CONTRIBUTIONS OF NEGATIVE AFFECT AND EMPATHY TO THE ENJOYMENT OF TELEVISION DRAMA: A EUDAIMONIC APPROACH

DISSERTATION

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By

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ABSTRACT

This study aimed to elucidate the role that emotional processes play in the enjoyment of television drama. Of primary interest was negative affect, which is a primary component in all drama, but has not been fully understood in entertainment research. A 2 (CONTEXT: Present, Absent) x 2 (ENDING: Happy, Sad) fully factorial between-individual design was employed to test the effects of empathy toward protagonist and viewers’ affective states on entertainment of a dramatic television program. Participants viewed a specially-constructed episode of the program “LOST,” which manipulated the availability of the protagonist’s back story and the hedonic valence of his eventual outcome through a happy or sad ending. Eudaimonic preference for film was measured as a covariate due to the expectation that people who prefer programs that provide opportunities for them to better know their true selves might enjoy negative endings more than those with higher hedonic preferences. Results showed that the empathy induced by providing character context interacted with ending type, resulting in sad endings being enjoyed differently, suggesting that sad endings could be more entertaining than previous theory would predict. Additionally, eudaimonic preference predicted greater entertainment of sad endings only when context was present.

Another contribution of this study was the examination of entertainment, empathy, positive and negative affect as situational effects that evolve over time. To
address this research question, a 2 (CONTEXT: Present, Absent) x 2 (ENDING: Happy, Sad) x 3 (TIME: t1, t2, t3) mixed design was used to tease out the temporal characteristics. Correlational analysis of dependent variables over time also showed empathy for the protagonist at Time1 was associated with negative affect and entertainment at other time points, but only when character context was presented. Results support the idea that entertainment and emotion are temporal processes that are subject to both situational and dispositional variables.
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CHAPTER 1

INTRODUCTION

Literary entertainment as a means of passing the time has been in existence since ancient times (Vorderer, Klimmt, & Ritterfeld, 2004). Most people would consider their motives for seeking out books, plays, movies, or television to be hedonic—they watch movies because they enjoy them. Entertainment theory is based on the same assumption. Scholars have posited that we select media to consume because we want to bolster or maintain positive affective feelings (Zillmann, 1988). We enjoy films the most when good things happen to the characters we like and bad things happen to the characters we hate (Zillmann, 1996a). Along the way, when characters we like face hardships, we experience both negative feelings and tense arousal, and the unpleasantness is only alleviated by a positive turn of events as our hero is eventually rewarded (Zillmann, 1996b).

While the propositions described above have added a wealth of knowledge to the fields of communication and media psychology, they have failed to explain enjoyment of media content that does not resolve itself so tidily. Modern serialized television shows are based on narrative threads that evolve over weeks and months, rather than hours or minutes. Entertainment theory has not sufficiently explained why people would find
enjoyment with this type of structure. Even in entertainment that is episodic, plots do not always resolve in ways that are hedonically positive. Sad or tragic endings are as old as theatre itself, yet such fare has been enjoyed for centuries.

Consider Sophocles’ (2007) *Oedipus Rex*, in which the protagonist is a hero and a king at the outset of the play, but gradually learns that he has brought a plague upon his town, unknowingly killed his birth father, and sired children with his mother. By the end of the play, his mother/wife has killed herself, he has blinded himself out of shame, and sits exiled and weeping, begging for death. No tenets of entertainment theory can adequately explain why a viewer of this tragedy might find it enjoyable, yet theatre-goers throughout the ages have flocked to see it.

This paper will attempt to shed light on why such dramas might be enjoyed. The entertainment experience will be conceptualized as a process that occurs over time, rather than a single event. Furthermore, the emotional processes, which are both antecedents and outcomes, also rely on temporal developments. Finally, the notion that entertainment must be contingent upon enjoyment will be examined. While the quest for hedonic pleasure might be the biggest motivation for seeking out entertainment such as dramatic films or television programs, some individuals may seek meaning and better understanding of themselves, which they might gain from the vicarious experiences of fictional characters.
CHAPTER 2

LITERATURE REVIEW

2.1 Overview

This chapter will review the research pertaining to the enjoyment of dramatic entertainment media. Presented first is a brief description of the three prominent theories from the communication literature that help to explain how our mood and arousal relate to the media we consume. Second, a more detailed discussion of Affective Disposition Theory will be presented, including discussion of how it integrates with other theoretical approaches and the circumstances in which it fails to adequately explain enjoyment. Next, issues relating to empathic and emotional processes will be introduced as possible explanatory mechanisms for some paradoxical findings in the entertainment literature.

Eudaimonic preferences will be introduced as an individual difference variable that might further explain processes that cause certain people to enjoy media that invoke negative mood states. More specifically, hedonic and eudaimonic preferences for film could help discriminate between those who seek out media for mood-regulating functions and those who look for deeper meaning in the vicarious events and emotions as a means to better know their true selves. Finally, a discussion is offered of the temporal structure of entertainment media and the necessity of measuring it accordingly.
2.2 Affect and Entertainment

The relationship of affect to media use has been studied extensively over the past three decades of communication research (e.g., Bryant & Zillmann, 1984; Raney & Bryant, 2002; Zillmann & Cantor, 1977) Affective states have been shown to be both antecedents (Knobloch & Zillmann, 2002) and outcomes (e.g., Oliver, 1993) of media use. The theories that have been predominant in the literature have been the work of Zillmann in the form of Affective Disposition Theory (ADT; Zillmann, 1996a), Excitation Transfer Theory (ETT; Zillmann 1996b, 1998) and Mood Management Theory (MMT; Zillmann, 1988).

ADT explains our enjoyment of media such as television drama through the attitudes we hold toward characters. Within the narrative structure exist protagonists, toward whom we hold favorable dispositions, and antagonists, who in some way threaten the well-being of the protagonist. This threat defines the conflict of the drama while also causing the viewer to hold less favorable dispositions toward the antagonist. Strength of dispositions formed toward characters is directly related to the euphoria that can be gained from viewing the drama. We are more elated when the protagonist avoids harm or when the antagonist is defeated by the protagonist (Zillmann, 1996a).

The negativity experienced during a tense or suspenseful drama would seem to be in stark contrast to the popularity of such types of media, however ETT helps to explain how euphoria can eventually be achieved (Zillmann, 1988). Affective states are made up not only of valence (happy or sad) but intensity as well. This excitation component works to intensify our euphoric or dysphoric feelings while viewing dramas. But as the conflict
of the plot is resolved and the hero prevails, the arousal remains after the valence of the affective state has changed. This residual arousal is thus transferred to the euphoric state and serves to enhance our good feelings. Therefore, the greater the arousal caused by the tension within the narrative, the greater the eventual positive evaluation we will have when the resolution occurs.

As we become aware of the effects the media can have on our affective states, it is reasonable that we would attempt to utilize media to manage and maintain good moods. MMT (Zillmann, 1988; 2000) states that we choose, either consciously or unconsciously, to select media that will enhance our moods so that we maximize pleasure and avoid pain. As such, media chosen when in a negative mood state should be positively valanced and should bear no similarities to the causes of the viewer’s present affective state. Media selected when in a good mood should be positively valenced so as to maintain or increase the affective state. Excitation within MMT is thought to be regulated through selection of arousing stimuli when calm, and calming media when excited. The assumptions of the theory are based upon hedonistic principles that have come into question by researchers investigating why lovelorn teenagers might listen to sad music (Gibson, Aust, & Zillmann, 2000), or why people will choose to see a tearjerker (Oliver, 1993) or a horror film (Tamborini & Stiff, 1987).

2.3 Affective Disposition Theory (ADT)

Currently, a great deal of scientific knowledge regarding the enjoyment of media is centered on ADT (Zillmann, 2003). Deeper investigation of the research should be preceded by an understanding of the distinctions made between constructs surrounding
our affective states and attitudes. Dispositions, according to Zillmann (2003) are different from moods, emotions or sentiments. Emotions are more intense and directed toward a target. Moods are diffuse and their origins are not always obvious. Emotions help to serve physiological needs, such as fight or flight responses. Moods have been suggested to serve regulatory functions (Knobloch & Zillmann, 2002) to help us to maintain pleasant states, such as euphoria or to temper unpleasant states. Sentiments are also object-oriented affective states, but their effect seems to persist beyond immediate physiological needs, so that they have a cognitive component ingrained in them, which may have been seeded by a conditioned response.

Dispositions, which are more flexible and can vary from moment to moment, are key to our ability to enjoy a variety of media entertainment fare. They have been linked to our affective states, yet Raney and Bryant (2002) have suggested that cognitive processing plays a role in their formation, in that our liking or disliking for a character or a situation is influenced by our prior knowledge, expectations, or “schema” (Raney, 2004). For example, many would naturally be drawn to admire the handsome cowboy in the white hat, but detest the villain, with his black hat, dark features, and unkempt appearance. Character actions can also be cognitively processed to shape our dispositions, so that those who are perceived to be acting morally will win positive dispositional favor while those acting in an immoral fashion will not (Raney, 2002; Raney & Bryant, 2002).

Disposition-based theories have long been used to explain our enjoyment of media. Originally proposed to explain enjoyment of humor and comedy (Zillmann &
Cantor, 1976), the understanding was that through joke work we were able to enjoy the 
disparagement of certain characters brought upon by other characters. The joke work was 
the mechanism that allowed us to overlook what would otherwise be considered morally 
reprehensible behavior. Although we enjoy comedic programs when good things happen 
to characters that we like and when misfortune befalls those who we do not like, the 
crafting of the situation and the positioning of the characters involved via clever joke 
work allows us to find the paradoxical enjoyment of beloved characters in bad 
circumstances as well.

ADT has been applied to dramatic media with little alteration in its tenets 
(Zillmann & Bryant, 1975), although Raney (2004) suggests that disposition theories can 
be helpful in understanding drama only if one considers moral judgments that we use as a 
 lens through which we interpret the actions of characters. While this would explain 
enjoyment in the absence of joke work, what still remains is the assumption that our 
enjoyment is somehow merely a function of good things happening to characters we like 
and bad things happening to characters we do not like. It seems then that we should only 
enjoy programming that is predictable and formulaic in its construction.

The idea of a dramatic film or program in which only good things happen to the 
protagonists while bad things only happen to the antagonist defies the conventions of 
dramatic narratives, in which protagonists are faced with some sort of conflict that must 
be resolved. Achieving such resolution usually consumes the majority of the story, 
meaning unfavorable things are happening to the protagonist more often than favorable 
things. Zillmann (1988) explained how such drama could be enjoyed with Excitation
Transfer Theory. ADT can bolster the euphoria experience that is explained by ETT.
After forming dispositions toward characters, negative events within the plot serve to build our arousal. Stronger dispositional ties to characters lead to higher levels of arousal, especially as the severity of perceived threat increases. This tension builds to a crescendo until the conflict within the plot is resolved favorably, at which time, as ETT explains, our hedonic state switches from dysphoria to euphoria. Arousal, however, knows no hedonic valence, and whatever sense of heightened arousal we felt prior to the resolution is merely transferred over to our positive affective state, serving to amplify the positive feelings before it fully dissipates.

