes</td>
<td>Mouth</td>
<td>Emblems</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>33%</td>
<td>33.5%</td>
<td>33.5%</td>
<td>0%</td>
<td>—</td>
</tr>
<tr>
<td>Prosody</td>
<td>Accent</td>
<td>Volume</td>
<td>Vocalisation</td>
<td>Length</td>
<td>Pause</td>
</tr>
<tr>
<td></td>
<td>1.8%</td>
<td>54.4%</td>
<td>15.2%</td>
<td>1.2%</td>
<td>27.4%</td>
</tr>
</tbody>
</table>

Table 4.3 Verbal and non-verbal distribution in FFX

In this game facial expressions occurred both during real-time rendered and pre-rendered cutscenes. As can be seen above, mostly there was interplay between the facial signals, though there were times featuring scenes like zooming in on an eye opening wide. These
could complement speech or substitute it.

To note is that part of the dialogue was in a fictional language rendering 7.5% of the speech acts unknown and are therefore not represented in the above table. 75% of the dialogue was accompanied by voice acting, though without the tutorial-dialogue of a feature in the game explained via NPC dialogue, it would have been as frequent as 97%. Around 43% of all facial expressions appeared with dialogue whereas the rest substituted dialogue. Facial expressions mostly accompanied expressives that were scarce, but could also complement the most common speech act, assertives: “I said I don’t understand!” or directives: “Don’t go out on me!” to further emphasise the emotive state. Most frequently, it was frowning, but could also be widening or narrowing of eyes, smiling, mouths falling open.

The above table shows how a clear majority of gestures was kinesics with the generic hand gesture adaptor being most common, still most frequent with assertives or directives. However, there was more variation aside from ordinary ones like nodding regulators. Volume, the most frequent prosodic feature, often supplemented directives, as can be seen in previous example, but also assertives where pause followed similar patterns presented by ellipsis as well as the em dash: “I wanted someone—anyone beside me.” Only accent used capitalised words “You came to say THAT?” unlike volume that did not even do this for the few instances of length: “Heeey!”

Posture emphasised assertives most frequently by hands resting on hips or crossed arms. Both orientation and proximity had little connection with speech acts themselves, as was the case for body contact. It featured signs like one character holding another’s shoulder, high fives, and adaptors like one character lifting another up by the collar. Only a few gestures had any kind of restriction, like one character holding out something to another in relation to a directive: “Take it.” Vocalisations mainly occurred separately, showed through signals like sighing, gasping, and giggling where 77.7% of these were not represented in the written dialogue. Similarly, some dialogue featuring other non-verbal signals were missing facial expressions, however the game did not really have any mismatches.

4.1.1.4 Final Fantasy XV

Last was FFXV, the most technically advanced, and modern out of the four. Despite holding the element of dialogue taking longer to listen to than read, FFXV featured constant dialogue both when exploring the gameworld as well as during battles. This sets it aside from the other games that contained significantly less of this occurring on rare occasions.
<table>
<thead>
<tr>
<th>Dialogue</th>
<th>Assertives</th>
<th>Directives</th>
<th>Commissives</th>
<th>Expressives</th>
<th>Declaratives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>62.9%</td>
<td>26.5%</td>
<td>8%</td>
<td>2.6%</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gesture</th>
<th>Kinesics</th>
<th>Proximity</th>
<th>Body contact</th>
<th>Orientation</th>
<th>Posture</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>63%</td>
<td>4.7%</td>
<td>4.1%</td>
<td>2.7%</td>
<td>25.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Facial expression</th>
<th>Brows</th>
<th>Eyes</th>
<th>Mouth</th>
<th>Emblems</th>
<th>—</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>32.3%</td>
<td>35.4%</td>
<td>32.3%</td>
<td>0%</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prosody</th>
<th>Accent</th>
<th>Volume</th>
<th>Vocalisation</th>
<th>Length</th>
<th>Pause</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12%</td>
<td>51.3%</td>
<td>6.6%</td>
<td>1.8%</td>
<td>28.3%</td>
</tr>
</tbody>
</table>

Table 4.4 Verbal and non-verbal distribution in FFXV

As table 3.1 shows, FFXV had most facial expressions with 49.9% directly accompanying speech. Mostly it was interplay between the signals, though there were scenes of a close-up on eyes widening. Had it not been for the pre-rendered cutscene without dialogue, it would have always been during dialogue, though this game also featured facial expressions during real-time rendered cutscenes. The signs were more nuanced in FFXV with different types and degrees of eyebrow positioning, lip- and eye-movements, and so on. The patterns were more relevant for emotions than for particular speech acts. Only one instance of dialogue was not voice-acted, and that was because it was meant to be the character’s thoughts, represented by parentheses: “(That’s right—Dad said he left something in the trunk for me.)”

