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# EFFECTS FOR TIMING OF REVEALING THREATS IN HORROR CONTENTS

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**ABSTRACT**: Sometimes not seeing a threat can be worse than actually seeing it. Even so, at a certain point it will change into becoming a more effective scare if the audience gets to see just what they feared. To be able to affect the audience in the way intended by the producer, it is important to understand the effects of timing when using different methods, such as camerawork, for presenting a scene and current targets.

**Keywords:** Animation, Horror, Camerawork, Computer Graphics.

## 1. INTRODUCTION

Due to the dramatic curve of horror content such as movies and animation, it is not desirable to use the same camerawork and methods for presenting a threat at all times. In this research, we look into horror content for analyzing timing and distribution of current methods for presenting threats such as monsters and ghosts.

Our research contributes to the possibilities of designing the emotional path that the audience is led along throughout the content. By understanding what emotional affect different timing can cause to the audience, the possibilities to design an emotional curve is expanded. Even if the story and animations are the same, by changing the structure of other methods using timing, it becomes possible to gain different effects and the preferred one can be chosen. Let us say that you want to introduce the main threat for the first time. The threat may be present at the scene at all times, but depending on when and on the duration it is revealed to the camera the audience will react to it differently. By just briefly seeing glimpses of the threat in the beginning, they will know that the threat is there for sure, and they will wait in suspense for the next appearance. However, if they don't see the threat, they can be lured into a feeling of safety and become shocked when it is finally exposed. In the same way that lighting can increase the effect of mise-en-scène, good timing can bring forth more impact when combined with other methods as well.

## 2. RELATED WORK

In previous research, guidelines for camerawork, such as what camera angles etc. used in horror movies, have been defined [1].

Xu et al. have created a system for analyzing the camera work in Robot anime [2]. In the same research, a scrapbook system can also be found for analyzing various information camera information. Other research, using similar scrapbook systems has also been done [3] [4]. This research builds on a more developed version of such a system that was used for analyzing camera work in horror movies [5].

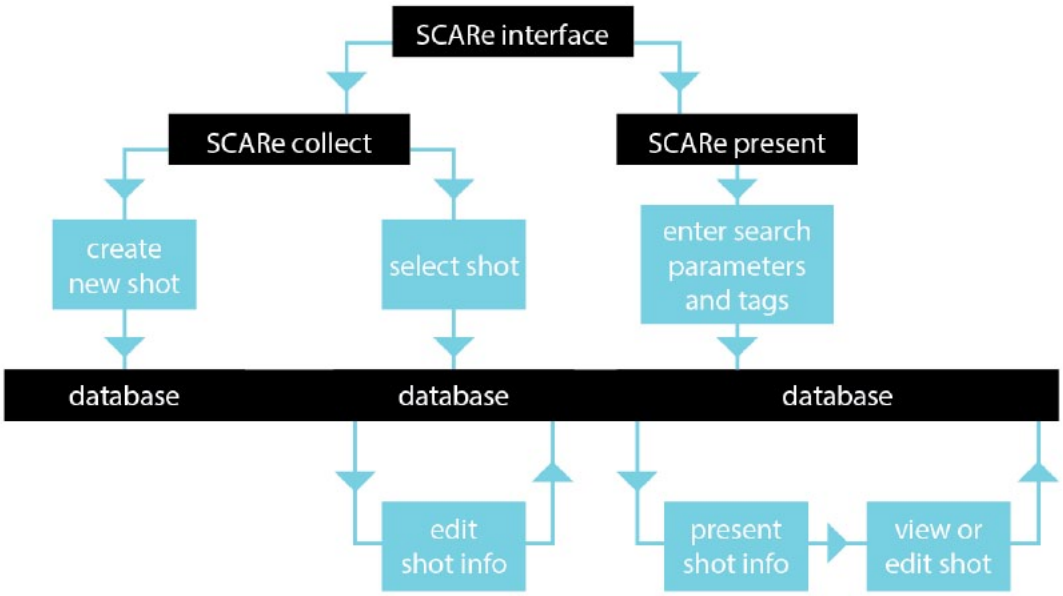

Figure 1: SCARe system overview

However, it is not only important how a target is presented on the screen but also the timing of when, which is the aspect that we look into in this study.

## 3. APPROACH

The system called "Shot Collection and Representation" (SCARe) was modified and used for gathering shot information from scenes containing threats in horror movies. An overview of the system can be seen in Figure 1. The shot information collected can be seen in the list bellow.