ADT and ETT have found recent support in an experiment that manipulated the endings of horror films (King & Hourani, 2007). Participants were randomly assigned to view films in which the villain was either killed at the conclusion, or was seen to be still alive in the film’s original “teaser” ending, which allows for franchise horror films such as “Friday the 13th” to continue on with an endless series of sequels. Participants who saw the truncated endings and believed the villain to be deceased enjoyed the film more than those who saw the original teaser endings. While this enjoyment can be explained through entertainment theory as a result of excitation amplifying the affective state, alternate explanations, such as a desire for closure or a disdain for dramatic devices that have become cliché might also help us to understand the results.

Still unexplained, however, are stories with endings that are unresolved, such as a season-ending cliffhanger in a television drama. It would seem to be quite a risk to leave millions of viewers in a state of heightened arousal and negative affect and expect them
to wait three or more months for resolution, yet these types of programs presumably are enjoyed each spring. It is likely that a vested emotional interest on the part of the viewer and the ensuing anticipation for the next season are at play. This anticipation does not explain the enjoyment of episodic stories that end in tragedy, however. Consider one of the most famous examples of a dramatic presentation that has been enjoyed for centuries, but seems to defy the logic of such theoretical approaches: William Shakespeare’s (2000) *Romeo and Juliet*. The audience for this play is warned at the outset that they are about to witness a woeful tale, and Shakespeare delivers by allowing the star-crossed lovers to come very close to happiness before they both commit suicide in a tragic misunderstanding. Although, the patriarchs of the feuding families come together at the play’s conclusion to briefly reflect on the senseless tragedy and lay their quarrels to rest, it is the Prince of Mantua who has the last line, telling those present to go out and continue to talk of the tragedy. Such a resolution provides strong anecdotal evidence that sad endings can be enjoyable, even in the presence of residual negative affect that countless audiences over the centuries have encountered when viewing this bleak ending.

Tragedies such as *Romeo and Juliet* were understood by Greek philosopher Aristotle to be enjoyable because the negative emotions felt when witnessing them caused catharsis—a purging or cleansing of analogous feelings within members of the audience (Schaper, 1968). Such a process would allow for a negative ending to be enjoyed without the necessity of a positive resolution that Zillmann posits is necessary to attain euphoria when watching a drama. What is required in the model of catharsis is a mechanism for the purging of our bad feelings. This could be innate and instinctual,
suggesting a function of our emotional systems, or it could be a cognitive process, requiring us at some level to recognize the negative tone of the drama and the negative emotions within ourselves and to somehow make the connection between the two.

Nonetheless, both positive and negative affect seem to be antecedent to enjoyment of drama. While ADT has shown that positive affect should predict entertainment, the explanations for the enjoyment of negative affect within drama is still deserving of further exploration. First, however, a discussion of the structure of our affective systems is in order.

2.4 Positive and Negative Affective States

Presenting further complexities for study of affective reactions to entertainment is the make-up of evaluative mood states. The assumed structure of our affect systems relates directly to how researchers choose to measure it when studying media enjoyment and appreciation. Zillmann (1988) makes it clear that our affective systems need to be sensitive to shifting valances. This system reacts with physiological arousal, which itself has no valence, but can serve to amplify affective states. Another important structural debate is the polarity of affective valences. Feldman Barrett and Russell (1999; Russell, 1980) proposed an emotional circumplex model, which is a wheel of bipolar axes that describe various mood states, such as calm/tense or happy/sad. We can only be experiencing moods in one part of the circumplex, so that the presence of one affective state, such as happiness, would indicate the simultaneous absence of its opposite—in this case, sadness. Watson, Clark and Tellegen (1988) developed the positive and negative affect schedule (PANAS), which considers each mood state to be unipolar and discrete,
allowing for the presence of contrasting emotions in various degrees. Research has found evidence that we can indeed be happy and sad simultaneously on occasions deemed “bittersweet” (Larsen, McGraw, & Cacioppo, 2001) and even within sporting events when we prefer to see our team to victory, but not without a bit of a fight on their hands (David, Horton, & German 2008).

Cacioppo and his colleagues (Cacioppo & Berntson, 1994; 1999; Cacioppo, Gardner & Berntson, 1999) have suggested that the structure of our affective system, on one plane consists of positive and negative, which in many cases are activated reciprocally so that an increase in positive affect corresponds to a decrease in negative affect and vice versa. The two dimensions might also operate in a state of coactivity, where both may be simultaneously present or absent in varying degrees. They suggest that the levels of positive and negative affect correspond to a third plane in our affective structure called net disposition, a bipolar dimension that guides our actions as to whether we search and explore (appetitive actions) or we retreat and protect (aversive actions).

This net predisposition exists on a separate plane because, from an evolutionary standpoint, if we only acted appetitively in times of positive affect and acted aversively in times of negative affect, we would stagnate at times of neutrality. They suggest that we must surely have a bias toward the appetitive actions at times of neutrality in order to have evolved by learning and exploring new things. This is referred to as a positivity offset. Conversely, they suggest a negativity bias is also present, as evidenced by a tradition of research that shows that we make negative evaluative judgments more readily than we make positive judgments (Skowronski & Carlston, 1989). For example, we are
more sensitive to bitter or sour tastes than we are to sweet taste, as a protective measure against ingesting poison. Psychologically, we require more gathered evidence of positive attributes of others to form a positive evaluation than we do negative evidence to form negative evaluations.

Based on the premise that there are benefits to negative affect and experiences (Caccioppo, et al., 1999), it is feasible that at some level we might welcome negative affective states. Evaluating these moods based on their perceived benefits in retrospect rather than their unpleasantness felt in the moment lends credence to the notion that negative affect might be positively appraised. Our awareness of the benefits of negative affect under certain conditions may vary from one individual to the next, which would explain the proclivity of some to avoid negative affect while others might welcome it.

Oliver (1993) provided an initial link to positive evaluations of negative mood-inducing media when she found correlational analysis of enjoyment of tearjerkers. Her data also suggests that gender was one possible predictor of the type of individual who might enjoy such negatively valenced fare. Her results suggested that women tend to enjoy sad films more than men. Two things to consider when interpreting these findings however, are that viewers were asked to evaluate such films from a list provided to them, thus they could only provide data for films they had seen, and likely had chosen to see. Second, the evaluations were retrospective and cumulative assessments, thus the processes that might cause sad films to be enjoyed were not able to be examined. These two issues taken in tandem could subject these early findings to potential. Participants were tacitly admitting to investing time and money into such films, therefore
retrospective evaluations might be more favorable due to the need to align their attitudes with their behaviors (see Festinger & Carlsmith, 1959).

With evidence that the valence of the hedonic outcome is not in all cases related to the enjoyment of a drama, this study experimentally manipulated the ending of a television program, so as to create a condition in which the protagonist prevailed, thus causing positive affect in viewers, and a condition in which the protagonist was seemingly defeated, which should serve to create negative affect. The following hypotheses are proposed:

_Hypothesis 1a: Those who view a hedonically negative conclusion to a television drama will have less positive affective emotions than those who view a hedonically positive ending._

_Hypothesis 1b: Those who view a hedonically negative conclusion to a television drama will have more negative affective emotions than those who view a hedonically positive ending._

A simple appraisal of positive and negative affective states seems insufficient to gain understanding of the enjoyment of valenced media. An underlying mechanism that provides meaning to the affect will next be addressed.

2.5 Empathy and Emotional Response

A component that is necessary to engage in fictional narratives is empathy (Zillmann & Cantor, 1977). Empathy’s scholarly definition lacks a certain clarity, but according to Nathanson (2003) has achieved a consensus in many fields. A practical definition by Hoffman (1982) is that empathy is awareness of the emotions of others and
the vicarious process of experiencing those emotions. It is the phenomena of experiencing emotions that are not directed toward self, or simply *shared* emotions. Empathy, of course, is experienced as part of real world relationships and has been studied as a mechanism for explaining pro-social, altruistic behavior (Hoffman, 2000).

Prior to a discussion of empathy, it is first necessary to have some understanding of the broader emotional processes to which empathy is related. Lazarus (1991) argues that emotions are not discrete events, but rather are processes that need to be studied in time and context. In his cognitive-motivational-relative theory of emotion, he suggests emotions fluctuate over time due to the nature of the variables that are encountered during an emotional process and “each variable can play more than one role in an emotion, sometimes as antecedent, sometimes as outcome, and sometimes as mediating process, though not at the same instant” (Lazarus, 1991, p. 88). Our emotions are then valenced based on our expectations throughout the process. Expectations that are met would result in positively valenced emotions, while outcomes that are unexpected result in negative valences.

He also states that emotions are meaningless without their accompanying context in which to ground them. Emotions, then, are highly personal reactions to environmental conditions. Dispositional factors affect how one reacts to such stimuli, so neither the context nor the individual alone is sufficient when studying emotions. Rather, they must be observed in tandem, and the contributions of other emotional events in the temporal stream should not be ignored.
Similarly, Zillmann (1996b) also recognizes the importance of time and sequence with respect to our emotional experiences. His theory of emotion differs in that the mechanisms that trigger emotional responses are involuntary physiological reactions, to which we attend and evaluate. Should the stimulus which caused the initial excitation be gauged worthy of our resulting behavioral action, we will allow it to continue, but if our evaluation determines our reaction to be inappropriate, we will adjust our behavior. “Individuals will perceive and experience their behavior as emotional to the extent that it is characterized as emotional by the community whose judgmental criteria for the perception of emotion they have adopted” (Zillmann, 1996b, p. 248). Interestingly, if the excitatory stimulus is unknown, undetected, or ambiguous, we become restless and scan our environment for a target that fits our involuntary behavior. Considering the lag time required in the emotional process described by Zillmann, such ambiguities may explain seemingly paradoxical emotional behavior within his model.

Zillmann (1996b) then conceptualizes emotions as being involuntary, physiologically based, reactive processes, whereas Lazarus’ (1991) appraisal function allows for more proactive control through goal-setting. Emotional outcomes are a function of our appraisal of the events at hand in respect to our own well-being. Individuals form expectations as to the outcome of a situation, and the subsequent appraisal is colored by the fulfillment of such expectations. An individual’s strategy for coming to terms with the relationship between expectations and outcomes serves as a mediating role between the relationship between the individual and the environment, and the resulting emotional state. This model of emotion has been adapted by Tamborini
(1996) as a means of explaining empathic processes at play when experiencing fiction (see Figure 2.1).