Out of all the gesture signals, 34.5% were in direct connection to speech, most commonly postures without any speech act restriction, such as proximity and orientation. However, 13.17% of gestures were completely unrelated to any dialogue. Characteristically, kinesics made up most gestures where the hand gesture adaptor was 25.32% of kinesics, a single character contributing with 52% of these. These could accompany assertives: “The sound of tacit agreement there.” commissives: “Y’all heard him! Let’s get moving!” or directives: “Wait a sec!” where volume indicators were often included, as for vocalisations “Whoa!” Volume was not represented through capitalised words; that feature was restricted to accent present in directives: “What is THAT!?” also using inverted commas “What do you mean “for a change”?” in addition to italicising assertives: “I thought the car was sup-posed to move us.” Similarly, pause could be represented through the em dash or ellipsis: “...Lies.”

The final example shows one of the few expressives that the fist clench gesture was restricted to, appearing with: ““Makes sense”? Are you serious? What about any of this makes sense!?”. This was a sample of the verbal not being represented in the written. Where
the voice actor put emphasis on ‘any’ there was no accent indicator in the written dialogue. Furthermore, pointing, in addition, was restricted to directives that body contact also most commonly featured, the majority being a character taking hold of another’s shoulder.

4.1.2 Questionnaire
Following are the results from the questionnaire from a total of 43 participants. This was not as many as hoped yet still enough to give an estimate. Like stated, gestures in this questionnaire was labelled ‘body language’, and prosody was divided into the category with the same title as well as ‘dialogue’.

<table>
<thead>
<tr>
<th>18 or younger</th>
<th>19–25</th>
<th>26–30</th>
<th>31–45</th>
<th>46 or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>14%</td>
<td>61%</td>
<td>9%</td>
<td>7%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Table 4.5 Participant age-range

The table shows the results of question 1 where the majority of the participants were between 19 and 25, though a considerable amount were even younger with a bit of variety from even older participants.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.3%</td>
<td>14%</td>
<td>25.6%</td>
<td>16.3%</td>
<td>27.9%</td>
</tr>
</tbody>
</table>

Table 4.6 Participant video game experience

Question 2 asked these participants how experienced they were with video games where they got to choose from a scale as shown above, 1 being not at all experienced, and 5 being very experienced. As displayed, the majority either had moderate or very good experience with video games, with the remainder being relatively evenly distributed. After this, the actual evaluation began. Below is a diagram to give a visual representation of success rates between the games pertaining to the identification of emotional displays in the clips.
Table 4.7 Participant’s identification of emotion

As can be seen, most games have a high success rate where FFXV had the highest average, and FFX the lowest. Further information about each individual clip follows beneath. To note when analysing this is that these were multiple-choice questions, meaning the percentage of the tables reflect the categories individually. This pertains to the indicators, also.

<table>
<thead>
<tr>
<th></th>
<th>Anger</th>
<th>Surprise/Shock</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Fear</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFVII</td>
<td>83.70%</td>
<td>95.30%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFIX</td>
<td>93%</td>
<td>93%</td>
<td></td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td>FFX</td>
<td>65.10%</td>
<td>86%</td>
<td>95%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FFXV</td>
<td>97.70%</td>
<td>93%</td>
<td>95%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.8 Question 3: emotion

The first clip was a display of anger in FFVII. It featured character A telling B off. As character B walks a few steps forward, crosses his arms and says: “…” character A is being contained by character C because he is waving his fists in the air. Character A then throws C off. The participants were meant to target character A, and as the table shows, most people recognised the anger, though there were other answers as well. Even happiness had one vote. Those who chose the ‘other’ option provided answers like “rallying, supportive”, “irritation”, “offended” and “frustration”.

