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A content-based classification of
Horror Movie Scenes using Fear Stages.

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キーワード

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In the film art form and film industry scene classification can be a powerful tool to compare and recreate works. “Genres” are a standardized classification of films by their general qualities that help when broadly analysing and classifying films, but lacks when trying to specifically analyse and compare films of the same genre. There is a need to create a standardized system that focuses on a smaller unit, “scenes”, rather than in film as a whole in order to objectively compare films of the same genre.

In this paper we have focused our research on analysing the Genre of Horror. Firstly we conducted a research on emotions, how they are measured and researches that deal in film classification by emotions. We briefly discuss our findings related to the horror genre and the emotion of Fear. We also discuss how, in the Genre of Horror, specific audiovisual cues allows us to group scenes by their audiovisual qualities and how, by comparing their usage in different films, they can be used to spot similarities throughout the films.

We propose a “scene-by-scene”, basic and objective system capable of identifying this cues and classify scenes in “Stages”. This system is based on narrative concepts found in Horror literature and previous researches dealing with Fear identification and classification in media.

We will use this system to analyze a group of Horror films, trying to determine similarities and differences in their usages of “Stages” in time. Lastly we will conduct an user group experiment utilizing films and physiological responses tests in order to determine how uses of stages have affect human emotion.

We will test this system against film analysis for a selection horror films, determining how they vary in usage in time and then revise our system by comparing results against user physiological response tests. .

目次

第 1 章	Introduction	1
第 2 章	Analysis of Fear	3
2.1	Psychology of Fear	3
2.2	Physiology of Fear	4
2.3	Fear in Films	5
2.4	Measuring Fear in films	5
第 3 章	Stages of Fear	7
3.1	Stages of Fear in narrative and filming	7
3.2	Stages in researches and projects	9
3.3	Creating a system for scene classification.	10
3.4	Definition of Stages	11
3.4.1	Terror Stage	11
3.4.2	Horror Stage	13
3.4.3	Repulsion Stage	14
3.4.4	Recovery Stage	16
3.4.5	Background Stage	17
第 4 章	Scene-by-Scene analysis of Horror films	18
4.1	Analysis System	18
4.2	Content Analysis Results	19
4.2.1	Comparison by percentage of stages in each film.	19
4.2.2	Comparison by stage usage in time for each film.	22
第 5 章	Heart Rate User Study	28
5.1	Heart Rate User Study System	28
5.2	Heart Rate User Study Results	29
5.2.1	Normalization	29
5.2.2	Normalized graphs for each film.	30
5.2.2.1	Graph Analysis: "Dawn of the Dead"	31
5.2.2.2	Graph Analysis: "Scream"	36
5.2.2.3	Graph Analysis: "The Exorcist"	41
5.2.2.4	Graph Analysis: "Jaws 4: The Revenge"	46

第 6 章 Conclusion	49
Special Thanks	51
参考文献	52
付録 A 章 Appendix	56

目 次

4.3	Total RAW percentage of Stage in each film.	20
4.4	Total percentage of Stage in each film without BACKGROUND stage.. . . .	21
4.5	Usage of Stages in time axis. Normalized results.	23
4.6	Usage of Stages in time axis. Time scaled results.	24
4.1	Spreadsheet data for the film: "Halloween". First page.	26
4.2	Spreadsheet data for the film: "Halloween". Second page.	27
5.1	Normalized stage graph for"Dawn of the Dead". Stages colored.	32
5.2	Normalized stage graph for "Scream". Stages colored.	37
5.3	Normalized stage graph of "The Exorcist". Stages colored.	42
5.4	Normalized stage graph of "Jaws 4". Stages colored.	47
A.1	Appendix 1: Spreadsheet data for the film: "Halloween".(1/2)	57
A.2	Appendix 1: Spreadsheet data for the film: "Halloween".(2/2)	58
A.3	Appendix 2: Spreadsheet data for the film: "Scream".(1/5)	59
A.4	Appendix 2: Spreadsheet data for the film: "Scream".(2/5)	60
A.5	Appendix 2: Spreadsheet data for the film: "Scream".(3/5)	61
A.6	Appendix 2: Spreadsheet data for the film: "Scream".(4/5)	62
A.7	Appendix 2: Spreadsheet data for the film: "Scream".(4/5)	63
A.8	Appendix 3: Spreadsheet data for the film: "Alien".(1/2)	64
A.9	Appendix 3: Spreadsheet data for the film: "Alien".(2/2)	65
A.10	Appendix 4: Spreadsheet data for the film: "A Nightmare on Elm Street".(1/3)	66
A.11	Appendix 4: Spreadsheet data for the film: "A Nightmare on Elm Street".(2/3)	67
A.12	Appendix 4: Spreadsheet data for the film: "A Nightmare on Elm Street".(3/3)	68
A.13	Appendix 5: Spreadsheet data for the film: "Psycho".(1/1)	69
A.14	Appendix 6: Spreadsheet data for the film: "Paranormal Activity".(1/2)	70
A.15	Appendix 6: Spreadsheet data for the film: "Paranormal Activity".(2/2)	71
A.16	Appendix 7: Spreadsheet data for the film: "Jaws 4: The Revenge".(1/2)	72
A.17	Appendix 7: Spreadsheet data for the film: "Jaws 4: The Revenge".(2/2)	73
A.18	Appendix 8: Spreadsheet data for the film: "The Exorcist".(1/3)	74
A.19	Appendix 8: Spreadsheet data for the film: "The Exorcist".(2/3)	75
A.20	Appendix 8: Spreadsheet data for the film: "The Exorcist".(3/3)	76
A.21	Appendix 9: Spreadsheet data for the film: "Dawn of the Dead".(1/3)	77
A.22	Appendix 9: Spreadsheet data for the film: "Dawn of the Dead".(2/3)	78

第 1 章

Introduction

Films as referred to motion pictures are produced by recording images of the world with cameras or by the creation of images using animation techniques. They can be part of the film art form and are considered cultural artifacts created by specific cultures, which reflect those cultures, and, in turn affect them. Films are considered to be an important art form, entertainment and a method for education [1]. Classification of films for similar qualities and evoked emotions have been standardized in what is called Film Genres [2]. Film Genres are of wide common knowledge and usage since they help give viewers a general idea of the type of film described; and filmmakers categorize their work by similarities. The understanding of film genres is appealing for both filmmakers and critics that try to improve their work using the analysis of existing films. [3]

Inside the genres of films exist the genre of Horror films. Horror films are categorized for their relation to fear, dread, surprise, panic, anxiety and alarm on viewers[4] [5]. This emotions have been found to initially cause distress among viewers, but ultimately they are believed to result in intense positive affective reactions[6]. Also, when discussing suspense, it has been proposed that gratification comes when a film impresses that the subject is very likely to experience suffering and when the film ultimately shows the protagonist escaping from danger[7]. It is perhaps this increase in arousal, from both the initial fear and the final escape, that makes viewing of films that evoke fear on the viewer desirable. It is also believed that interest is related to arousal, which has been found to be a better predictor of memory retention than valence, namely reactions of pleasure or displeasure[8]. This all add up to the reasons for viewer 's interest and importance of the Horror genre in filming.

In order to evoke desirable levels of fear, and consequential arousal, Horror film-makers have a tendency to stick to specific sets of narrative and audiovisual tools. This tools, or “ cues ” , are often emotion and scene-specific, resulting in strong differences

in the composition of each scene inside a horror film or work of literature[9] [10]. In fact this cues become so regularly used that the audience tends to become too trained to interpret low-level (background) symbols a certain way[11] [12]. A similarity is found when authors try to classify fear by this differences and there is a tendency to separate them in two groups; namely Terror (suspense, anxiety, anticipation) and Horror (startle, realization, danger) [9][13][14][10]. We will explore this concepts in deep in the chapter Stages of Fear (3).

Even though a standardized system to classify films as a whole by content exists, we are unaware of a research project that deals with content-based classification of Horror film scenes by comparison of Fear Stages.

The following sections will review the physio-psychological qualities of fear and its presence on filmmaking. Subsequently we propose a system of fear classification divided by “stages” and how it can be used to detect differences in scenes inside a horror film. This will be supported by a background research on similar projects found on the same section. Using this system we made a scene by scene analysis of a set of horror films. Lastly we conducted a test using Heart Rate monitors to identify physiological differences in relation to the proposed Stages of Fear.

第 2 章

Analysis of Fear

“There is a class of qualities which is inherently linked to the motor system ... it is because of this inherent link to the motor system that this class of qualities can be communicated. This class of qualities is referred to commonly as emotions. In each mode, the emotional character is expressed by a specific subtle modulation of the motor action involved which corresponds precisely to the demands of the sentic state.” - Manfred Clynes[15]

Emotions are part of our physical communication, the motor system acting as a carrier for communicating our sentic state. [15] This is why the understanding of the relation between physical motor communications and sentic state is crucial in the categorization of emotions. Plutchik[16] uses physiological outputs to understand motor system reactions and distinguished among eight basic emotions: fear, anger, sorrow, joy, disgust, acceptance, anticipation and surprise. Defining the qualities in physical reactions for each one.

In this section we will use this concept as a base to review the emotion of fear, its psychological and physiological qualities, as well as its appliance and measurement in horror films.

2.1 Psychology of Fear

In general fear is experienced when humans are threatened by something perceived to be more powerful than they are[17]. Some researchers claim that fear is an evolutionary necessity which can help notify a person whether they should proceed in their current direction, or find another course in order to increase likelihood of survival[18]. Freud explains it as an subconscious effort to avoid disturbing experiences; generating

aversive behavioural responses to stimuli perceived as threatening to an individual's physical and/or psychological well-being.[19].

Assuming fear is an evolutionary necessity it could be assumed that fear's base qualities and measuring should have similar results throughout the majority of human beings. On the topic of fear and horror films, John Carpenter states that as a human race, people are all afraid of the same things: death, disfigurement, pain, loss of loved ones, etc.[20].

In trying to answer why fear induced films are appealing to audiences, it has been found that fear while being an emotion of negative valence in most cases, it is characterized by high arousal[10], which in turn has been found to be a better predictor of memory retention and related to Interest.[10]. This quality of arousal is essentially what "hooks us up" to a movie or scene, even when it clearly evokes negative emotions.

2.2 Physiology of Fear

Emotional processing, in general, consists of the subcortical system and cognitive appraisal.[21]. This connects to the autonomic nervous system(ANS), which in turn commands several physiological responses such as heart rate, respiration, pupil dilation and blood flow[22]. Because of this connection to the sentic state, physiological measuring is often used to predict emotional state on human beings[23]. They have also been used as indicators of mental effort and stress.[24]. This qualities make them valuable assets when trying to understand how much films affect viewers.

Fear, being an emotion, follows the above discussed qualities. Fear stimuli in specific is related to electrophysiological correlates, the amygdala, and other forebrain areas[20]. Fear is also characterized by the release of adrenaline and cortisol which increase blood pressure and the metabolic rate needed to react appropriately to survive. Cortisol is the primary glucocorticoid of the hypothalamic-pituitary-adrenal axis and is implemented in the fear process.[25].

When measuring Fear in general we find that the physiological inputs used to predict and dictate levels of fear reaction include face temperature, blood pressure (including heart rate and heart rate variability), galvanic skin conductance, muscle potential and respiration rate[26][27][28]. We assume then that any or all of this physiological inputs are regular and generalized enough to be used in the further understanding of fear stimuli.

We also find fear reactions vary depending on the type of threat [10] and measure in accordance becomes necessary. "A climate of fear" [10] explores the concept that fear process starts with threat assessment and that depending of the type of threat (terror or

horror) the resulting motor system responses change into either temporal anticipation for terror or immediate defensive action for horror. This sets the stage for two different types of fear, one that is indirect and towards the environment, and another that is a response to an ongoing or unavoidable threat.

2.3 Fear in Films

“A film is simply a series of emotions strung together with a plot... though flippant, this thought is not far from the truth. It is the filmmaker:s job to create moods in such a realistic manner that the audience will experience those same emotions enacted on the screen, and thus feel part of the experience.” - Ian Maitland.

Studies confirm that films are a viable way of inducing emotion in viewers, thus “hooking them” to the plot[29]. This concepts connect the dots between the experiments with the physiology of emotional stimuli and film making. Any advance in the understanding of emotions can be quickly translated as a tool for film making, for film making is basicly the expression of emotions with narrative using a visual output of image frames that change in a timeline, with the exception of educational and documentary filming whose goal is to communicate information.

Just as Carpenter globalizes fear emotion, Dr. Arijon explains that “all the rules of film grammar have been on the screen for a long time. They are used by filmmakers as far apart geographically and in style as Kurosawa in Japan, Berman in Sweden, Fellini in Italy and Ray in India. For them, and countless others this common set of rules is used to solve specific problems presented by the visual narration of a story” [30].

From this we conclude that the understanding of filming is deeply related to the understanding of emotions and thus the understanding of the fear stimuli is arguably appealing to horror filmmakers. As well that any such understanding could be applicable to a world-wide population with similar results to a certain degree.

On the other hand, anyone studying fear films should be aware of its varying effects on individuals depending on their level of affect to particular objects, settings or events that are depicted[31]. They should also be aware that levels of fright response vary depending on gender[31][7].

2.4 Measuring Fear in films

In this section we will review a number of researches that deal with threat assessment and response to fear stimuli in films specifically in order to establish ground rules for our own analysis system.

A research on responds to photographic material was able to confirm that phobic pictures elicit stronger reactions than neutral stimuli [32]. It can be assumed then that strong reaction towards pictures and, by relationship, films that a viewer experiences could be interpreted as the viewer making a mental relationship with the picture and his own fears.

In addition, it has been found that fear or threat films can produce consistent sympathetic responses of cardiac acceleration, decreased TWA and increased SCL. In contrast, repulsive films involving surgery and blood however can increase TWA and SCL raises even higher than in the “ threat ” films [33].

Trying to analyze the best range of age for a study group we found that studies in scary movies show that college students represent an important subject population to investigate because many of them attend scary movies frequently and are often a target audience of film producers[31]. Also, it has been proposed that teenagers like horror for the idea of violence and destruction [7]. In similarity, it has been found that the motivation for viewing horror films in adolescents can be understood in four points:gore watching, thrill watching, independent watching and problem watching[34].

It has been also found that strong reactions and memory imprint can occur at a much more early age. Cantor (2004) found people having present continuous effects based on the films they watched as kids. He also tested groups of children and found that 76% responded saying that they had experienced fear due to a form of media[35].

In films systolic blood pressure (SBP) and heart rate (HR) are often consider reliable physiological reactions for measuring range of emotions related to anxiety and fear. SBP and HR has been found to increase in reaction to violent filming [36] fear, anger, sex[20], horror film [37], stimulated phobia [20] and fear-inducing TV programs [38]. Other physiological reactions tested against similar films included diastolic blood pressure, electromyography, skin conductance response and skin conductance level. [20]

第 3 章

Stages of Fear

“Stages of Fear” can be defined as a system that analysis scenes found in horror films and tries to categorize this scenes by the range of emotions felt by viewers in “stages”. This system includes rules to identify and compare the usage of “stages” in different films. This system has been created with the idea that it could become a reliable, objective and specific tool for critics and filmmakers, allowing them to compare different films by their “stage” qualities.

In this chapter we wish to explain the concept of “Stages of Fear”, first by reviewing researches and concepts that are directly related to this and secondly by defining the system in depth.

3.1 Stages of Fear in narrative and filming

In *Danse Macabre* [9] Stephen King gives us three ways, namely terror, horror and repulsion, to utilize as narrative tools in order to affect an audience. Our analysis of Kings definitions is that terror is categorized by the lack of an clear object of fear, understood also as suspense, and as a general sense of dread in the ambient. Horror is categorized as having a clear object in which dread is focused and as having an imminent quality. Repulsion is almost self-explanatory by its name. It is a feeling of disgust, absolute negative valence, towards gore, the realistic depiction of serious physical injuries. It includes the fear of the freakish qualities of an strange, immoral or unreal event.

Repulsion is perhaps the most detached of the three to the qualities of Fear, and its why King considers it the less-noble, less effective of the three. Plutchik categorizes Fear and Disgust as two different emotions, by which we could conclude that it (repulsion) belongs to a quite different spectrum of qualities in comparison to Terror and Horror.

Similarities to these concepts can be found applied to narrative in “The psychology of suspense in dramatic exposition” [13] where Zillmann identifies fear as a major component of suspense and its relation to anticipation of negative plot resolutions. This could be understood as Terror as explained by King. In “When good things go bad” [14] the concept of abruptness being the key to horror sets the time border between the stages of terror and horror as one abrupt occurrence. Also Varma [39] distinguishes terror as an awful apprehension and horror as sickening realization, in accordance to the classification given to us by King.

Philip Van Doren Stern proposes a similar classification when defining Horror as similar yet not identical to Fear. He defines Horror as of long duration and necessarily climactic quality in effect. He claims that nothing substantial can be truly horrible, and that horror can only be found within ourselves, rooted in our imagination. We could conclude that the qualities of Van Doren Stern’s Horror are similar to those of King’s Terror in that which both are essentially dragged out suspense which lack of substantiality or a direct object of fear [40].

In a “A climate of fear” we find a summarization that is deeply related to these concepts. They claim that “Horror is a revelatory event, incurring deep upset manifest as over human behavior, and terror as the anticipatory trepidation. Terror is evasive, action-oriented and situational whilst horror encourages fixation and object-focused. The core element of Horror (surprise, shock) is startle, categorized by abruptness and instantaneousness. Terror (anxiety, suspense) by comparison is not limited to intensity, but rather related to a long-term state of distress incited by more general, implicit cues.” [10]

We will try to simplify and summarize the definitions reviewed in this subsection and classify them in three. We use this as a base to define the “Stages of Fear” in the subsection Definition of Stages (cite) and explain how they apply to our system. For their opposing names, yet similar definition, in some cases We have analyzed and grouped them more in spirit than in name.

- Terror: Suspense, anxiety. Evasive or unfocused. Cued by ambient or unsubstantial situations, results in anticipation, apprehension and general dread. Characteristically of long duration. In narrative is often climatic.
- Horror: Surprise, shock, climax. Focused on an object of fear. Cued by startle, sickening realisation. Characterized by revelation, imminency, intensity and fixation.
- Repulsion: Gore, shock. Focused on an object of disgust. Forced upon. Cued by the presence of serious physical injuries, abnormal qualities or hyper-immoral events. Results in negative valence. Is the fear for the strange and its level effec-

tiveness is unrelated to duration.

3.2 Stages in researches and projects

There has been researches that classify trailers automatically using audio visual qualities and running them to audiovisual analysis software. They manage to classify film 's trailers in genre determining visual qualities like key lighting and rhythm, and audio qualities like pitch. While their research is successful for classifying trailers and the concept of audiovisual rhythm proved to be a very successful way to determine genre, the system seems to depend a lot on averaged qualities, runs into wall when dealing with conversational cues and is found inadequate to classify specific scenes in a film[30].

In “Neural organization of the defensive behavior system responsible for fear” [41] Michael Fanselow uses Timberlake 's summary of rats and their three stages of defensive behavior resulting from fear stimuli to improve understanding of fear on humans. The stages are respectively:

- Pre-encounter: Subject enters area having predatory potential. Behaviors: environment recognition, protection, maintenance.
- Post-encounter: Subject detects predator presence in environment. Physiological: amygdala, ventral periaqueductal gray. Behavior: freezing, analgesia, anxiety.
- Circa-Strike: Subject contact with predator is occurring or inevitable. Physiological: dorsolateral periaqueductal gray, superior colliculus. Behavior: defensive fighting, escape, threat displays.

Garner and Grimshaw utilise this stage summary to create a virtual acoustic ecology of fear [10]for a gaming platform, relating them to Caution, Terror and Horror respectively for their similarities in concept. This research in particular gave us a base to create our audiovisual analysis system, we use concepts found in this acoustic ecology in gaming and try to apply them in a audiovisual classification system for films. Also on the same research a graph is shown for the differences in what is safe, caution, terror and horror.

On Affective Computing [8] the possible positive effects of improving computer 's ability to understand emotions is discussed. It sets the base for the next step in emotional stimuli research, proposing that we use our understanding on emotions in order to create AI capable of understanding us. They also explain how interest is related to arousal(excited/calm), one of the key dimensions of affect and that it has been found to be a better predictor of memory retention than valence (pleasure/displeasure).

This concepts also work as a base for our own system and helps make a distinction between high arousal terror/anxiety and low valence repulsion/gor. We consider that understanding how arousal/valence affects physiological inputs can help determine when users experience different emotions.

Another research that deals with valence/arousal is “ Affective ranking of movie scenes using physiological signals and content analysis ” [42] in which they rank movie scenes in genre according to physiological inputs in accordance to valence (positive/negative emotion) and arousal (stress/relax) and video analysis. We wish to utilize his findings for the Horror genre, specially they categorization of horror in the gamma of “ high arousal and variable valence.” They also have a vast definition on the virtual characteristics of different genres of film. Their discussion includes loudness of speech and how is related to evoked arousal, lighting key and color variance as important parameters to evoke emotions and how video rhythm and shadows relate to affect. This are all qualities that they manage to analyze digitally, and hence objectively, so we which to use them to base our rule set of cues to categorize differences in anxiety, startle, repulsion and neutrality towards film movies.

3.3 Creating a system for scene classification.

In the following subsections we will define each of the stages proposed as a system to classify scenes. Each stage contains specific audiovisual cues that should allow users to clearly identify them in a horror film ’ s scene.For further clarity, each cue are also thoughtfully.

In order to built this system we first created a set of sketch stages from the definitions found in the background researches we reviewed in subsections Stages in narrative and filming 3.1and Stages in research projects3.2. We then used this sketch stages to analyse a selection from “KingStefu ’ s “Scariest Movies Of All Time!” found in IMDb ’ website [43]. This list has many references in common with other lists found online[44][45]. Lastly we progressively used feedback from this analysis and common sense to fine-tune the definitions further.

The final outcome of this analysis resulted in 5 stages that represent the core of oursystem. They are namely: TERROR, HORROR, REPULSION, RECOVERY and BACKGROUND. We will define them in deep in the following subsection.

The first three (TERROR, HORROR and REPULSION) are directly based on the concepts reviewed in past subsections(3.1 and 3.2). The last two stages RECOVERY and BACKGROUND were stages that we deemed necessary when analysing movies for the lack of cues to identify them in the other two stages and very specific characteristics. To quickly explain the differences:

- RECOVERY is similar to the concept of “safe stage” found in A climate of Fear. [10]. It is basically an abrupt change in situation that lets understand the subject that it is no longer in danger.
- BACKGROUND stage are stages that lack fear in audiovisual cues and are used to pull forward the narrative in a movie.

As a general rule, all stages start from the moment audiovisual changes which can be specifically related a single stage ’ s cues take place inside a scene. Not all cues are found in every stage, and some cues might overlap. As a rule of thumb any differentiation of stages should indicate at least two individual non overlapped cues belonging to the stage, preferably one (or more) visual and one (or more) acoustic. Furthermore this cues should be in surplus to cues belonging to other stages in order to classify a given scene.

Example of this rules in action: When analysing the movie The Exorcist there was a scene with a small amount of cues for the Terror Stage (danger zone), also certain amount of visual cues belonging to the Repulsion Stage (turning faces, puke, swearing), finally we also found even more cues belonging to the Horror stage (danger zone, screams, struggle, fast rhythm, startle, contact). The visual “danger zone” cue overlaps for both Horror and Terror, but a fair amount of non overlapped of both audio and visual cues was found for the “Horror Stage”. Furthermore, there was more cues for “Horror Stage” than the “Repulsion Stage” which resulted in the final classification of the scene as belonging to the “Horror Stage”.

Lastly we will like to clarify that stages and cues are focused on the effect in the viewer, rather than the characters inside the film. Meaning that as soon as the viewer is aware of a cue inside the scene it becomes a viable cue to classify said scene even if the characters inside the film seems unaware of the danger. This doesn ’ t works reversely, since when viewers notice that characters inside the movie show signs that they have noticed danger (facial expressions, voice variations) this automatically becomes a cue, even if the danger is not directly shown to the viewers.

3.4 Definition of Stages

3.4.1 Terror Stage

Terror stage is what we call suspense in literature and filming. The main emotion that is evoked in the viewer is anxiety and anticipation. Often this emotions are also found in the characters inside the film and work as cues to identify it. The state of the viewer throughout Terror Stage should be evasive, of high anticipation and of hyper-awareness towards the environment.

Terror stage is characterized by the fact that the fear is not focused on any object in specific but rather is a general dread and apprehension towards the ambient or situation. It is also characteristically of long duration, often climatic quality and a slow yet rising audiovisual rhythm. Terror stage in most cases, but not necessarily, ends when horror starts as it is often the climax of a rising suspense. All cues from terror stage are characterized by the fact they cause anxiety (fear) by the possibility of danger.

The details are as follows:

Keywords: suspense, anticipation, anxiety, ambient, general dread, apprehension

Visual cues:

- **Obstruction:** Is the lack of clarity due to visual interruptions. This causes a sense of heightened senses and increased anxiety on the subject as the ambient becomes hard to read. (e.g. flickering lights, fog, noise, smoke, water, shadows, dark night).
- **Indirect Presence:** Is the unclear indication of predator presence without directly showing the predator on screen. (e.g. shadow passes by, killer weapon on the floor). Or it is the presence of a predator in screen that has been temporarily removed of any danger potential. (e.g. the killer is tied down in the room)
- **Danger zone:** Is a change in environment, that indicates possible danger to the characters but that doesn't directly hurt them by itself. (e.g. enter dream-mode, girl goes out to the dark patio).
- **Slow Rhythm:** Is an editing technique which uses a long duration for each shot extending the feeling of dread.
- **Prestablished Danger:** Is a cue that individual to the film in question that has made an appearance in the past and proven to result in danger. When this cue reappears in the film the viewer anticipates a negative outcome and his anxiety increases. (e.g. whenever we understand they are dreaming in "Nightmare on Elm Street", whenever they go into back into room with the girl in "The Exorcist", whenever you hear the tune Jeepers Creepers in the movie by the same name).
- **Surreal effects(anxiety):** Unnerving yet not startling visual effects. (e.g. flashes of red, shrinking of visual scope,).