Figure 2.1: Mediation process model of emotion (Tamborini, 1996)

Lazarus’ negative emotions are conceptualized in relation to the mediating mechanism in his theory. Expectations are conceptualized as appraisal goals. Those stimuli that are counter to our goals thus result in negative emotions, or goal-incongruencies. Naturally then, those things we appraise as being in line with our goals and expectations generate positive emotions. Goals can also be re-evaluated as part of the coping mechanism, so that a negative situation may eventually lead to less noxious emotions.

Though empathy is usually discussed in conjunction with emotions, Lazarus (1991) warns that it is not an emotion in and of itself, but an ability or a tendency of an individual. More specifically, it is the ability to experience emotions of others. If empathy is the ability to share emotions, then at some level, our own dispositional and situational attributes must come into play, not necessarily as a component of empathy—an ability—but as a product of the emotional processes for which empathy is a conduit. It may be that empathy, or at least the nature of emotions experienced through empathy, might vary.
within individuals over time, just as with emotions themselves. The locus of the coping mechanism within his model during shared emotions is then unclear. As we witness another’s grief, we empathize and feel the grief, but if the person who is grieving shows strong resolve, but we are more prone to devastation, our affective outcome may be different from the person whose grief we were feeling. We may also empathize with the griever who shows resolve, and continue to empathize and share his fortitude, or perhaps detach from the shared experience and feel admiration for his courage. However, empathy is often treated as dispositional in much of the research (e.g., Tamborini, Salomonson, & Bahk, 1993; Davis, Hull, Young, & Warren, 1987), with one notable exception. Eisenberg and her colleagues (Eisenberg, et al., 1994) found differences from subjects’ reported dispositional empathy responses when they were shown empathy-inducing videotapes, using situational data gathered by monitoring heart rates and facial expressions. As demonstrated with the previous example, empathy’s effects on an individual would likely interact with the varying intensities of emotions experienced across time.

Based on Lazarus’ definition of empathy, it is not surprising that it has been conceptualized as having both cognitive and affective components (Davis, et al., 1987; Tamborini & Mettler, 1990). Though the nature of the delineation is debated as much as its very existence (Nathanson, 2003), it is likely, in light of the conception of emotion discussed so far that the two interact, making the identification of discrete dimensions problematic. The distinction lies in the type of processing required to achieve empathic behaviors. Davis and his colleagues (1987) found that when participants were cued to
empathize with either cognitive- or affective-based instructions when watching films, those instructed to relate cognitively with perspective-taking were more impacted by negative emotion than those who employed empathic concern—the affective strategy. Dispositional empathic traits predictably interacted with the outcome, as those more prone to perspective-taking were more strongly affected. By allowing themselves to become emotionally involved, those using empathic concern perhaps felt the negative emotions of those on screen and initiated a primal avoidance behavior in order to minimize the noxious state. But those who used cognitive strategies could have been less likely to remain detached and thus felt stronger emotions because the act of taking the perspective of the character could have caused them to circumvent their own coping strategies and perhaps to make an effort to estimate the coping strategies used by the character in the film. Along the same lines, those using empathic concern were perhaps more likely to re-evaluate their own goals and come to emotional states that were more tolerable.

Is empathy for people with whom we interact the same as empathy we feel for fictional characters in books, movies, or television programs? Perhaps, suggest communication researchers (Stiff, Dillard, Somera, Kim, & Sleight, 1988; Tamborini, Stiff & Heidel, 1990) who have noted similarities in empathic responses shown in response to characters in films to those observed directed toward other people. These studies have focused primarily on how empathic reactions induced by films have translated into empathic responses in interpersonal situations. Tamborini, Salomonson and Bahk (1993) extended this research by manipulating the hedonic nature of
experimental stimuli. They found that participants showed more empathy in the form of comforting messages to a distressed confederate after viewing a comedy film than after viewing a horror movie, supporting their claim that those in a good mood would be more apt to act in prosocial ways than those in bad moods.

Viewing a comedy and thus being more likely to offer emotional support to a friend falls short of answering the question of what types of effects our empathic feelings toward fictional characters have on our own emotions. Sharing the emotions of fictional characters leaves no real option for altruism toward those in the fictional environment. Emotions shared with fictional characters, therefore, do not necessarily manifest behaviors that are socially acceptable. Seeing a friend fall down a flight of stairs and seeing a fictional character do so in a slapstick comedy yield different types of responses. Laughing at the misfortunes of others in such a case would be what Zillmann and Cantor (1976) attribute to be a response to narrative structural features, such as joke work. When viewing this sort of event in the media, we would expect euphoria to follow. No such affective state would be expected from viewing the same event in real life, however.

Our mental transportation into the narrative could further the explanation of how we relate to fictional characters. Reacting emotionally to such characters is predicated upon a certain suspension of disbelief (Frijda, 1989). One must allow oneself to become involved in an emotional way. One can, of course, choose to remain detached and not take interest in the fiction. The immersive nature of film and television, however, seems to offer so much rich stimuli that viewers find difficulty remaining detached. Consider the ease with which one may lose track of time by watching a mundane television show,
compared to the cognitive effort that must be invested into becoming immersed in the book on which the show was based. The ubiquity of electronic media and our habituation toward them may also mean we have become conditioned to surrender disbelief more easily than prior generations.

Scholars and philosophers have been perplexed as to why we have feelings toward characters and situations that we know are not real. Frijda (1988) points to his “Law of Apparent Reality.” Emotional reactions to fiction are similar to illogical reactions to real stimuli. For example, a person may fear snakes, despite any logical reassurances that dangerous snakes do not inhabit his city. Even after being exposed to a harmless snake in a controlled environment, the fear persists and is manifested when a snake is seen. As Frijda (1988) states, under the law of apparent reality, we tend to respond with illogical emotions due to the “weakness of reason as opposed to the strength of passion,” (p. 352).

These counterintuitive reactions can of course be cued by things that are vividly imagined or imaginary, such as fictional scenarios via books or electronic media. Just as the sight of the snake can bring irrational fear in the example above, the vivid depiction of a snake on film can trigger the same unreasonable and impassioned thought processes leading to fear. The object of fear need not be something with which we are familiar, either. Even things known to be unreal, such as movie monsters with no real world counterparts, can elicit emotional reactions on par with reactions to objects known to exist (Walters, 1989). Complicating the matter are the elements used by the filmmaker to pull the viewer further from reason: suspenseful music, dramatic camera angles, and no
one there to offer any reassurance of safety. Furthermore, depending on the nature of the film, the feared outcome is played out for the viewer, perpetuating illogical emotional responses to real and imaginary stimuli in the future.

Lazarus (1991) suggests that these aesthetic emotions are based on conditioned responses to similar or analogous stimuli, further; we surrender disbelief in conjunction with the empathic ties we form toward the characters. Although he includes purely hedonic appreciation for arts, music, and media such as film, he notes that the contextual or environmental cues provided by dramas allow us to relate to fictional characters, which allows both the cognitive and emotive aspects of empathy to come into play. If the characters on screen are dealing with negative emotions, spectators must cue similar circumstances as a coping mechanism so that the negative emotion can serve an affective function of catharsis or a cognitive deliberation (Tamborini, 1996) function of helping us to reflect on our own circumstances and assimilate the situation in the narrative as a possible means of self-improvement.

Tamborini (1996) proposes a model that conforms to his proposed emotional model (see Figure 2.1) in which our proclivity toward empathy formation combines with the situation provided by the narrative itself. This creates what he calls initial relational meaning, which equates with antecedents of disposition formation in ADT. We then evaluate the threat to the characters based upon the perceived imminence of harm and what we know of the threat, both culturally and experientially. Our concern for the character’s well-being and our own—perhaps irrational—concern for ourselves under analogous circumstances interact to create the emotions we experience during the fiction.
While dispositional empathic tendencies are important, empathy should not be thought of as perpetual. Be it in day-to-day interactions or during films, our tendency to exercise empathic concern must be preceded by appropriate circumstances. Instruments that measure empathy (e.g. Tamborini & Mettler, 1990) tend to invoke such hypothetical situations in the respondents by casting them in situations where empathy would be appropriate. This also leaves the measurement of dispositional empathy subject to social-desirability biases, should items be worded with pro-social behaviors in mind. In the case of the Tamborini model, a dispositional measure of empathy toward a hypothetical fictional character would have trouble truly capturing the reactions to all possible protagonists the viewer has experience or may experience in the future.

Because of the variety of characters in entertainment media toward which empathy can be formed, a situational approach to empathy should not be overlooked. The Tamborini (1996) model is still applicable here, but the early stage of the model deserves closer attention. Initial relational meanings that form during narratives are a product of available information to the viewer or reader. If information is scarce, we may resort to heuristic cues, such as race, gender, perceived similarities, and so on. Well-crafted literature, however, provides information that allows more meaningful relationships to be formed. Character context, or back story, when used effectively, allows for stronger emotional ties to characters and thus richer emotional interactions with the fictional characters. The provision of such context is often provided through dialogue with other characters, although story-telling devices such as “flashbacks” can provide context in a way that is more literal, and in the case of film and television, more visual. Manipulation
of the devices that control the amount of information available for the viewer to form initial relational meaning should have an effect on empathy formation, and therefore the following hypothesis is proposed:

**Hypothesis 2:** Those who are shown character context for the protagonist in a drama will develop greater situational empathy for the protagonist than those who are provided no context for the protagonist's actions.

### 2.6 Broadening the Concept of Entertainment

Entertainment is often thought of as a pleasure response to some sort of staged or mediated diversion. Vorderer, Klimmt, and Ritterfeld (2004) suggest that while hedonic pursuits certainly seem to dominate the motives and outcomes of media consumption, there is a wide variety of processes that occur within the entertainment experience that contradict such goals, and indeed there are other motives (i.e., education, escapism) and outcomes (i.e., catharsis, learning) that may come in to play when consuming media. Those experiencing media in these ways might possess traits that would evaluate such experiences as being entertaining. Research in entertainment has begun to shift toward a more nuanced conceptualization of entertainment (Oliver, 2008). By considering less understood motivations and outcomes that contribute to the enjoyment of media, a broader picture of the phenomenon will emerge, and perhaps it will be accompanied by more precise nomenclature. At this stage, however, entertainment and enjoyment are not often differentiated in the literature (Vorderer, et al., 2004) and in some circumstances, this has inhibited development of entertainment theory. Raney (2003) admits that the term “enjoyment” itself is a step backwards from earlier terms that seemed intuitively
more specific. Most of the terms used have stayed true to form in suggesting that experiencing media narratives is a hedonically positive experience. Vorderer (Vorderer, et al., 2004) states that “entertainment” and “enjoyment” are so integrally tied that “enjoyment” accounts for the bulk of the entertainment experience, despite emerging evidence that other distinct processes come into play.