20
When asked what indicated the character’s emotion, a clear majority thought gestures was a determining factor, though significantly less thought the dialogue. There was also one vote each for facial expressions and prosody despite both being absent in the clip. Those who chose ‘other’ named variants of “actions”.

Table 4.10 Question 5: emotion

Clip 2 was from the same fear meant to display fear, which most participants recognised. It featured character A, being the targeted one in the clip, jumping in his seat when character B hits the poles near him. B aims his gun at A when he suspects A works for the enemy, to which A huddles together, shaking, saying he will not give in to violence. It ends with character C intervening. The responses for this identification were divided, where those who chose ‘other’ gave answers like: “defensive” or “determination”.

Table 4.11 Question 6: indicator

Again, the table shows that body language still dominated the perceptions, though a great amount also thought the dialogue was an indicator. A surprisingly high amount thought facial expression despite the character essentially only having two eyes and eyebrows. Those who thought ‘prosody’ also voted for something this clip did not feature.
Clip 3 meant to display surprise/shock. It targets character A that jumps up in the air with the others when character B suddenly enters the scene by jumping into the cart of a train to which the other characters exclaim. As seen above, there is not as much disagreement in this case. Those who voted ‘other’ gave answers like “not excitement” and “not impressed”.

<table>
<thead>
<tr>
<th>Anger</th>
<th>Surprise/shock</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Fear</th>
<th>Disgust</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>7%</td>
<td>95.3%</td>
<td>2.3%</td>
<td>2.3%</td>
<td>2.3%</td>
<td>0%</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

Table 4.12 Question 7: emotion

Again, body language dominates the results, and the dialogue in this clip would be from the other characters, as character A says nothing. Facial expression continues being two eyes, prosody remains absent and the one ‘other’ vote named the “scene”.

<table>
<thead>
<tr>
<th>Dialogue</th>
<th>Body language</th>
<th>Facial expression</th>
<th>Prosody</th>
<th>Score</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>44.2%</td>
<td>95.3%</td>
<td>9.3%</td>
<td>2.3%</td>
<td>7%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Table 4.13 Question 8: indicator

Clip 4 shifted to FFIX, and was meant to express anger. It targeted character A having heated dialogue with the innkeeper, expressing their frustrations over being denied a room despite booking in advance. Character A shakes their hands more than once before storming out. The majority recognised the anger where a significant amount also perceived surprise/shock, as shown. A high amount chose ‘other’ where most answers were variants of “frustration” but also “disbelief” and “disappointment”.

<table>
<thead>
<tr>
<th>Anger</th>
<th>Surprise/shock</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Fear</th>
<th>Disgust</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>93%</td>
<td>34.9%</td>
<td>0%</td>
<td>4.7%</td>
<td>0%</td>
<td>9.3%</td>
<td>16.2%</td>
</tr>
</tbody>
</table>

Table 4.14 Question 9: emotion
Table 4.15 Question 10: indicator

Dialogue and body language had a closer distribution than previously, as the table shows. In addition, no absent features were named, and the ‘other’ motivation was how the others reacted to character A.

Table 4.16 Question 11: emotion

Clip 5 displayed surprise/shock where character A throws his hands up in the air when character B gets stabbed. The same percentage as previous clip successfully identified the emotion, though here it is more split opinions on what else could be detected, as seen above. The ‘other’ answers were either “melodrama” or “disbelief”.

Table 4.17 Question 12: indicator

The table shows a high amount recognising the gesture affect display. The dialogue would in this case be from other characters than the one the video targeted. Votes for a static, and barely visible facial expression and absent prosody occurred again, though no one had anything other to add.

Table 4.18 Question 13: emotion

Clip 6 featured character A lamenting about what occurred in the previous scene. A stops
midway to ask where another character is only to take up where A left off, using extravagant gestures as well as overly expressive written vocalisations of crying. As seen above, the third FFIX clip had the same success rate as the previous ones. Most of the votes not recognising sadness were either anger or ‘other’ where a majority of the responses named the potential of being a display of dishonest emotions.