Audio cues:

- **Rising rhythm:** this is characteristic slowly rising music or effects that is meant to rise anxiety in the viewer. (e.g. suspense music).
- **Indirect presence:** As in visual cues, but identifiable by sounds. (e.g steps in cellar, thud sounds from the next room).

- Abnormal effects(anxiety): Unnerving yet not startling surreal sounds. (e.g. white noise, whispers, sound effects). Also the abrupt drop of volume, pitch or frequency in the background music or ambient sounds. The abnormality of this event rises anxiety.
- Conversational(anxiety): Conversation that cues audience of the possibility of danger in the imminent future. (the classic “ lets go check that out ”)

Examples: - She heard steps on the patio outside. “Let ’ s go check it out.” In Elm Street: When nancy walks in the room it starts snowing inside, proving she ’ s actually dreaming. (Environment change) In Paranormal Activity: Clock stops, sound changes abruptly into a subwoofer/low bass/noise sound. (unnerving Sound cue) In Scream: “I would like to know who I am seeing right now.” (sounds/conversation that indicate presence of predator).

3.4.2 Horror Stage

Horror stage is a mixture of the fear experienced in terror pumped up with the suddenness and fast pace of action. The main emotions evoked in the viewer are startle and imminency. Often delivered as a climax point to the Terror stage, the state of the viewer tends to be of self-defense, flight or fight stance and/or shock.

As opposed to the Terror stage, Horror is focused on an specific object which shows imminent, unavoidable or ongoing capability to exert pain on the characters in the movie. Characteristically fast-paced and of short duration, its audiovisual cues are mostly startling, sudden and of high energy.

The details are as follows:

Keywords: abruptness, startle, surprise, shock, imminent danger, focused object of fear,

Visual cues:

- Direct Presence: Is the clear indication of predator presence on screen without any restrain and with full capability. (e.g. killer shows up, alien face close-up, tied up monster breaks loose).
- Startle: A sudden change in the visual outputs of the film meant to generate reflexive shock or alarm on the viewers. This is often done with obstruction (low-brightness lighting or extreme close-ups) to augment the feeling of “ unknown danger ” , thus increasing shock. (e.g. door blasts open, killer face reflected on the mirror, monster jumps forward from the shadows)

- **Contact:** Physical contact between a direct object of fear and a character in the movie meant to evoke a feeling of imminent or ongoing danger on viewers. Included are touch, grabbing, struggle, striking, punching, stabbing, biting, kicking and others.
- **Fast Rhythm:** Is a editing technique which uses a short duration for each shot generating a sensation of excitement and rush.
- **Danger zone:** As Terror Stage, a change in environment, that indicates possible danger to the characters but that doesn't directly hurts them by itself. (e.g. enter dream-mode, girl goes out to the dark patio).

Audio cues:

- **Fast rhythm:** this is characteristic fast paced music or effects that are meant to generate excitement in the viewer. (e.g. action music).
- **Indirect presence:** As in visual cues, but identifiable by sounds. (e.g steps in cellar, thud sounds from the next room).
- **Abnormal effects(anxiety):** Unnerving yet not startling surreal sounds. (e.g. white noise, whispers, sound effects). Also the abrupt drop of volume, pitch or frequency in the background music or ambient sounds. The abnormality of this event rises anxiety.
- **Conversational(anxiety):** Conversation that cues audience of the possibility of danger in the imminent future. (the classic “ lets go check that out ”)

Notes: As all stages Horror stages end on cue when cues for other stages surpasses that of horror but this is problematic for a horror stage that often has terror qualities in it. Assume that a horror stage continues as long visual cues for other stage are overwhelming. This is often in the form of a “ Recovery Stage ” .

Examples: “ Here is johnny ” In Elm Street: Any scene where freddy krueger in shown on screen. In PA: the girl is dragged out of the bed and she starts screaming. In Scream: chair shoots through the window.

3.4.3 Repulsion Stage

Repulsion is repugnance or aversions to abnormal acts or objects regardless of rhythm and unrelated to fear. The main emotions evoked in the viewer are disgust and detachment. Often used to slow the rhythm of a movie while still causing emotional shock on viewers.

Repulsion is different to Horror and Terror as it can be focused both on an specific object, towards the ambient and also towards a situation. With an undefined pace, its audiovisual cues are mostly gruesome, aversive and disruptive.

The details are as follows:

Keywords: gore, disgust, entrails, physical pain

Visual cues:

- Repulsion(Physical): Includes disgust towards physical pain(e.g. torture, gutting) or related to physically repulsive acts (putrid, fecal, vomiting). It also relates to abnormal/disturbing states of the physical body (e.g. deformity) or derivatives (e.g. vomit, blood, sweat, fat, gas, mucus). Or related to repulsion toward possible contamination (e.g. dirtiness, disease).
- Repulsion(Social): Includes socially unacceptable behavior ranging in monstrosity or absurdity (unnatural movements, rape, insanity, extreme disregard of manners, moral or laws).
- Repulsion(Psychological): Comes to mind when a character is in a psychologically stressful situation to which we find aversive. Often forced upon by an object of repulsion or fear. (e.g. being trapped in the dark, forced to walk naked, forced to eat feces, trapped in a fire)
- Rhythm(slow/fast): The repulsion has no specific rhythm but tends to slow rhythm.

Audio cues:

- Repulsion(Physical): same as visual cue but expressed by sounds (sounds of pain/gutting, sounds of vomiting, etc)
- Repulsion(Social): same as visual cue but expressed by sounds. (e.g. conversations of preference for extreme anarchy, disregard for morals or disregard for human life.)
- Repulsion(Psychological): same as visual but expressed by sounds (e.g. screaming about being trapped, forced to do unwanted acts)
- Rhythm(slow/fast): As in visual cue, unspecific but with a tendency to slow rhythm.

Examples: “Any zombie movie ever created!” In Jeepers Creepers: The scene where the cathedral made of corpses is shown. In SAW: Lots of scenes... cutting your own limbs for example. In 300: When ephialtes walks into the persian camp and sees the mutilated/deformed creatures inside.

3.4.4 Recovery Stage

Recovery is a general sense that threat has been dealt with or avoided for the time being. The main emotions evoked in the viewer are certain safety or realization. Often used to slow the rhythm of a movie after big shocks, or to create a false sense of safety before a major shocking event to generate even more reaction in viewers.

Recovery is focused on a situational change and occurs when big portions of the cues of TERROR, HORROR and, on less cases, REPULSION disappear suddenly. Characterized by a sudden drop in either audio or visual rhythm. The difference with BACKGROUND is that the location and/or time frame for previous stages stays the same yet ambient, situational or presence changes make it “safetier”, eliminating the emotion of fear in the scene.

The details are as follows:

Keywords: relaxation, realization, safety,

Visual cues:

- Safety Zone: Happens when characters are located in an location that does not give them any sense of danger (e.g. inside the house, park). Difference with BACKGROUND visual cue is that this cue is rather a sudden change in ambient rather than slow introduction to it. (e.g. morning comes, lights turn on)
- Presence(Others): Presence of character(s) that posses the ability to destroy or avoid a source of fear come into scene, giving a sense of safety to the viewers. (e.g. brother, lover, parent, groups of people). Refers to the feeling of “safety in groups”.
- Rhythm(slow): As the TERROR visual cue, but characterized by its sudden drop rather than steady rise.
- Realization: An event or situation that shines new light on a problem presented. Often in the form of a source of fear being destroyed/avoided or proven to be not dangerous in the end. (e.g. masked men proved to be a relative doing a prank, the monster falls to pieces as it is stabbed, the bomb timer stops)

Audio cues:

- Rhythm(slow): As visual but with tranquil sounds or music that generate a feeling of safety.
- Conversational(Realization): As in Realization cue in visual, but activated by a conversation. (e.g. “it’s just me! don’t shoot!”, “everything is going to be ok now”)

- ambient(safety): As in visual cue Safety Zone, but related to sounds. (e.g. birds singing, sounds of kids playing, sounds of ocean 's waves)

3.4.5 Background Stage

Background is composed by fear/disgust unrelated shots that lack the audiovisual cues of all the other stages. The main emotion is safety, but also includes any emotion not related to fear, disgust or anxiety (happiness, sadness, relaxation ...). This stage is often conversational and are used to push forward the narrative in a film. They tend to either be slow in rhythm or have a subtle rising narrative suspense as the film progresses, but this stage will always lack any indication of indirect or direct danger to the characters.

The details are as follows:

Keywords: background, story, scenery, safety, conversational

Visual cues:

- Pre-established Safety: A location or situation that is specific for the film that has proven to generate safety. (e.g. carrying the amulet that allows monsters to stay away, monsters only come out at night)
- Safety Zone: As in Recovery visual cue, but not necessarily coming out of a sudden change.
- Presence(Others): As in Recovery visual cue.
- Rhythm(slow): As in Terror and Recovery visual cue.

Audio cues:

- Conversational(Safety): As in Safety Zone cue but cued by conversation. Also encompasses any conversation that is “normal” (fear unrelated) and causes a sense of security.
- Ambient(Safety): As in Recovery cue.
- Rhythm(Slow): As in Recovery cue. relaxed conversations (establishment of narrative, lack of stress) unstressed BGM (positive valence(happy) non-suspense music) sounds that indicate safety (morning sounds, etc).

第 4 章

Scene-by-Scene analysis of Horror films

In this chapter we demonstrate how scene-by-scene stage analysis of films proceeded and show the results found in our analysis. This analysis is focused on content by audiovisual characteristics and in similarities of Fear Stages usage for different horror films.

4.1 Analysis System

The movies were selected from the list of films pre-analysed and discussed in the chapter Stages of Fears. 9 films in total were analysed, they were considered for their availability and averaged ranking on the online lists. The complete list is as follows: "Alien" (1979), "Dawn of the Dead" (1978), "Halloween" (1978), "Jaws 4: The Revenge" (1987), "A Nightmare on Elm Street" (1984), "Paranormal Activity" (2007), "Psycho" (1960), "Scream" (1996) and "The Exorcist" (1973).

Two computers were used for the analysis, one for playback of the film and another for data logging. The operator would play, stop, rewind and forward the movie on convenience on the first and log data of found cues on the later.

For the analysis spreadsheets were used store data and an online live formulary was created for each film in order to record every stage in the film's time frame. Each film was analysed scene by scene, found audiovisual cues were logged and the corresponding stage was determined by the type of cues found. Also the scene's start time, end time, a description of the scene and the specific cue or cues that ended the stage were also logged. An example of the spreadsheet types used and an snapshot of the live form can

be found next A.1A.2. The spreadsheets with the stage analysis data for all the films can be found attached to this research paper at the end.

4.2 Content Analysis Results

Using the data found from the scene analysis we created a series of flowcharts to compare the differences in stage proportions for each film. The first series is composed of pie charts that express raw percentage of stages for each film 4.3 4.4. The second series is composed of bar chart that expresses different uses of stages in time (x axis) (4.5, 4.6). For each serie, films are compared first by ranking in the lists discusses in the chapter Stages of Fear, second by their gross box office taken from and and lastly by result similarities. Gross box office are done with total box office gross worldwide and domestic gross standardized by inflation in relationship to ticket [46][47]. Ranking are done by averaging the ranking lists found in [47][43][44][45]. Result similarities refers to comparison of graph and pie data results between each movie. We found that the highest ranking movies "Alien", "The Exorcist" and "Psycho" were also the highest grossing after applying inflation.

4.2.1 Comparison by percentage of stages in each film.

In here we compare results by sheer stage percentage in each film4.3. Also a comparison of stages excluding the BACKGROUND stage is shown4.4. Such comparison was deemed necessary due to this research 's focus on the analysis of films by their audiovisual qualities rather than by their narrative quality.

表 4.1: Title

Title	Release Year	Director
Alien	1979	Ridley Scott
Dawn of the Dead	1978	Zack Snyder
Halloween	1978	John Carpenter
Jaws 4: The Revenge	1987	Joseph Sargentl
A Nightmare on Elm Street	1984	Wes Craven, Sean S. Cunningham:
Paranormal Activity	2007	Oren Peli
Psycho	1960	Alfred Hitchcock
Scream	1996	Wes Craven
The Exorcist	1973	William Friedkin

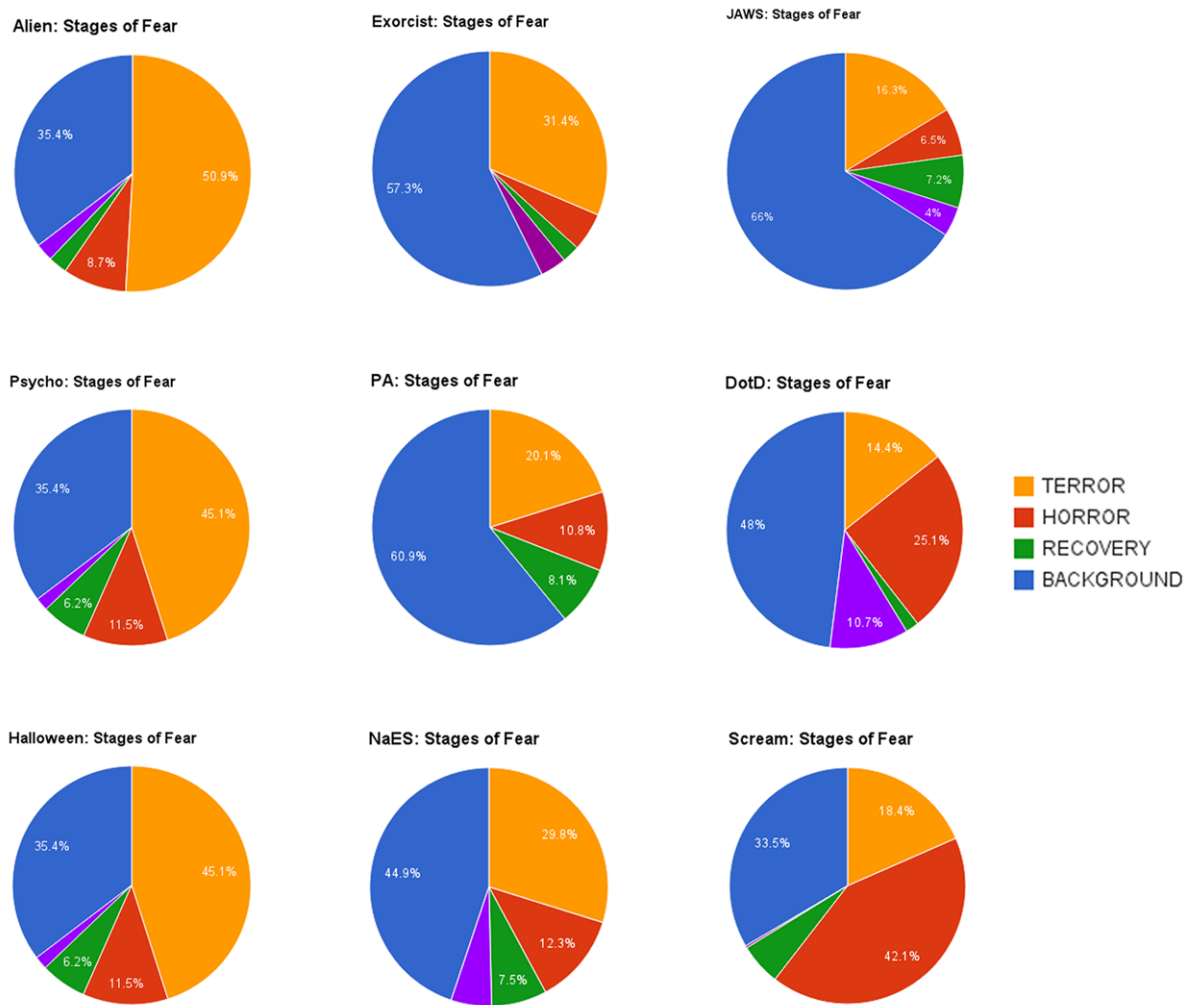


Figure 4.3: Total RAW percentage of Stage in each film.

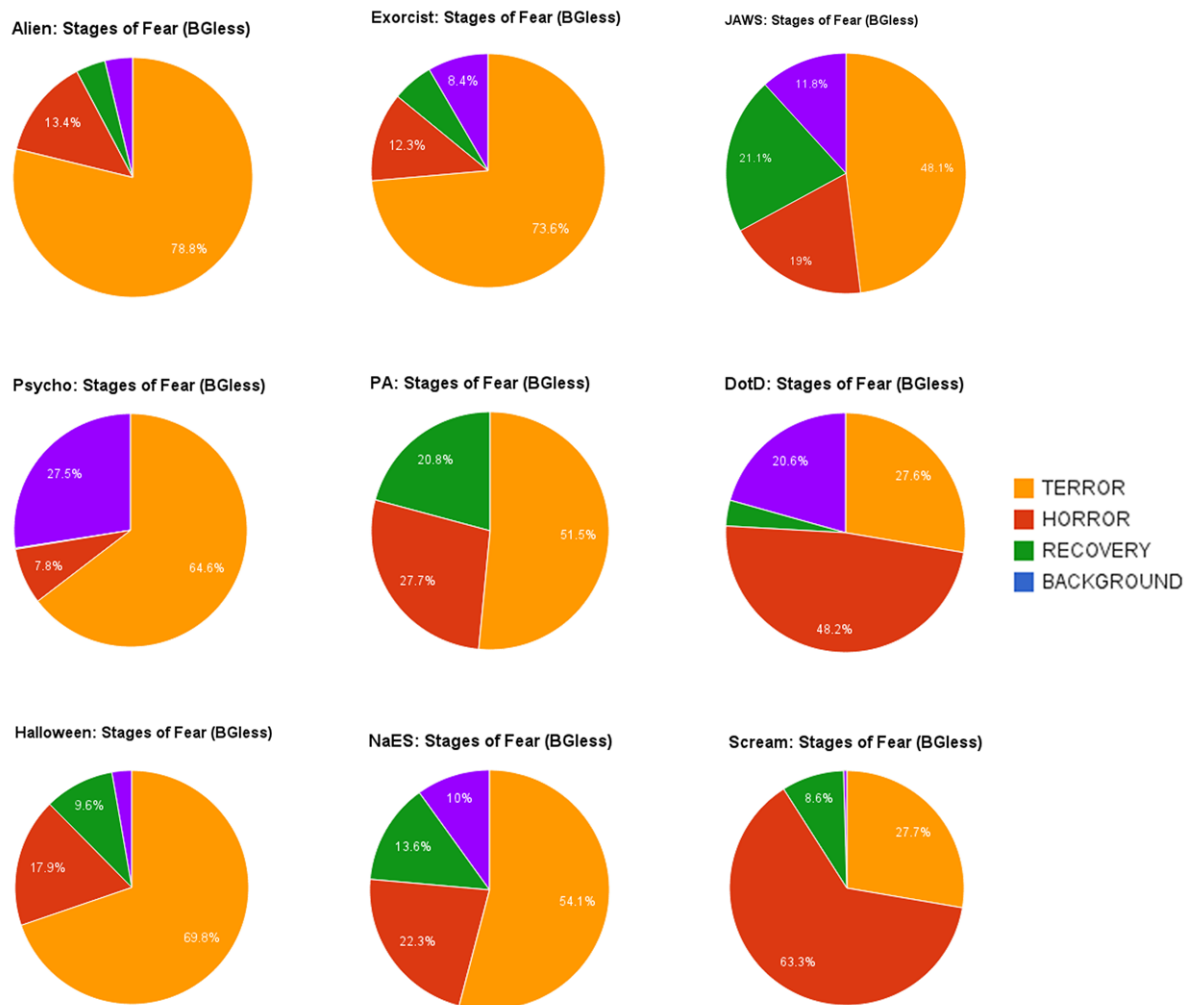


Figure 4.4: Total percentage of Stage in each film without BACKGROUND stage..

When including the BACKGROUND stage, we find that two of the higher ranking and higher grossing films "Alien" and "Psycho" show the highest percentage of TERROR stage, the other high rank film, "The Exorcist", is also high in TERROR stage percentage ranking 4th in comparison to the movies we analyzed. On our analysis of data without BACKGROUND stage we find that the three highest ranking show are the three films with the most TERROR stage by large (more than 10% for the closest, and more than 50% compared to the lowest). This indicate that successful use of TERROR stage (as opposed to HORROR and REPULSION) could be related to the successfulness of a film.

In contrast, films the three films of lower grossing and ranking (A nightmare on Elm 's treet, "Jaws 4" and "Dawn of the Dead") we find a bit less clear results. Rela-

tive high levels of HORROR were found for "Dawn of the Dead"(ranked first) and "A Nightmare on Elm Street" (ranked 3th), but "Jaws 4" ranks very low for HORROR. We also find that the lower grossing movies were also the ones with highest rankings in Repulsion. Without considering the BACKGROUND stage there was a similitude in percentage of TERROR stage (all around 50%), but are removed from the highest ranks in REPULSION by "Psycho".

After analysing both higher and lower ranking and grossing films could be said that the high usage of TERROR is related to success, and high usage of REPULSION and HORROR are related to relative lack of successfulness, nevertheless the research is considered very simplistic and general, for better and more reliable results comparison with even lower ranking films and deeper analysis of the industry is required.

4.2.2 Comparison by stage usage in time for each film.

In here we compare results of the usage of stages in time for each film. We show our results using bars of different color and longitude placed in x-axis that represents times 4.5. Colors are used for the stages each bar represent and longitude for the time duration of each stage. Results are shown first with normalized scales for each film 4.5 and later time scaled for the different durations of each film4.6. The first was used in order to compare all films in a common ground, the second was used to compare differences in stage usage depending on the film duration. High ranking and grossing films were taken from the same standards as the usage of percentage on the subsection before4.2.1.

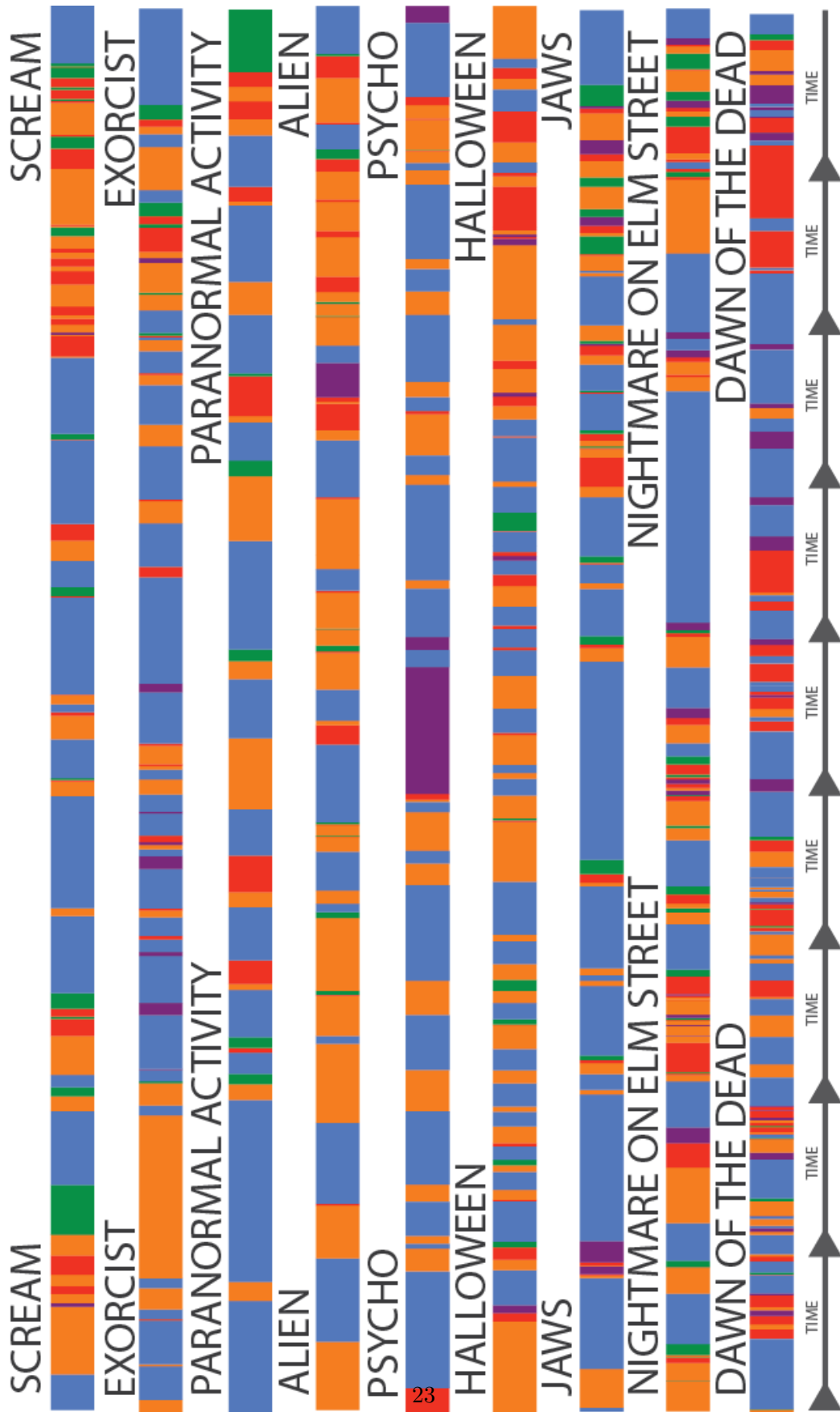


Figure 4.5: Usage of Stages in time axis. Normalized results.