But to “enjoy” a tragedy seems paradoxical and insufficient. Bartsch (2007), Oliver (2007) and others have begun to explore the use of “appreciation” as a term that might be unencumbered by hedonistic biases. Vorderer and Knobloch (2000) suggest a dichotomy within the conceptualization of entertainment that pays heed to what conventional approaches would consider to be “enjoyable,” while also considering those features that have aesthetic value. They suggest media in the latter category might appeal to those who desire personal reflection, rather than more shallow desires associated with contemporary hedonistic pursuits. Bartsch (personal communication, August 6, 2007) has been developing a four-factor instrument to measure entertainment, which includes enjoyment, art appreciation, perceived meaning, and lasting impression dimensions.

Whether or not a multidimensional approach to entertainment will help to further explicate the concept, individual differences that might lead viewers to certain media types that defy the traditional hedonic view of entertainment should be considered. The next section will detail one such approach that suggests we may prefer to find meaning in media, rather than simple pleasures.
2.7 Hedonic and Eudaimonic Well-Being

No matter how we label our entertainment experience, one assumption that needs to be made is that we wish the end result of media use, or any endeavor for that matter, to be our own well-being. The term enjoyment implies a pleasant state of being as a result of experiencing a stimulus. But when one considers the types of things people do to occupy their time, it is evident that the range of emotional reactions we might consider to be pleasurable is often wide and fraught with paradox. For example, someone who enjoys her job probably does not spend every moment of the workday in a blissful state, and likely welcomes the opportunity to take time off for weekends and vacations. While on vacation, she might also enjoy herself, but it is clear that the term “enjoyment” means two different things in these contexts.

Though not necessarily limited to merely two facets, our sense of personal pleasure has commonly been studied in terms of hedonic well-being and eudaimonic well-being (Ryan & Deci, 2001). Hedonic well-being is the pleasure derived from stimuli that are more overtly positive, such as the vacation mentioned above, and is associated with stimuli that cause pleasure, happiness, laughter and the like. Diener & Lucas (1999) conceptualize it as life satisfaction due to the presence of a positive mood and the absence of negative mood, and indeed, such conditions, may be acquired using appetitive/avoidance strategies or, if viewed from a behaviorist standpoint, reward/penalties approaches. Pursuits of hedonic pleasure may thus be more primal in nature.
Eudaimonic well-being is that which is achieved through realizing our potential, such as through Maslow’s (1943) concept of self-actualization. It is the satisfaction that is gained in the pursuit or attainment of meaningful personal goals. It has variously been described as entailing self reflection and poignancy (Oliver, 2008), the quest for meaning and purpose in life (Keyes, Shmotkin, & Ryff, 2002), the knowing of one’s true self (Waterman, 1993), or the performance of activities that align with one’s values (Ryan & Deci, 2001). Eudaimonic views of well-being do not equate it with happiness, but rather well-being is determined by the alignment of actions with one's values. Such actions should yield personal growth and development and not be presumed to be closely tied to pleasure. Eudaimonic well-being may require more sacrifice or personal investment, rather than ease or relaxation associated with hedonism (Waterman, 1993).

Walterman (1993) found that, while the two concepts are distinct, they also overlap significantly, which is not surprising considering that the tasks performed en route to eudaimonic satisfaction may not seem to be overtly pleasurable, but the reward and sense of accomplishment that comes as a result might certainly result in good feelings. Retrospective evaluations of our activities might also explain the relationship. Such reflections might be subject to bias, but nonetheless, Walterman found that reports of expressive activities and pursuits are recalled as being pleasurable more often than not. Such overlap and retrospective evaluation have undoubtedly hindered the understanding of well-being beyond the hedonic conceptualization. It would seem that we have a positive bias to report that media that brought us some sort of benefit as being related to hedonic well-being. Perhaps the construct differentiation is difficult for social scientists
because those who are being observed are similarly confusing the two dimensions of well-being.

To understand the potential ambiguity between hedonic and eudaimonic well-being, consider a person who is not in good physical shape who decides to begin a regimen of diet and exercise. Hedonistic pleasures, such as rich foods and sleeping late, are abandoned in favor of dietary moderation and discipline in exercising. At face value, such goals would not seem to be enjoyable, but rather these things seem like they should be avoided as they seem closely related to potential negative affect. The end result of maintaining these goals, however, would be better health and a more attractive appearance which would create pleasurable feelings. More in line with eudaimonic well-being, however, is the sense of pride and accomplishment that one might feel while maintaining such a regimen, allowing the individual to better know his or her true potential to overcome adversity and to face difficult challenges.

Situational circumstances can affect our appraisals of activities associated with eudaimonic well-being. For example, reading a textbook might result in a certain amount of satisfaction for a student who is curious about the subject matter. In this instance, the line between hedonic and eudaimonic satisfaction are not clear. A student who is enrolled in a class and is required to read the same textbook may find the act of reading less enjoyable at the time, but may come to appreciate the experience once the course is finished and a good grade and a sense of achievement are attained. Ryan and Deci (2001) suggest, however, that had that same student waited until the final week of class to begin reading, and had done so under the unpleasant threat of failing the class, the situation
would not create the same level of well-being or positive appraisal, even if the reading resulted in a satisfactory grade.

Eudaimonic well-being, while requiring sacrifice, might be reached more easily in vicarious fictitious circumstances than in similar real-world situations. Consider the personal growth that might accompany the loss of a loved one. It is possible that one might feel a certain satisfaction with his ability to continue on in the wake of such a loss, but the series of events leading to this psychological well-being would likely not be fondly evaluated. It is possible, however, that by viewing a film in which the protagonist triumphs against personal tragedy, that the viewer may sense a similar satisfaction through empathic processes, while at the same time retroactively appraise the process of watching the film as pleasurable. It may be the case that just as we select entertainment choices as a means to manage our moods (Knobloch & Zillmann, 2002), we might also select media for the purpose of better knowing our true selves. By seeking meaning, rather than pleasure, we might choose to watch a film that helps us to feel the grief of losing a loved one, and thus we might better understand how we would cope with the process. We might then evaluate the tearjerker movie as an enjoyable experience in retrospect because it allowed us to learn about ourselves without experiencing the real world loss of a loved one. Oliver (2007; 2008) has begun to explore the idea that individuals may choose films due to eudaimonic tendencies rather than hedonic motivations. A preference for finding meaning within the narrative should be enhanced by greater understanding of the protagonist of the story; therefore empathy developed through character context is necessary in the enjoyment of sad films. While enjoyment
has been shown to coincide with negative affect in certain circumstances (David, et al., 2008), empirical evidence is scant as to whether negative hedonic endings are enjoyed similarly to positive endings of dramatic fare. The roles of situational empathy and dispositional eudaimonic tendencies shall be explored by way of the following research question and hypothesis:

*Research Question 1:* Will those for whom character context is presented find the negative ending more enjoyable than those for whom character context was not presented?

*Hypothesis 3:* Individual differences in entertainment preferences will moderate the effect of enjoyment so that those who have eudaimonic preferences for watching films will enjoy negative outcomes for the protagonist more than those who report hedonic preferences for watching films.

RQ1 suggests an interaction between experimental conditions that would advance the logic that without adequate information to empathically relate to the character, we will not be tolerant of viewing the character in distress. In order to enjoy the negative outcome, we must have information available to provide meaning to the experience. With that understanding, retrospectively the viewer can enjoy the program. Hypothesis 3 suggests that those who prefer eudaimonic well-being as an outcome of media use will prefer sad endings, as happy endings do not give them the opportunity to find deeper personal meaning. Those with hedonic preferences for film prefer a more shallow “feel good” film, and will enjoy the happy ending that serves to maintain or elevate the mood.
2.8 Temporal Processes Within Entertainment

The present gaps in Affective Disposition Theory have been amplified by the changing nature of media structure and content. Dramatic television has begun to favor more intricate structures in recent years, with longer serialized plot arcs involving characters who have decidedly more depth. Such character development is a process that evolves over time, and just as it has been argued that emotional processes should not be treated as singular instances, entertainment should also be studied longitudinally.

To study complicated characters and the viewers’ reactions to them at only one point in time would cause us to overlook many of the qualities that draw viewers into a drama. These characters may seem to fit traditional schematic roles upon their introduction to the story, but within the plot, “heroes” may prove to be dastardly while “villains” display unexpected acts of humanity. ADT allows for us to change our affective stance during the course of the program, but how does this affect our enjoyment? Do our allegiances remain with characters even if their roles within the drama shift? Raney (2004) suggests two extensions to disposition theories of drama that have yet to be explored empirically: (1) It is possible that our affective disposition toward characters is formed prior to the moral evidence to support such an affective disposition. (2) In such cases, we may view and interpret character actions based on our expectations of their actions (i.e., heroes’ actions are justified; villains’ actions are corrupt). With enjoyment of drama so dependent upon disposition formations, our alleged carelessness with how we form character dispositions, and the creative license being exercised more
freely by writers and producers, further investigation into why we enjoy programs that
defy more traditional structures should be fruitful.

Raney (2004) also emphasizes the moment-by-moment nature of affective
dispositions and suggests that they should be measured accordingly. Much of the past
entertainment research has relied upon retrospective assessment of enjoyment as a
cumulative experience (e.g., Raney 2002). Studies should also move beyond multiple
measures of affect as a predictor of cumulative enjoyment (e.g., de Wied, Zillmann, &
Ordman, 1995). Enjoyment of media occurs over time. It is the “roller-coaster ride” that
happens throughout the course of a film, sporting event, or serial that shapes our
experience, and although we might report afterwards that we enjoyed the experience, our
corresponding affective states during the experience also need to be taken into account
(David, et al., 2008). Dispositions formed toward characters might be more predictive of
enjoyment if they are treated independently of affective states. This study did so through
the measurement of state empathy.

The role of the narrative structure of fiction plays a role in the dynamics of our
emotional reactions. An important element that contributes to our emotional responses is
change (Frijda, 1988; Kahneman, 1999). In states of stasis, one might not attend to his or
her emotional state as readily as when some event has occurred to make emotions salient.
During a state of emotional lethargy, an introduction to a potential romantic partner may
cause intense, pleasurable emotions. As the relationship continues, the pleasurable
feelings may seem less exciting as they become routinized. During a film, it is common
to be introduced to one or more characters in the first act. This disruption of stasis causes
us to begin to emotionally orient toward the characters in a way that is congruent to the information about the character that is made available to us, thus forming our initial relational meaning (Tamborini, 1996). Soon after we have begun to become attached to a character, a change is introduced, causing emotions to again become salient. We may be subject to various cycles of such empathic responses during longer, more complicated narratives involving multiple characters and storylines. Logically, the arrangement of events that lead us through emotional processes can affect our evaluations of the experience. For example, scenes arranged in an incrementally positive fashion have recently been shown to be more enjoyable than those on a downward hedonic trend (McDonald, Meng, & Lin, 2008).