---

Table 4.19 Question 14: indicator

<table>
<thead>
<tr>
<th>Dialogue</th>
<th>Body language</th>
<th>Facial expression</th>
<th>Prosody</th>
<th>Score</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>88.4%</td>
<td>86%</td>
<td>20.9%</td>
<td>4.7%</td>
<td>27.9%</td>
<td>0%</td>
</tr>
</tbody>
</table>

In this case, there was a slightly higher amount voting for the dialogue than the body language. However, there was a surprisingly high percentage voting for facial expression despite the character’s expression being static.

---

Table 4.20 Question 15: emotion

<table>
<thead>
<tr>
<th>Anger</th>
<th>Surprise/shock</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Fear</th>
<th>Disgust</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>27.9%</td>
<td>95%</td>
<td>2.3%</td>
<td>0%</td>
<td>0%</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

Clip 7 moved on to FFX, being a display of happiness. Target character A laughs, cheers, and claps his hands because character B understood what he said. In this case the distribution is quite focused around the happiness, though a considerable amount also voted for surprise/shock, as seen above. Those who voted ‘other’ gave answers like “relief”, “appreciation”, and “sarcasm”.

---

Table 4.21 Question 16: indicator

<table>
<thead>
<tr>
<th>Dialogue</th>
<th>Body language</th>
<th>Facial expression</th>
<th>Prosody</th>
<th>Score</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>81.4%</td>
<td>88.4%</td>
<td>72.1%</td>
<td>74.4%</td>
<td>18.6%</td>
<td>0%</td>
</tr>
</tbody>
</table>

FFX was the first game that featured rapid signals for facial expression, which is indicated in the steady increase in the motivations being relatively evenly distributed, as shown above.
Clip 8 returned to anger where character A is pushed down by character B. A shows anger in tone as well as facial expression when he declares that it hurt while holding his chest, to which B aims a weapon at A. The results show that it was quite evenly split between anger and surprise/shock. 7% of those who gave other options named “pain” where the others were variations of “upset”.

Table 4.22 Question 17: emotion

<table>
<thead>
<tr>
<th>Anger</th>
<th>Surprise/shock</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Fear</th>
<th>Disgust</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>65.1%</td>
<td>60.5%</td>
<td>0%</td>
<td>0%</td>
<td>2.3%</td>
<td>9.3%</td>
<td>16.2%</td>
</tr>
</tbody>
</table>

Table 4.23 Question 18: indicator

Once again the distribution of opinions were relatively evenly split. Even though dialogue had the majority, it was fairly close between that and prosody, which in this case was higher than body language, in other words, gestures.

Table 4.24 Question 19: emotion

Clip 9 demonstrated surprise/shock where character A gasps, his mouth remaining open as he sees something in the distance. The intended emotion had clear majority with a better result than the previous clip, though a steady amount thought happiness. Those who voted ‘other’ named emotions such as “wonder” or “curiosity”.

Table 4.25 Question 20: indicator

<table>
<thead>
<tr>
<th>Dialogue</th>
<th>Body language</th>
<th>Facial expression</th>
<th>Prosody</th>
<th>Score</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.3%</td>
<td>55.8%</td>
<td>81.4%</td>
<td>55.8%</td>
<td>25.6%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>
Facial expression clearly dominated the votes where there was an equal distribution between body language as well as prosody. There was still a considerable amount of votes for dialogue, as the table displays, in spite of there being none. Additionally, the only body language present was character A straightening up.

<table>
<thead>
<tr>
<th>Anger</th>
<th>Surprise/shock</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Fear</th>
<th>Disgust</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>48.8%</td>
<td>93%</td>
<td>0%</td>
<td>4.7%</td>
<td>37.2%</td>
<td>0%</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

Table 4.26 Question 21: emotion

Clip 10 was taken from FFXV, featuring character A displaying shock as he reacts to character B reading out an event in the newspaper. A gasps and questions whether it is a joke. Here it was a high success rate aside from a majority of nearly 50% voting anger, as seen above. In addition there was a decent amount that identified fear from the clip. As of those who gave an alternative, the answers were “annoyance” and “doubt”.

<table>
<thead>
<tr>
<th>Dialogue</th>
<th>Body language</th>
<th>Facial expression</th>
<th>Prosody</th>
<th>Score</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>86%</td>
<td>30.2%</td>
<td>86%</td>
<td>83.7%</td>
<td>20.9%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 4.27 Question 22: indicator

For this clip there was a shared majority between dialogue and facial expression. A close second was prosody, all these features present in the clip. However, body language still got a considerable amount of votes despite being very subtle.