- Title and Country
- Box office
- Result of scene – Scare, Death, etc
- Timing, in relation to victim's realization – Before, Same, After, or Never
- Threat information – Number of appearance, Distance, Visibility, and Size on screen
- Camera work – Length, Shot Size, Angle, Camera movement, etc
- Targets – Role, Action, and Emotion
- Horror cues – Feared object, Indirect presence, etc

After collecting shot information for 323 shots containing a threat from 3 different movies, the information could be analyzed

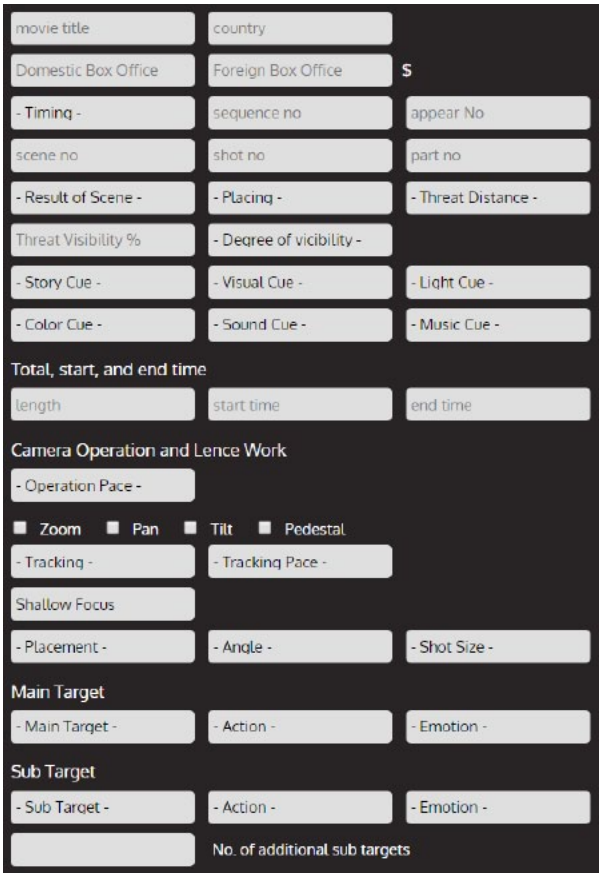

Figure 2: Screenshot of SCARe input

using the "Present" part of the SCARe system. The results were used to create a script for a new horror scene that could be used for the experiment.

When analyzing the movies the shots were divided into sequences rather than actual scenes. A sequence starts when an actual threat is present and stops when it is gone, or if the content switches into another scene not containing the treat. Therefore the timing of revealing a threat is related to the threats presence at the scene. The sequences were also classified with the timing of revealing the threat in relation to when the characters see it. The threat can be revealed before, at the same time, or after the characters see it. There were also cases when the threat is not shown to the audience at all. We also classified the sequences into five categories in accordance with the results, as can bee seen in the list below.

1. Atmospheric is when there is no real threat to the victim. It may include a non-hostile threat or a threat in passive mode, not targeting any specific character.
2. Scare is a sequence with a threat that behaves in a way to affect one or more characters in a bad way. This can also be a non-hostile threat whose actions interact with a character specificly but without bad intentions. One example would be a non hostile threat playing with one of the characters.
3. Escape is a sequence when a victim is able to escape from a threat.
4. Capture is a sequence where a victim is captured by a threat.
5. Death a sequence where a victim is killed by a threat.

## 4. EXPERIMENT

This section explains the contents and procedure of the experiment for evaluating the timing of revealing a threat meant to scare the audience.

### 4.1 Description

For evaluating the effects of timing, we use the same horror content, one scene with a present threat, but using different timing. The scene was presented as two 106 seconds long previzes, without sound, created from the same script but presenting the threat with two