Furthermore, Kahneman (1999) conceptualizes objective happiness as being reliant upon the recency of events as well as on hedonic shifts of situations. Therefore, when in a state of constant relative pleasure, we might grow accustomed to our condition and its salience would evaporate as we begin to forget the stimulus that caused our mood state as time passes. But changes in our condition—bad times turning good or good times getting better—allow us to better experience a sense of euphoria. Soon after, however, even with the same pleasant stimuli in our environment, the euphoria seems to level out, as if we were walking on a “hedonic treadmill” (Kahneman, 1999, p. 13). Based upon the research that suggests a process model of emotion and entertainment is in order, an initial investigation will be made by exploring the following research question:
Research Question 2: How will empathy developed for the protagonist relate to enjoyment, affective states and subsequent measures of empathy over the duration of the television drama?

2.9 A Eudaimonic Approach

Once underlying processes are studied more rigorously, the interpretation of such findings will likely need to evolve beyond the idea that we strive constantly to avoid noxious states when we seek entertainment. Disposition theories are decidedly hedonistic in their approach, suggesting that enjoyment is a function of maximizing pleasure and minimizing pain. These types of explanations have been challenged by those who ask how it is that we can enjoy tearjerkers (e.g., Oliver, 1993; Oliver, Weaver, & Sargent, 2000). While there are situations in which ADT explains entertainment very well, it might be of more use to explore a theoretical basis for media enjoyment under which we find knowledge and fulfillment through the plights of the characters (Vorderer, 2003).

Lang (2006) suggests that the aversive or appetitive natures of individuals should help to explain media preferences. Those with highly aversive natures should seek out more positive messages than those with appetitive natures, who might be more likely to enjoy risk, danger, or similar types of challenging environments, such as those offered by negative messages. Cacioppo and his colleagues (1999) suggest that while we may be predisposed to enjoy or appreciate certain types of media messages based upon our net disposition, a purely neutral mood states are likely a rarity in an environment saturated with media. In a dynamic environment such as this, it would be difficult to find affective stasis. Within such a context, it would be erroneous to assume that we all react similarly.
It is more likely that individuals have individual preferences for either aversive or appetitive media situations and in accordance with MMT (Zillmann, 1988) might attempt to arrange their environments accordingly.

Oliver (2007) offers evidence that such preferences exist in samples of undergraduate students. Those with hedonic preferences associated enjoyment with films that were funny, while those with eudaimonic preferences associated enjoyment with films that were “deep” and meaningful. In the case of drama, it might be expected that those with hedonic preferences would enjoy them most if they contained sufficient moments of light-heartedness. Those with eudaimonic preferences, however, may want to learn and grow from the experience. This is not to say that hedonism and eudaimonia are two ends of a unidimensional scale. The two preferences can coexist, and in accordance with Lazarus’ (1991) view of emotional processes, they may interact at varying levels over time.

By interpreting media experiences from a eudaimonic standpoint, rather than a hedonistic one, it might reveal that we better understand the social dynamics of the world and our own place within it due to our experience with more complex characters. The eudaimonic approach (Ryan & Deci, 2001) suggests that, rather than minimizing negative emotions, we might learn something from them to better understand our “true selves.” Characters in serialized dramas are finding their way through both good and evil. Situations are not easily resolved, if at all. And perhaps most importantly, these characters are flawed—oftentimes downright unlikable from a hedonistic point of view. But as the drama plays out, the characters are able to grow and to evolve. Walton (1978)
suggests that viewers interact with fictions in such a way that vicarious learning occurs through our own role-playing. This invokes other more often cited ideas, such as para-social interaction (Horton & Wohl, 1956) and social cognitive theory (Bandura, 1986) as mechanisms underlying enjoyment. The premise relies upon the viewer to have the ability to relate to the characters on screen in order to form empathy, to interact, and to learn. Many types of fictions exist in which it could be that our empathy with these types of complex characters would more satisfactorily explains our enjoyment of such shows than the approach championed by ADT and ETT.
CHAPTER 3

HYPOTHESES AND RESEARCH QUESTIONS

In this chapter, a brief overview of the logic of this research is presented along with a statement of the hypotheses and research questions to be investigated.

While the study of media enjoyment via Affective Disposition Theory has proven to be fruitful, it fails to adequately explain enjoyment in certain conspicuous circumstances—namely, in the case of individuals who are not mere pleasure-seekers, but may in fact be meaning-seekers, and in cases when the narrative structure of a drama does not satisfactorily lend itself to hedonic explanations. While a vast body of research exists on ADT, studies of media enjoyment based on the eudaimonic approach are nascent. Though recently the logic behind individual disposition formations has been called into question, character context— and the empathy it generates—is an important element of dramatic narratives and its role in both eudaimonic and hedonic approaches deserves closer attention. In addition, the need for a longitudinal study of affect in the media entertainment context has been emphasized in the literature. Taking into account these three strands, the main goal of this dissertation is to elucidate the eudaimonic approaches to enjoyment with longitudinal measures of affect.
As stated by Vorderer and colleagues (2004), enjoyment of hedonically positive media content is central to research into entertainment. It is safe to assume that the majority of television viewers are accustomed to this type of content and should therefore react more positively to a program that has a resolution in which the protagonist is rewarded. Conversely, negative resolutions should elicit negative emotions. Therefore, the following is proposed:

**Hypothesis 1a:** Those who view a hedonically negative conclusion to a television drama will have more negative affective emotions than those who view a hedonically positive ending.

Affective dispositions are integral to ADT and it has been well documented that happy endings are associated with positive affect, whereas negative endings are associated with negative affect, which is the basis for the next hypothesis:

**Hypothesis 1b:** Those who view a hedonically negative conclusion to a television drama will have less positive affective emotions than those who view a hedonically positive ending.

If happy endings lead to positive affect, what accounts for the entertainment value of negative endings? One explanation offered by Zillmann (1991) is empathy. This study suggests that character context precedes disposition formation, leading to empathy formation.

**Hypothesis 2:** Those who are shown character context for the protagonist in a drama will develop greater situational empathy for the protagonist than those who are provided no context for the protagonist’s actions.
Once empathy toward a character is created, the greater the enjoyment through the vicarious experiences of the character. Context also helps us to better know and empathize with the character, which could allow for a meaning-seeking function of enjoyment, but without which negative endings may be less enjoyable due to lack of vested interest in the protagonist:

*Research Question 1: Will those for whom character context is presented find the negative ending more enjoyable than those for whom character context was not presented?*

In short, RQ1 will be explored by testing the interaction between Context (Present, Absent) x Ending (Happy, Sad) with enjoyment as the dependent variable. If such an interaction exists, it should be further moderated by the individual differences in eudaimonic preferences for films. Individual differences in media preferences (Oliver, 2007) should be taken into account in the enjoyment or appreciation of dramatic programs. Due to dispositional preferences for programs that provide deeper meaning, perhaps as a means of better understanding themselves, it is likely that those who have eudaimonic preferences would enjoy unhappy endings differently than those who are drawn to hedonic stories.

*Hypothesis 3: Individual differences in entertainment preferences will moderate the effect of enjoyment so that those who have eudaimonic preferences for watching films will enjoy negative outcomes for the protagonist more than those who report hedonic preferences for watching films.*
Research surrounding the processes of human emotions suggests that emotions are subject to the influence of dispositional and situational variables as well as other emotions (Lazarus, 1991) as the processes unfold over time. It is unclear how the affective states surrounding empathy contribute to the enjoyment of drama, so the following is posed as a research question:

*Research Question 2: How will empathy developed for the protagonist relate to enjoyment, affective states and subsequent measures of empathy over the duration of the television drama?*
CHAPTER 4

METHOD

4.1 Research Design

The research design employed was a 2 (CONTEXT: Present, Absent) x 2 (ENDING: Happy, Sad) design, in which all factors were between individuals. In addition, for exploratory analysis, all measurements were tapped at three time points over the course of the video stimulus (see Figure 4.1). Dependent measures included positive and negative affect, entertainment and empathic state.

<table>
<thead>
<tr>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTEXT</td>
<td>COMMON PLOT DEVELOPMENT</td>
<td>HAPPY ENDING</td>
</tr>
<tr>
<td>NO CONTEXT</td>
<td></td>
<td>SAD ENDING</td>
</tr>
</tbody>
</table>

Figure 4.1: 2 x 2 Factorial Design
4.2 Description of Stimulus

The stimulus for this experiment was designed to extend Affect Disposition Theory (ADT) to include a eudaimonic appreciation approach as a means to explain enjoyment of media with negative plot resolutions. As such, a modular television program was constructed so that the viewers were exposed to three segments of a television drama. Participants were randomized to one of two versions of the first and last of the video segments, which resulted in four possible combinations of the program.

The stimulus material was constructed using portions of episodes from the first two seasons of the television program “LOST.” The nonlinear nature of storytelling employed by the writers allowed for a coherent reconstruction of the program for the purposes described below. There was little need for alteration of scenes, though elements such as music swells or other emotional cues were employed to further emphasize the intended hedonic tones.

The first segment manipulated the context for character actions, which was intended to influence empathic disposition toward the protagonist. By centering the focus on a particular character and providing the viewer a chance to know more about the character, it was anticipated that the viewer would accordingly form an affective disposition toward the character. Such attitude formations are a premise of ADT, but it is not currently known if the affective and empathy components operate in lock step, so the two were measured separately at each time point, allowing for examination of their individual contributions. In order to control for overall state of participant affect within the design, the manipulation was carried out by allowing the viewer to form an affective
disposition toward the main character of interest, “Michael,” in the context condition, but in the no context condition, participants was introduced to a distracter character, “Sawyer,” toward whom an affective disposition should have been formed.

The first segment set the scene for the protagonist, Michael. Participants in each condition were shown a brief recap of the events that have led to the current episode: A plane crashes on a mysterious island and a few of the survivors endeavor to build a raft and find rescue. The events of the episode centered on the four survivors who were on the raft: Michael, Walt, Sawyer and Jin. In the version in which context was provided, the viewer was introduced to Michael and learned about his love for his son, Walt. Through the use of character flashbacks, the viewers can see that the strained relationship the father and son share in the present was no fault of Michael’s, and in fact he had made great sacrifices for Walt—sacrifices that had been kept from the 11-year-old boy his entire life.