<table>
<thead>
<tr>
<th>Anger</th>
<th>Surprise/shock</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Fear</th>
<th>Disgust</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>97.7%</td>
<td>27.9%</td>
<td>0%</td>
<td>25.6%</td>
<td>14%</td>
<td>25.6%</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

Table 4.28 Question 23: emotion

Clip 11 displayed anger in a phone call between character A and B where target character A clenches his fist and questions what B just said to deliver what he just heard on the news. As shown above, the success rate was nearly 100%. The distribution between the other emotions were relatively even, and the alternatives were either “confusion”, “wrath” or “betrayed”.

26
Again, there was a relatively close relationship between the verbal and non-verbal with the verbal being the majority. All features were present in this clip, and there were no additions in this case.

<table>
<thead>
<tr>
<th>Anger</th>
<th>Surprise/shock</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Fear</th>
<th>Disgust</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>46.5%</td>
<td>95%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>6.9%</td>
</tr>
</tbody>
</table>

Table 4.30 Question 25: emotion

Clip 12, the final one, showed happiness with character A exclaiming as he sits down to pet a dog while smiling. Here the results were incredibly focused. Though a majority identified happiness, a considerable amount also recognised something else, most commonly surprise/shock. Alternatives provided either named “mixed emotions” or variations of happiness.

<table>
<thead>
<tr>
<th>Dialogue</th>
<th>Body language</th>
<th>Facial expression</th>
<th>Prosody</th>
<th>Score</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>51.2%</td>
<td>76.7%</td>
<td>60.5%</td>
<td>67.4%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 4.31 Question 26: indicator

In this case, dialogue had the least votes with body language in the majority. To finalise the questionnaire, question 27 asked the opinion on which game was best at representing emotion with the results as follows.

<table>
<thead>
<tr>
<th>FFVII</th>
<th>FFIX</th>
<th>FFX</th>
<th>FFXV</th>
<th>Don’t know/Can’t decide</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>7%</td>
<td>18.6%</td>
<td>30.2%</td>
<td>65.1%</td>
<td>7%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Table 4.32 Question 27: opinion on emotional clarity
As seen above, the majority thought FFXV, fewest thought FFVII with an even split between the others. Most motivations named the technological advantages such as better graphics and the benefit of voice acting where those who voted for the retro games tended to pinpoint the expressiveness of the gestures. However, comments occurred that made the auditory prosody out to be a disadvantage:

“[…] For FF10 the voice acting isn’t that good and it makes it a bit challenging to read emotions.”
(Anonymous participant)

“The facial expressions were more detailed than in the previous games, and the voice acting also helped to convey specific emotions. However, in a way these details also made it more difficult to pin down exactly what emotion was expressed […]”
(Anonymous participant)

The last question asked which game the participants were likely to play based on what they had seen in the questionnaire. The results are shown below:

<table>
<thead>
<tr>
<th></th>
<th>FFVII</th>
<th>FFIX</th>
<th>FFX</th>
<th>FFXV</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote</td>
<td>18.6%</td>
<td>23.3%</td>
<td>46.5%</td>
<td>62.8%</td>
<td>13.8%</td>
</tr>
</tbody>
</table>

Table 4.33 Question 29: most likely to play

Though FFXV got approximately the same votes as the previous question the results show that all other games had higher percentage. Most of the ‘other’ alternatives said “none” with one vote on 2.3% for “all”. Again, most motivations referred to graphics, yet those who voted for retro games either attributed it to nostalgia or interest in the storyline.

4.3 Discussion
In order to discuss the results presented in previous sections, the research questions it meant to answer must be recalled.
• In what ways do RPGs utilise verbal and non-verbal signals of communication to express emotions and how do these correlate?

As the data results display, retro RPGs utilise dialogue and written prosodic features as well as gestures to convey emotions. They may also apply facial expressions, as seen with FFIX, though these are restricted to pre-rendered cutscenes. Modern RPGs have the ability to use dialogue in written as well as oral form, prosodic features also written and oral, facial expressions as well as gestures. How frequent and the way they utilise these differs between individual games as well as their eras. However, some patterns can be found regarding correlation, such as the hand gesture adaptor tending to accompany assertives, directives or commissives and posture commonly emphasising assertives in addition to pause commonly following assertives or expressives. Verbal and non-verbal signals frequently complement and emphasise one another, and are often expressed in combination.