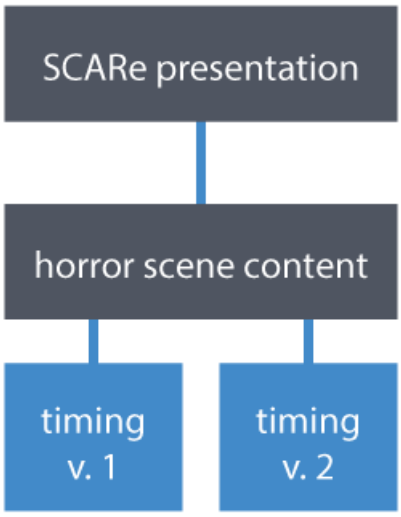


Figure 4: Contents creation

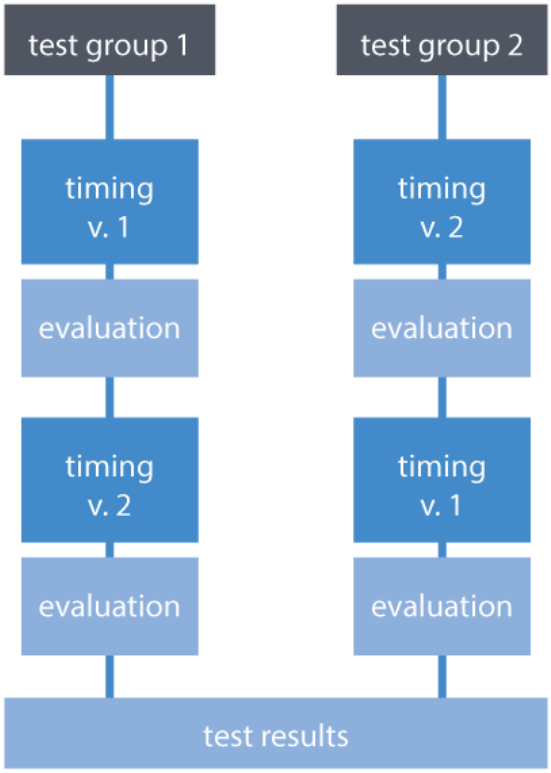


Figure 3: Experiment overview

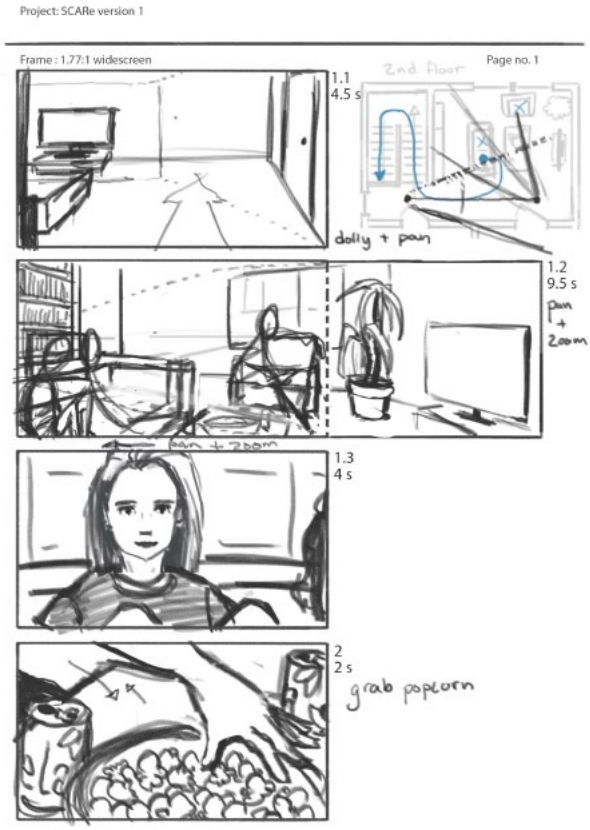


Figure 5: Storyoard: Version 1, Page 1

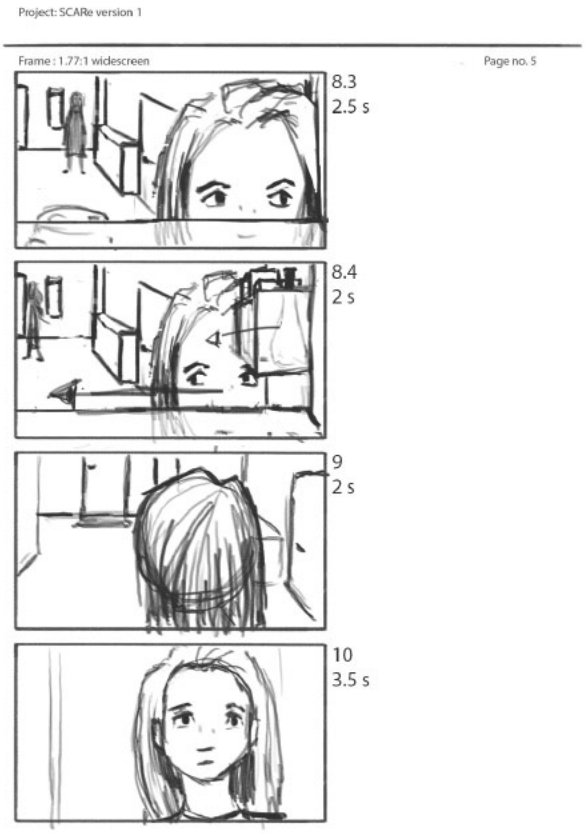


Figure 6: Storyoard: Version 1, Page 5

different timings. Version 1 revealed the threat at its first appearance at the scene, while the second one was kept it hidden until just before its attack on the victim. These versions were then presented for 10 test subjects divided into 2 groups. Group A first watched Version 1 and then Version 2. Group B got to watch Version 2 first and then Version 1.