In the no-context condition, instead of seeing Michael, participants were shown the same scene, but the flashbacks focused on the character “Sawyer.” Sawyer is a misanthropic con man who only looks after his own interests. Through the flashbacks, however, the viewer learned about how he came to be the man he is: He had spent his adult life in pursuit of the man who swindled his parents and caused his father to kill his mother before taking his own life. The viewers were shown how Sawyer shot a man he believed to be his nemesis, only to find that he himself was conned into carrying out a hit on an innocent man. These flashbacks were designed to allow the viewers to understand the context of Sawyer’s character and to form an affective disposition toward him as
opposed to Michael. In both versions of the first segment, the scene ended with the hope of rescue, as the characters detected a nearby object on a makeshift radar device and fired their only flare with the hope that it was a passing ship.

In the second segment, all conditions saw the same clip, in which the focus of the episode was on Michael. In this scene, the flare attracted a small boat to the survivors’ raft and they were certain they had found rescue. Instead, they learned that the crew of the boat intended to kidnap Michael’s son, Walt. They took Walt and destroyed the raft. Sawyer and Michael floated back to the island on pieces of wreckage and Michael vowed that he would get his son back. The segment ended with Michael, Sawyer, and Jin arriving back at the beach where they were greeted by the other survivors. This scene was intended to provide continuity and plot development so corresponding emotional changes could be induced.

The final act manipulated the hedonic outcome of the story. Both versions of this segment began with Michael convincing another castaway to let him borrow a rifle and some bullets from an armory. Michael then imprisoned this man and another in the armory and insisted he must go out into the jungle to rescue his son. En route, Michael was captured by the same group of people who kidnapped Walt. The positive hedonic outcome then showed Michael discussing the conditions for his release from the island with the leader of the group who had been holding Walt captive. Michael was then given a boat and directions, and was reunited with his son. The two rode off away from the island as the episode came to a close.
In the negative hedonic outcome condition, after Michael was captured, participants saw him being held prisoner on another part of the island. His son was brought to him, and he was allowed to see him very briefly before Walt was again traumatically taken away. Michael sobbed as he agreed to betray his friends on the other side of the island if he ever wanted to see his son again. The episode then came to a close.

4.3 Measures

Covariates measured prior to the viewing session included eudaimonic and hedonic motivations (Oliver, 2007) for viewing films and television (example items: “I find movies valuable when they grapple with questions about the purpose or meaning of life.” or “I find it most gratifying to watch movies that have happy endings.”)

Dispositional empathy toward fictional characters was collected with Tamborini and Mettler’s (1990) 26-item scale that included five factors: emotional contagion (“I become nervous if others around me seem nervous.”), perspective taking (“Before criticizing someone, I try to imagine how I would feel in their place.”), empathic concern (“When I see someone being taken advantage of, I feel kind of protective toward them.”), communicative responsiveness (“I usually respond appropriately to the feelings of others.”), and fictional involvement (“I really get involved with the feelings and characters in a novel or film.”). Responses to the above items were tapped using a 7-point Likert-type scale (1 = Strongly disagree to 7 = Strongly agree). Demographic information was also collected at the time of pretest.

Measures taken at the time of stimulus exposure included both positive and negative affective states, which were adapted from the circumplex model of affect
(Feldman Barrett & Russell, 1999) by Larsen, McGraw and Cacioppo (2001). These measures simply required respondents to report the extent to which they are experiencing 10 discrete mood states: calm, relaxed, happy, pleased, excited, tense, relaxed, sad, displeased, and depressed. These items were measured on an eight-item, unipolar scale ranging from $0 = \text{Not at all}$ to $7 = \text{Extremely}$.

Entertainment measures were taken from Bartsch (personal communication, August 6, 2007). These items were designed to differentiate between enjoyment and appreciation, and included the following subscales: enjoyment (“This program is entertaining”), art appreciation (“I like the style of this program”), perceived meaning (“This program is thought-provoking”), and lasting impression (“This program will stay in my mind”). These items were modified slightly to refer to a television program rather than a film, and the verb tense was changed from past to present to allow for momentary assessments rather than retrospective recall. Furthermore, one item of the art appreciation subscale was altered from “This program was really imaginative.” to “This program is aesthetically appealing.” This adaptation was based on the recommendation of the author (A. Bartsch, personal communication, August 6, 2007) who found that the translated item from German did not have as strong a factor loading as the original. The revised item was a closer match to the German-language version which translated to “I found the (program) aesthetic.”

Six items were adapted from Tamborini and Mettler (1990) to measure situational empathy. Items were taken from the factors “empathic concern” and “perspective taking” based on their amenity to be related to the program in the present tense. Language was
altered so that appropriate items would be directed toward the character of interest. Sample items include, “I feel concerned when he seems unhappy,” and “I find it difficult to see things from his perspective.”

Additionally, prior to being shown the stimulus video, participants were asked to what extent they are familiar with the program “LOST.” These items were adapted from Wann and Branscombe’s (1993) measure of sports fandom. A 12-item multiple-choice quiz about characters and events of the series was also administered. At the conclusion of the video, as an added measure of manipulation check, participants were asked to report how happy they felt the ending of the episode was. This measure is important in addition to participants’ current affective state because the happiness of the positive outcome would have seemed obvious to those who could have compared the two conditions, but it may, in fact, have seemed a bit melancholy to those who saw it in the context of the experiment. Familiarity with the program was to be treated as a nuisance variable, as those who had a high level of familiarity with the show might have interpreted the characters and events differently than those who were not regular viewers.

In order to ensure that demographic variables would not interfere with perceptions of the violent actions committed by the program’s protagonist, a perception of the degree of violence instrument (Riddle, Eyal, Mahood, & Potter, 2006) was used. Sample items included, “How violent were Michael’s actions?” and “To what degree do you think Michael felt remorseful for his actions?”
4.4 Procedure

Students were recruited from undergraduate courses in communication at The Ohio State University to participate in the study (n=162). Those who took part in the research were offered extra course credit as an incentive. Pretesting took place via an Internet-administered survey one week prior to the experiment, and included measures of eudaimonic and hedonic preferences for viewing films, dispositional empathy toward fictional characters, and demographic information. Within each covariate and experimental instrument, questions were presented in random order throughout the study. This was done to prevent potential question-ordering biases.

Subjects who completed the pretest were directed to a scheduling system on the Internet and were able to sign up for the experiment or were given the option of an optional alternate extra credit assignment. Upon arrival at their scheduled lab sessions participants were signed in and given informed consent forms to review and sign. Those who chose to continue with the study were randomly assigned to one of the four possible stimulus videos.

Participants were taken in groups of approximately 20 to a computer lab with identical PC workstations capable of DVD video playback. In order to prevent cross-contamination among students in different experimental conditions, participants in each condition were arranged so that they could not see the screens of other conditions in their periphery. The audio portion of the stimulus was delivered via stereo headphones to further isolate participants from other stimuli. Once each student was seated, instructions were given as to how to begin video playback as well as how to access online
questionnaires that were to be completed during each commercial break within the program.

Students began their DVD playback simultaneously with a brief welcome message reinforcing the procedure for the study. Subjects then filled out baseline measures of positive and negative affect and “LOST” familiarity items via an Internet-based survey before they were prompted to play the program. They were then shown the first segment (CONTEXT: Present, Absent) of the stimulus, which lasted approximately 15 minutes. At the conclusion of the first program segment, all participants were given an on-screen message that cued them to complete the next online questionnaire before continuing on to the next segment. This questionnaire included items measuring positive and negative affect, entertainment, and empathy for both Michael and Sawyer. When the survey was completed, participants were instructed to close their browser windows and return to the DVD window to continue the program.

This procedure was repeated as subjects viewed the second and third program segments, which lasted approximately six minutes and five minutes, respectively. The final assessment included manipulation check measures as well as questions regarding the perception of the protagonist’s actions, to be used to test for potential race and gender biases. In all, four assessments of participants’ affect were taken (baseline plus three time points during the video). After the final program segment had been viewed and the assessment was taken, participants were shown a message thanking them for participating, alerting them to the nature of the research and provided with contact information in the event that they have questions about the study.
CHAPTER 5

RESULTS

5.1 Sample characteristics

The sample for the experiment consisted of 162 participants, who were approximately 21 years old on average (M = 20.75, SD = 4.16). Most of the participants were Caucasian (78.4%), while the rest reported their races as African-American (9.9%), Asian (6.8%) and Hispanic (2.5%). The remaining 2.5% classified themselves as “other” on the questionnaire. The sample was predominately female (66%).

Different levels of familiarity with the television show “LOST” was of concern as a nuisance variable; however, most of those who participated were not fans or even casual viewers of the program. When asked to report familiarity and fandom on an 8-point scale (0 = not all familiar, 8 = extremely familiar), participants reported little familiarity (M = 2.83, SD = 1.92) with the show and had low fandom on average (M = 1.84, SD = 1.82). Over 75% of the participants had previously seen fewer than five episodes of the show and less than 10% spent more than 15 minutes per week engaged in any type of discussion about “LOST.” To further verify the self-report measures, a 12-item quiz was administered. Knowledge of the show was quite low in the sample, with over 90% of respondents unable to answer more than half of the questions correctly, and
a mean score of 33% (\(M = .33, SD = .17\)). The proportion of quiz questions answered correctly was calculated for use as a covariate in subsequent analyses.

5.2 Data Reduction

Of the covariates measured at the time of pretest, four constructs from within the scales used were of primary interest: eudaimonic film preference, hedonic film preference, empathic concern, and perspective-taking. Principal components factor analyses were performed to select relevant items for data reduction. Factors were selected based upon Kaiser’s criterion and were subsequently rotated using the varimax method for clarity of interpretation.

When the preference for film items (Oliver, 2007) were analyzed, two factors emerged as reported in prior research, with four items capturing hedonic preference for films and four capturing eudaimonic preferences. The eudaimonic factor loadings for the four items ranged from .662 to .759, and accounted for 32% of the variance explained by the scale. The inter-item correlation Pearson \(r\)s ranged from .38 to .54, all \(p\) values less than .05. Items in the scale had a reliability of \(\alpha = .77\). Hedonic preference explained another 26% of the variance, with factor loadings from .682 to .743 in the rotated solution. Items were intercorrelated, with \(rs\) from .18 to .58, all significant at the \(p < .05\) level. Reliability was low, \(\alpha = .67\).