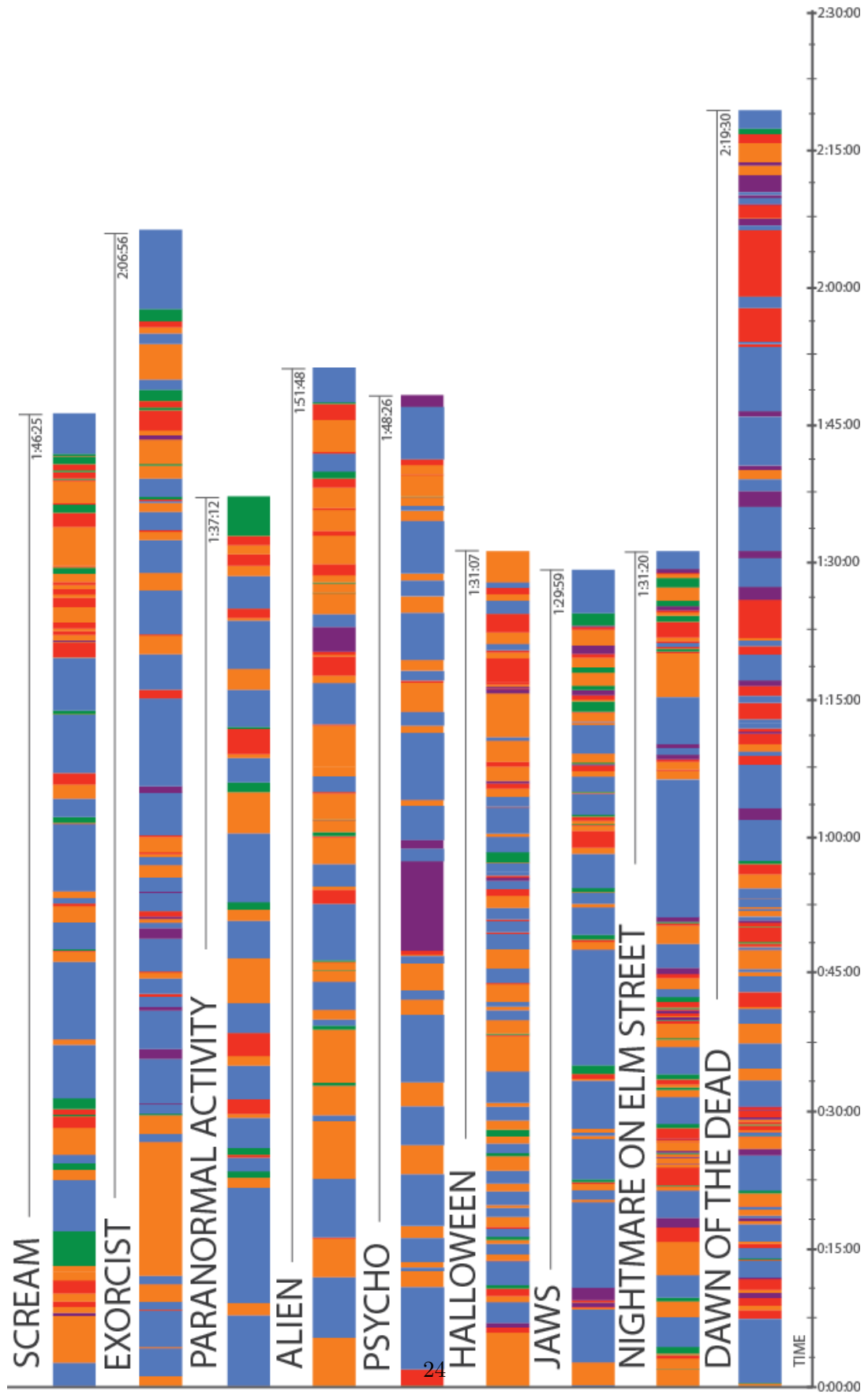


图 4.6: Usage of Stages in time axis. Time scaled results.

For normalized bars (no time relationship) we find that, for the exception of "Dawn of the Dead" and "A Nightmare on Elm Street", the heaviest concentrations of HORROR and the noisiest parts (small stages with fast changes) happen towards the end of the movie. "Dawn of the Dead" and "A Nightmare on Elm Street" are both packed with HORROR from the beginning, "A Nightmare on Elm Street" showing a concentration towards the middle. Apart from "Psycho", all films ended with a relatively long BACKGROUND or RECOVERY scene. "Psycho" does have a long BACKGROUND scene in the end, but jumps into the REPULSION towards the end.

High ranking films "Psycho" and "The Exorcist" seem to have portions of REPULSION close to their middle points and so does low ranking "A Nightmare on Elm Street". "The Exorcist", "Paranormal Activity", "Alien" and "Psycho" are similar in the fact that they have slow rhythm beginnings, with long BACKGROUND and TERROR scenes.

Scream and "A Nightmare on Elm Street" (Slasher movies) and "Dawn of the Dead" (zombie) seem to have quick bursts of HORROR from the beginning. Also there seems to be a similarity in the usage of TERROR for Scream and the "The Exorcist", packing terror and the beginning and ends of the movie, and using BACKGROUND breaks in the middle.

The only strong similarity we can find related to ranking is that lower ranking movies tend to be more noisy (short duration stages spread out in time) and tendency to the use of HORROR from the beginning. Highest and medium rank movies vary in this aspects. All movies share in common concentrations of HORROR and RECOVERY towards the end, and the majority of them end with BACKGROUND. We consider that the subgenre of this movies vary too much for reliable results, and further analysis by sub-genre (e.g. "Slasher", "Supernatural", "Zombie", etc) or a comparison of movies by date of production could yield more interesting similarities between movies.

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:00:00	0:05:57	intro and stuff	TER	Obstruction, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety), Ambient (Anxiety)	michael! attacks
0:05:57	0:06:30	stab stab	HOR	Obstruction, Rhythm (Fast), Presence (Direct), Contact, Startle, Realization, Repulsion (Psychological)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Psychological)	is that you michael
0:06:30	0:07:00	a..kid?	REP	Safety Zone, Rhythm (Slow), Presence (Others), Realization, Repulsion (Psychological)	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety), Conversation (Realization), Repulsion (Psychological)	change to future
0:07:00	0:09:16	driving in the night main gate, wandering crazies	BG	Obstruction, Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Anxiety), Ambient (Safety)	wandering crazies
0:09:16	0:09:57	crazy attack	TER	Obstruction, Danger Zone, Presence (Indirect)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	crazy rides on
0:09:57	0:10:45	are u alrite?	HOR	Obstruction, Danger Zone, Rhythm (Fast), Presence (Indirect), Presence (Direct), Contact, Startle, Realization, Repulsion (Social)	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety), Conversation (Realization), Ambient (Danger)	change to future
0:10:45	0:11:07	intro scene, (anxiety music, but the rest is super BG)	REC	Realization	Rhythm (Rising), Conversation (Safety), Ambient (Safety)	weird dude looking
0:11:07	0:13:44		BG	Safety Zone, Rhythm (Slow)	Rhythm (Rising), Conversation (Safety), Ambient (Safety)	
0:13:44	0:13:49		HOR	Obstruction, Rhythm (Slow), Presence (Direct), Startle	Rhythm (Slow), Conversation (Anxiety), Startle	
0:13:49	0:14:28	i see you..	TER	Obstruction, Pre-established Danger, Presence (Indirect), Presence (Others)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	
0:14:28	0:15:38	classes, doctors fight,	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	i see you from the window
0:15:38	0:16:03	from across the street	TER	Obstruction, Safety Zone, Pre-established Danger, Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Safety), Ambient (Safety)	
0:16:03	0:16:25	fate never changes	REC	Safety Zone, Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:16:25	0:17:17	school,	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	
0:17:17	0:17:30	dont run kid	HOR	Obstruction, Rhythm (Slow), Presence (Direct), Contact, Startle	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	
0:17:30	0:18:34	i see you.. kid? you must be ready for him	TER	Obstruction, Safety Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Safety)	
0:18:34	0:19:32	found the car and dead body	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Anxiety), Ambient (Safety)	rise in bgm
0:19:32	0:19:52	after school	TER	Safety Zone, Rhythm (Slow), Presence (Indirect), Realization, Repulsion (Physical)	Rhythm (Rising)	school stuff
0:19:52	0:21:22	car in driveway	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	weird car
0:21:22	0:22:13	car in driveway	TER	Obstruction, Safety Zone, Pre-established Danger, Presence (Indirect), Realization	Rhythm (Rising), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	car gone, bgm down
0:22:13	0:23:35		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:23:35	0:25:08	guy was there	TER	Obstruction, Safety Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others), Realization	Rhythm (Rising), Conversation (Anxiety), Ambient (Safety)	
0:25:08	0:25:11		HOR	Obstruction, Rhythm (Slow), Presence (Direct), Contact, Startle	Rhythm (Slow), Startle	
0:25:11	0:25:31	excuse me lory	REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Safety)	
0:25:31	0:26:35		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	
0:26:35	0:27:21		TER	Obstruction, Safety Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Startle	Rhythm (Rising), Conversation (Anxiety), Ambient (Safety)	phone ring, drop in bgm, anny on the phone
0:27:21	0:28:04	anny was that u	REC	Safety Zone, Rhythm (Slow), Realization	Rhythm (Slow), Conversation (Realization), Ambient (Safety)	change of scene
0:28:04	0:29:05	checking the graveyard	TER	Obstruction, Safety Zone, Pre-established Danger, Presence (Others)	Rhythm (Rising), Ambient (Anxiety), Ambient (Safety)	
0:29:05	0:30:34	grave open	BG	Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	grave open
0:30:34	0:31:00	grave open	TER	Rhythm (Slow), Presence (Indirect), Presence (Others), Realization, Repulsion (Social)	Rhythm (Rising), Conversation (Anxiety), Repulsion (Social)	
0:31:00	0:34:25	smokin pot	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
0:34:25	0:38:17		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety), Ambient (Danger)	tru the window!
0:38:17	0:38:24		HOR	Obstruction, Rhythm (Fast), Startle	Rhythm (Fast), Conversation (Anxiety), Startle	
0:38:24	0:38:32		REC	Obstruction, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	
0:38:32	0:40:01	the blackest eyes..	TER	Obstruction, Pre-established Danger, Presence (Others)	Rhythm (Rising), Conversation (Anxiety)	conversation with kiddy kid
0:40:01	0:41:05	whats the buggyman?	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
0:41:05	0:41:28		TER	Obstruction, Pre-established Safety, Presence (Indirect), Presence (Others), Repulsion (Social)	Rhythm (Rising), Conversation (Anxiety)	
0:41:28	0:42:00	you are going to the ball	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	killer in the road
0:42:00	0:43:55	buggyman is outside	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others), Realization	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Conversation (Realization), Ambient (Anxiety)	
0:43:55	0:44:04	doggy dies	HOR	Obstruction, Rhythm (Slow), Presence (Direct), Contact, Startle, Repulsion (Social)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	
0:44:04	0:45:38		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	
0:45:38	0:47:45	anny paul called	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
0:47:45	0:49:25	paul called	BG	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	killer in the back
0:49:25	0:49:36	on your back talking with paul on the phone	HOR	Obstruction, Pre-established Danger, Presence (Indirect), Presence (Direct), Startle	Rhythm (Rising), Conversation (Safety), Startle	
0:49:36	0:50:48		BG	Obstruction, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Anxiety), Ambient (Safety)	
0:50:48	0:51:00		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Direct), Presence (Others), Startle	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Safety), Startle	

Figure 4.1: Spreadsheet data for the film: "Halloween". First page.

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:51:00	0:52:14		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:52:14	0:53:34		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	
0:53:34	0:54:18		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Physical)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	back to the kids
0:54:18	0:55:13		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:55:13	0:55:31		REP	Obstruction, Rhythm (Fast), Presence (Others), Contact, Startle	Rhythm (Slow), Rhythm (Rising), Ambient (Safety)	
0:55:31	0:55:46	the buggyman is outside!	HOR	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Fast), Conversation (Anxiety), Startle, Repulsion (Social)	
0:55:46	0:56:12	nobody believes me	BG	Obstruction, Danger Zone, Pre-established Danger, Presence (Others)	Rhythm (Slow), Conversation (Anxiety), Ambient (Anxiety)	
0:56:12	0:57:06		BG	Obstruction, Danger Zone, Contact, Startle	Rhythm (Slow), Startle	
0:57:06	0:57:09		HOR	Obstruction, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Conversation (Realization)	
0:57:09	0:58:20		REC	Obstruction, Danger Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Anxiety), Ambient (Safety)	
0:58:20	1:00:00	lets rip clothes off	BG	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others), Repulsion (Psychological)	Rhythm (Rising), Conversation (Safety)	
1:00:00	1:00:20	can I watch?	TER	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
1:00:20	1:03:12		BG	Obstruction, Danger Zone, Pre-established Danger, Presence (Indirect), Presence (Others), Startle	Rhythm (Slow), Rhythm (Fast), Conversation (Safety), Startle	
1:03:12	1:03:17	shadow on the wall	HOR	Safety Zone, Pre-established Danger, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
1:03:17	1:04:22		BG	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety)	
1:04:22	1:05:14		TER	Obstruction, Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Psychological)	Rhythm (Fast), Abnormal Effects (Anxiety), Startle	
1:05:14	1:05:50		HOR	Obstruction, Danger Zone, Rhythm (Slow), Presence (Direct), Repulsion (Physical), Repulsion (Social)	Rhythm (Slow), Repulsion (Physical), Repulsion (Social)	
1:05:50	1:06:05	stare at body (EH MAH GERD!)	REP	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Repulsion (Psychological)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Safety), Conversation (Anxiety)	
1:06:05	1:07:38	ghost	TER	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Realization, Repulsion (Physical), Repulsion (Psychological)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Psychological)	
1:07:38	1:08:10	death by tel cord	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety), Ambient (Anxiety)	
1:08:10	1:10:29	anny???	TER	Safety Zone, Rhythm (Slow)	Rhythm (Slow), Ambient (Anxiety)	
1:10:29	1:10:51	going to the house next door	BG	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety), Ambient (Anxiety)	
1:10:51	1:15:39		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Startle, Repulsion (Physical), Repulsion (Psychological)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Psychological)	
1:15:39	1:16:04	on top	REP		Rhythm (Fast), Abnormal Effects (Anxiety), Startle, Repulsion (Physical)	
1:16:04	1:16:11		HOR	Rhythm (Fast), Startle		
1:16:11	1:16:20		REP	Obstruction, Pre-established Danger, Rhythm (Slow), Repulsion (Physical), Repulsion (Psychological)	Rhythm (Rising), Conversation (Anxiety), Repulsion (Psychological)	
1:16:20	1:16:36	run away crying	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Repulsion (Psychological)	Rhythm (Rising), Conversation (Anxiety), Repulsion (Psychological)	michael on the shadows
1:16:36	1:16:50		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Abnormal Effects (Anxiety), Contact, Startle, Repulsion (Physical)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Startle	
1:16:50	1:19:27		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Repulsion (Psychological), Repulsion (Social)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Repulsion (Psychological)	
1:19:27	1:20:06	do as I say!!	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
1:20:06	1:20:20	second attack	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Contact	Rhythm (Fast), Conversation (Anxiety), Ambient (Danger), Startle	
1:20:20	1:20:59	hes dead?	REC	Obstruction, Rhythm (Slow), Realization	Rhythm (Slow)	
1:20:59	1:22:18	you cant kill the buggyman	TER	Obstruction, Safety Zone, Rhythm (Slow), Presence (Indirect), Presence (Others)	Rhythm (Slow), Rhythm (Rising), Conversation (Safety), Ambient (Anxiety)	
1:22:18	1:24:19	on...the...closet? really?	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Abnormal Effects (Anxiety), Startle, Repulsion (Social)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Startle	
1:24:19	1:25:42	stab! ... dead now?	REC	Obstruction, Safety Zone, Realization	Rhythm (Slow), Conversation (Realization)	u silly rabbit...
1:25:42	1:26:26	hes like jesus!	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Anxiety)	
1:26:26	1:27:08		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Physical), Repulsion (Psychological)	Rhythm (Fast), Startle, Repulsion (Physical), Repulsion (Psychological)	shot dead
1:27:08	1:27:41		REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	
1:27:41	1:31:07	the bodys gone!	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Repulsion (Psychological)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	end of movie

图 4.2: Spreadsheet data for the film: “Halloween”. Second page.

第 5 章

Heart Rate User Study

In this chapter we discuss our findings in a conducted user study focused on the effects of the stages of fear in the heart rate of users. We use heart rate to firstly to validate our stage system because of its relationship to the emotion of fear and secondly to determine how it variates with different stage usage.

5.1 Heart Rate User Study System

From the list of the 9 analysed films 4 films were selected for this study. They were used for their content and language availability. The reason for the selection by language availability was that the fact that the entire user group spoke mainly Japanese, thus any film undubbed or without subtitles in Japanese wouldn't exert the same amount of impact on the viewers, since they wouldn't be able to understand the narrative and would be oblivious to important auditory cues. The selected films were: "Dawn of the Dead" (1978), "Jaws 4: The Revenge" (1987), "Scream" (1996) and "The Exorcist" (1973).

A group of 5 Japanese college students (one female, four male) between the ages of 21 and 24 was used for the purposes of this test.

The test group was individually shown a 15 minute selection of each of the 5 films. All but one film used the first 15 minutes of the movie in order to avoid problems with lack of understanding of the narrative and subsequent effects on heart rate impact. The only film test that didn't follow this rule was "The Exorcist" (1973), which first 15 minutes were deemed not to be adequate for the purposes of this test. The 15 minutes coursing from 1:36:00 to 1:51:00 were used instead, due to the fact that they condensed

the narrative of the film and showed the most variation in Fear Stages. Also this 15 minutes were deemed compact enough in narrative to be used separately without much disturbance in the understanding of the film 's content.

Heart Rate was measured using a Nissei Heart Rate Monitor [cite] that took a sample every 4 seconds for a total of 226 samples for each film. All tests were conducted on individual soundproofed rooms, with a 28 inches monitor and headphones. Each test subject was shown the films in subsession and left completely alone for the duration of each film. Subjects were given a break in-between films in order to allow their heart beats to fall back to regular values. Resulting samples were imported to a laptop computer on-spot in the in-between breaks.

The accumulated data samples were first imported to the OIF-10 heart beat graph software that accompanies the Heart Rate Monitor and later exported to a spreadsheet for data analysis and backup.

5.2 Heart Rate User Study Results

In this section we compare the data samples taken from the HR test. Data was first normalized in order to analyze each user 's result on same-ground basis. The normalized graphs of each film were then compared as a whole, showing the difference in graph results for different stages. Finally graphs from the different films were split, grouped and then compared by stages in order to further identify similarities by stage.

5.2.1 Normalization

Since there are very large individual differences for resting heart rate in users data normalization was used to be able to group analysis. This process was found to be used by similar researches in the past [cite]. Data samples were transformed into a percentage of the span for that particular signal for each participant. A global sample minimum and maximum heart beat sample were obtained from each participant and for each film test. Each sample for each film was normalized using the following formula:

$$NormalizedHR_i = \frac{HR_i - HR_{min}}{HR_{max} - HR_{min}} \times 100 \quad (5.1)$$

[insert HR normalization comparison here] The image shows differences in graphs when using and not using graph normalization.

5.2.2 Normalized graphs for each film.

In this subsection we analyze normalized data averaged between all users for each film. In this subsection you can find 5 graphs each belonging to a different film /citefig:jawsgraph/citefig:zombgraph/citefig:screamgraph/citefig:exortgraph/citefig:elmgraph. The Y axis shows results for the normalized HR samples that were averaged through all users. The X axis represents a time frame starting from 0:00:00 ending in 0:15:00, this corresponds to the 15 minutes sample taken from each film. Half-opacity colored zones are shown in different colors, they represent each different stage as found in scene analysis: light blue for BACKGROUND, orange for TERROR, red for HORROR, green for RECOVERY and lastly purple for REPULSION.

I will proceed to analysis each graph, first dividing by each stage case and then comparing the graph results to content found in the films on those specific zones. Lastly we will determine if the results correspond to the following hypothesis:

In the following analysis we use a vocabulary of broad meaning to define the changes in graph data. With the intend to remain specific and avoid confusion they are defined in detail as follows:

- “High rise” / “Heavy drop” : A difference of 15% or more in data samplings between two points.
- “Stabilize” : Refers to either graph data that tends to remain without mayor variation (less than 5%) for a relatively long duration (more than 16 seconds/4 samples) or to graph data that rises or drops towards around 50% and then remains within little variation and close to this middle range.
- “Sudden rise/drop” : A rise or drop that starts and ends in less than 8 seconds(2 samples). “Start” and “End” are defined by relatively significant changes towards an opposite “y” direction or stabilization.
- “Steady rise/drop” : A rise or drop that starts and ends in more than 8 seconds(3 samples).
- “Ululation” : Refers to graph data of small rises and drops in consecutive and relatively similar measure while variations remain over 5% yet within 10%.
- “Narrative (Stage)” : Refers to cues that have similarities to our proposed “Stages of Fear” but that are found in dialogue as the story develops rather than the audio-visual clues that we use to classify the “Stages” .
- “Sample” : Refers to specific samples of Heart Rate data taken in relation to their time (x axis) frame.

1. BACKGROUND stages will show ululating graphs that remain in relatively low values. Rises and drops in graph will correspond to narrative horror, terror or repulsion. BACKGROUND stages that follow HORROR, TERROR or REPULSION stages will show high values at the beginning and follow with a drop until it stabilizes in low values. This is due to this stage containing narrative values that haven't been analysed thoroughly in this research.
2. TERROR stages will show slow rise of HR values over time. Ululation should be minimal. This is due to this stage containing anxiety-focused content that raise arousal in viewers which in turn slowly affects HR.
3. HORROR stages will show sudden rises of HR values and affect the following stage beginning. This is due to this stage containing startle content that "kick-jump" arousal in turn affects HR with sudden rises.
4. REPULSION stages will show either sudden drops. This is due to individuals strong negative valence towards repulsive cues, which in turn decreases HR.
5. RECOVERY stages will show drops. This is due to participants given a sense of safety and their HR normalizing with realization and relaxation.
6. Stages of very short duration [0 to 8 seconds] might not follow the above hypothesis. They will most likely be affected by the stage before or show results in the beginning of the next stage. This is due to the sudden changes that don't record in heart rate immediately, which rises or drops with a few seconds delay to stimuli.
7. The start of graphs will show high values. This is due to noise in the HR samplings as the HR monitor stabilizes and should be treated as a mechanical mistake and not certain data for analysis.

5.2.2.1 Graph Analysis: "Dawn of the Dead"

The graph for "Dawn of the Dead" 5.1 shows a starts with a heavy drop. Next we find ululation between the values of 40 and 60. Next we find three sudden high rises each followed by relatively heavy drops. Lastly the graph ends with a final rise. The highest value is found exactly in the beginning, next to highest in a rise close to 0:09:20. The lowest value can be found close to 0:00:20, the second to lowest one can be found close to 0:13:40.

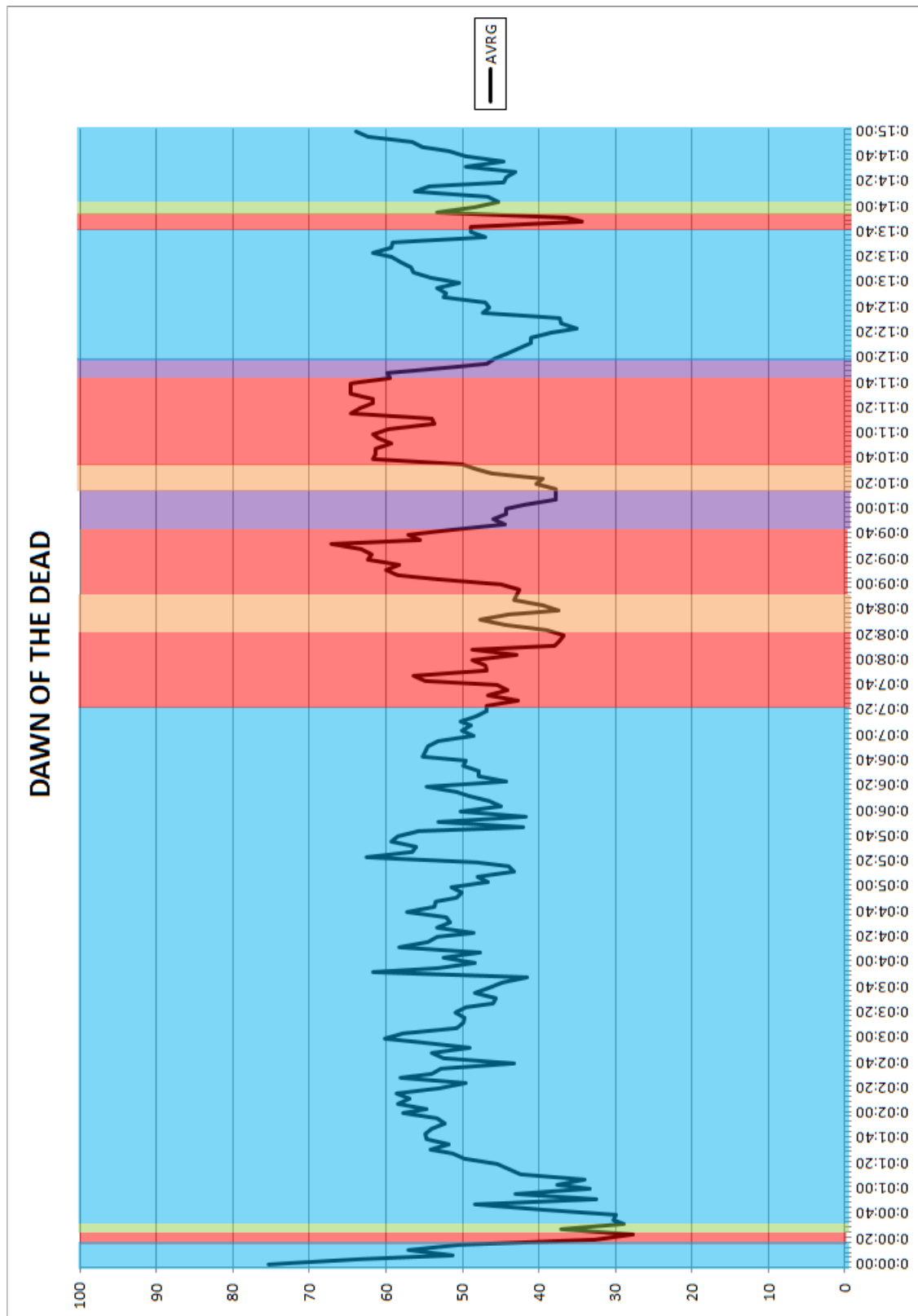


图 5.1: Normalized stage graph for "Dawn of the Dead". Stages colored.

For BACKGROUND stage: we find this stage in 4 instances.