• How does retro and modern RPG video game differ in terms of utilising communicative codes and signals?

Both expressive speech acts and gestures became less frequent the newer the games were. Retro RPGs characteristically used highly, if not overtly, expressive verbal and non-verbal signals whereas it became increasingly discrete with the modern. This can be seen in the use of volume or excessive gestures. Though kinesics and volume was consistently most frequent for all four games, all gestures did not follow the exact same patterns relating to speech acts. Despite the hand gesture being the most common throughout the series, the repertoire consisted of individual in addition to shared components, relative for all the non-verbal. These follow some common patterns, though it varied between games such as the use of the pointing or beckoning gesture. The same applied to prosody; the capitalisation of words was used for different purposes, and could be demonstrated in a range of ways with more alternatives for the newer games. The results also showed how pause, for example, could manifest itself in ellipsis or the em-dash depending on the game. Aside from this, the questionnaire showed that gesture was more of a determining factor for identifying emotions in retro games where facial expression and prosody played a bigger role in the modern. Dialogue was consistently an indicator across all games whenever it occurred.
• Are modern video game RPGs superior to retro ones in terms of successfully communicating emotions through verbal and non-verbal signals?

The questionnaire demonstrates strong indications favouring the hypothesis in the sense that the difference between retro and modern RPGs’ communication skills regarding emotions is not as considerable as people would like to believe. The data proves how older games accomplish the purposes with lesser means. Whereas most participants thought FFXV was the clearest, undeniably having the highest results, FFIX was a close second with lesser means. Moreover FFX was the least successful with a drastically lower success rate in the anger display. These results suggest modern games’ superiority should not be taken for granted, especially once taking the advantages of modern RPGs into consideration. This is not to say retro video games are superior to modern ones, as seen in the results of FFVII.

Not to forget is how for some questions in the questionnaire the results showed a split in identified emotions as despite having a high success rate. This could be interpreted as a breakdown in communication, however that disregards the possibility of expressing multiple emotions simultaneously, and is interpreted as such in this essay. The times that can count as failing to convey emotions is considered to be reflected in the success rates of the targeted emotion.

Finally, though a greater number of participants had been ideal for a more extensive study with further examples, the results concluded in this thesis are a good indicator for advanced studies. As this is only representative of the *Final Fantasy* series in the games used, it can be considered a basis for comparing other RPGs, or potentially a study including more games in the series.

5. Conclusion

Regarding communicating emotions, the difference between retro and modern video game RPGs is not as big as people like to believe. Despite technological variations, both eras have high success rates in communicating emotion where the retro ones use lesser means. However, what codes and signals of communication they use and the execution to convey emotion through narrative varies between eras as well as individual games. Despite this there are some common elements and patterns of interconnection found across the series.

Retro games characteristically play on melodrama in order to make up for technological limitations whereas modern ones do not have to rely on being overly expressive. Their
technological advantages enable them to use more communicative features and to express them clearer in terms of graphics. Modern games also depend more on auditory prosody as well as facial expressions where retro uses primarily gestures as well as written prosody.

Though this thesis has limitations, the results may serve as an indicator for further studies of video game communication with a linguistic specialisation. This may include more games in the *Final Fantasy* series on a larger scale, a study comparing this series to other ones in the RPG genre, or to compare the FFVII original with the remake once it has been released.
References

Primary Sources

Secondary Sources

Online Sources
Appendix

Questionnaire
Thank you for taking the questionnaire! This questionnaire features twelve short videos with accompanying questions of mostly multiple-choice answers with some optional free writing. The videos are all under a minute long and taken from four different video games. Since it will have audible features, please make sure you have adjusted your volume so you can hear the videos when you watch. Ensure to read the instructions given to answer the questions. For best quality make certain the settings for the video is on the highest quality of 1080p. Also check so your internet connection is stable for the best results.