After watching each version, the test subjects were to fill in an inquiry that consisted out of all the pictures from the storyboard. In the inquiry they rated each picture from 0 to 10 and they were also able to comment on how they rated and how their expectations had been when viewing that picture. They were also told to try to immerse as much as possible in the current situation. An overview of the experiment can be seen in Figure 4.

### 4.2 Content creation

The new horror contents were created based on the results of the shot information analysis. A simplified illustration of the process can be seen in Figure 3. We could find sequences in the movies as short as 11,9 seconds, however, the scene itself was much longer than the presence of the threat. The scene used other means than the threat's presence for preparing the viewer for the scare, and the ghost itself was passive and non-hostile, classifying it as an Atmospheric sequence. Otherwise, a scene used for scaring were usually not less than 60 seconds. What could be noticed for the longer scare sequences (over 100 seconds) were that the concept for the scare had usually already been set in a shorter scene (less than 100 seconds), as for preparing the viewer for a more effective scare. Also, the shorter sequences were also often used to exposing a threat for the first time. In the experiment for this paper, the viewer will be introduced for the threat for the first time wich would imply that around 60 seconds would be enough time. However, since there will only be one sequence in the experiment, the scene was decided to be 106 seconds long with a 54

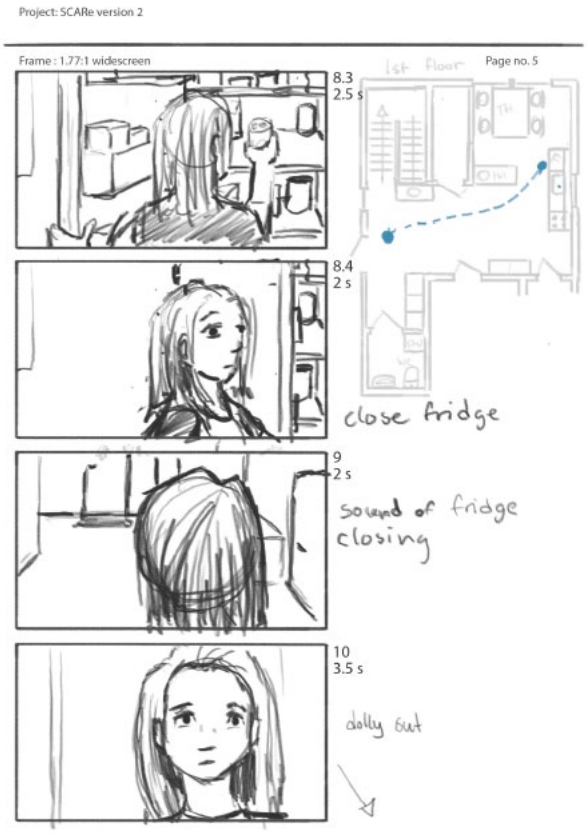


Figure 7: Storyoard: Version 2, Page 5

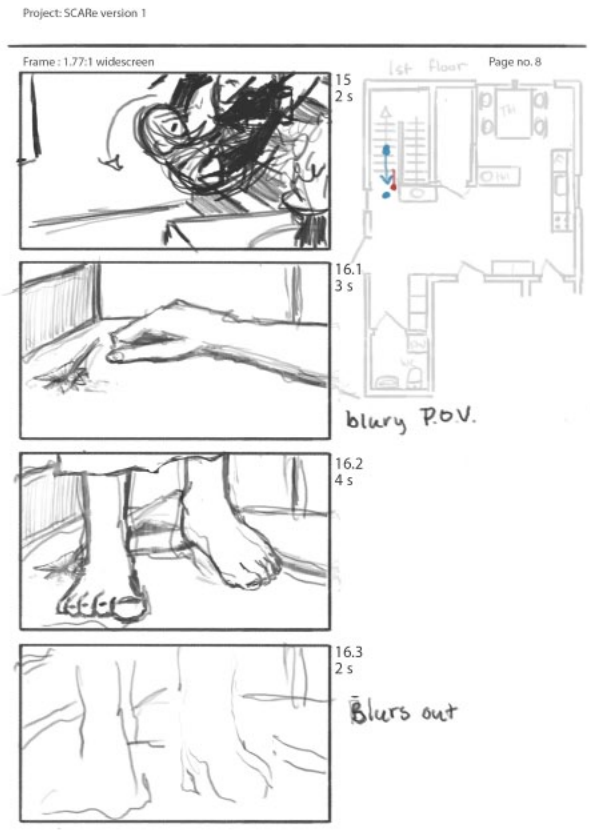


Figure 8: Storyoard: Version 1, Page 8

second long sequence including a present threat.

One common trait, of the shorter scare sequences, was a long intro implying the presence of a threat, and then in the end as suddenly as it appeared before the characters it disappeared, and that is also the trait that was decided to be used for the experiment. The victim, therefore, doesn't realize for sure there is anything there until 95 seconds into the clip and the moment of an attack.

For the movies analyzed so far presenting the threat to the audience before the second half of the sequence was rare. When done so, the sequence was more like a side story, giving context to the main story. This fact however, is not relevant to our research since we are investigating the effects of different timings using the same sequence of content.

The camera work for she shots in between will be the same for both of the versions. Also, the type of camera work for the differing shots will be as close to each other as possible, for ensuring that takes as little part as possible in affecting the audience.

When analyzing the camera work, the length of the shots during the sequences tended to be over 1 second if not showing a sudden appearance or a motion that in itself would suggest a higher tempo such as a fall or an attack. The sequences also tended to include a few very long cuts such as 17 seconds and then a lot of middle length shots around 5 seconds long.

The actual presentation of the threat to the audience is also often during one of the longer shots that hides it in various ways, such as camera moves or actual hiding, for then giving a shorter glimpse of the threat, that usually takes up less than 10% of the screen space.

### 4.3 Storyboard

The created scene features one threat, one victim, and two supporting characters. The supporting characters are used in the beginning for giving a feeling of safety and to