1. 0:00:00 to 0:20:00 [aprox] shows a sudden drop. The content is the starting tiles in white over a red background, followed by sleeping girl sitting on the floor. Red color, specially when is in high saturation and brightness, causes rise in anxiety in people. The difference between the red color 's anxiety and the image of a woman (safety) can be the cause of a sudden drop. This follows HYPOTHESIS 1 in part, and HYPOTHESIS 7.
2. 0:00:30 and 0:07:10 [aprox] shows ululating graph some of the peaks reaching very high points. The content is a big group of people in a TV studio, filming an interview of a government official that claims the dead are coming back to live. The staff is anxious running around, some even leaving the station mid-interview. There are scenes of argument and a bit of rioting. After analysing the graph with the film we find that the lowest points/drops in the graph correspond to drops of BGM and the government official talking. His voice is very low pitch and he 's speaking about death, corpses, living dead and an emergency state. This could be the causes for the drops relating to a sort of "narrative REPULSION" stage. In contrast, the rises have people moving around nervously and rising BGM, probably causing anxiety in viewers. This scenes were considered as BACKGROUND for the presence of safety zone, presence(others) and rhythm(slow) cues but HR samples show that audio cue rhythm (rising) and conversation (anxiety) might be "stronger" in affect for the viewers and enough to classify a scene as TERROR stage. This follows HYPOTHESIS 1 in part, but the high values of the rises demand further analysis.
3. 0:12:00 to 0:13:40 [aprox] shows a drop, a heavy rise then a heavy drop. The content of this scene is two officers meeting on the basement of the building, at the beginning they are aiming guns at each other but then the tension breaks and they are simply taking a break, smoking cigarettes and talking about running. The first drop correspond most likely to delay samples from the repulsion scene before. The following rise correspond to both officers taking a break and smoking, talking about the events that just happened. This rise result is most concerning since none of the hypothesis proposed nor common reasoning apply. The drop happens when both officers mention running away from all the mess, this could be related to a sense of security, a sort of "narrative RECOVERY" stage. This scene doesn 't follows HYPOTHESIS 1.
4. 0:14:00 to 0:15:00 [aprox] shows a quick rise and drop, then a final high rise. The scene shows a priest talking with two officers asking for passage. The final rise corresponds to a rise in BGM the priest leaving as he talks about living dead on the adjacent room and about stopping the killing. This is related to the rhythm(rising)

conversation(anxiety) cue and TERROR stage. This follows HYPOTHESIS 1 in part, but the high values on the last rise demand further analysis.

For TERROR stage, two instances were found:

1. 0:08:20 to 0:08:50 [aprox] shows a relative small rise and a fall. The scene shows a group of policemen putting on gas masks, storming a building, people are being arrested and there is visual obstruction by gas. The rise and fall are almost exactly proportional to BGM tempo, again showing that rhythm(rising) can be a very strong cue. Both the rise highest point and the drop lowest point are relatively small, showing that perhaps this scene doesn't generate as much anxiety or sense of imminent danger as expected in analysis.
2. 0:10:10 to 0:10:40 [aprox] shows a steady rise. The scene shows a zombie with legs cut that slowly moves towards an officer, while another officer urges him to shoot the zombie. This could be caused by anxiety towards an indirect presence (zombie is closing in but its lack of mobility makes it not immediately dangerous). Also BGM rises accordingly causing rise in anxiety. This scene follows HYPOTHESIS 2 for TERROR stage.

For HORROR stage, four instances were found:

1. 0:00:22 to 0:00:24 is the lowest point on the graph. Shows how the girl woken by someone else up suddenly and lets out a small gasp. This is a low point in the graph which may be affected by the BACKGROUND STAGE before and the following stage [a recovery stage], shows a small sudden rise that could be understood as delay sample for this startle cue. This follows HYPOTHESIS 7.
2. 0:07:28 to 0:08:25 shows medium ululation, a sudden rise then a heavy drop. The film shows criminals come out of a building, start shooting, an officer is shot dead, officers jumping a small wall, a criminal that is caught then tries to flee but is shot dead. The ululation shows officers and criminals shooting. The rises are too low [at around 45
3. 0:08:54 to 0:09:45 show a sudden very high rise in graph. In this time frame we find the second highest HR sample point of the entire graph (67%). The scene shows masked officers running down the stair, civilians running and scream and an officer that appears to have gone out of control shooting and breaking down doors. The beginning sudden jump in the graph (around 10% increase) happens when in the film we see quick cuts of a of a zombie-like man, a extreme close up of a screaming woman and the officer, startled, shoots inside a room. This one scene packed with startle in both audio and video and this could be assumed to be reason for the

rise in HR. This follows HYPOTHESIS 3. We then find a few very small drops and rises to sum up to a steady rise ending with the second highest point of the graph. This corresponds in the film to a scene of a different officers trying to stop the officer that has gone apparently crazy, at the high point we find a contact and struggle between an officer and the gone-crazy officer. Contact and fast rhythm were the two main cues for the classification of this scene and are believed to cause an imminent sense of danger for viewers. This could be the reason for the very high point in the graph. This follows HYPOTHESIS 3.

4. 0:10:37 to 0:11:48 shows a sudden very high rise in graph, the graph remains in high points but for a small drop in the middle, ending with a heavy drop. In this scene we find how an officer is surprised from behind and attacked by zombies. The first sudden rise and following stable line on high points corresponds to the startle of zombies appearing suddenly on screen and attacking the officers. The drop in the middle corresponds to an scene of officers shooting a zombie many times on the chest. The next rise and stable line correspond to more struggling with zombies, shots being fired and a zombie that has escaped the room. The final drop found on the graph corresponds to the zombie biting another person. For the rises we find most of the cues for the HORROR stage which creates a sudden startle and sense ongoing danger on viewers and explains. This follows HYPOTHESIS 3 correctly. In contrast on the drops we find cues for REPULSION and, while still less than that the cues for HORROR, they appear to have strong effects on HR patterns believed to belong to the REPULSION stages as a results this specific points do not follow HYPOTHESIS 3.
5. 0:13:48 to 0:13:56 shows a sudden heavy drop and a sudden high rise in graph. In the film we are shown a door being suddenly opened, the officers being startled and pulling out their guns, and a unknown man in the doorway. The stage is very short, meaning that the drop could be explained as noise/delay from the scene before, following HYPOTHESIS 6. The rise could be also explained this way, or as a result of startle thus following HYPOTHESIS 3 of HORROR.

For REPULSION stage we find two instances:

1. 0:09:45 to 0:10:18 shows a steady heavy drop. The scenes shows a dead officer being dragged out of a room, and a room with bodies. This follows HYPOTHESIS 4.
2. 0:11:48 to 0:12:00 shows a sudden heavy drop. In here we have an scene of a young officer slowly rise a gun to his head and commit suicide. This follows HYPOTHESIS 4.

For RECOVERY stage we find two instances:

1. 0:00:24 to 0:00:28 shows a rise. The scene shows a girl being woken up by who we realize is just another co-worker. This doesn't follow HYPOTHESIS 5. Perhaps due to interruption by HYPOTHESIS 6 for short duration.
2. 0:13:56 to 0:14:04 shows a small. The scene shows a priest coming out of a doorway. This scene follows HYPOTHESIS 5, but is not considered reliable because of HYPOTHESIS 6 for short duration.

5.2.2.2 Graph Analysis: "Scream"

The graph for "Scream" 5.2 starts with a steady drop with a sudden rise in the middle. Next we find ululation between the values of 20 and 30. Next we find an arguably steady rise. Close to the middle of the graph we find a sudden rise, ululation follows and then another sudden rise can be seen. Next there is a drop followed by ululation in low values. Finally we find a very high rise, a drop and final ululation. The highest value is found at around 0:13:48, next to highest in a rise close to the beginning. The two lowest points are at 0:01:20 and 0:02:30.

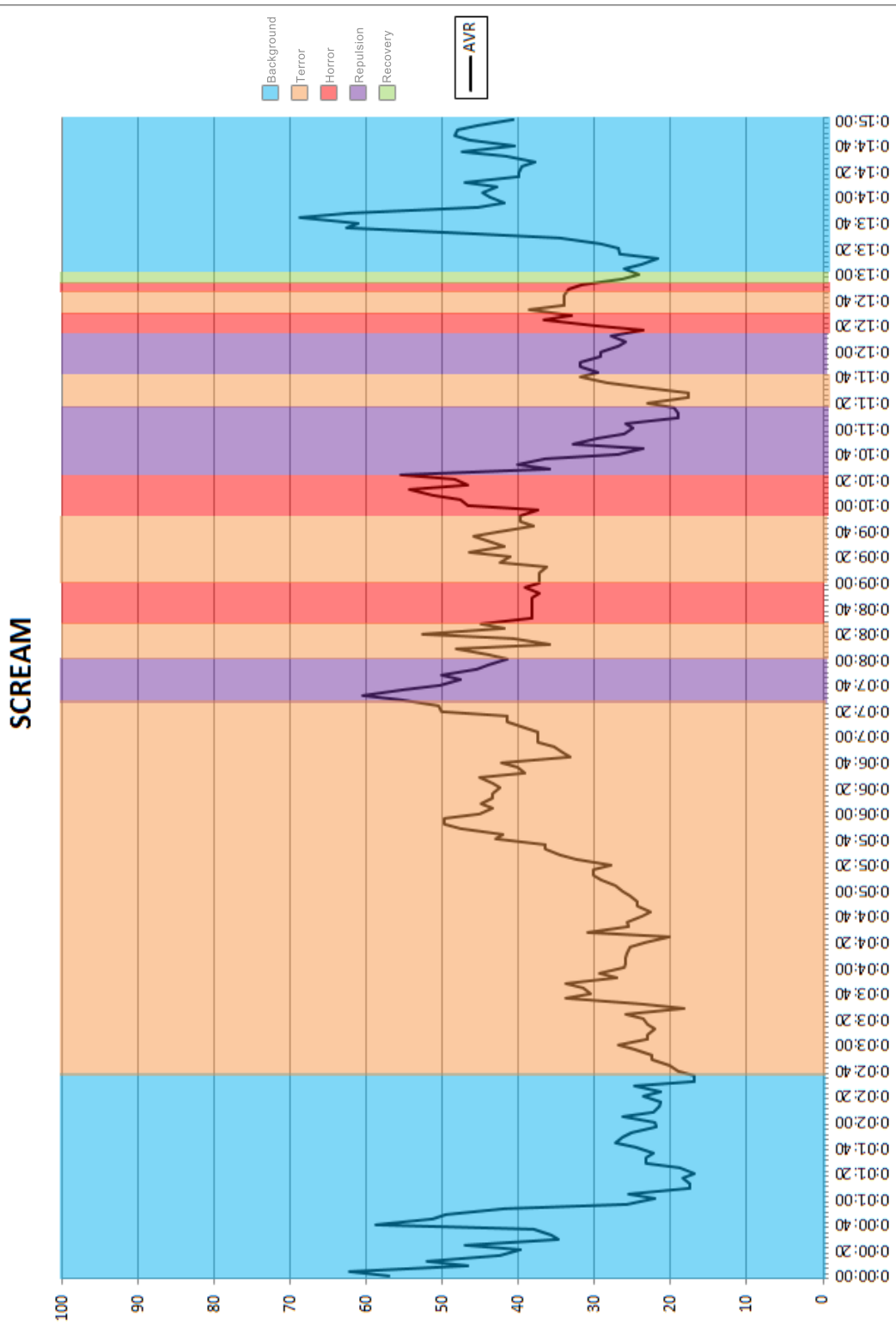


图 5.2: Normalized stage graph for "Scream". Stages colored.

For BACKGROUND we find two instances:

1. 0:00:00 to 0:02:28 we find a steady drop starting from a very high point, followed by a sudden high rise, next there is a very heavy and sudden drop ending in one of the lowest values in the graph, finally there is ululation at low values. The scene includes starting credits and a young woman alone at her house talking to a stranger that has apparently dialed the wrong number. The starting high points correspond to starting credits that include "Scream"ing and flashes of red, thus startle and abnormal effects (anxiety) could be the reason for this points. But very short duration (HYPOTHESIS 6) and starting points (HYPOTHESIS 7). The sudden high rise corresponds to the phone ringing for a second time after it was established that the stranger had the wrong number. This graph results are unexpected since the scene is of low rhythm and lacking of much startling or repulsion. Further analysis is required. The following drop and ululation correspond to the girl cooking, being called again and sort of flirting on the phone. The second lowest point in the graph is found here and they correspond to the phone ringing. This could due to repulsion towards the insistent caller or because of the slow rhythm. The ululation is related to the girl talking on the phone, relaxed and some flirting occurs. All of this follows HYPOTHESIS 1.
2. 0:13:00 to 0:15:00 we find a sudden very high rise a subsequential drop that is followed by final ululation. The scene shows us a couple, the father coming into the room claiming have heard noise, a conversation between the couple about their relationship, and some kissing. The very sudden high rise is a disturbing finding, being the highest point of the graph it was expected that we would find heavy startle or heavy arousal on such scene, but the rise corresponds to the father talking to the girl about him leaving for the weekend and the peak corresponds to the boyfriend saying "that was close". This result does not follows any HYPOTHESIS and we believe it might be outside the range of this research. The drop and ululation correspond to a conversation of the couple about how their relationship is missing physical contact and finally with some kissing and hugging. This follows with HYPOTHESIS 1.

For TERROR we find five instances:

1. 0:02:28 to 0:07:33 we find ululation on low levels, followed by a steady rise. Next we find a steady drop followed finally by a steady high rise. The scene shows the girl realizing the stranger calling is actually watching her, she running around the house locking doors, anxiety build up as she argues with the stranger, a young man shown tied up in the courtyard, and the young woman crying. The first ululation we find drops and rises that we will analyse next. The rises all seem to be in

related to the phone calls, threats made by the stranger and moments of BGM increase. This could be related to cues similar to HORROR stage. The drops are related to when the stranger talks calmly and when the girl is crying after the calls. This could be related to cues similar to REPULSION. This rises and drops while sudden are relatively small (less than 10%) and it could be understood that in general not enough to classify them as different stages. After the ululation the graph shows a steady very high rise (an increase of around 37%) that corresponds to the girl threatening the stranger with her boyfriend, the boyfriend tied in the courtyard, the stranger telling the girl he wants to play a game, and finally the girl answering a question wrong. The tension build up in this scene is relatively intense, while keeping the stranger's presence indirect (outside, hidden, just on the phone). There are many cues for TERROR and the HR graph is in accordance to HYPOTHESIS 2.

2. 0:07:50 to 0:08:30 shows a drop and to sudden rise followed by drops. Again the drops happen for both when the girl is crying and when the stranger is speaking on the phone. The rises happen when the stranger asks her "what door am I at?" indicating imminent danger and a possibility of direct presence, as related to HORROR stage. Even though TERROR cues were aplenty, the results for this instance were not in accordance to HYPOTHESIS 2.
3. 0:09:04 to 0:09:55 we find a rise, some ululation then followed by a drop (small mountain-shaped). In the scene the girl walks outside the house for safety, the stranger can be seen inside the house, a car is coming down the road. The first rise corresponds to the girl panting outside the house, and rising BGM. The highest point of the ululation corresponds to the killer being shown around the house but unaware of the girl. The final drop corresponds to a car pulling up on the driveway and the girl crawling away. In this particular instances TERROR state is kept with slowly rising BGM, related to audio cue Rhythm(rising), but the HR samples are only in accordance to HYPOTHESIS 2 in part. The drop in HR at the ends shows tendencies found in REPULSION stage and further analysis is required.
4. 0:11:19 to 0:11:40 shows a small drop and a rise. The scene shows the parents of the girl going into an empty house, flames, anxiety in general. The rise corresponds to the mother running around calling the girls name, this is understood as rise in anxiety and in accordance to HYPOTHESIS 2.
5. 0:12:28 to 0:12:49 shows a drop. The scene shows a girl alone at night that hears some noise on the window and goes to check it out. The fall does not follow HYPOTHESIS 2 on TERROR, it could be considered that short duration or very little amount TERROR cues failed to generate much anxiety thus not affect the HR of the viewers.

For HORROR we find four instances:

1. 0:08:30 to 0:09:04 we find a small rise followed by a line of little change. The scene shows a chair crashing through a window, the girl running around the house and arming herself with a knife, and the stranger running in the house. The HR results showed less increase than expected for a scenes with strong startle and rhythm(fast) cues. This does not follow HYPOTHESIS 3 for HORROR.
2. 0:09:55 to 0:10:22 we find a sudden high rise. The scene shows a scream close up of the stranger, the stranger breaking to the window, contact, stabbing, The rise is related to fast rhythm in BGM, startle of break of window, fast rhythm in running and contact with the stranger. This follows HYPOTHESIS 3.
3. 0:12:12 to 0:12:28 we find a sudden rise. The scene shows the mother coming out of the house and screaming. We have a extremely fast close up to the hanging bloodied body of the girl. This is believe to cause both anxiety by rhythm and abnormal effects, startle for suddenness of image and screams, and repulsion towards the dead body. The graph follows HYPOTHESIS 3.
4. 0:12:49 0:12:50 we find a relatively low point in the graph. The scene shows a screaming girl startled by something on the window. The lack of change can be derived from both lack of duration following HYPOTHESIS 6, and lack of enough HORROR cues to cause enough startle on users. The graph does not follows HYPOTHESIS 3. /endenumerate

For REPULSION we find three instances.

5. 0:07:33 to 0:08:00 shows a clear fall. The scene does the girl 's girlfriend suffering and the sound of cutting and what appears to be falling guts. Then the boyfriend is shown bloodied with his stomach cut open, the girl, seeing this, starts crying and crawls to a corner. The death of the boyfriend has strong repulsion(physical) cues and the crying and the girl crying in a corner along is a strong repulsion(psychological) cue. This follows HYPOTHESIS 4 for REPULSION.
6. 0:10:22 to 0:11:19 we find a steady heavy drop, a small rise and a heavy drop. The scene shows the girl stabbed, a drop in BGM and rhythm, running around, struggle, then the girl running to her parents but unable to speak and finally stabbed to death. The fall begins from the moment the BGM drops and the girl is stabbed, the film rhythm loses momentum and the girl is shown desperate trying to reach for her parents unable to speak, all strong cues for REPULSION that are believed to cause the drop in HR samples. This follows HYPOTHESIS 4. The rise in the middle corresponds to the girl apparently reaching for the parents that are very close in distance, but we find that she has been unable to speak,

presumably from a crushed windpipe from the the attack. This follows a sense of realization referred to RECOVERY, but the lack of speech puts the scene back on REPULSION quickly.

7. 0:11:40 to 0:12:12 we find a steady small drop. The scene shows a mom desperate hearing the gasping voice of her daughter on the voice, the bloodied body of the girl being dragged on the ground, the line breaking and then the mother being asked to go next door to call the police. This scenes has strong REPULSION cues, and follows HYPOTHESIS 4.

For RECOVERY we find one instance:

1. 0:12:50 to 0:13:00 we find a drop in graph. The scene shows a boy coming out of the window and the girl realizes that the noises were just the boy coming up the window. This scene follows good cues for RECOVERY and follows HYPOTHESIS 5 for it even considering its small duration.

5.2.2.3 Graph Analysis: "The Exorcist"

The graph for "The Exorcist" 5.2 starts with a drop. Theres a sudden very high rise close to the beginning and then a drop followed by ululation on low values. Next we find a sudden rise followed by ululation between 30 and 40. In this ululation there is a few high points passing the 40 points. For the second half there is a rising ululation that ends with a sudden very high rise that culminates with the highest point on the graph, followed by a small drop and another rise that follows in the second highest point. Then there is a very heavy steady drop, followed by a sudden high rise and ululation that continues until the end of the graph. The highest point is around 0:11:10, the second close by at 0:11:40. The lowest points are at 0:03:50 and 0:13:40. "The Exorcist" was the only film which sample was not taken from the starting 0:00:00, but rather from the 1:36:00 point in the film. Since we wish to focus on points in the graph, the following instance's time will show times in the graph and not in the film. For anyone trying to find the points in time of the film, the film sample starting time (1:36:00) should be added to instance time.

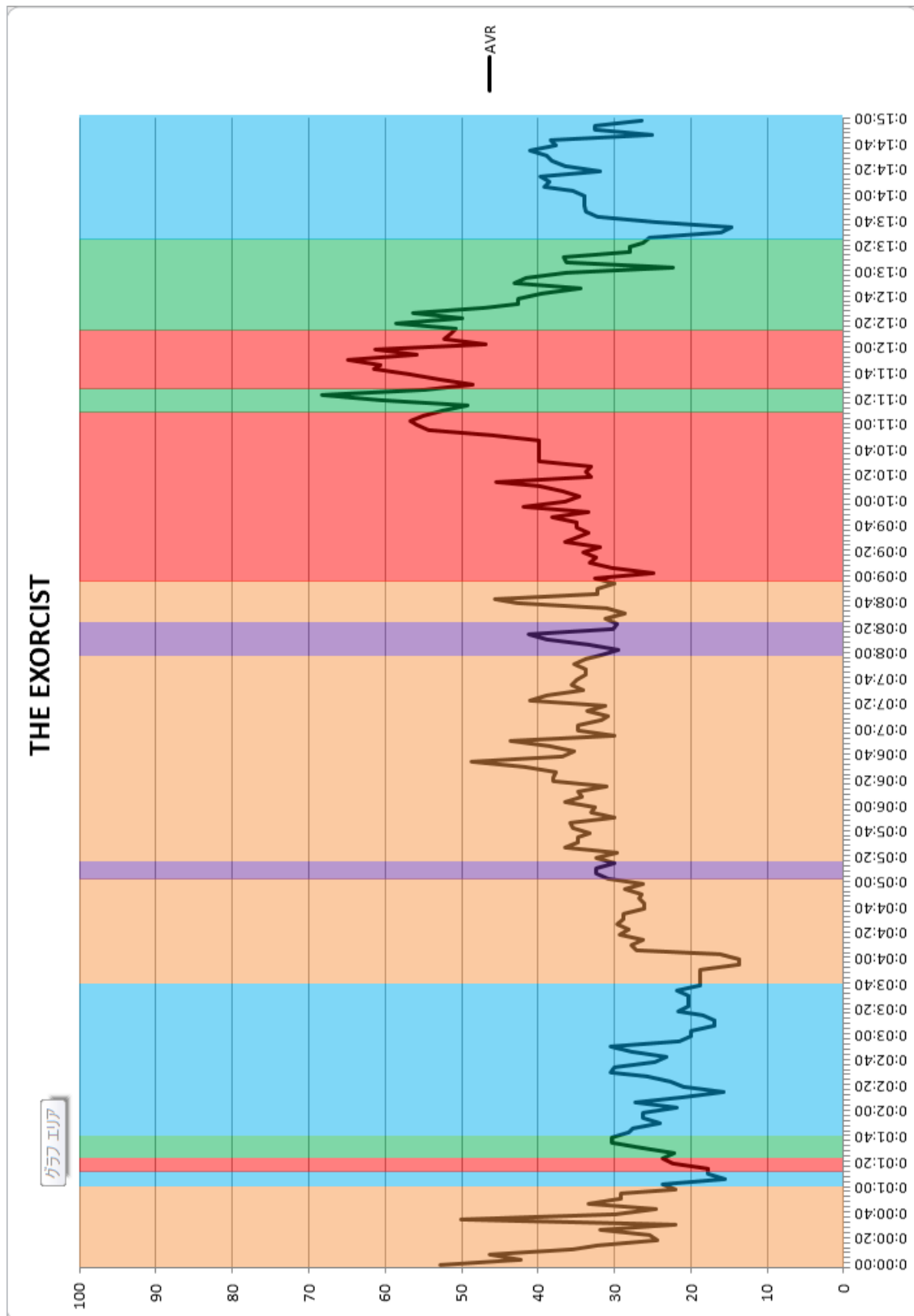


図 5.3: Normalized stage graph of "The Exorcist". Stages colored.

For BACKGROUND we find three instances.

1. 0:01:00 to 0:01:12 we find a drop. The film shows an old priest being received to a house, he introduces himself to the woman that owns the place and a young priest that's waiting on the living room. This follows HYPOTHESIS 1 for background to certain degree, but short duration might be affecting the results as explained in HYPOTHESIS 6.
2. 0:01:40 to 0:03:40 we find ululation between 18 and 30 with two clear drops in the middle. The film shows the sister listening to music on the basement, old priest speaking with the mother and the priests getting ready for exorcism. The ululation happens on conversations with between the priest and the mother, and conversation between the priests. The first drop corresponds to the old priest accepting alcohol. The second drop corresponds to the old priest telling the young priest that the demon is a liar and shouldn't be listened to. This could be understood as REPULSION affecting the graph a little, but both cue amounts and HR graph doesn't show enough change and can be encompassed as BACKGROUND. This instance follows HYPOTHESIS 1.
3. 0:13:24 to 0:15:00 we find it starting from the lowest point in the graph which quickly jumps back to the middle with a sudden high rise. This is followed by ululation that continues until the end. The scene shows priest talking outside the room sitting on the stairs, the old priest goes into the bathroom to drink medicine and the young one walks into the room. The rise occurs when priests are speaking on the stairs. Perhaps the contrast between the very repulsive scene before and the slow rhythm and safety of this scene explain the sudden jump to a more middle-point, indicating traces of RECOVERY. The ululation happens when the priests separate, indicating traces of TERROR. In general, this instance follows HYPOTHESIS 1.

For TERROR we found four instances:

1. 0:00:00 to 0:01:00 we find the heavy drop, followed by a very high sudden rise ending with another drop. The scene shows the old priest receiving a letter, a close up of the possessed girl, and the priest reaching a house on a foggy night. The starting drop can be explained a difference between monitor starting noise and a relatively safe scene of the priest walking in a park. This follows HYPOTHESIS 7 for noise. The rise corresponds directly with the sudden close up of the girl. This does not follow HYPOTHESIS 2 and possesses heavy cues and HR qualities belonging to HORROR. This indicates a possible analysis error that should've classified this scene differently. The following drop corresponds to the priest reaching the house with a lot of fog, rising music and high contrast. The cues follow the

TERROR stage, but the HR samples unfortunately do not follow HYPOTHESIS 2 for TERROR. This instance in general does not follow HYPOTHESIS 2 and demands for further consideration and in-depth analysis.