The dispositional empathy toward fictional characters scale (Tamborini & Mettler, 1990) was made up of 26 items, which prior studies had shown to consist of five factors. Previous research has suggested that the dimensions of empathy that are most crucial when examining positive and negative affect are empathic concern and
<table>
<thead>
<tr>
<th>Statement</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am the type of person who is concerned when other people are unhappy.</td>
<td>0.67</td>
<td>0.15</td>
</tr>
<tr>
<td>I often have tender, concerned feelings for people less fortunate than myself.</td>
<td>0.78</td>
<td>0.21</td>
</tr>
<tr>
<td>I sometimes don't feel very sorry for people when they are having problems.</td>
<td>0.19</td>
<td>0.11</td>
</tr>
<tr>
<td>I am often touched by the things that I see happen.</td>
<td>0.71</td>
<td>0.05</td>
</tr>
<tr>
<td>When I see someone being taken advantage of, I feel kind of protective toward them.</td>
<td>0.19</td>
<td>0.24</td>
</tr>
<tr>
<td>I would describe myself as a pretty soft-hearted person.</td>
<td>0.32</td>
<td>0.30</td>
</tr>
<tr>
<td>Other people's misfortunes do not usually disturb me a great deal.</td>
<td>0.57</td>
<td>0.04</td>
</tr>
<tr>
<td>I sometimes try to understand my friends better by imagining things from their perspective.</td>
<td>0.32</td>
<td>0.61</td>
</tr>
<tr>
<td>I try to look at everyone's side of a disagreement before I make a decision.</td>
<td>0.08</td>
<td>0.62</td>
</tr>
<tr>
<td>Before criticizing someone, I try to imagine how I would feel in their place.</td>
<td>0.11</td>
<td>0.81</td>
</tr>
<tr>
<td>I sometimes find it difficult to see things from another's perspective.</td>
<td>-0.11</td>
<td>0.19</td>
</tr>
<tr>
<td>When I am upset with someone, I usually try to put myself in his or her shoes for a while.</td>
<td>0.07</td>
<td>0.74</td>
</tr>
</tbody>
</table>

Note: These factors explain 16% of the variance of a five-factor instrument.

Table 5.1: Factor loadings of dispositional empathy measures
perspective taking (Davis, et al., 1987). Analysis of the scale showed that these two factors explained 8.84% and 7.14% of the total variance, respectively. The low percentages of explained variance were due, in part, to the multidimensional structure of the scale, with these factors ranked second and third behind a more dominant factor that was not of interest in this study. Not all intended items loaded onto these two factors, however, so items in the rotated solution with loadings below .500 were dropped from analysis. Factor loadings are shown in Table 5.1. From the empathic concern subscale, three items were deleted: “I sometimes don’t feel very sorry for people when they are having problems;” “When I see someone being taken advantage of, I feel kind of protective toward them;” and “I would describe myself as a pretty soft-hearted person.” The remaining four items were each significantly correlated at the $p = .05$ level ($r$s ranging from .39 to .55). Reliability of the items was $\alpha = .77$.

One item was dropped from the perspective-taking factor subscale: “I sometimes find it difficult to see things from another’s perspective.” Correlations between the remaining four items ranged from $r$s of .31 to .55, each significant at the $p = .05$ level, with reliability of $\alpha = .76$. Complete accounts of scale items measured are included in the appendices. Items retained for eudaimonic preference, hedonic preference, empathic concern and perspective taking were separately averaged to create composite scores for each construct and the correlations among these constructs were examined. See Table 5.2 for a summary of the correlation coefficients.

Next, data reduction procedures were applied to key dependent variables, namely situational empathy, positive and negative affect, and entertainment. Dependent measures
Table 5.2: Pearson correlations between covariates

were taken at Time 3 in the experiment, with the exception of situational empathy, which was taken from Time 1. The reason for this is that the context manipulation, which was designed to cause variation in empathy between conditions, was introduced prior to Time 1 measurement (see Figure 4.1). Therefore, differences in empathy for the two conditions were expected to be greatest at this time point and would be expected to dissipate at future measurement points within the experiment.

Situational empathy measures within the experiment were adapted from the Tamborini and Mettler (1990) scale. Three items each were taken from the empathic concern and perspective taking subscales. These items were averaged into a single measure of situational empathy when factor analysis revealed that each of the six items loaded onto one factor, explaining 52% of the variance. Inter-item correlations ranged from $r_s$ of .22 to .70, each significant at the $p = .01$ level. The reliability of the scale was $\alpha = .81$. 

<table>
<thead>
<tr>
<th></th>
<th>Eudaimonic</th>
<th>Hedonic</th>
<th>Empathic Concern</th>
<th>Perspective Taking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eudaimonic</td>
<td>1.00</td>
<td>.09</td>
<td>.25**</td>
<td>.23**</td>
</tr>
<tr>
<td>Hedonic</td>
<td>1.00</td>
<td>.36**</td>
<td>.19*</td>
<td></td>
</tr>
<tr>
<td>Empathic Concern</td>
<td>1.00</td>
<td></td>
<td>.36**</td>
<td></td>
</tr>
<tr>
<td>Perspective Taking</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

N = 162; * $p < .05$; ** $p < .01$. 

Table 5.2: Pearson correlations between covariates
Measures of positive and negative affect loaded onto two factors, with the five negative affect items explaining 41% of the variance and the five positive affect items explaining 24%. Inter-item correlations between positive affect items were each significant at \( p = .01 \), with Pearson \( r \)s from .23 to .79, \( \alpha = .84 \). Negative affect items were also intercorrelated, with \( r \)s ranging from .45 to .72, \( p = .01 \). The reliability of the negative affect scale was \( \alpha = .87 \). Each set of five items was averaged to create separate composite scores for positive and negative affect.

The entertainment scale was developed by Bartsch (personal communication, August 6, 2007) to measure four dimensions of the construct. The scale is still under development, and indeed, its use in this experiment did not show the predicted dimensionality based on the factor analysis. Items loaded heavily onto a single factor, which accounted for 69% of the variance.\(^1\) Table 5.3 shows the correlations of the scale items. The reliability of the scale was \( \alpha = .96 \). Due to the high levels of inter-item correlation, all 12 items were averaged into a composite entertainment score.

5.3 Data Analytic Strategy

The data were analyzed using GLM with a 2 (Context, No context) x 2 (Happy ending, Sad ending) between-participants design. Five covariates were entered into the model: dispositional empathic concern, dispositional perspective-taking, familiarity with

\(^1\) Because the subscales within the entertainment scale failed to indicate any dimensionality in the data, there is no need to differentiate between the intended factors. The construct will be referred to as “entertainment,” and the outcome of the experience will be referred to as “enjoyment” (Vorderer, et al. (2004)).
<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fun to watch</td>
<td>1.00</td>
<td>.80</td>
<td>.91</td>
<td>.68</td>
<td>.82</td>
<td>.66</td>
<td>.61</td>
<td>.56</td>
<td>.58</td>
<td>.63</td>
<td>.60</td>
<td>.64</td>
</tr>
<tr>
<td>2. Entertaining</td>
<td>1.00</td>
<td>.81</td>
<td>.58</td>
<td>.71</td>
<td>.61</td>
<td>.61</td>
<td>.53</td>
<td>.58</td>
<td>.69</td>
<td>.69</td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>3. Enjoy watching</td>
<td>1.00</td>
<td>.66</td>
<td>.82</td>
<td>.67</td>
<td>.58</td>
<td>.54</td>
<td>.54</td>
<td>.63</td>
<td>.64</td>
<td>.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Artistically valuable</td>
<td>1.00</td>
<td>.58</td>
<td>.76</td>
<td>.63</td>
<td>.62</td>
<td>.61</td>
<td>.63</td>
<td>.57</td>
<td>.57</td>
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<tr>
<td>5. Like the style</td>
<td>1.00</td>
<td>.65</td>
<td>.54</td>
<td>.57</td>
<td>.62</td>
<td>.60</td>
<td>.60</td>
<td></td>
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<tr>
<td>6. Aesthetically appealing</td>
<td>1.00</td>
<td>.66</td>
<td>.58</td>
<td>.51</td>
<td>.62</td>
<td>.60</td>
<td>.61</td>
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<td></td>
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<tr>
<td>7. Thought provoking</td>
<td>1.00</td>
<td>.78</td>
<td>.72</td>
<td>.69</td>
<td>.62</td>
<td>.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Deeper meaning</td>
<td>1.00</td>
<td>.81</td>
<td>.71</td>
<td>.65</td>
<td>.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Important to say</td>
<td>1.00</td>
<td>.63</td>
<td>.60</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>10. Lasting impression</td>
<td>1.00</td>
<td>.85</td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>11. Stay in my mind</td>
<td>1.00</td>
<td>.91</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>12. Will remember</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tbody>
</table>

Note: N = 161. All correlations significant at $p = .01$. Shaded areas indicate factors proposed from previous research: items 1-3, enjoyment; items 4-6, art appreciation; items 7-9, perceived meaning; items 10-12, lasting impression.

Table 5.3: Pearson correlations of entertainment scale.
“LOST,” eudaimonic preference and hedonic preference. Initial analyses on each of the dependent variables showed no significant effects for the covariates empathic concern, perspective-taking, or hedonic preference. These variables were subsequently dropped from the analyses. Hypothesis tests below, therefore, include only eudaimonic preference and “LOST” familiarity as covariates.

5.4 Manipulation Check

As one form of check for the manipulation of the program’s ending, participants were asked to rate how happy the conclusion of the episode was. Those who viewed the negative ending rated its happiness just over “slightly happy,” ($M=1.48$, $SD=.94$). Those who saw the positive ending, while only rating it as “moderately happy,” ($M=4.37$, $SD =1.84$), did, in fact, differ from the other condition, as evidenced by an independent samples $t$-test comparing mean scores of the two levels of the ENDING condition, $t(159) = 12.55$, $p < .005$, Cohen’s $d = 1.99$.

5.5 Hypotheses 1a and 1b

Hypothesis 1 predicted that the affective tone of the program’s ending should generate analogous moods in the viewers. The data were analyzed using a 2 (Context, No context) x 2 (Happy ending, Sad ending) design with Eudaimonic Preference and “LOST” familiarity as covariates and negative affect as the dependent variable for H1a. Then this step was repeated with positive affect as the dependent variable to test H1b.

For negative affect, the main effect for ending was statistically significant, $F(1,155) = 7.47$, $p < 0.05$, partial $\eta^2 = .05$, and the “LOST” familiarity covariate was significant as well, $F(1,155) = 7.34$, $p < .005$, partial $\eta^2 = .05$. The main effects for
context and the interaction were not significant. Those exposed to the negative ending experienced greater amounts of negative affect ($M = 3.82, SD = 1.74$) than their counterparts ($M = 3.21, SD = 1.31$). Similarly, only the main effect for ending was significant when positive affect was introduced as the dependent variable, $F(1,155) = 16.43, p < .005$, partial $\eta^2 = .10$. The “LOST” familiarity covariate was also significant, $F(1,155) = 4.46, p < .05$, partial $\eta^2 = .03$. Those who viewed the sad ending experienced less positive affect ($M = 3.57, SD = 1.47$) than those who viewed the happy ending ($M = 4.41, SD = 1.28$). Hypotheses 1a and 1b were supported. See Summary of means in Table 5.4.