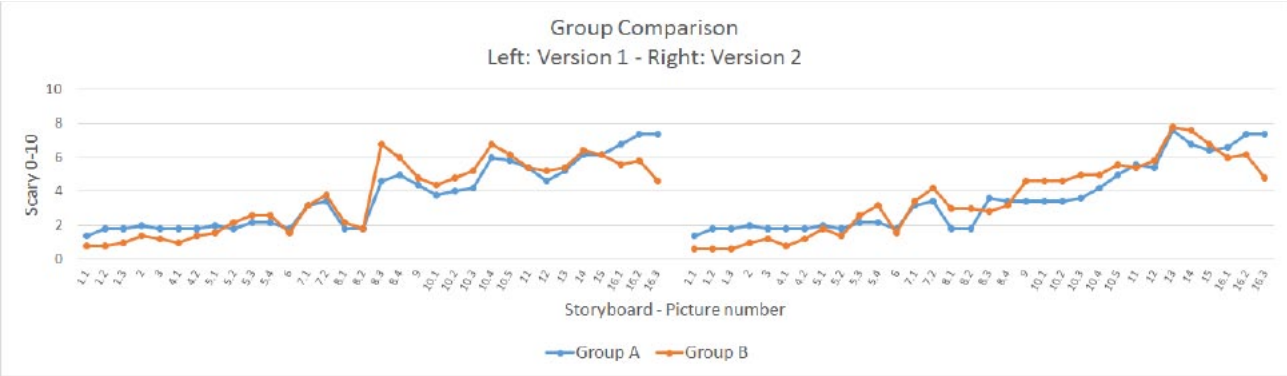


Figure 9: Graph - Group Comparison

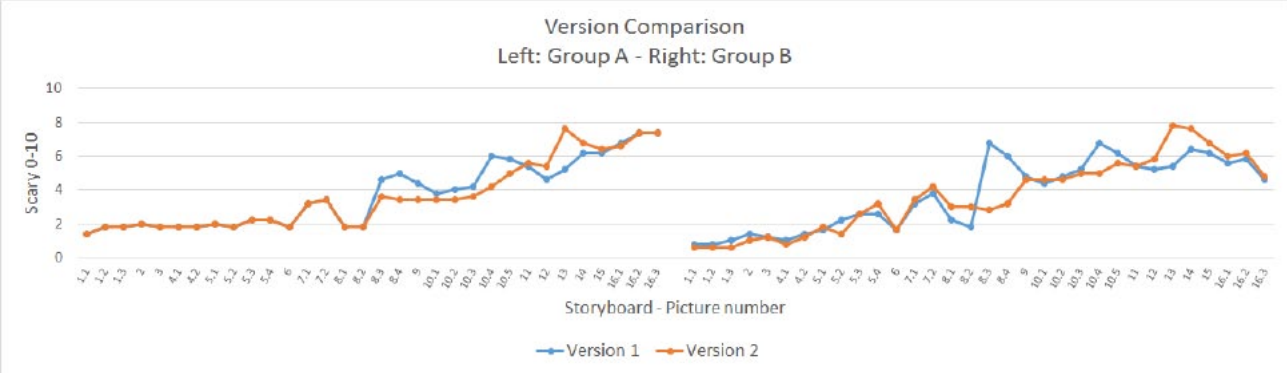


Figure 10: Graph - Version Comparison

strengthen the feeling of being alone when leaving them behind. Some samples can be seen in Figure 5-8, and the story goes as follows:

The victim and her friends are sitting in the living room on the second floor, watching tv. The victim stands up and starts going for fetching a new soda.

She walks down the stairs and into the kitchen. There is a moth dying in the sink and the victim takes a glass an crushes it. The threat stands and watch her in the doorway and then walks away facing the bathroom.

The victim hears the steps but believes it to be one of the friends. She does not see it as she turns back. The victim takes a can of soda out of the fridge and on the way back to the living room she glances to her left at the open door to the bathroom. There is none there. A strange feeling that someone stands behind her she shrugs and looks back. But there is none there either.

She starts walking up the stairs hearing her two friends chatting in front of the tv. She also hears the steps of the threat walking just behind her and before the can turn back it grabs the neck of her shirt making her fall down the stairs. In a blur, she sees a dying moth on the floor. Two bare feets walk into the picture and face her head. The picture fades away.

For the early timing, the threat will be exposed as a detail as soon as it walks past the doorway. Then it's head will be fully exposed as it stands behind the victim as she gazes at the bathroom. The treat will then not be exposed again before the shot after falling down the stairs.

For the late timing, the threat will not be presented to the audience until it walks behind the victim in the stairs and again after the fall.

## 5. DISCUSSION

### 5.1 Data analyzis

Group B tended to rate less scary in the beginning, higher in the middle, and less after the climax. This indicates that depending on the viewer type there are big variations in what they think is scary. It also suggests that a

bigger test group in needed for minimizing this error as a whole. However, as can be seen in Figure 9, is that this tendency can be found in both versions meaning that the order of showing them did not make the test subjects rating the second version they saw much lower than the first one.