2. 0:03:40 to 0:05:04 we have a drop, then a sudden high rise ending with ululation close to point 30. The scene shows the priests slowly going up the set of stairs, talking with the mother for a while. Then they go inside the room and start the exorcism. The sudden rise corresponds with the priest asking for the daughter's name and a groan coming from upstairs. Imminent danger and abnormal effects (anxiety) cues are found here and could be the cause of the rise in arousal for this one instance. Though the rise in anxiety is TERROR related, its suddenness demands further analysis and only follows HYPOTHESIS 2 in part.
3. 0:05:16 to 0:07:16 we find ululation between 30 to 40 but for three rises found above 40. The scene shows the priests as they start praying while the possessed girl shakes, screams and insults. The bed starts shaking, floats and then falls down. The three rises correspond to the girl barking, the bed shaking and the bed falling down, all of them cuts where loud sounds that cause slight startle which might be the reason for the rises. This instance has many cues mixed together in small potency, but the fact that the girl was tied (creating presence (indirect) and ambient anxiety lead us to classify it as TERROR. The resulting graph nevertheless does not follow HYPOTHESIS 2, we believe so many different cues cause interference. Though the graph does show levels of anxiety, a more specific cut-by-cut analysis could yield better results.
4. 0:08:24 to 0:08:56 shows a sudden rise and a following drop. The scene shows the possessed girl laughing and crying as the priests struggle to continue the exorcism. This does not follow HYPOTHESIS 2, further analysis of what might have caused the sudden rise is necessary.

For HORROR we find three instances:

1. 0:01:12 to 0:01:24 shows a sudden if small rise. The film shows a group of people on a living room and a scream coming from upstairs startles them. This follows HYPOTHESIS 3 for HORROR.
2. 0:08:56 to 0:11:08 shows a drop a sudden rise, followed by rising ululation. Next we have a drop and two sudden very high rises. The film shows the priest starting to exorcise the girl scream, the walls breaking and both priest repeating the phrase "the power of christ compels you" as the girl is floating. The first sudden drop and rise correspond to the walls breaking suddenly, following HYPOTHESIS 3. The rising ululation high points correspond to shakings, breakings of the wall and door,

shouts. We understand this as a mixture of TERROR with a rising anxiety, and HORROR with small shocks and startles. Following perhaps both HYPOTHESIS 2 and 3, but the mixture of cues creates again noise and complicates analysis. The final very high rise corresponds to the priests screaming “the power of christ compels you!” repetitively as the girl floats on top of the bed. There’s clearly a build up of anxiety. This specific rise follows HYPOTHESIS 2.

3. 0:11:28 to 0:12:12 shows a sudden rise ending in the second highest point of the graph, followed by a drop. The film shows the younger priest being attacked by the possessed child, the older priest continues but a huge shake makes him fall to the ground, then there’s a shot of the girl reaching up with her hands in contrast. The drop is related to the young priest falling to the ground. This does not follow HYPOTHESIS 2. The high rise corresponds to a sudden big shake of the ground that makes the old priest fall down. This follows HYPOTHESIS 2. The final drop is related to the girl reaching up with her hands in an awkward position. This does not follow HYPOTHESIS 2 and could be a mis-analysis (relating more to REPULSION than HORROR).

For REPULSION we find two instances:

1. 0:05:05 to 0:05:17 shows a better small rise and minimal drop the graph. The film shows the girl spitting green slime on the old priest glasses. It is probable that the suddenness of the event also affects the graph. This follows HYPOTHESIS 6 for noise and this does not follow HYPOTHESIS 4 for the lack of a clear drop in graph.
2. 0:07:57 to 0:08:24 shows a sudden rise and drop. The scene shows the girl vomiting in an abnormally big amount and of green color. The rise might relate to shock of the event which doesn’t follow HYPOTHESIS 6, but the drop happens after the vomit, when the priests are trying to clean up a piece of cloth that was dirtied by it, which is in accordance to HYPOTHESIS 6.

For RECOVERY we find three instances:

1. 1:37:22 to 1:37:39 shows a rise in the graph. In the film the old priest explains the young priest what he would need for the exorcism, ignoring the screams as apparently non-dangerous. This does not follow HYPOTHESIS 5, probably for short duration or noise of many cues at the same time.
2. 1:47:08 to 1:47:28 shows a sudden high rise and a sudden drop. In here we find the priest retying up the girl and securing her to the bed. The act of tying up returns the girl to presence(indirect) and would let us to believe this to be a recovery stage.

This is a very unexpected results for is the highest point on the entire graph. It could be for a number of things, contact between the young priest and the girl could be generating very high arousal for fear of imminent danger, in contrast it could be explained that finally tying down the girl rises arousal in the sense of excitement for a possible positive outcome. Finally the short duration of the instance could be a reason for mistakes in analysis or noise from the stage before. This particular instance needs to be analysed further to spot the reason for this sudden rise. Perhaps more test subjects would be required and questioning the viewers directly about this specific point might be shine more light on this event. In general this does not follows HYPOTHESIS 5 for RECOVERY.

3. 1:48:10 to 1:49:25 shows a steady heavy drop that ends in one of the lowest points in the whole graph. The scene shows the girl calming down, the priests wrapping her in a blanket and both priest outside taking a break after the exorcism. This is perhaps the scene of slowest rhythm in the whole 15 minutes and it follows one of the most fastest in rhythm, which could explain the steady heavy drop as arousal lowers suddenly. This follows HYPOTHESIS 5 for RECOVERY successfully.

5.2.2.4 Graph Analysis: “Jaws 4: The Revenge”

Shows a starting drop. A general rise with some big mountains, ululation in the middle, followed by two big drops in the middle. Rise back to middle, ululates, drops and finally rises until the end.5.4

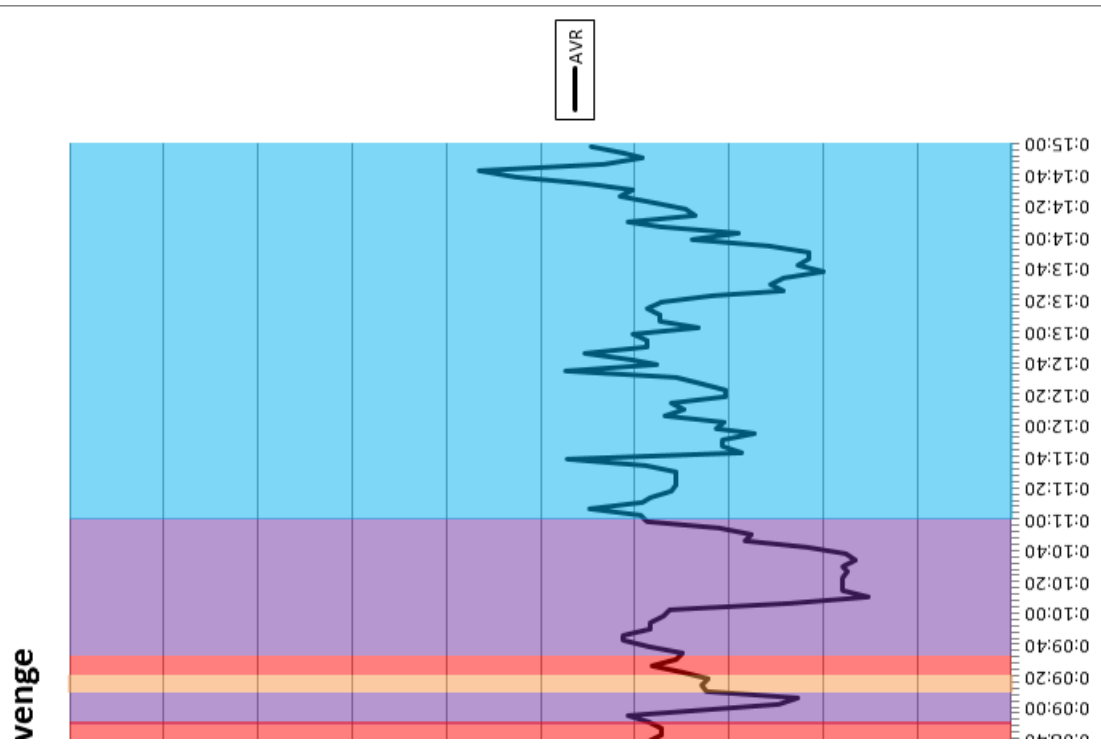


图 5.4: Normalized stage graph of “Jaws 4”. Stages colored.

For BACKGROUND we find three instances.

1. 0:00:00 to 0:00:14 shows ululation. Starting credits. Follows HYPOTHESIS 1.
2. 0:02:44 to 0:08:34 shows big drop, rising ululation. Christmas shopping. Follows HYPOTHESIS 1 in part.
3. 0:10:57 to 0:15:00 shows three rises with falls, and a big drop in the middle. The rises correspond to shots of strong emotional material, they are respectively: crying with his mother and running around the beach in freedom. They could relate to high arousal/valence. The drop refers to an argument between mother and son. Follows HYPOTHESIS 1 in part, but the drop and rises are too big showing that they affected viewers even more than the shark attack.

For TERROR we find three instances:

1. 0:00:14 to 0:02:44 show two very high rises, gets progressively bigger. The film shows starting credits, underwater “shark camera” and classical suspense music. Follows HYPOTHESIS 2.
2. 0:08:34 to 0:08:44 small drop. Underwater “shark camera” and suspense BGM. Does not follow HYPOTHESIS 2, consider HYPOTHESIS 6 for short duration.
3. 0:09:20 to 0:09:22 sudden drop. Underwater “shark camera” and suspense BGM. Does not follow HYPOTHESIS 2, consider HYPOTHESIS 6 for short duration.

For HORROR we find two instances:

1. . 0:08:44 to 0:08:50 shows straight line. Film shows sudden shark attack. Does not follow HYPOTHESIS 3, consider HYPOTHESIS 6 for short duration.
2. 0:09:22 to 0:09:35 shows a sudden small rise. Film shows sudden shark attack. Follows HYPOTHESIS 3 but rise too small to be conclusive. Reasons could include lack of startle for viewers or noise by HYPOTHESIS 6 for short duration.

For REPULSION we find two instances:

1. 0:08:50 to 0:09:20 we find a sudden heavy drop. The film shows a man covered in blood, having have losted his arm. This follows HYPOTHESIS 4 for REPULSION.
2. 0:09:35 to 0:10:57 we find a small rise followed by a sudden very heavy drop. The film shows a slowly sinking ship, log and man. Next it shows a scene where the dead body of the man is shown to her mother for ID. The rise is not conclusive, but the drop follows HYPOTHESIS 4 for REPULSION.

第 6 章

Conclusion

We successfully created a basic and objective system capable of identifying cues specific to different scene types, namely “Stages”, in order to compare scenes found in Horror movies (3). We then tested this system against film analysis for a selection of 9 different horror films, determining percentage of pre-established “Stages” on films and how they vary in usage in time(4). We further revised our system by comparing our analysis to user tests involving Heart Rates to identify levels of arousal and valence(5).

On the analysis of films we concluded that the “Stages by cues” system was enough to give us a rough yet effective idea of percentages of suspense, terror and horror in movies. Unfortunately we found that when dealing with time specific usage of stages a more extensive industry research was required to find significant similarities in films. Our analysis showed interesting results including how horror films that ranked high in reviews and had higher grossing showed more tendencies to the use of terror (suspense) in contrast to the lowest grossing and lowest ranking films that depended more on horror (startle) and repulsion (gore).

These are satisfactory results considering that the main idea for the “Stages” was strongly based on concepts proposed by Stephen King he who once claimed: “I recognize terror as the finest emotion and so I will try to terrorize the reader. But if I find that I cannot terrify, I will try to horrify, and if I find that I cannot horrify, I’ll go for the gross-out. I’m not proud.” This shows that the ideals of TERROR above HORROR above REPULSION might have an objective claim and could actually be directly related to the successfulness of a film.

On our second group of tests involving heart rate we confirmed the efficacy of our stages to affect human physiological reactions. The heart rate results were in correlation to previously established qualities of the stages in most cases. Unfortunately heart rate samples for the stages of terror(suspense) and background(narrative) showed unexpected

results in many cases, and it was determined that both a more cut-specific analysis and deeper understanding and definition for this stages was required.

We rationalize that further similar researches should consider bigger test groups in order to reach more conclusive data. Also an analysis that included a more extensive amount of movies could yield more reliable results that represented industry tendencies. We also deem necessary an analysis focused on sub-genre or era comparison in order to further understand the limits of a similar system. A similar research should also consider the use of different and more physiological input measures to generate more reliable results in arousal and valence identification.

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Appendix

付録 A

Appendix

☒ A.1: Appendix 1: Spreadsheet data for the film: "Halloween".(1/2)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:00:00	0:05:57	intro and stuff	TER	Obstruction, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety), Ambient (Anxiety)	michael! attacks
0:05:57	0:06:30	stab stab	HOR	Obstruction, Rhythm (Fast), Presence (Direct), Contact, Startle, Realization, Repulsion (Psychological)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Psychological)	is that you michael
0:06:30	0:07:00	a..kid?	REP	Safety Zone, Rhythm (Slow), Presence (Others), Realization, Repulsion (Psychological)	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety), Conversation (Realization), Repulsion (Psychological)	change to future
0:07:00	0:09:16	driving in the night main gate, wandering crazies	BG	Obstruction, Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Anxiety), Ambient (Safety)	wandering crazies
0:09:16	0:09:57	crazy attack	TER	Obstruction, Danger Zone, Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety), Conversation (Realization), Ambient (Anxiety)	crazy rides on
0:09:57	0:10:45	crazy attack	HOR	Obstruction, Danger Zone, Rhythm (Fast), Presence (Indirect), Contact, Startle, Realization, Repulsion (Social)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	
0:10:45	0:11:07	are u alright? intro scene, (anxiety music, but the rest is super BG)	REC	Obstruction, Danger Zone, Presence (Others), Realization	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety), Conversation (Realization), Ambient (Danger)	change to future
0:11:07	0:13:44		BG	Safety Zone, Rhythm (Slow)	Rhythm (Rising), Conversation (Safety), Ambient (Safety)	weird dude looking
0:13:44	0:13:49		HOR	Obstruction, Rhythm (Slow), Presence (Direct), Startle	Rhythm (Slow), Conversation (Anxiety), Startle	
0:13:49	0:14:28	I see you..	TER	Obstruction, Pre-established Danger, Presence (Indirect), Presence (Others)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	
0:14:28	0:15:38	classes, doctors fight,	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	
0:15:38	0:16:03	from across the street	TER	Obstruction, Safety Zone, Pre-established Danger, Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Safety), Ambient (Safety)	
0:16:03	0:16:25	fate never changes	REC	Safety Zone, Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:16:25	0:17:17	school,	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	
0:17:17	0:17:30	dont run kid	HOR	Obstruction, Rhythm (Slow), Presence (Direct), Contact, Startle	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	
0:17:30	0:18:34	I see you.. kid? you must be ready for him	TER	Obstruction, Safety Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Safety)	
0:18:34	0:19:32	found the car and dead body	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Anxiety), Ambient (Safety)	rise in bgm
0:19:32	0:19:52	after school	TER	Safety Zone, Rhythm (Slow), Presence (Indirect), Realization, Repulsion (Physical)	Rhythm (Rising)	school stuff
0:19:52	0:21:22	car in driveway	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	weird car
0:21:22	0:22:13	car in driveway	TER	Obstruction, Safety Zone, Pre-established Danger, Presence (Indirect), Realization	Rhythm (Rising), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	car gone, bgm down
0:22:13	0:23:35	guy was there	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:23:35	0:25:08		TER	Obstruction, Safety Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others), Realization	Rhythm (Rising), Conversation (Anxiety), Ambient (Safety)	
0:25:08	0:25:11	excuse me lory	HOR	Obstruction, Rhythm (Slow), Presence (Direct), Contact, Startle	Rhythm (Slow), Startle	
0:25:11	0:25:31		REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Safety)	
0:25:31	0:26:35		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	
0:26:35	0:27:21		TER	Obstruction, Safety Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Startle	Rhythm (Rising), Conversation (Anxiety), Ambient (Safety)	phone ring, drop in bgm, anny on the phone
0:27:21	0:28:04	anny was that u	REC	Safety Zone, Rhythm (Slow), Realization	Rhythm (Slow), Conversation (Realization), Ambient (Safety)	change of scene
0:28:04	0:29:05	checking the graveyard	TER	Obstruction, Safety Zone, Pre-established Danger, Presence (Others)	Rhythm (Rising), Ambient (Anxiety), Ambient (Safety)	
0:29:05	0:30:34	grave open	BG	Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	grave open
0:30:34	0:31:00	smokin pot	TER	Rhythm (Slow), Presence (Indirect), Presence (Others), Realization, Repulsion (Social)	Rhythm (Rising), Conversation (Anxiety), Repulsion (Social)	
0:31:00	0:34:25		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
0:34:25	0:38:17		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety), Ambient (Danger)	tru the window!
0:38:17	0:38:24		HOR	Obstruction, Rhythm (Fast), Startle	Rhythm (Fast), Conversation (Anxiety), Startle	
0:38:24	0:38:32		REC	Obstruction, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	
0:38:32	0:40:01	the blackest eyes..	BG	Obstruction, Pre-established Danger, Presence (Others)	Rhythm (Rising), Conversation (Anxiety)	conversation with kiddy kid
0:40:01	0:41:05	whats the buggyman?	TER	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
0:41:05	0:41:28		BG	Obstruction, Pre-established Safety, Presence (Indirect), Presence (Others), Repulsion (Social)	Rhythm (Rising), Conversation (Anxiety)	
0:41:28	0:42:00	you are going to the ball	TER	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Rising), Conversation (Anxiety)	
0:42:00	0:43:55	buggyman is outside	BG	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Ambient (Anxiety)	killer in the road
0:43:55	0:44:04	doggy dies	TER	Obstruction, Rhythm (Slow), Presence (Direct), Contact, Startle, Repulsion (Social)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	
0:44:04	0:45:38		HOR	Obstruction, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	
0:45:38	0:47:45	anny paul called	BG	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
0:47:45	0:49:25	paul called	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	killer in the back
0:49:25	0:49:36	on your back talking with paul on the phone	BG	Obstruction, Pre-established Danger, Presence (Indirect), Presence (Direct), Startle	Rhythm (Rising), Conversation (Safety), Startle	
0:49:36	0:50:48		TER	Obstruction, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Anxiety), Ambient (Safety)	
0:50:48	0:51:00		BG	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Direct), Presence (Others), Startle	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Safety), Startle	

☒ A.2: Appendix 1: Spreadsheet data for the film: "Halloween".(2/2)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:51:00	0:52:14		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:52:14	0:53:34		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	
0:53:34	0:54:18		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Physical)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	back to the kids
0:54:18	0:55:13		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:55:13	0:55:31		REP	Obstruction, Pre-established Danger, Presence (Others), Repulsion (Physical), Repulsion (Psychological)	Rhythm (Slow), Rhythm (Rising), Ambient (Safety)	
0:55:31	0:55:46	the buggyman is outside!	HOR	Obstruction, Rhythm (Fast), Presence (Others), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Startle, Repulsion (Social)	
0:55:46	0:56:12	nobody believes me	BG	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Anxiety)	
0:56:12	0:57:06		BG	Obstruction, Danger Zone, Pre-established Danger, Presence (Others)	Rhythm (Slow), Conversation (Anxiety), Ambient (Anxiety)	
0:57:06	0:57:09		HOR	Obstruction, Danger Zone, Contact, Startle	Rhythm (Slow), Startle	
0:57:09	0:58:20		REC	Obstruction, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Conversation (Realization)	
0:58:20	1:00:00	lets rip clothes off	BG	Obstruction, Danger Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Anxiety), Ambient (Safety)	
1:00:00	1:00:20	can I watch?	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others), Repulsion (Psychological)	Rhythm (Rising), Conversation (Safety)	
1:00:20	1:03:12		BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
1:03:12	1:03:17	shadow on the wall	HOR	Obstruction, Danger Zone, Pre-established Danger, Presence (Indirect), Presence (Others), Startle	Rhythm (Slow), Rhythm (Fast), Conversation (Safety), Startle	
1:03:17	1:04:22		BG	Safety Zone, Pre-established Danger, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
1:04:22	1:05:14		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety)	
1:05:14	1:05:50		HOR	Obstruction, Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Psychological)	Rhythm (Fast), Abnormal Effects (Anxiety), Startle	
1:05:50	1:06:05	stare at body (EH MAH GERD!)	REP	Obstruction, Danger Zone, Rhythm (Slow), Presence (Direct), Repulsion (Physical), Repulsion (Social)	Rhythm (Slow), Repulsion (Physical), Repulsion (Social)	
1:06:05	1:07:38	ghost	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Repulsion (Psychological)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Safety), Conversation (Anxiety)	
1:07:38	1:08:10	death by tel cord	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Realization, Repulsion (Physical), Repulsion (Psychological)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Psychological)	
1:08:10	1:10:29	anny??	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety), Ambient (Anxiety)	
1:10:29	1:10:51	going to the house next door	BG	Safety Zone, Rhythm (Slow)	Rhythm (Slow), Ambient (Anxiety)	
1:10:51	1:15:39		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety), Ambient (Anxiety)	
1:15:39	1:16:04	on top	REP	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Startle, Repulsion (Physical), Repulsion (Psychological)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Psychological)	
1:16:04	1:16:11		HOR	Rhythm (Fast), Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Startle, Repulsion (Physical)	
1:16:11	1:16:20		REP	Obstruction, Pre-established Danger, Rhythm (Slow), Repulsion (Physical), Repulsion (Psychological)	Rhythm (Rising), Conversation (Anxiety), Repulsion (Psychological)	
1:16:20	1:16:36	run away crying	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Repulsion (Psychological)	Rhythm (Rising), Conversation (Anxiety), Repulsion (Psychological)	michael on the shadows
1:16:36	1:16:50		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Abnormal Effects (Anxiety), Contact, Startle, Repulsion (Physical)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Startle	
1:16:50	1:19:27		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Repulsion (Psychological), Repulsion (Social)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Repulsion (Psychological)	
1:19:27	1:20:06	do as I say!!	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
1:20:06	1:20:20	second attack	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Contact	Rhythm (Fast), Conversation (Anxiety), Ambient (Danger), Startle	
1:20:20	1:20:59	hes dead?	REC	Obstruction, Rhythm (Slow), Realization	Rhythm (Slow)	
1:20:59	1:22:18	you cant kill the buggyman	TER	Obstruction, Safety Zone, Rhythm (Slow), Presence (Indirect), Presence (Others)	Rhythm (Slow), Rhythm (Rising), Conversation (Safety), Ambient (Anxiety)	
1:22:18	1:24:19	on...the...closet? really?	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Abnormal Effects (Anxiety), Startle, Repulsion (Social)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Startle	
1:24:19	1:25:42	stab! ... dead now?	REC	Obstruction, Safety Zone, Realization	Rhythm (Slow), Conversation (Realization)	u silly rabbit...
1:25:42	1:26:26	hes like jesus!	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Anxiety)	
1:26:26	1:27:08		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Physical), Repulsion (Psychological)	Rhythm (Fast), Startle, Repulsion (Physical), Repulsion (Psychological)	shot dead
1:27:08	1:27:41		REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	
1:27:41	1:31:07	the bodys gone!	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Repulsion (Psychological)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	end of movie

☒ A.3: Appendix 2: Spreadsheet data for the film: "Scream".(1/5)

#	Start	End	Stage	Description	Cue(visual)	Cue(audio)
1	0:00:00	0:02:36	BG	Intro to the movie	No presence, smiling, relaxed, flirting	Conversational, no presence, flirting, laughter
2	0:02:36	0:07:33	TER	first call	Dark patio, closing doors (danger), fire, scared sad faced (fear) running around (danger) crying	"I want to know who im looking at", rising suspense music (anticipation), stressed conversation (anticipation)
3	0:07:33	0:07:50	REP	boyfriend dies	dying face (mutilation)	sounds of mutilation, gutting (mutilation) what door am i at? (indirect presence) suspense music (anticipation)
4	0:07:50	0:08:30	TER	final question	hiding in a corner (scared)	peak rise in music (rush) breaking glass sounds (startle, realization)
5	0:08:30	0:09:04	HOR	chair tru window	door slams tru window (startle) running around the house (flight) fire (ambient hazard) slasher in the house (direct presence)	goes out of the house (ambient change) dark (visibility) car coming (safety) slasher inside the house (indirect presence)
6	0:09:04	0:09:55	TER	out of the house	slasher turns around (startle) breaks window (startle) grabs arm (contact) running around short cuts (fast rythm) follows her (flight, danger) stabs her (pain, contact)	panting (anxiety) rising suspense music (anticipation) Girl screams (presence, danger) peak music (fast rythm) panting, crying (pain)
7	0:09:55	0:11:19	HOR	slash time	house trashed fire (indirect presence) girl on the phone (anticipation) crying (anxiety) lighting (effects, startle)	rising suspense music (anticipation) anxious conversation (anxiety)
8	0:11:19	0:12:12	TER	parents	alone in the house at night (prestablished danger) sounds out of the window (indirect presence) goes to the window to check (danger)	breaking glass dog barking (indirect presence)
9	0:12:12	0:12:49	TER	bf on the window	something grabs her (contact, startle)	scream (startle)
10	0:12:49	0:12:50	HOR	hey!	just bf (realization, presence, safety) same location, conversation with dad(other presence), sex, relaxation, smiling, happy (safety)	no bgm (change, safety) romantic music (relaxation, safety)
11	0:12:50	0:16:30	REC	is just bf		
12	0:16:30	0:21:55	BG	sex etv		
13	0:21:55	0:23:00	TER	alone	alone in the house (prestablished danger), sad, relaxed (safety) on the sofa (relaxation)	Low bass sound (noise, anticipation) rising suspense music (anxiety) sad music starts (safety)
14	0:23:00	0:23:40	REC			conversational (safety) relaxed swearing (calmed)
15	0:23:40	0:24:35	BG		relaxed	

☒ A.4: Appendix 2: Spreadsheet data for the film: "Scream".(2/5)