Keep in mind that apart from question 1 and 2 all other questions are multiple choice, meaning you can choose more than one of the alternatives. You can also go back and watch the video again by clicking on the button that looks like a circle with an arrow at the end on the video screen.

NOTE: Once you have submitted your answer you CANNOT edit your choices. Up until then it is possible, but after you submit the option will be unavailable.

1. Age*
   - 18 or younger
   - 19–25
   - 26–30
   - 31–35

2. Are you an experienced gamer?*
   1 2 3 4 5
   not very experienced  o o o  o  o  very experienced

Instructions
Please watch the short clip on a few seconds below from the game FINAL FANTASY 7 (VII). Pay close attention of the character in the lower left side of the screen with green shorts and brown sleeveless jacket for the upcoming question.
Clip 1: Final Fantasy VII (7)

3. In the clip you saw, what emotion(s) does the character feel?*
   - Happiness
   - Surprise/Shock
   - Sadness
   - Disgust
   - Anger
   - Fear
   - Other…

4. What indicated this?*
   - Dialogue (word choice, exclamation points)
   - Facial expressions
   - Body language (gestures, movement)
   - Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
   - Score (music, sound effects)

Instructions
Please watch the short clip on a few seconds below from the game FINAL FANTASY 7 (VII). Pay close attention to the character in the bottom left corner with a red suit for the upcoming question.

Clip 2: Final Fantasy VII (7)

5. In the clip you saw, what emotion(s) does the character feel?*
   - Happiness
   - Surprise/Shock
   - Sadness
   - Disgust
   - Anger
   - Fear
6. What indicated this?*
   - Dialogue (word choice, exclamation points)
   - Facial expressions
   - Body language (gestures, movement)
   - Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
   - Score (music, sound effects)

Instructions

Please watch the short clip on a few seconds below from the game FINAL FANTASY 7 (VII). Pay close attention to the character in the far right of the frame with a brown jacket and green shorts for the upcoming question.

Clip 3: Final Fantasy VII (7)

7. In the clip you saw, what emotion(s) does the character feel?*
   - Happiness
   - Surprise/Shock
   - Sadness
   - Disgust
   - Anger
   - Fear
   - Other…

8. What indicated this?*
   - Dialogue (word choice, exclamation points)
   - Facial expressions
   - Body language (gestures, movement)
   - Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
   - Score (music, sound effects)

Instructions
Please watch the short clip on a few seconds below from the game FINAL FANTASY 9 (IX). Pay close attention to the character in the centre of the screen with a black hat for the upcoming question.

**Clip 4: Final Fantasy IX (9)**

9. In the clip you saw, what emotion(s) does the character feel?*
   - Happiness
   - Surprise/Shock
   - Sadness
   - Disgust
   - Anger
   - Fear
   - Other…

10. What indicated this?*
    - Dialogue (word choice, exclamation points)
    - Facial expressions
    - Body language (gestures, movement)
    - Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
    - Score (music, sound effects)

**Instructions**

Please watch the short clip on a few seconds below from the game FINAL FANTASY 9 (IX). Pay close attention to the character that appears in the right end of the screen wearing armour.

**Clip 5: Final Fantasy IX (9)**

11. In the clip you saw, what emotion(s) does the character feel?*
    - Happiness
    - Surprise/Shock
    - Sadness
    - Disgust
12. What indicated this?*

- Dialogue (word choice, exclamation points)
- Facial expressions
- Body language (gestures, movement)
- Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
- Score (music, sound effects)

Instructions

Please watch the short clip on a few seconds below from the game FINAL FANTASY 9 (IX). Pay close attention to the character in the centre of the screen for the upcoming question.

Clip 6: Final Fantasy IX (9)

13. In the clip you saw, what emotion(s) does the character feel?*

- Happiness
- Surprise/Shock
- Sadness
- Disgust
- Anger
- Fear
- Other…

14. What indicated this?*

- Dialogue (word choice, exclamation points)
- Facial expressions
- Body language (gestures, movement)
- Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
- Score (music, sound effects)
Instructions

Please watch the short clip on a few seconds below from the game FINAL FANTASY 10 (X). Pay close attention to the character in the centre of the screen with a yellow short-sleeved shirt with an open chest.