As can be seen in Figure 10, Version 1 steady feeling of fear but the peaks in scariness can be found in Version 2.

### 5.2 Test subjects comments

There were a lot of comments mentioning the fact that the threat was not there when expecting made the picture scary. “V2-11,12 By not seeing the demon in 9 number 11 and 12 became scarier.” “V2-16.2 When the demon was hardly seen it wasn't that scary seeing the demon's feet up that close.” “V1-10.4 By not seeing anyone that you thought was behind is scary and make the heart beat.” The fact that nothing had happened also made some expect a threat around shot 5. “It feels a bit uneasy.”
There were also reactions to the sudden revelation of the threat. “V1-8.3 Not seeing when you expected to is scary.” “V1-13 Sudden appearance is certainly scary, but I would have liked more impact.” “V1-8.3 It is surprising but it would be scarier to not see it that much.”
Then there were comments saying that by being able to see it, it may feel a bit safe like the fact that the threat walks away in 8.3 and doesn't do anything in 10.4.

## 6. CONCLUSION

We were able to create a database using SCARe that could be used for analyzing and creating new contents with a focus on the timing of presenting threats. By conducting experiments we were also able to evaluate how the usage of different timings affect the audience.
The findings can be used by the director for affecting the audience in a preferred way. By not showing the threat until the end we were able to scare the audience to a higher extent than we could by presenting the threat for a longer time, even if it was the same scene and the threat was present during the same amount of time.
As future work, we want to create a system that can be used for speeding up the process of making appropriate decisions for presenting threats in horror content, depending on wanted effect on the audience. Some of the test subjects thought that it was difficult to rate how scary a previz is compared to a finished product since it is harder to get immersed into the story.
Therefore, we want to continue to make further experiments using horror content that is finished to a higher degree, such as a real animated scene.

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