16	0:24:35	0:27:26	TER	cidney meets slasher	stressed face (anxiety) alone at night (dark, prestablished danger)	slasher voice (prestablished danger) rising suspense music (anxiety) im not randy (anticipation) where am i (indirect presence)
17	0:27:26	0:28:40	HOR		slasher on screen (startle, direct presence, realization) attacks, kicks, falls down (danger, pain, contact) running, falling, (fast rythm, flight)	scream (startle) panting (flight) peak music (fast rythm)
18	0:28:40	0:28:50	REC	bbbf	boyfriend up the ladder (other presence, safety)	drop in sound (change, safety)
19	0:28:50	0:29:24	HOR	cellphone!	drop of cellphone (realization) running around, chased (flight, fast rythm) mask on the front (startle)	peak music (fast rythm, danger) scream (startle, danger)
20	0:29:24	0:30:33	REC	cops	police on the door (other presence, realization, safety) arrested (safety)	drop of sound (low rythm, safety)
21	0:30:33	0:36:13	BG		relaxed, in group (safety) bright scenes (safety)	pop music (safety, relaxed)
22	0:36:13	0:36:47	TER		worried face (danger) close up (fast rythm)	hello cidney (realization, presence) suspense music (anticipation, anxiety)
23	0:36:47	0:45:00	BG	monrning at school	Daylight, morning, groups, light, school, (relaxed, safety)	Normal sounds, conversational (safety) ballad, rock, action music (safety)
24	0:45:00	0:46:05	TER	toilet talk	alone (prestablished danger) scared face close up(realization, anxiety, fear) boots on the floor (indirect presence)	whisper (indirect presence) rising suspense music (anxiety)
25	0:46:05	0:46:11	HOR	toilet killer	slasher comes out of toilet (startle, direct presence) attacks (danger)	scream (startle) panting (flight) peak music (fast rythm)
26	0:46:11	0:46:19	REC	out	goes out into the hallway (safety) people there (other presence) bright	drop of sound (low rythm, safety)
27	0:46:19	0:49:10	BG	moming	Daylight, No presence	Normal sounds, conversational,
28	0:49:10	0:50:54	TER	director death	mask on screen (prestablished danger) looking around (anxiety)	rising suspense music (anxiety) knock on door (indirect presence)
29	0:50:54	0:51:10	HOR	director death	slasher on screen (startle, direct presence, realization) attacks, stabbed. death (danger, pain, contact) fast cuts (rythm)	screams (startle, danger, pain) peak music (startle, realization, fast rythm)
30	0:51:10	0:51:45	BG		daylight, group, relaxed	conversational (safety)
31	0:51:45	0:52:26	TER		stressed face close up(anxiety)	rising suspense music (anxiety) stressed conversation (
32	0:52:26	0:52:28	HOR		slasher on the bush (direct presence, startle)	pike in music (startle)
33	0:52:28	0:59:35	BG		daylight, relaxed, partying, groups,	conversational, no bgm, rock music
34	0:59:35	0:59:40	HOR	60	cop on screen (startle)	scream, pike music (startle)

☒ A.5: Appendix 2: Spreadsheet data for the film: "Scream".(3/5)

						music slowly lowers (relaxation, realization) conversational, flirting (safety)
35	0:59:40	1:00:20	REC		it was the cop (realization, safety)	rock music, conversational
36	1:00:20	1:02:16	BG		partying, groups, relaxed, flirting door closes (indirect presence) alone in the dark (preestablished danger, darkness) door locked (danger, anxiety) slasher on screen (but no realization)	rising suspense music (anxiety)
37	1:02:16	1:03:45	TER	girl on the hang	slasher grabbing pulls out knife (realization, danger, contact, presence) struggle (contact, danger) slashes her (pain, contact) running, crawling, stuck (fast rythm, danger) slasher pulls up hanger door killing her (pain, death, danger) sparks and fast cuts (effects, fast rythm)	pike in music (startle, fast rythm) screams, grunts, swearing (fast rythm, pain)
38	1:03:45	1:04:58	HOR		partying, groups, relaxed, flirting , sex, bright lights	rock music, conversational, laughing, flirting
39	1:04:58	1:11:08	BG		someone outside the ban(startle)	banging, scream (startle)
40	1:11:08	1:11:10	HOR		was the cop (realization)	drop in bgm (safety)
41	1:11:10	1:11:34	REC		groups, sex, movie, relaxation, smiling	conversational, laughing,
42	1:11:34	1:17:10	BG		shadow on the wall (indirect presence)	rising suspense music (anxiety)
43	1:17:10	1:17:15	TER		billy attacked by slasher (presence, pain, contact, startle) death, blood (pain) running around, chased, grabbed, struggle (fast rythm, danger, contact)	pike music (startle)
44	1:17:15	1:18:45	HOR		slasher dissappeared (safety)	drop in bgm (safety)
45	1:18:45	1:18:50	REC		mutilated body of girl (gore) face of about to vomit girl (repulsion)	piking music (startle)
46	1:18:50	1:19:00	REP		slasher comes out but boy cant see it (indirect presence) posed to kill him (danger)	rising suspense music (anxiety)
47	1:19:00	1:19:35	TER		girl running around (danger, fast rythm)	screaming for help (startle, danger) pike music (fast rythm)
48	1:19:35	1:20:00	HOR		both together (safety group) slasher on screen (indirect presence)	rising suspense music (anxiety)
49	1:20:00	1:20:16	TER		slasher kills camera man (contact, death, pain, startle) struggling inside ban (flight, fast rythm, danger)	pike music (startle) screams, grunts (pain, startle)
50	1:20:16	1:20:55	HOR		coming back in the dark, running, gun out (danger, anxiety) cop checking the house (anxiety, danger) woman checking the ban, blood on the floor (indirect presence, danger)	rising suspense music (anxiety)
51	1:20:55	1:22:32	TER			

☒ A.6: Appendix 2: Spreadsheet data for the film: "Scream".(4/5)

52	1:22:32	1:23:30	HOR		dude on the window (startle) blood on the window (realization) camera man on the window (startle) accelerating car (fast rythm, danger) car crashes (startle, pain, fast rythm)	scream (startle) peak music (fast rythm) swearing, screaming (danger, fast rythm)
53	1:23:30	1:23:51	TER		girl alone running around (prestablished danger, anxiety) cop on the door (safety) knife on the back (pain, realization, indirect presence)	rising suspense music (anxiety) calling out name, screaming (anxiety)
54	1:23:51	1:24:26	HOR		slasher on screen (presence) running around (danger, fast rythm) slasher has the keys (realization)	pike music (fast rythm, anxiety)
55	1:24:26	1:24:53	TER		slasher goes off screen (indirect presence)	drop of volume (change, anxiety)
56	1:24:53	1:25:10	HOR		slasher on the back seat (startle, danger) struggle (contact)	rise of music (startle) drop of volume (change, anxiety)
57	1:25:10	1:26:04	TER		slasher goes off screen (indirect presence) people on screen hurt (pain, indirect presence) gun on hand (danger) both claim the other did it (indirect presence)	screaming, pleading (pain, anxiety) rising suspense music (anxiety)
58	1:26:04	1:26:43	REC		inside the house locked (safety) boyfriend comes up (other presence)	drop of music (safety)
59	1:26:43	1:26:49	TER		bf slowly turns with mad face (presence, realization)	rising of music (anxiety)
60	1:26:49	1:26:55	HOR		shoots him (startle, realization, pain) crashes down (pain, startle, fast rythm) happy face of bf (realization, danger)	screams (startle, danger, pain) peak music (startle, realization, fast rythm)
61	1:26:55	1:31:00	TER		presence but no agression (presence) slashers in real ID (realization) both criminals try to explain themselves (motive, safety) dad (danger) blaming someone else (indirect presence)	rising suspense music (anxiety) stressed conversation (anxiety) promises of pain (anticipation) drop of bgm (safety, anxiety)
62	1:31:00	1:32:30	HOR		stabs other (startle, pain) stabs the other (pain, startle) fighting (danger)	rise of music (startle) screaming blabbling (danger, madness)
63	1:32:30	1:33:23	REC		out of screen (indirect presence) no gun (realization) reporter with gun (safety)	drop of music (safety) rising music (anxiety) conversational (safety)
64	1:33:23	1:33:30	HOR		kicks her (pain, startle) safety on (realization) falls to the floor (pain)	pike sound
65	1:33:30	1:35:51	TER		killers trying to kill her (indirect presence) girl dissapears (realization) ringin phone (startle) girl calling her (anxiety, indirect presence) dying killer (pain, realization) looking around (presence)	rising music (anxiety) swearing, crashing sound (anxiety) crying (anticipation, anxiety) swearing (anticipation, anxiety)
66	1:35:51	1:36:00	HOR	62	comes out of closet with mask (danger, pain, startle) stabs (pain, contact)	grunt, scream (pain, startle)
67	1:36:00	1:36:08	REC		it was girl (other presence, safety) killer on the floor (safety)	drop of music (safety)

☒ A.7: Appendix 2: Spreadsheet data for the film: "Scream".(4/5)

68	1:36:08	1:36:48	HOR		other killer comes in screen (startle, danger) struggle (danger, contact, fast rythm) tv falls on killer (pain, death, contact)	pike music (anxiety, startle, fast rythm) screaming, grunts, crashing (fast rythm)
69	1:36:48	1:37:00	REC		killer death (safety)	drop of bgm (safety)
70	1:37:00	1:37:40	HOR		guy on screen (startle) small conversation (safety) punch on face (startle, contact, pain, danger) struggle, fights back, finger on wound, about to strike (contact, pain, danger, presence) shot by reporter (startle, pain)	rise of music (startle, pain, danger, fast rythm) screams, grunts, swearing (danger, fast rythm, pain)
71	1:37:40	1:38:27	REC		killer death (safety) reporter and friend on screen (other presence) finishes killer (safety)	drop of bm, conversational (safety)
72	1:38:27	1:38:30	HOR		dad burst out of closet (startle, fast rythm)	wood crashing sounds, screams (startle)
73	1:38:30	1:38:45	REC		it was only dad (realization, safety)	drop of bm, conversational (safety) nice music (safety)
74	1:38:45	END	BG		ambulances, morning, many people (safety)	pop music (safety, relaxed)

☒ A.8: Appendix 3: Spreadsheet data for the film: "Alien".(1/2)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:00:00	0:05:26	Intro, Title	TER	Obstruction, Abnormal Effects (Anxiety)	Rhythm (Slow), Rhythm (Rising), Conversation (Safety)	Lights up, wake up
0:05:26	0:12:05	rise up	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Anxiety), Ambient (Safety)	ship take off
0:12:05	0:16:18	entering admosphere	TER	Obstruction, Danger Zone, Rhythm (Fast), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	
0:16:18	0:16:25	hull breach	HOR	Danger Zone, Rhythm (Fast), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	outside shot, relaxed
0:16:25	0:22:52	go out 1st time	BG	Obstruction, Danger Zone, Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	night sky, excursion
0:22:52	0:29:11	alien ship, big guy	TER	Obstruction, Danger Zone, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	
0:29:11	0:29:48	ripley on ship	BG	Safety Zone, Pre-established Safety, Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	
0:29:48	0:33:00	egg hall	TER	Obstruction, Danger Zone, Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	hugger
0:33:00	0:33:04	HUGZ	HOR	Danger Zone, Contact, Startle	Startle	outside shot, relaxed
0:33:04	0:33:24	break	REC	Safety Zone, Rhythm (Slow)	Rhythm (Slow)	
0:33:24	0:39:12	hugger acid	TER	Danger Zone, Safety Zone, Rhythm (Fast), Presence (Indirect), Startle	Rhythm (Slow), Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety)	
0:39:12	0:39:39	it stopped	REC	Realization	Conversation (Realization)	
0:39:39	0:40:20		BG	Obstruction, Safety Zone, Rhythm (Slow), Presence (Others)	Conversation (Safety)	
0:40:20	0:41:22		TER	Obstruction, Presence (Indirect)	Rhythm (Rising), Conversation (Safety)	
0:41:22	0:44:29	droid and ripley talk	BG	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	
0:44:29	0:45:38		TER	Obstruction, Danger Zone, Rhythm (Slow)	Abnormal Effects (Anxiety), Conversation (Anxiety)	
0:45:38	0:45:40		HOR	Startle	Startle	
0:45:40	0:45:45		REC	Rhythm (Slow), Realization	Conversation (Realization)	
0:45:45	0:46:35		TER	Obstruction, Pre-established Danger, Rhythm (Slow)	Rhythm (Rising), Conversation (Anxiety)	
0:46:35	0:46:40		HOR	Rhythm (Fast), Contact, Startle	Startle	realize its dead
0:46:40	0:46:49		REC	Safety Zone, Pre-established Safety, Presence (Others), Realization	Conversation (Realization)	examination begins
0:46:49	0:53:00		BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
0:53:00	0:54:33	chest buster	HOR	Pre-established Danger, Presence (Indirect), Presence (Direct), Abnormal Effects (Anxiety), Contact, Startle, Repulsion (Physical), Repulsion (Social)	Rhythm (Fast), Conversation (Anxiety), Startle, Repulsion (Physical)	busty goes away
0:54:33	0:54:55	searching for monster	TER	Obstruction, Danger Zone, Presence (Others)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety)	funeral scene
0:54:55	0:57:22	funeral, tracking	BG	Obstruction, Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Safety), Conversation (Anxiety), Conversation (Realization), Ambient (Safety)	
0:57:22	1:00:18	searching for monster	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others), Abnormal Effects (Anxiety)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
1:00:18	1:00:25	cat attacks	HOR	Danger Zone, Presence (Direct), Startle	Rhythm (Fast), Startle	its the cat
1:00:25	1:00:53	just the cat	REC	Obstruction, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	
1:00:53	1:02:07	here kitty kitty	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Safety), Conversation (Anxiety), Ambient (Anxiety)	cat startle
1:02:07	1:02:10	cat attacks 2	HOR	Danger Zone, Rhythm (Fast), Startle	Startle	just the cat again
1:02:10	1:02:15	following the cat	REC	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	runs away
1:02:15	1:05:06	alien skin	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Direct)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	alien attack
1:05:06	1:05:16	alien kiss	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Direct), Abnormal Effects (Anxiety), Contact, Startle, Realization, Repulsion (Physical)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Startle, Repulsion (Physical)	
1:05:16	1:06:59	talking about dead	BG	Obstruction, Danger Zone, Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Conversation (Realization), Ambient (Anxiety)	
1:06:59	1:08:03	does not compute	TER	Obstruction, Danger Zone, Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
1:08:03	1:12:32	hunting	TER	Obstruction, Danger Zone, Pre-established Danger, Pre-established Safety, Rhythm (Slow), Presence (Indirect), Presence (Others), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	attack
1:12:32	1:12:42	ALIEN!	HOR	Obstruction, Danger Zone, Presence (Direct), Contact, Startle	Abnormal Effects (Anxiety), Startle	
1:12:42	1:17:14	gun up	BG	Obstruction, Safety Zone, Pre-established Safety, Rhythm (Slow), Rhythm (Fast), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	
1:17:14	1:18:02	droid mode	TER	Obstruction, Danger Zone, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Realization, Repulsion (Physical)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	
1:18:02	1:20:08	droid attack	HOR	Rhythm (Fast), Presence (Direct), Presence (Others), Contact, Startle, Realization, Repulsion (Physical), Repulsion (Psychological)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Physical)	its dead...
1:20:08	1:20:18	dead bots	REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Conversation (Realization)	
1:20:18	1:20:40	and again	HOR	Rhythm (Fast), Presence (Direct), Contact, Startle, Realization, Repulsion (Physical)	Rhythm (Fast), Conversation (Anxiety), Startle	dead o
1:20:40	1:23:23	fixing up bot	REP	Safety Zone, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Repulsion (Physical), Repulsion (Psychological)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Safety), Conversation (Anxiety), Startle, Repulsion (Physical), Repulsion (Psychological)	
1:23:23	1:24:46	blow up the ship	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Indirect), Presence (Others), Realization, Repulsion (Physical)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	start up

☒ A.9: Appendix 3: Spreadsheet data for the film: "Alien".(2/2)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
1:24:46	1:27:03	start up, blow up	TER	Obstruction, Pre-established Danger, Rhythm (Fast)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	
1:27:03	1:27:04	crash of metal	HOR	Obstruction, Rhythm (Fast), Startle, Realization	Rhythm (Rising), Rhythm (Fast), Startle	
1:27:04	1:27:08	how u doing	REC	Obstruction, Rhythm (Fast), Presence (Others), Realization	Rhythm (Fast), Conversation (Anxiety), Conversation (Realization)	change to ripley
1:27:08	1:28:04	here kitty kitty	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	
1:28:04	1:28:06	KITTY!	HOR	Obstruction, Presence (Direct), Contact, Startle	Startle	
1:28:06	1:28:15	just the cat again	REC	Obstruction, Pre-established Safety, Presence (Others), Realization	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger)	
1:28:15	1:29:02		TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Psychological)	alien attack
1:29:02	1:30:16	alien in the middle	HOR	Obstruction, Pre-established Danger, Rhythm (Fast), Presence (Direct), Abnormal Effects (Anxiety), Contact, Startle, Realization, Repulsion (Physical)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Psychological)	last scream of pain
1:30:16	1:33:24	ripley to the rescue (not) escape	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Repulsion (Physical)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger)	alien attack
1:33:24	1:33:55	alien presence	HOR	Obstruction, Pre-established Danger, Rhythm (Fast), Presence (Indirect), Presence (Direct), Abnormal Effects (Anxiety), Startle, Realization	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	drop in bgm as she goes away
1:33:55	1:36:13	ripley runt take off	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety)	vapor
1:36:13	1:36:24	vapor startle	HOR	Obstruction, Danger Zone, Rhythm (Fast), Presence (Indirect), Abnormal Effects (Anxiety), Startle	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Ambient (Danger), Startle	goes on
1:36:24	1:38:39		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Indirect), Abnormal Effects (Anxiety), Realization, Repulsion (Psychological)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
1:38:39	1:39:38	pew pew blows	HOR	Obstruction, Safety Zone, Pre-established Safety, Startle, Realization	Rhythm (Fast), Conversation (Safety), Ambient (Safety), Startle	
1:39:38	1:40:24	I got you, you SOB lets go to sleep	REC	Obstruction, Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Safety)	goes on
1:40:24	1:42:23	(nargita time)	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	alien was there!
1:42:23	1:42:33	hello there	HOR	Obstruction, Pre-established Danger, Rhythm (Fast), Presence (Direct), Abnormal Effects (Anxiety), Startle, Realization	Rhythm (Rising), Rhythm (Fast), Startle	hide and seek
1:42:33	1:46:05	hide and seek, suit up	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	
1:46:05	1:47:50	to kill an alien blast off, death of	HOR	Obstruction, Pre-established Safety, Rhythm (Fast), Presence (Direct), Abnormal Effects (Anxiety), Contact, Startle, Repulsion (Psychological)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger), Repulsion (Psychological)	blast off
1:47:50	1:48:00	alien	REC	Obstruction, Safety Zone, Rhythm (Slow), Realization	Rhythm (Slow), Conversation (Realization), Ambient (Safety)	final report
1:48:00	1:51:48	final report, ending	BG	Safety Zone, Pre-established Safety, Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Safety)	end of movie

☒ A.10: Appendix 4: Spreadsheet data for the film: "A Nightmare on Elm Street".(1/3)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:00:00	0:01:04		REP			
0:01:04	0:01:12		HOR			
0:01:12	0:01:56	intro scene, dina first dream	TER	Obstruction, Danger Zone, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
0:01:56	0:01:58	SHEEPS!	HOR	Startle	Startle	
0:01:58	0:02:00	...sheeps?	REC	Realization		
0:02:00	0:03:09	dream continues	TER	Obstruction, Danger Zone, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Anxiety)	scratch sounds, scare drop of bgm, realization
0:03:09	0:03:30	running	HOR			
0:03:30	0:03:32	sheeps?!	REC	Realization		
0:03:32	0:03:37		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety)	scare from behind
0:03:37	0:03:39		HOR	Presence (Direct), Contact, Startle	Rhythm (Fast), Startle	wake up
0:03:39	0:04:23	mom comes in, you ok?	REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	change of scene rise in bgm, same dream conversation
0:04:23	0:07:39	other chars, same dream, theres something out there	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:07:39	0:09:20		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety)	scary dude
0:09:20	0:09:23		HOR	Obstruction, Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Startle	just.. the dude
0:09:23	0:09:48	a brilliant tackle moms bed, le sexy time	REC	Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Realization)	
0:09:48	0:12:15		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Anxiety)	rise in bgm, dream time
0:12:15	0:15:53	dina... second dream chased by freddy, death outside of dream	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	rise in bgm, freddy appears
0:15:53	0:17:28		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Rhythm (Fast), Presence (Direct), Abnormal Effects (Anxiety), Contact, Startle	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Startle	drop in bgm, slow wall climbing death
0:17:28	0:18:30	tina slowly dies searching for assassin kid	REP	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Indirect), Abnormal Effects (Anxiety), Contact, Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	change of scene
0:18:30	0:21:29	walking down the street, world fbi dudes	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	rise in bgm
0:21:29	0:21:54		TER	Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Safety)	sudden appearance from behind
0:21:54	0:22:00		HOR	Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Startle	not going to hurt you!
0:22:00	0:22:06	im not going to hurt you capture of guy, school day	REC	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Realization)	change of scene
0:22:06	0:24:00		HOR	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Ambient (Safety)	rise in bgm
0:24:00	0:24:24	third dream, nancy	TER	Pre-established Danger, Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	tina on bags
0:24:24	0:24:27		REP	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Repulsion (Psychological), Repulsion (Social)	change to hallway
0:24:27	0:25:05	walk into hallway tina dead body dragged into room	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Anxiety)	tina being dragged away
0:25:05	0:25:10		REP	Repulsion (Physical), Repulsion (Psychological)	Rhythm (Rising), Abnormal Effects (Anxiety)	back to nancy
0:25:10	0:25:26	runs after tina	TER	Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Conversation (Anxiety), Ambient (Anxiety)	bump into random girl wheres ur pass
0:25:26	0:25:30		HOR	Rhythm (Fast), Contact, Startle	Rhythm (Fast), Startle	startle voice from behind
0:25:30	0:25:37	no running in the hallway	REC	Rhythm (Slow), Realization	Rhythm (Slow), Conversation (Realization)	
0:25:37	0:25:50		REP	Rhythm (Slow), Presence (Direct), Repulsion (Physical), Repulsion (Social)	Rhythm (Slow), Conversation (Anxiety), Repulsion (Psychological), Repulsion (Social)	
0:25:50	0:26:46	down the stairs and into the steam room	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	close up of freddy
0:26:46	0:26:49		HOR	Startle	Abnormal Effects (Anxiety), Startle	back to nancy
0:26:49	0:26:58		TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	freddy comes out
0:26:58	0:27:05	freddy comes up	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Startle	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	cuts himself
0:27:05	0:27:11	cuts upon, worms inside	REP	Obstruction, Pre-established Danger, Rhythm (Fast), Presence (Direct), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Abnormal Effects (Anxiety), Conversation (Anxiety), Repulsion (Physical)	attacks
0:27:11	0:28:20	freddy attacks	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Startle, Realization, Repulsion (Psychological)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Ambient (Danger), Startle	wakes up in class
0:28:20	0:28:46	wake up in class talking with dude on jail	REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization, Repulsion (Social)	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Safety), Repulsion (Social)	change of scene rise in bgm, freddy song, falling asleep
0:31:44	0:32:30	bathtub song	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
0:32:30	0:32:47		TER	Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Safety)	hand from the water
0:32:47	0:33:05	mom calls her	REC	Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	falls asleep again? bathtub starting shaking
0:33:05	0:33:40		TER	Pre-established Danger, Rhythm (Slow)	Rhythm (Rising), Abnormal Effects (Anxiety)	
0:33:40	0:34:12	im ok mother trying to stay awake, talking with bf	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	im ok locks door removing rec
0:34:12	0:37:12		REC	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	rise in bgm, walking alone
0:37:12	0:38:00		BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	glenn comes out
0:37:12	0:38:00		TER	Obstruction, Danger Zone, Rhythm (Slow)	Rhythm (Rising), Abnormal Effects (Anxiety)	

☒ A.11: Appendix 4: Spreadsheet data for the film: "A Nightmare on Elm Street".(2/3)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:38:00	0:38:10		REC	Presence (Others), Realization	Conversation (Realization)	goes on with nancy
0:38:10	0:39:45	walking alone at night	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Anxiety)	freddy comes out
0:39:45	0:40:04		HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Repulsion (Social)	rob wakes up
0:40:04	0:40:08		REC	Realization	Rhythm (Slow)	ghost comes out
0:40:08	0:40:26	dying girl	REP	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	walks away
0:40:26	0:40:36	wake up!!	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	freddy attack
0:40:36	0:40:53	freddy follows	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Ambient (Danger), Startle	locks the door, drop of bgm
0:40:53	0:41:10	stuck at the stairs	REP	Danger Zone, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	save me from freddy
0:41:10	0:41:19		HOR	Danger Zone, Pre-established Danger, Presence (Direct)	Rhythm (Fast), Abnormal Effects (Anxiety), Ambient (Anxiety)	lock door, glenn sleeping
0:41:19	0:41:29	this is a dream he isnt real	REC	Rhythm (Slow), Realization	Rhythm (Slow), Conversation (Realization)	freddy jumps out of mirror
0:41:29	0:42:08	freddy attacks	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	wake up
0:42:08	0:42:40	wakes up	REC	Presence (Others), Realization	Rhythm (Slow), Conversation (Realization)	gleen out the window
0:42:40	0:43:32	go to the window	BG	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	freddy attacks rob
0:43:32	0:44:43	rob gets attacked	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	wakes up, attacked, choked
0:44:43	0:45:10	dragged choked	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Repulsion (Physical)	dies
0:45:10	0:45:50	dead... rod funeral, clinic scene	REP	Rhythm (Slow), Presence (Others), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	funeral scene
0:45:50	0:48:28		BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	rise in bgm, change of scene
0:48:28	0:50:28	falls asleep in clinic	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Others)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	rise in everything
0:50:28	0:50:42	trashing in bed	HOR	Rhythm (Fast), Presence (Indirect), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Startle	wakes up
0:50:42	0:50:53	wake up everything ok	REC	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)		NO! and cutted
0:50:53	0:51:24	cutted and stuff	REP	Safety Zone, Pre-established Danger, Rhythm (Slow), Presence (Others), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Conversation (Realization), Repulsion (Social)	change of scene
0:51:24	1:06:26	confronting mother, mom talks about freddy, nancy and gleen plan on killing freddy, fer falls asleep, everyone get ready to rumble,	BG	Safety Zone, Pre-established Safety, Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	strange call
1:06:26	1:07:23	strange calls,	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	tongue from phone.. ?!
1:07:23	1:07:32		HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Contact, Startle	Rhythm (Fast), Startle	drop in bgm
1:07:32	1:08:22	locked door glenn gets dragged down	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	
1:08:22	1:08:40		HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Ambient (Anxiety), Startle	piles of blood
1:08:40	1:09:08	blood flows up fills ceiling ambulance comes around	REP	Danger Zone, Pre-established Danger, Rhythm (Fast), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Fast), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	ambulance comes in, change of scene
1:09:08	1:09:53		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	change of scene, the blood room
1:09:53	1:10:18	blood from the ceiling talking nancy on the phone, nancy getting ready for freddy, talking with mom, getting ready to sleep,	REP	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Rising), Conversation (Anxiety), Conversation (Realization), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	talking on the phone with nancy
1:10:18	1:15:25		BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	goes to sleep, change of scene
1:15:25	1:20:14	last dream	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Ambient (Danger)	
1:20:14	1:20:25	freddy follows around	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Startle	freddy comes out falls out of the window, drop of bgm, change of scene
1:20:25	1:20:45		REC	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Anxiety), Ambient (Anxiety)	freddy comes out
1:20:45	1:20:57		HOR	Obstruction, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Physical)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	alarm clock, wakes up
1:20:57	1:21:23	wakes up crying	REC	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Safety)	freddy comes out locks door removing
1:21:23	1:21:34		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Startle	hor
1:21:34	1:21:58	HELP!!! freddy out and down the stairs	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	rise in bgm, rushing around
1:21:58	1:23:41		HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger)	daddy i got him!!