Clip 7: Final Fantasy X (10)

15. In the clip you saw, what emotion(s) does the character feel?*
   o Happiness
   o Surprise/Shock
   o Sadness
   o Disgust
   o Anger
   o Fear
   o Other…

16. What indicated this?*
   o Dialogue (word choice, exclamation points)
   o Facial expressions
   o Body language (gestures, movement)
   o Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
   o Score (music, sound effects)

Instructions

Please watch the short clip on a few seconds below from the game FINAL FANTASY 10 (X). Pay close attention to the character in the centre of the screen that speaks for the upcoming question.

Clip 8: Final Fantasy X (10)

17. In the clip you saw, what emotion(s) does the character feel?*
   o Happiness
   o Surprise/Shock
18. What indicated this?*
   - Dialogue (word choice, exclamation points)
   - Facial expressions
   - Body language (gestures, movement)
   - Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
   - Score (music, sound effects)

Instructions
Please watch the short clip on a few seconds below from the game FINAL FANTASY 10 (X). Pay close attention to the blonde character in the centre of the frame for the upcoming question.

Clip 9: Final Fantasy X (10)

19. In the clip you saw, what emotion(s) does the character feel?*
   - Happiness
   - Surprise/Shock
   - Sadness
   - Disgust
   - Anger
   - Fear
   - Other…

20. What indicated this?*
   - Dialogue (word choice, exclamation points)
   - Facial expressions
   - Body language (gestures, movement)
o Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
o Score (music, sound effects)

Instructions
Please watch the short clip on a few seconds below from the game FINAL FANTASY 15 (XV). Pay close attention to the character with dark hair that appears after the first line in the centre of the screen.

Clip 10: Final Fantasy XV (15)

21. In the clip you saw, what emotion(s) does the character feel?*
o Happiness
o Surprise/Shock
o Sadness
o Disgust
o Anger
o Fear
o Other…

22. What indicated this?*
o Dialogue (word choice, exclamation points)
o Facial expressions
o Body language (gestures, movement)
o Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
o Score (music, sound effects)

Instructions
Please watch the short clip on a few seconds below from the game FINAL FANTASY 15 (XV). Pay close attention to the character on screen speaking on the phone for the upcoming question.

Clip 11: Final Fantasy XV (15)
23. In the clip you saw, what emotion(s) does the character feel?*
   - Happiness
   - Surprise/Shock
   - Sadness
   - Disgust
   - Anger
   - Fear
   - Other…

24. What indicated this?*
   - Dialogue (word choice, exclamation points)
   - Facial expressions
   - Body language (gestures, movement)
   - Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
   - Score (music, sound effects)

Instructions
Please watch the short clip on a few seconds below from the game FINAL FANTASY 15 (XV). Pay close attention to the character petting the dog for the upcoming question.

Clip 12: Final Fantasy XV (15)

25. In the clip you saw, what emotion(s) does the character feel?*
   - Happiness
   - Surprise/Shock
   - Sadness
   - Disgust
   - Anger
   - Fear
   - Other…

26. What indicated this?*
o Dialogue (word choice, exclamation points)
  o Facial expressions
  o Body language (gestures, movement)
  o Prosody (the sounds of the voice; audible intonation, audible tone of voice, pitch)
  o Score (music, sound effects)

27. Which one(s) of the presented video games did you think was clearest in expressing emotions?*
   o Final Fantasy VII (7)
   o Final Fantasy IX (9)
   o Final Fantasy X (10)
   o Final Fantasy XV (15)
   o Don’t know/Can’t decide
   o Other…

28. What is your motivation for your choice(s)?

29. Judging from the clips you saw, which one(s) of the presented games would you be likely to play?*
   o Final Fantasy VII (7)
   o Final Fantasy IX (9)
   o Final Fantasy X (10)
   o Final Fantasy XV (15)
   o Other…

30. What is your motivation for your choice(s)?

This was the last one. Don't forget to click the submit button once you're ready and thank you for your time!

This survey was constructed by me (Rayne Kaa Hedberg) for my bachelor's thesis on English linguistics. The videos featured in this questionnaire are recorded from personal gameplay
and feature games in the Final Fantasy series. I do not own the rights for the content of the videos; they belong to the creators and the company of SQUARE ENIX co ltd. All rights are retained by the rightful owners. The videos in this questionnaire are not used for any commercial gain but solely for research purposes.

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