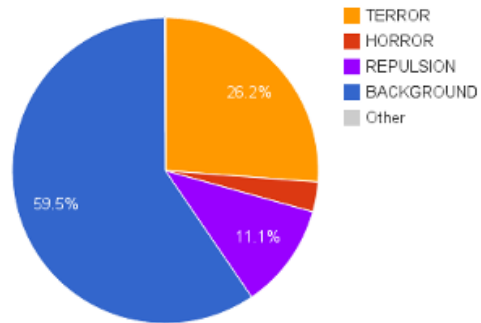
☒ A.12: Appendix 4: Spreadsheet data for the film: "A Nightmare on Elm Street".(3/3)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
1:23:41	1:24:21	daddy I got him!!!	REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Safety)	nancy notices something
1:24:21	1:24:41		TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	freddy attacking mama
1:24:41	1:24:56	freddy on top of mama	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	mama dies slowly
1:24:56	1:25:24	mama goes down slowly	REP	Rhythm (Slow), Presence (Direct), Presence (Others), Repulsion (Physical), Repulsion (Psychological)	Rhythm (Slow), Conversation (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	everything ok up here? drop in bgm
1:25:24	1:26:00	crying, now do you believe me? im ok	REC	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	door closes, crazy face
1:26:00	1:27:23	freddy coming up, i know the secret	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	last attack
1:27:23	1:27:26		HOR	Contact, Startle	Startle	fades.. away? weird stuff going on with the car
1:27:26	1:28:28	new day, happy thoughts	REC	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
1:28:28	1:28:55		TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	punch tru window drop in bgm, freddy song
1:28:55	1:29:02		HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Startle	
1:29:02	1:29:27	closing credits freddy song	REP	Obstruction, Rhythm (Slow), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety), Repulsion (Psychological), Repulsion (Social)	happy music
1:29:27	1:31:23	ends credits, rock song	BG	Rhythm (Slow)	Rhythm (Slow)	end of movie

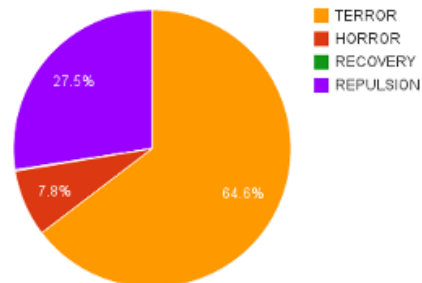
☒ A.13: Appendix 5: Spreadsheet data for the film: "Psycho".(1/1)

#	Start	End	Stage	Duration (decimal)	By Stage (name)	By Stage (%)	By Stage (decimal)	Stage (Time)
1	0:00:00	0:01:56	HOR	0.001342592592593	TERROR	26.19%	0.019722222222222	0:28:24
2	0:01:56	0:10:55	BG	0.006238425925926	HORROR	3.15%	0.002372685185185	0:03:25
3	0:10:55	0:12:42	TER	0.001238425925926	RECOVERY	0.06%	0.000046296296296	0:00:04
4	0:12:42	0:13:02	BG	0.000231481481481	REPULSION	11.13%	0.00837962962963	0:12:04
5	0:13:02	0:13:40	TER	0.000439814814815	BACKGROUND	59.47%	0.044780092592593	1:04:29
6	0:13:40	0:16:17	BG	0.00181712962963	TOTAL	100.00%	0.075300925925926	1:48:26
7	0:16:17	0:17:37	TER	0.000925925925926				
8	0:17:37	0:23:15	BG	0.003912037037037				
9	0:23:15	0:26:27	TER	0.002222222222222				
10	0:26:27	0:30:40	BG	0.002928240740741				
11	0:30:40	0:33:20	TER	0.001851851851852				
12	0:33:20	0:40:40	BG	0.005092592592593				
13	0:40:40	0:42:23	TER	0.00119212962963				
14	0:42:23	0:43:20	BG	0.000659722222222				
15	0:43:20	0:46:20	TER	0.002083333333333				
16	0:46:20	0:47:05	BG	0.000520833333333				
17	0:47:05	0:47:17	TER	0.000138888888889				
18	0:47:17	0:47:44	HOR	0.0003125				
19	0:47:44	0:57:30	REP	0.006782407407407				
20	0:57:30	0:58:50	BG	0.000925925925926				
21	0:58:50	0:59:50	REP	0.000694444444444				
22	0:59:50	1:03:32	BG	0.002569444444444				
23	1:03:32	1:04:13	TER	0.000474537037037				
24	1:04:13	1:11:32	BG	0.005081018518519				
25	1:11:32	1:12:19	TER	0.000543981481481				
26	1:12:19	1:13:47	BG	0.001018518518519				
27	1:13:47	1:17:00	TER	0.002233796296296				
28	1:17:00	1:17:14	HOR	0.000162037037037				
29	1:17:14	1:18:18	BG	0.000740740740741				
30	1:18:18	1:19:30	TER	0.000833333333333				
31	1:19:30	1:24:37	BG	0.003553240740741				
32	1:24:37	1:26:27	TER	0.001273148148148				
33	1:26:27	1:28:10	BG	0.00119212962963				
34	1:28:10	1:28:56	TER	0.000532407407407				
35	1:28:56	1:34:40	BG	0.003981481481481				
36	1:34:40	1:35:48	TER	0.000787037037037				
37	1:35:48	1:36:20	BG	0.00037037037037				
38	1:36:20	1:37:16	TER	0.000648148148148				
39	1:37:16	1:37:18	HOR	0.000023148148148				
40	1:37:18	1:37:22	REC	0.000046296296296				
41	1:37:22	1:39:40	TER	0.001597222222222				
42	1:39:40	1:39:47	HOR	0.000081018518519				
43	1:39:47	1:40:48	TER	0.000706018518519				
44	1:40:48	1:41:27	HOR	0.000451388888889				
45	1:41:27	1:47:08	BG	0.003946759259259				
46	1:47:08	1:48:26	REP	0.000902777777778				

Psycho: Stages of Fear



Psycho: Stages of Fear (BGless)



☒ A.14: Appendix 6: Spreadsheet data for the film: "Paranormal Activity".(1/2)

#	Start	End	Stage	Description	Cue(visual)	Cue(audio)	Ends	TEST
1	0:00:00	0:08:00	BG	Intro to the movie	Daylight, No presence, smiling	Normal sounds, conversational,	When he turns off the light (Day #1)	PA_1
2	0:08:00	0:09:20	TER	First night	Ambient change (dark), sleeping (weakness), clock stops (anticipation)	Low bass sound (noise), steps heard (presence)	Morning comes	PA_1
3	0:09:20	0:22:10	BG	Physic Conv	Daylight, No presence, joking around,	conversational,	Night comes	PA_1, PA_2
4	0:22:10	0:23:16	TER	2nd night	Ambient change (dark), sleeping (weakness), clock stops (anticipation), door moves (presence)	Low bass sound (noise), door sounds	Alarm clock	PA_2
5	0:23:16	0:24:00	REC	Morning	Becomes morning on same location (situational, safe)	Alarm clock (safety)	Change of location	PA_2
6	0:24:00	0:25:30	BG	Morning	Daylight, No presence, playing guitar,	Normal sounds, conversational,	Screams	PA_2
7	0:25:30	0:25:50	HOR	spider	Running around (danger)	Girl screams (presence, danger)	It's a spider	PA_2
8	0:25:50	0:26:35	REC	spider	Small spider (realization) same location (situational)	turns Conversational (safety)	Change of location	PA_2
9	0:26:35	0:29:55	BG	Morning	Daylight, No presence, relaxed state	conversational	Night comes	PA_2, PA_3
10	0:29:55	0:30:21	TER	night	Ambient change (dark) sleeping (weakness) clock stops (anticipation)	Low bass sound (noise) whispers heard (presence)	Wakes up from nightmare	PA_3
11	0:30:21	0:32:00	HOR	wakes up	Rises suddenly (startle), goes to check (danger), becomes fast paced movement (danger)	Screams nightmare (startle) tud sound (presence)	Morning comes	PA_3
12	0:32:00	0:35:45	BG	morning	Daylight, No presence, relaxed state	Normal sounds, conversational,	Night comes	PA_3
13	0:35:45	0:36:48	TER	night	Ambient change (dark), sleeping (weakness), clock stops (anticipation), wakes up (anticipation)	Low bass sound (noise), steps heard (presence)	bird scream	PA_3, PA_4
14	0:36:48	0:39:23	HOR	bird scream	start moving fast on the bed (startled) fast movement go downstairs (danger) moving candlellier downstairs (presence)	monster-bird-like scream followed by loud tud (startle, presence)	Morning comes	PA_4
15	0:39:23	0:42:40	BG	monming	Daylight, No presence	Normal sounds, conversational,	night comes	PA_4
16	0:42:40	0:47:40	TER	sleep walking	Ambient change (dark), sleeping (weakness), clock stops (anticipation), wakes up and remains standing then walks away (abnormal, presence) standing outside (abnormal) tv on (presence)	Low bass sound (noise) angry/confused conversation (anxiety)	day comes	PA_4
17	0:47:40	0:51:50	BG	morning, quija	Daylight, No presence	Normal sounds, conversational, stressed conversation (yet safety)	sounds	PA_4, PA_5
18	0:51:50	0:53:05	TER	quija moving	quija moves, curtain moves, fire (presence)	tud sounds, low bass (presence, noise)	they come back	PA_5
19	0:53:05	0:53:55	REC	quija moved!	No movement, they come back (safety) same location different situation	normal sounds (safety)	slam door	PA_5
20	0:53:55	1:01:34	BG	talk with sis	Daylight, go to sleep but no clock (safety), relaxed	normal sounds, conversational	night comes	PA_5
21	1:01:34	1:06:07	TER	footsteps	Gets dark (ambient change), clock starts (pre-established danger), sleeping (weakness), clock stops (anticipation), wakes up discover foot steps (presence) leading to upstairs (danger zone)	tud sounds, low bass (presence, noise)	talks to dad	PA_5, PA_6
22	1:06:07	1:07:14	REC	photograph	talking to dad (safety), slightly brighter (safety) situational	no weird sounds, conversational (safety), dad presence of others (safety)	Morning comes	PA_5, PA_6
23	1:07:14	1:09:55	BG	monming	Daylight, No presence	Normal sounds, conversational, stressed conversation (yet safety)	night comes	PA_6

☒ A.15: Appendix 6: Spreadsheet data for the film: "Paranormal Activity".(2/2)

24	1:09:55	1:10:22	TER	night	Gets dark (ambient change), clock starts/stops (pre-established danger), sleeping (weakness), clock stops (anticipation), wakes up to sounds (presence)	tud/step sounds, low bass (presence, noise)	door bangs	PA_6
25	1:10:22	1:13:10	HOR	doors!!!	door closes suddenly (stattle) wake up suddenly (startle) door shakes (presence, danger) walk hallway (danger zone), door slams again (presence, danger)	door slams, shakes, slam, low bass (presence) screams, swearing (startle) hyperventilation, cries name (danger)	cuddling	PA_6
26	1:13:10	1:13:23	REC	cuddles	hunging and cuddling (safety) brighter scene (safety) situational	conversational (safety)	Morning comes	PA_6
27	1:13:23	1:17:30	BG	morning	Daylight, No presence	Normal sounds, conversational, stressed conversation (yet safety)	night comes	PA_7
28	1:17:30	1:19:50	TER	night night	Gets dark (ambient change), clock starts pre-established danger), sleeping (weakness), clock stops (anticipation),sheets moves shadow on the door (presence) wakes up to sounds (presence)	tud/step sounds, low bass (presence, noise)	morning comes	PA_7
29	1:19:50	1:25:13	BG	morning	Daylight, No presence	Normal sounds, conversational, stressed conversation (yet safety)	night comes	PA_7
30	1:25:13	1:25:30	TER		Gets dark (ambient change), clock starts pre-established danger), sleeping (weakness), clock stops (anticipation)	tud/step sounds, low bass (presence, noise)	horror starts	PA_8
31	1:25:30	1:26:32	HOR	dragging me down	Shes pulled out of leg (startle, contact, danger) dragged outside, door closes (contact, danger) mika runs toward her (fast movement)	screaming (startle, danger, pain) crying (pain, danger)	morning comes	PA_8
32	1:26:32	1:30:09	BG	morning	Daylight, No presence	Normal sounds, conversational, stressed conversation (yet safety)	night comes	PA_8
33	1:30:09	1:31:17	TER	nighty night	Gets dark (ambient change), clock starts pre-established danger), sleeping (weakness), clock stops (anticipation), stands up possessed like (pre-established danger)	tud/step sounds, low bass (presence, noise)	girl screams	PA_8
34	1:31:17	1:32:34	HOR	bye bye johny	wakes up suddenly (startle) runs out (fast movement, danger) comes back possessed like (presence)	screams (startle, danger) swearing, scream (pain)	day comes	PA_8
35	1:32:34	1:33:35	REC/TI	im a lonely girl	becomes day (situational) hours go by (safety)	no weird sounds the low bass is off (safety, lack of presence) alarm clocks, phone rings, day sounds (normality)	night comes	PA_8
36	1:33:35	1:34:36	HOR	KATEY?!	darkness (ambient change, danger) katey stops moving (presence)	screams name (startle, danger)	change of scene	PA_8
37	1:34:36	END	REC	robocop cops	fade to black (situational, time frame) police presence (safety) shes shot down (safety)	police siren (safety) cops talking (presence of others, safety)	movie ends	PA_8

☒ A.16: Appendix 7: Spreadsheet data for the film: "Jaws 4: The Revenge".(1/2)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:00:00	0:00:14	intro credits	BG			rise in bgm
0:00:14	0:02:44	underwater swimming cooking time, xmas shopping, goes out in the boat,	TER	Obstruction, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Anxiety)	frying fish
0:02:44	0:08:34	shark view	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	shark view, rise of bgm
0:08:34	0:08:44	WARRRRGH .. im	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Anxiety)	shark attack
0:08:44	0:08:50	shark, fear me!	HOR	Obstruction, Danger Zone, Rhythm (Fast), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Ambient (Safety), Startle	drop in bgm, end of attack
0:08:50	0:09:20	minus the arm, xmas charol	REP	Rhythm (Slow), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	shark view
0:09:20	0:09:22	shark view	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	shark attack again
0:09:22	0:09:35	unheard help call over charol, body of the deceased	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Social)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Startle, Repulsion (Social)	drop in bgm, calling for help but unheard over charol
0:09:35	0:10:57	kids and granma, i want you away from the water, funeral, riding ferry, riding plane,	REP	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	change of scene
0:10:57	0:20:22	kid doing dangrous play	BG	Safety Zone, Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	kid doing dangerous stuff, rise in bgm
0:20:22	0:20:40	fighting kid, tourist on the lose,	TER	Rhythm (Slow)	Rhythm (Rising), Conversation (Anxiety)	drop in bgm, normal conversation
0:20:40	0:21:40	anxious mama, swimming in ocean, bottom view	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	rise in bgm, anxious granma
0:21:40	0:22:23	attacked, blood, fangs, shark!	TER	Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Ambient (Anxiety)	contact with...
0:22:23	0:22:34	just a dream	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	wake up
0:22:34	0:22:52	undersea research, xmas presents,	REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Safety)	change of scene
0:22:52	0:27:20	shark view, shark granma playing with kid	BG	Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	rise in bgm, shark view
0:27:20	0:27:40	granma notice something, rise of bgm	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	drop of bgm granma notices something
0:27:40	0:28:02	playing in the beach, sea research, oldfolk love, flying a plane, carnival,	BG	Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	drop of bgm, rise in conversation
0:28:02	0:28:28	shark on the water	TER	Pre-established Danger, Rhythm (Slow), Abnormal Effects (Anxiety)	Rhythm (Slow), Conversation (Anxiety)	shark in the water
0:28:28	0:33:44	shark bites off le dude dancing in the... festival	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	shark attack
0:33:44	0:33:58	we got us a whiteshark!, rainy night, casino, new years party, fighting over searching for the shark, sex in the workshop,	TER	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger)	granma is fine and dances
0:33:58	0:34:30	its coming!!!	REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Conversation (Realization)	change of scene
0:34:30	0:35:26	shark attack you got him man! (drop of bgm, fades away)	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	shark view
0:35:26	0:48:10	oldfolk sexytime, searching for shark	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	shark out of the water stabs shark, sinks away
0:48:10	0:49:02	shark swimming talking about bf	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Startle	change of scene
0:49:02	0:49:16	gramma,	REC	Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	rise in bgm
0:49:16	0:49:48	searching for shark	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	change of scene
0:49:48	0:52:50	shark gone away, shark swimming	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety)	shark attack!
0:52:50	0:53:12	just a dream	BG	Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	wake up
0:53:12	0:54:24	midnite games, underwater research, rising bgm, shark coming,	HOR	Rhythm (Fast), Contact, Startle	Startle	change of scene, daylight
0:54:24	0:54:30	shark attacks sub, michael swimming for his life,	REC	Realization	Conversation (Realization)	shark on radar
0:54:30	0:54:56	travelling inside sunken boat, shark close by,	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Anxiety)	shark on the water
0:54:56	0:58:44	shark cant cross	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	drop in bgm, put some distance between shark
0:58:44	0:59:24	shark cant cross	HOR	Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Startle	shark reaches him
0:59:24	1:01:16	shark attack!	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	shark cant cross
1:01:16	1:01:48	change of scene, rise in bgm	HOR			change of scene, rise in bgm
1:01:48	1:01:54		REC	Realization		
1:01:54	1:02:00					

☒ A.17: Appendix 7: Spreadsheet data for the film: "Jaws 4: The Revenge".(2/2)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
1:02:00	1:02:21	shark somewhere close, run out of oxygen,	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	shark breaks wall out of water
1:02:21	1:02:48	breaks wall attack out of sight, out of mind	HOR	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	change of scene
1:02:48	1:03:02	sleepless night, next day research,	BG	Obstruction, Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Safety)	WA!
1:03:02	1:05:22	ATTACK	HOR	Startle	Startle	just a remora
1:05:22	1:05:27		REC		Rhythm (Slow), Conversation (Realization)	change of scene
1:05:27	1:05:34	beach time, banana boat,	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	rise in bgm
1:05:34	1:07:14	shark view, incoming shark,	TER	Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	SHARK!
1:07:14	1:07:50	shark bites off le dudette,	HOR	Obstruction, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Ambient (Anxiety), Startle	drop of bgm, dying girl
1:07:50	1:08:28		REP	Repulsion (Physical), Repulsion (Psychological)	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	girl safe
1:08:28	1:08:35		REC	Rhythm (Slow), Presence (Others), Realization	Conversation (Realization)	rise in bgm, shark in the water
1:08:35	1:08:46		TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	change of scene
1:08:46	1:09:46	granma to the rescue! girl in shock, hunting after shark, hunting with plane,	BG	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety)	rise in bgm, shark view
1:09:46	1:12:54	shark view flying	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
1:12:54	1:13:08		BG	Safety Zone, Rhythm (Slow), Presence (Others)		
1:13:08	1:13:16	back to shark, shark in water (indirect),	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	shark vs plane
1:13:16	1:14:14	plane passes by again,	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Startle	Rhythm (Fast), Startle	plane passes by, shark dissapears
1:14:14	1:14:20		REC	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	rise in bgm, people on the water
1:14:20	1:15:30		TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	shark attack
1:15:30	1:15:42	shark eat a plane	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Ambient (Danger), Startle	dead maybe
1:15:42	1:16:10	ate the granma boyfriend..	REP	Pre-established Danger, Rhythm (Slow), Abnormal Effects (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Conversation (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	bf was alive
1:16:10	1:16:44	bf was alive after all	REC	Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Anxiety), Conversation (Realization)	shark monitor shark close
1:16:44	1:17:14	shark coming closer	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	shark seems to go away
1:17:14	1:18:40	shark gone maybe	REC	Realization	Conversation (Realization)	getting closer again
1:18:40	1:19:16	there he is!	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	shark attack
1:19:16	1:20:19	shark attack	HOR	Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Startle	death of rastaman
1:20:19	1:20:45	slow death of rastaman,	REP	Abnormal Effects (Anxiety), Conversation (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	rise of bgm
1:20:45	1:21:40	shark back for more,	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	boat hits the fan.. i mean, shark
1:21:40	1:23:23		HOR	Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	slowly dying shark
1:23:23	1:23:42		REP	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	everyone ok
1:23:42	1:23:50	im ok, even rastaman... sad sad ending, everyone going away, final goodbyes, happy thoughts, credits	REC	Rhythm (Slow), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	change of scene, rescue
1:23:50	1:25:12		BG	Safety Zone, Presence (Others)	Rhythm (Slow), Conversation (Safety)	end of movie

☒ A.18: Appendix 8: Spreadsheet data for the film: "The Exorcist".(1/3)

#	Start	End	Stage	Description	Cue(visual)	Cue(audio)	
1	0:00:00	0:01:13	TER	intro, title	dark (obstruction, danger) face of statue (abnormal)	rising music (anxiety) high pitch effects (abnormal)	title, change of location
2	0:01:13	0:04:16	BG	arabia dig	daylight, groups, action, scenery	no bgm, chanting	rise of music
3	0:04:16	0:04:25	TER	discovery	weird artifact (?) red sun (color anxiety)	rising music (anxiety)	change of location (market)
4	0:04:25	0:08:24	BG	market	groups, smiling	crowd, laughing	cart dashes by
5	0:08:24	0:08:30	HOR	horse cart	cart walks in (startle)	horses, gasp, scream (startle)	just a cart
6	0:08:30	0:09:23	BG	back to dig site	daylight, groups, action, scenery	no bgm	rise of music
7	0:09:23	0:11:19	TER	rise the mountain intro city, char intro,	weird statue (abnormal, presence) red sun (color anxiety) turns around looking for something (anxiety) dogs fighting (pain, danger) dust cloud (obstruction)	rising music (anxiety) barking (startle, abnormal)	change to city (georgetown)
8	0:11:19	0:12:12	BG	city, scenery, groups, morning, crowds, bokgrd	city, scenery, groups, morning, crowds, normality, filming,	conversational, narrative	change to house, mom fighting
9	0:12:12	0:26:55	TER	fighting on the phone	dark, leaves moving (abnormal scenery) dolly out from room, darkness (anxiety) mom pasing around stressed (anxiety) sad face of daughter (anxiety)	rising music (anxiety) fighting on the phone (anxiety)	change of location (market)
10	0:26:55	0:27:48	BG	on the bed	on the bed chilling, relaxed, together dark, alone (anxiety, danger) light dosent turns (ambient danger) long shots (slow rythm) stumbles on objects (dangerous ambient)	no bgm	change of location hallway]
11	0:27:48	0:29:47	TER	attic	weird sounds from the attic (presence) hollow, wind effects (anxiety) rising suspense music (anxiety)	fire, scream (startle) other voice (presence, startle)	fireball
12	0:29:47	0:29:50	HOR	fireball	fire ball (ambient danger, startle)	voice (presence, startle)	carl on screen
13	0:29:50	0:30:00	REC	just the butler	was the butler (realization, safety)	conversational (safety)	change of location
14	0:30:00	0:31:02	BG	priest	daylight, priest, church	no bgm, ambient	desacration
15	0:31:02	0:31:07	REP	desacrated mary	desacrated mary (abnormal social)	gasp (disgust)	change of location
16	0:31:07	0:36:00	BG	hospital	daylight, groups, hospital, priest on hospital	ballad music, conversational, ambient	crazies
17	0:36:00	0:37:05	REP	crazies on hospital	psychological diseased patients (abnormal social, psicological) face of disguts from priest (disgust)	crying, babbling, ranting, screams (abnormal)	meets with mom
18	0:37:05	0:41:20	BG	party night	daylight, sadness, partying, groups,	conversational, flirting, laughter	peeing kid
19	0:41:20	0:41:42	REP	piss on you	staring child (abnormal psychological) pisses on herself (abnormal social)	(abnormal psychological, social)	change of location
20	0:41:42	0:42:49	BG	bathing, clean	conversational, group, relaxed	no bgm	shaking bed
21	0:42:49	0:43:09	HOR	bed shakes	running up, flashing lights (fast rythm, presence, danger) bed shaking (direct presence, danger)	scream (startle, danger) rattling (danger)	change of scene
22	0:43:09	0:44:50	BG	priest depression	group, drinking	conversational, ballad music	dream
23	0:44:50	0:45:27	TER	priest dreams	bright, mist, dream mode (ambient danger) weird flashes, dead mother, weird street (abnormal) flashes of evil face (indirect presence)	rising music (anxiety)	end of dream
24	0:45:27	0:45:37	HOR	struggling girl	struggling (startle, fast rythm) spit strikes (abnormal, contact)	screaming, swearing (startle, indirect presence)	priest mass
25	0:45:37	0:49:11	BG	hospital	mass, hospital, groups	no bgm, conversation	operation
26	0:49:11	0:50:20	REP	operation	face of pain (pain of others) blood (abnormal physical) machines come to face (abnormal psychological)	grunts (pain) sounds of heavy machinery (abnormal phycological)	end of operation
27	0:50:20	0:50:57	BG	discussion of operation	groups, medics,	conversational	change of escenery
28	0:50:57	0:51:22	TER	first encounter	running up the stairs (anxiety)	screaming (indirect presence, danger, pain, anxiety) rushed conversation about violent attacks (anxiety)	enter room
29	0:51:22	0:51:37	REP	first encounter	weird movements, jumping up the bed (abnormal physical, deformity)	screaming, begging (anxiety, pain of others)	turns
30	0:51:37	0:52:12	HOR	first encounter	face of demon (startle, presence, abnormal) strikes doctor (contact, pain, danger, fast rythm) shows vagg (abnormal social) struggling, hurting herself, (pain, contact, abnormal physical)	grunt of demon (startle, presence) voice of demon (presence, danger) "fuck me" (abnormal social)	change of location
31	0:52:12	0:54:12	BG	after f enc	groups, sadness, daylight	conversational	change of location
32	0:54:12	0:54:22	REP	brain exams	pain face (pain of others) weird machinery (abnormal phycological)	machinery sound (abnormal psychological)	operation end
33	0:54:22	0:55:55	BG	after test	groups, ambient, daylight, safety	conversational	reaches house
34	0:55:55	0:57:16	TER	second enc	darkness, flashing lights (obstruction, anxiety, presence) demon face on the wall (presence, anxiety, startle) alone in the dark (danger zone) room chilled (abnormal, anxiety, presence)	ringing phone no answer (anxiety, presence) rising music (anxiety) abnormal sound effects, whisper, voice (anxiety)	drop of bgm, presence of daughter
35	0:57:16	0:58:10	BG	fighting	groups, bright,	no bgm, conversational	rise of music
36	0:58:10	0:58:29	TER	down the stairs	crying (sad)	rising suspense music (anxiety) panting (anxious) steps from upstairs (presence)	girl comes downstairs

☒ A.19: Appendix 8: Spreadsheet data for the film: "The Exorcist".(2/3)

37	0:58:29	0:58:40		HOR	down the stairs	girl walking down the stairs belly up (startle, presence, danger, abnormal deformity) open mouth with blood (presence, abnormal social, deformity, mutilation)	pike music (startle, danger) gasp (fear) demon sound (presence, abnormal psychological)	change of location
38	0:58:40	1:00:19		TER	hypnosis	girl staring (anxiety) demon face (presence, danger) picture falls (startle, presence) fall back reacting to stink (abnormal physical, disgust, presence)	someone inside (indirect presence) rising suspense music (anxiety) demon sounds (danger, presence) coughing reaction to stink (abnormal physical)	demon comes out
39	1:00:19	1:00:32		HOR	strike doctor	face turns, strikes at doctor (startle, danger, direct presence) jumps on doctor, bites, attack, fall (contact, pain, danger, presence, fast rhythm)	grunt (startle, presence, abnormal deformity) scream (startle, pain, danger, presence)	change of location
40	1:00:32	1:05:10		BG	priest and cop	daylight, running, normally,	conversational, no bgm rising suspense music (anxiety)screams (pain, abnormal social deformity)	change of location (clinic)
41	1:05:10	1:05:55		REP	shaking on bed	shaking on bed (presence, abnormal psychological)	conversational, relaxed, laughing	docs talking
42	1:05:55	1:15:33		BG	docs cops converse	group, daylight, cop, smiling		cop leaves, sounds
43	1:15:33	1:16:30		HOR	third encounter	rushing up (fast rhythm, danger, startle) things flying in the room (presence, danger) demon face hurting herself (abnormal mutilation, pain, danger, contact) struggle, makes her lick her (contact, danger, presence, abnormal social) strikes her (contact, pain) furniture moves around (presence, danger) fast cuts (fast rhythm) neck turns around (abnormal deformity, presence, danger)	thud sound (startle) scream, demon voice (startle, danger, pain) demon talks, swears (presence, abnormal psychological social)	change of scene (park)
44	1:16:30	1:20:25		BG	talking with priest	daylight, groups, ambient, sadness, crying	no bgm, crying, conversational	reach house
45	1:20:25	1:22:26		TER	4th encounter	enter house dark (obstruction, danger) walks into room (danger zone) demon face girl on bed (presence) cut face, strapped, up nose (abnormal mutilation, deformity, psychological)	weird demon sounds (presence, anxiety) conversational, demon voice (presence) your mother is here with us (abnormal psychological)	puke startle
46	1:22:26	1:22:35		HOR	puke	pukes on him (startle, abnormal, disgust)	puke sounds (startle, abnormal, disgust) rusty demon voice (presence, danger)	change of scene (room) change of scene (demon room)
47	1:22:35	1:27:24		BG	priest background	groups, analysing background, safety	no bgm	
48	1:27:24	1:29:20		TER	5th encounter	girl strapped (safety) demon face (danger, presence) slashed face (abnormal mutilation) burns to holy water (presence, pain of others)	rising music (anxiety) conversation with devil (presence) hissing demon sounds (presence, danger) talks in tongues (presence, danger)	change of scene (house)
49	1:29:20	1:32:55		BG	examines sound rec	groups, daylight, house, night (obstruction, danger) running (anxiety) goes into house (danger zone) freezing room (presence) girl on bed (presence, danger)	conversational, no bgm, no voices	phone call
50	1:32:55	1:33:49		TER	6th encounter	help me message on abs (presence, abnormal deformity mutilation) scared face (anxiety, fear, startle)	rising music (anxiety)	sees abs
51	1:33:49	1:34:00		HOR	help me	daylight, groups, office	pike music (startle, danger) conversational	change of scene (church central)
52	1:34:00	1:36:00		BG	church central	father sees letter (anxiety) face of girl (presence, startle, danger) father comes to house at night mist, poor lighting (obstruction, danger)		letter delivered to father
53	1:36:00	1:36:59	0:00:00	TER	father arrives	groups, meet together	rising music (anxiety) conversational	opens door
54	1:36:59	1:37:13	0:00:59	BG	father arrives			scream
55	1:37:13	1:37:22	0:01:13	HOR	7th encounter	they look up (startle)	demon scream from upstairs (startle, presence, danger)	keep on walking
56	1:37:22	1:37:39	0:01:22	REC	keep on talking	they continue speaking (safety) relaxed	conversational, relaxed	change of scene (room daughter)
57	1:37:39	1:39:40	0:01:39	BG	prepare for ex	groups, preparing, stressed,	conversational, narrative, stressed	go up the stairs
58	1:39:40	1:41:05	0:03:40	TER	go up to ex	going up to ex (anxiety, anticipation) enter room (danger zone) demon girl on bed strapped (presence) throws holy water (presence, danger)	rising suspense music, demon sounds (presence, anxiety) conversational stressed (anxiety) demon voice swearing (presence, danger)	spit
59	1:41:05	1:41:17	0:05:05	REP	spit	spits on his lense (abnormal, disgust, startle)	spit sound (disgust)	cleans up

☒ A.20: Appendix 8: Spreadsheet data for the film: "The Exorcist".(3/3)

60	1:41:17	1:43:57	0:05:17	TER	goes on	cleans up and continues with ex (change) twitching tongue, burning mist (abnormal, presence, danger, pain) twitching bed (presence, danger) rising bed (presence, danger) demon face (presence)	demon sounds (presence, abnormal) chanting (anxiety) father doesn't answer (fear)	puke rep
61	1:43:57	1:44:24	0:07:57	REP	puke	puke comes out of girl mouth slowly (abnormal, disgust) puked strap	exorcism (anxiety) glurping, vomit sounds (disgust)	cleans up
62	1:44:24	1:44:57	0:08:24	TER	clean up	moving furniture (danger, presence) on top, fast movement, ceiling breaks (startle, danger, fast rhythm) things fall, break (danger, fast rhythm) girl face turns around (abnormal deformity, presence danger) whole house shakes (startle, danger, presence) straps break, starts floating (presence, danger) cut appears on leg (abnormal mutilation)	laughing crying demon (danger, presence, anxiety) father screams I cast you out (startle, danger, excited, fast rhythm) screaming, excited exorcism (fast rhythm, danger) the power of christ compels you (excited, danger)	I cast you out!
63	1:44:57	1:47:08	0:08:57	HOR	power of christ compels you	girl falls on bed and is strapped again (safety) shaking, struggle, ambient drop (safety)		girl goes down
64	1:47:08	1:47:28	0:11:08	REC	commands you		no bgm, sound drop	girl strikes at father
65	1:47:28	1:48:10	0:11:28	HOR	image of statue	girl wakes up and strikes father (contact, startle, danger) drops water (safety) whole room shake (danger zone, presence, fast rhythm) girl against light moving like a demon, image of demon statue (presence, danger, abnormal deformity)	demon runt (startle, presence, danger)	end of prayer
66	1:48:10	1:49:25	0:12:10	REC	end of ex 1	end of prayer, demon calms down, father covers her with sheet (safety, realization)	demon reduced to mumble, drop of bgm, voices volume lower (safety)	change of scene (stairs)
67	1:49:25	1:50:32	0:13:25	BG	rest	sitting down outside of room, group, goes in alone (danger zone) father shaking drinking pills (anxiety, danger) face of mother on bed (danger zone) girl on bed sweating (abnormal mutilation, danger, presence) father stays alone to continue ex (danger zone)	no bgm, no voices, conversational, talking about rest	walks back alone
68	1:50:32	1:54:26	0:14:32	TER	walk alone		rising music (anxiety) demons sounds, mother crying sounds (anxiety, danger, presence) sound of mother (anxiety) father on pain (danger, anxiety)	change of scene (downstairs)
69	1:54:26	1:55:35	0:18:26	BG	talk with mom	with mother, group	conversational	goes into room
70	1:55:35	1:56:16	0:19:35	TER	goes back	goes into room, freezing (danger zone) dead father (danger, presence, pain of others) demon sitting on bed (presence) smiling demon (presence, danger)	rising music (anxiety) painting (anxiety) demon laugh (presence, danger)	father strikes demon
71	1:56:16	1:56:55	0:20:16	HOR	demon goes into father	father strikes demon on the floor (contact, danger, presence, fast rhythm) demon goes into father (danger, presence) jumps out of the window (dange, pain, startle) goes down the stairs (pain, fast rhythm)	father swears, demon grunts (startle, pain, fast rhythm) demon screaming, come into me (fast rhythm, danger) crying girl (safety for her) scream, window crash (startle) pike music (danger)	mom and cop walk in
72	1:56:55	1:58:15	0:20:55	REC	all is gone and done	mom walks in, girl crying (safety) cop comes in (presence of others) shot of window (realization) crowds, crying, realization, praying for father	girl crying, conversational, crowds, praying	change of scene (morning)
73	1:58:15	2:06:56	0:22:15	BG	all is gone and done	morning, daylight, crowds, final goodbyes	conversational, no bgm, relaxation, ending	end of movie

☒ A.21: Appendix 9: Spreadsheet data for the film: "Dawn of the Dead".(1/3)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:00:00	0:00:22	intro and waking girl	TER	Obstruction, Rhythm (Slow), Presence (Indirect), Presence (Others)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	wakes up
0:00:22	0:00:24		HOR	Obstruction, Rhythm (Fast), Startle	Startle	you alright?
0:00:24	0:00:28	shits really hit the fan	REC	Realization	Conversation (Realization)	we dont know that
0:00:28	0:07:28	crowd arguing	BG	Obstruction, Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	criminals come out shooting
0:07:28	0:08:25	firefight	HOR	Obstruction, Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Rising), Rhythm (Fast), Conversation (Anxiety)	gas
0:08:25	0:08:54	gas mask, invasion	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others)	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety)	fist zombi?
0:08:54	0:09:45	invasion, killing, doors, etc	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Indirect), Abnormal Effects (Anxiety), Startle	Rhythm (Fast), Conversation (Anxiety)	
0:09:45	0:10:18	death of officer, lying corpses	REP	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Repulsion (Physical)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Psychological)	trying to stand up zombie
0:10:18	0:10:37	trying to stand up zombie	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Repulsion (Physical)	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety)	afrombie
0:10:37	0:11:48	attack of frombie and friends	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	suicide kid
0:11:48	0:12:00	kid suicides	REP	Obstruction, Danger Zone, Rhythm (Slow), Presence (Indirect), Repulsion (Physical), Repulsion (Psychological)	Rhythm (Rising), Rhythm (Fast), Repulsion (Psychological)	change of scene, drop of bgm, slow down break
0:12:00	0:13:48	meeting with big guy	BG	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	old man startle
0:13:48	0:13:56	scare of the old man	HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Startle	Rhythm (Fast), Startle	just an old creeper
0:13:56	0:14:04	just an old man	REC	Obstruction, Danger Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Realization)	conversation with old man
0:14:04	0:15:12	conversation with old creeper	BG	Obstruction, Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	open the door to doom
0:15:12	0:15:41	zombies tru the boards	HOR	Obstruction, Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Psychological)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Ambient (Danger), Startle	drop in bgm
0:15:41	0:15:54	looking at zombies in basement	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Conversation (Anxiety)	eating, killing, and whatnots
0:15:54	0:17:49	feasting zombies	REP	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Direct), Presence (Others), Abnormal Effects (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	change of scene
0:17:49	0:18:09	arriving in heli	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Others)	Rhythm (Rising), Conversation (Safety)	dead body
0:18:09	0:18:30	dead body	REP	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Others), Repulsion (Physical), Repulsion (Psychological)	Rhythm (Slow), Conversation (Anxiety), Repulsion (Psychological)	just like that
0:18:30	0:18:44	hold it like that	BG	Obstruction, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Anxiety)	change of scene, inside bldg
0:18:44	0:19:25	walks in alone	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Conversation (Anxiety), Ambient (Anxiety)	post abandoned
0:19:25	0:19:42	what are you doing?	BG	Obstruction, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	bad cops
0:19:42	0:19:45		HOR	Obstruction, Danger Zone, Presence (Direct), Startle	Rhythm (Fast), Startle	just stay cool
0:19:45	0:21:10	armed men	TER	Obstruction, Rhythm (Slow), Presence (Indirect)	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety)	it be crazy to start shooting one another
0:21:10	0:21:28	you guys ok?	REC	Obstruction, Safety Zone, Presence (Others), Realization	Rhythm (Slow), Conversation (Realization), Ambient (Anxiety)	
0:21:28	0:25:20	heli ride, redneck party	BG	Obstruction, Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	redneck killings
0:25:20	0:26:02	redneck killings	REP	Danger Zone, Pre-established Danger, Rhythm (Slow), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Rhythm (Rising), Conversation (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	airport scene
0:26:02	0:27:20	airport zombies	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	falling cups
0:27:20	0:27:23	sound on the back!	HOR	Danger Zone, Pre-established Danger, Rhythm (Slow), Startle	Rhythm (Slow), Startle	just cups
0:27:23	0:27:29	just cups	REC	Danger Zone, Rhythm (Slow), Realization	Rhythm (Slow)	out of order change of scene
0:27:29	0:27:50		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	knock on the door
0:27:50	0:27:54	knock knock	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Abnormal Effects (Anxiety), Ambient (Safety)	roawr shot
0:27:54	0:27:57	rawwwr	HOR	Obstruction, Pre-established Danger, Rhythm (Fast), Realization	Rhythm (Slow), Abnormal Effects (Anxiety), Startle	change of scene, boys and girls
0:27:57	0:28:05	steve?	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Safety)	knocks on zombie
0:28:05	0:28:35	zombie attack	HOR	Rhythm (Fast), Presence (Direct), Contact, Startle, Realization, Repulsion (Psychological)	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle	knock dead
0:28:35	0:28:43		REC	Realization		
0:28:43	0:29:00	silly rabbits	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Startle	Abnormal Effects (Anxiety), Ambient (Anxiety), Startle	roger!
0:29:00	0:29:15		TER	Obstruction, Rhythm (Slow), Presence (Indirect), Presence (Others)	Rhythm (Rising), Conversation (Anxiety)	
0:29:15	0:29:30		REP	Repulsion (Physical), Repulsion (Psychological)	Rhythm (Slow)	
0:29:30	0:30:13	attack of the zombikids and others	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	kiddos dying
0:30:13	0:30:18	deaded	REP	Rhythm (Slow), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow)	another one
0:30:18	0:30:36		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Startle	Rhythm (Fast), Conversation (Anxiety)	

☒ A.22: Appendix 9: Spreadsheet data for the film: "Dawn of the Dead".(2/3)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
0:30:36	0:30:42	dying zombie	REP	Repulsion (Physical), Repulsion (Psychological)	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	parking lot full of zombies
0:30:42	0:33:30	heli ride away	BG	Safety Zone, Rhythm (Slow), Presence (Others), Realization	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	drop in bgm
0:33:30	0:34:50	mall ceiling chumps, and spam down there	TER	Obstruction, Danger Zone, Pre-established Danger, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	hit and run
0:34:50	0:37:30	hit and run power on, zombie comedy central	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	office room
0:39:44	0:41:16	getting ready for it	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	harms way
0:41:16	0:41:32	hit and run	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	
0:41:32	0:43:10	shopping spree	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Rising), Conversation (Anxiety), Startle	
0:43:10	0:44:52	come here!	BG	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Safety), Conversation (Anxiety), Ambient (Anxiety), Ambient (Danger)	
0:44:52	0:45:21	dude checking office	TER	Safety Zone, Rhythm (Slow)	Rhythm (Slow), Conversation (Safety)	zombie
0:45:21	0:45:39		BG	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Ambient (Danger)	out of bullets
0:45:39	0:47:44		TER			
0:47:44	0:47:46		HOR			
0:47:46	0:48:02		BG	Obstruction, Danger Zone, Pre-established Danger		
0:48:02	0:48:09		TER			
0:48:09	0:48:28		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Ambient (Anxiety), Startle	
0:48:28	0:48:38		REC	Obstruction, Danger Zone, Realization		
0:48:38	0:50:15	run for it	HOR	Danger Zone, Pre-established Danger, Presence (Indirect), Presence (Direct), Contact, Startle	Rhythm (Rising), Rhythm (Fast), Abnormal Effects (Anxiety), Ambient (Anxiety)	go into opt store
0:50:15	0:50:20		REC	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Others), Realization	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety)	
0:50:20	0:50:46		HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Psychological)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety)	
0:50:46	0:51:00	blood ears	REP	Repulsion (Physical), Repulsion (Psychological)	Rhythm (Slow), Rhythm (Fast), Repulsion (Physical), Repulsion (Psychological)	calling for it
0:51:00	0:51:25		BG	Rhythm (Fast), Presence (Others)		
0:51:25	0:52:04	calling for it	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	change of scene
0:52:04	0:52:12		BG			
0:52:12	0:52:27		TER	Obstruction, Danger Zone, Pre-established Danger, Presence (Indirect)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	
0:52:27	0:53:19	ive been thinking	BG	Safety Zone, Pre-established Safety, Presence (Others)	Rhythm (Slow), Conversation (Anxiety)	
0:53:19	0:53:24		TER			
0:53:24	0:54:27	elevator shaft	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
0:54:27	0:56:02	girl gets attacked, shaft walk	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Presence (Others), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety)	
0:56:02	0:57:10		HOR	Danger Zone, Rhythm (Fast), Presence (Direct), Abnormal Effects (Anxiety), Contact, Startle	Startle	
0:57:10	0:57:30	crying girl looks like we gonna be ok	REC	Rhythm (Slow), Presence (Others), Realization	Conversation (Safety), Conversation (Realization)	
0:57:30	1:01:58	documentary on zombie	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety), Ambient (Safety)	
1:01:58	1:03:15	morning, pick ups arrive and start stamping on three more!	REP	Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Fast), Startle, Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	
1:03:15	1:08:00		BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
1:08:00	1:09:00		HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Ambient (Danger)	
1:09:00	1:09:24		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
1:09:24	1:10:15	truck zombies attack of truck zombies	TER	Obstruction, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety)	
1:10:15	1:11:24		HOR	Danger Zone, Rhythm (Fast), Contact, Startle	Rhythm (Fast), Startle	
1:11:24	1:11:38		REP	Danger Zone, Rhythm (Slow), Presence (Direct), Presence (Others), Repulsion (Physical), Repulsion (Psychological)		
1:11:38	1:11:58		HOR	Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast)	
1:11:58	1:12:32		REC	Rhythm (Slow), Realization	Rhythm (Slow), Conversation (Realization)	lets go baby
1:12:32	1:12:56		BG	Pre-established Safety, Rhythm (Slow)	Rhythm (Slow)	
1:12:56	1:14:45		HOR	Danger Zone, Rhythm (Fast), Presence (Direct), Contact	Rhythm (Rising), Repulsion (Psychological), Repulsion (Social)	
1:14:45	1:15:30	i left my bag	BG	Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Conversation (Anxiety)	
1:15:30	1:16:38		HOR	Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Ambient (Anxiety), Ambient (Danger)	
1:16:38	1:17:14	got bitten getting guns and ammo armed and going away	REP	Presence (Others), Repulsion (Physical), Repulsion (Psychological)	Rhythm (Slow), Conversation (Anxiety), Repulsion (Physical), Repulsion (Psychological)	
1:17:14	1:20:03		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
1:20:03	1:20:57		HOR	Obstruction, Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Ambient (Danger)	
1:20:57	1:21:33		BG	Safety Zone, Pre-established Safety, Presence (Others)	Rhythm (Slow), Conversation (Safety)	

☒ A.23: Appendix 9: Spreadsheet data for the film: "Dawn of the Dead".(3/3)

Start	End	Description	Stage	Cue (Visual)	Cue (Audio)	Ends with
1:21:33	1:21:51	what about the cars?	TER	Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety), Ambient (Anxiety)	
1:21:51	1:26:03	around the mall in the car	HOR	Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Startle	change of scene, drop bgm
1:26:03	1:27:26	going on a hunt	REP	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Repulsion (Psychological)	
1:27:26	1:30:33		BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
1:30:33	1:31:21	clean up of bodies	REP	Safety Zone, Rhythm (Slow), Presence (Others)		
1:31:21	1:36:08	the mall life	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Ambient (Safety)	
1:36:08	1:37:55	turning into zombie?	REP	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Repulsion (Physical), Repulsion (Social)	Rhythm (Slow), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Safety), Repulsion (Psychological)	
1:37:55	1:39:10		BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
1:39:10	1:40:14	turning into a zombie!!!	TER	Obstruction, Pre-established Danger, Rhythm (Slow), Presence (Indirect)	Rhythm (Rising), Conversation (Anxiety)	
1:40:14	1:40:41		REP	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Repulsion (Physical), Repulsion (Social)	Rhythm (Slow), Conversation (Anxiety), Repulsion (Social)	
1:40:41	1:46:02	bury him and move on	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
1:46:02	1:46:38	zombies still outside	REP	Presence (Direct), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow)	
1:46:38	1:53:37	mall life 3	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
1:53:37	1:53:57		HOR	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger)	
1:53:57	1:54:12		BG			
1:54:12	1:57:54	thugs come in	HOR	Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Conversation (Anxiety), Ambient (Danger)	
1:57:54	1:59:07	zombie... pies? really?	BG	Pre-established Safety, Rhythm (Slow), Rhythm (Fast), Presence (Direct), Presence (Others), Contact, Repulsion (Social)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
1:59:07	2:06:24	fight it out boys	HOR	Danger Zone, Rhythm (Fast), Presence (Direct), Contact, Startle	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger), Startle	boys go out/die
2:06:24	2:06:53	aftermath of raid	BG	Safety Zone, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety), Ambient (Safety)	
2:06:53	2:07:41	trying go up the elevator but..	REP	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	
2:07:41	2:07:44		TER	Danger Zone	Rhythm (Rising)	zombie attack
2:07:44	2:09:10	flyboy left behind	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Startle, Repulsion (Physical), Repulsion (Psychological)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger), Repulsion (Physical)	
2:09:10	2:09:17		REP			
2:09:17	2:09:54	hes dead?	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization), Ambient (Safety)	zombie fest
2:09:54	2:10:14	zombiefest	REP	Danger Zone, Pre-established Danger, Rhythm (Fast), Startle, Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Fast), Abnormal Effects (Anxiety), Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	change of scene
2:10:14	2:10:35	joke scene	BG	Safety Zone, Pre-established Safety, Rhythm (Slow), Presence (Others)	Rhythm (Slow), Conversation (Safety)	
2:10:35	2:12:25	zombieland? joke me not	REP	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow), Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Startle, Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	
2:12:25	2:13:29	zombies come up into heaven	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Slow), Presence (Indirect), Abnormal Effects (Anxiety), Repulsion (Social)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Anxiety), Repulsion (Social)	death of flyboy
2:13:29	2:13:51		REP	Repulsion (Physical), Repulsion (Psychological), Repulsion (Social)	Rhythm (Slow)	more zombies
2:13:51	2:15:55	end of bigboy?	TER	Obstruction, Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Indirect), Abnormal Effects (Anxiety)	Rhythm (Rising), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger)	oh hell no!
2:15:55	2:16:54	bigboy decides to live	HOR	Danger Zone, Pre-established Danger, Rhythm (Fast), Presence (Direct), Contact, Realization, Repulsion (Physical)	Rhythm (Fast), Abnormal Effects (Anxiety), Conversation (Anxiety), Ambient (Danger), Startle, Repulsion (Physical)	
2:16:54	2:17:30		REC	Safety Zone, Pre-established Safety, Rhythm (Slow), Realization	Rhythm (Slow), Conversation (Safety), Conversation (Realization)	end credits
2:17:30	2:19:29	end credits	BG			end of movie