<table>
<thead>
<tr>
<th></th>
<th>No Context</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Happy Ending</td>
<td>Sad Ending</td>
</tr>
<tr>
<td>Entertainment</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td></td>
<td>5.07 (1.11)</td>
<td>4.75 (1.15)</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td></td>
<td>4.38 (1.15)</td>
<td>3.53 (1.48)</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td></td>
<td>3.21 (1.21)</td>
<td>3.81 (1.81)</td>
</tr>
<tr>
<td>Empathy*</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td></td>
<td>4.21 (0.81)</td>
<td>1.33 (0.79)</td>
</tr>
</tbody>
</table>

*Note: Empathy for the character reported above was measured at Time 1. The other measurements occurred at Time 3.

Table 5.4: Summary statistics for key variables.
5.6 Hypothesis 2

In Hypothesis 2, the relationship between provision of character context and empathy was explored by introducing empathy as the DV in the 2 x 2 ANOVA with Eudaimonic Preference and “LOST” familiarity as covariates. In this case, only the main effect for Context was significant, \( F(1,156) = 10.76, p < .005, \text{partial } \eta^2 = .07 \), whereas the ending and the interaction were not significant. Those who were shown background information for the character Michael reported greater feelings of empathy toward him (\( M = 4.70, SD = 1.09 \)) than those who received no context for him, but instead were shown context for Sawyer (\( M = 4.27, SD = .80 \)). The effect of the Eudaimonic Preference covariate was also significant, \( F(1,156) = 10.54, p < .005, \text{partial } \eta^2 = .06 \). Hence, Hypothesis 2 was supported. Although the empathy toward Sawyer was not of interest in this study, it is of note that those who saw context for him indeed reported greater empathy toward him (\( M = 3.89, SD = .91 \)) than those who did not see his back story (\( M = 3.18, SD = .94 \)), \( F(1, 156) = 20.81, p < .005, \text{partial } \eta^2 = .12 \). The Eudaimonic Preference covariate was significant, \( F(1,156) = 6.00, p < .05, \text{partial } \eta^2 = .04 \), as was “LOST” familiarity, \( F(1,156) = 9.46, p < .005, \text{partial } \eta^2 = .06 \).

5.7 Research Question 1

With evidence that character empathy and affective reaction to the program’s outcome were successfully manipulated within the experiment, Research Question 1 can be explored. Would the empathy formed through character context cause negative endings to be more entertaining than positive endings? Conversely, would the absence of context make a happy ending more entertaining? In essence, these two questions translate
into a 2-way crossover interaction between context and ending, which was examined in this step. When entertainment was entered as the dependent variable, the 2-way interaction was statistically significant, $F(1, 155) = 4.58, p < .05$, partial $\eta^2 = .03$, as was the effect of Eudaimonic Preference, $F(1,155) = 15.47, p < .005$, partial $\eta^2 = .09$. This crossover interaction is shown in Figure 5.1. Planned contrasts found, however, that there were no mean differences in enjoyment of the ending between groups in the presence of context. The significant interaction does point to a difference in the way happy and sad endings are enjoyed, with mean differences suggesting that sad endings are enjoyed no less than happy endings. This is further explored in the analysis of Hypothesis 3.

![Figure 5.1: Interaction effect of context and ending on entertainment](image)

5.8 Hypothesis 3

Hypothesis 3 predicted that participants’ preference for eudaimonic films would moderate entertainment. Hence, those with higher eudaimonic preferences would enjoy...
the unhappy ending more than those with lower eudaimonic preferences. To test the moderation effect of the Eudaimonic Preference covariate, a regression model was used. The null model was created using entertainment as the dependent variable, with the experimental conditions Context and Ending dummy coded, along with their interaction term, as predictor variables. Adding Eudaimonic Preference and the Eudaimonic Preference x Ending to this equation showed a main effect for Eudaimonic Preference, but the interaction was not significant. Hence, there was no support for H4. However, adding eudaimonic preference and the three-way interaction of eudaimonic preference with the experimental conditions to the model explained 12% more of the variance in entertainment than the null model, $\Delta R^2 = .12, p < .01$ (see Table 5.5).

To further explore this 3-way interaction, which is the moderation effect of eudaimonic preference, individual regressions were run on each cell of the design. Entertainment was predicted from scores on the eudaimonic film preference measure. Eudaimonic preference had no significant effects for the participants who were not shown context for Michael, but in the cells in which context was presented, eudaimonic preference predicted greater enjoyment for both endings. For those exposed to the unhappy ending, for each incremental unit increase in eudaimonic preference, entertainment is predicted to increase by $.50, \beta = .44, SE = .16, t(39) = 3.09, p < .005$.

Subjects who received context for Michael and who saw the happy ending reported enjoyment $.78$ higher for each unit increase of eudaimonic preference, $\beta = .50, SE = .21, t(40) = 3.67, p < .005$. This provides partial support for Hypothesis 4 in that eudaimonic preference predicted greater entertainment of the unhappy ending, but only when context
<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$ (SE)</td>
<td>$\beta$ (SE)</td>
</tr>
<tr>
<td>Context</td>
<td>0.13 (0.28)</td>
<td>0.15 (0.27)</td>
</tr>
<tr>
<td>Ending</td>
<td>0.13 (0.29)</td>
<td>0.14 (0.27)</td>
</tr>
<tr>
<td>Context*Ending</td>
<td>-0.28 (0.40)*</td>
<td>-1.13 (1.14)**</td>
</tr>
<tr>
<td>Eudaimonic</td>
<td></td>
<td>0.22 (0.11)*</td>
</tr>
<tr>
<td>Eudaimonic<em>Context</em>Ending</td>
<td>0.86 (0.22)*</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.03</td>
<td>0.15</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>0.03</td>
<td>0.12**</td>
</tr>
</tbody>
</table>

* $p < .05$; ** $p < .01$

Table 5.5: Model of interaction effects of eudaimonic preference on entertainment

was present. At the same time, eudaimonic preference also predicted greater entertainment of happy ending when context was presented.

This interaction was further probed using methods recommended by Aiken and West (1991). Eudaimonic preference groups were created by categorizing participants into one of three groups based on mean and standard deviation ($M = 4.87, SD = .98$). High eudaimonics ($\text{EUD}_H$) were those whose eudaimonic preference score was greater than or equal to one standard deviation above the mean ($\geq 5.85$), while low eudaimonics ($\text{EUD}_L$) had scores that were less than or equal to one standard deviation below the mean for eudaimonic preference ($\leq 3.89$). Those who fell within $\pm 1$ standard deviation of the mean ($\text{EUD}_M$) showed significant differences in entertainment, $t(57) = 2.26, p < .05$, Cohen’s $d = .60$. The interaction effect found in RQ1 was thus amplified when
Eudaimonic preference was taken into account, with those in the context condition showing more enjoyment when shown the sad ending ($M = 5.23, SD = 1.11$) than those who were shown the happy ending ($M = 4.48, SD = 1.40$). No significant difference in ending enjoyment was found for those who received no context. Those in the EUDH and EUDL categories also showed no significant differences for enjoyment of happy or sad endings. The 3-way interaction is depicted in Figure 5.2.

![Figure 5.2: Interaction of eudaimonic preference, context, and ending on entertainment](image)

Note: EUDM $N = 116$; EUDH $N = 24$; EUDL $N = 21$.

**Figure 5.2:** Interaction of eudaimonic preference, context, and ending on entertainment

### 5.9 Race and Gender Analyses

Additional analyses were performed to ensure that results were not confounded by participants’ race or gender. The protagonist of this story, Michael, is an African-American. Further, certain aggressive acts committed by Michael may have invoked
negative racial stereotypes among viewers who were not black, or may have caused black viewers to enjoy the program less (Denham, 2004). While effectively measuring individual differences in perceptions of other races was beyond the scope of this study, participants were asked a series of questions about Michael and the nature of his actions, including to what extent they were violent, justified, and rewarded, and if they felt he was remorseful for them. They were asked to what degree Michael was treated fairly. Finally, participants were asked how difficult it was for them to identify with Michael, and how similar he was to people they know (Riddle, et al., 2006). Ratings on these items were compared between African-Americans and others using GLM analyses. After controlling for experimental conditions, significant differences were found only for the item “How difficult is it for you to identify with Michael?” $F(1, 157) = 9.00, p < .005$. African Americans identified more ($M = 4.81, SD = 1.42$) with Michael than participants of other races ($M = 3.59, SD = 1.58$). Similar analyses on each of the other dependent variables showed no differences by race.

Males and females have also been shown to react differently to media stimuli (Oliver, Weaver, & Sargent, 2000). GLM multivariate analyses on each of the independent variables, controlling for experimental conditions, showed no differences between the sexes on either entertainment or empathy. When affective responses at the end of the video (T3) were examined, men and women had different affective responses to the stimulus, however, with men experiencing greater positive affect ($M = 4.42, SD = 1.24$) than women ($M = 3.78, SD = 1.48$), $F(1, 157) = 10.87, p < .05$, and women
experiencing more negative affect ($M = 3.82, SD = 1.59$), than men ($M = 2.92, SD = 1.32$), $F(1, 157) = 25.39, p < .005$.

5.10 Research Question 2

The relationship of empathy for the protagonist with other variables across time was the basis of Research Question 2. Participants’ empathy toward the protagonist at Time 1 related to empathies at Times 2 and 3, despite provision of character context, though correlations were stronger for those in the context condition, Time 2 $r = .72, p = .01$; Time 3 $r = .83, p = .01$, than in the no-context condition, Time 2 $r = .59, p = .01$; Time 3 $r = .45, p = .01$. Empathy1 was not correlated with negative affect at Time one, which is not surprising, because the segment concluded on a relatively positive note, with no conflict yet introduced. When context was provided, Empathy1 correlated to negative affect at Time 2 $r = .33, p = .01$. An examination of the relationship of Empathy1 and Negative Affect3 shows that the correlation was only present for the sad ending, $r = .43, p = .01$. Negative Affect3 and Empathy1 were not correlated when no context was provided. Empathy1 was also correlated with entertainment at each time point when context was present, Time 1 $r = .56, p = .01$; Time 2 $r = .62, p = .01$, and again, empathy was more strongly related to entertainment at Time 3 for the sad ending, $r = .65, p = .01$, than for the happy ending, $r = .52, p = .01$. No such correlations were significant when context was not provided.
CHAPTER 6

DISCUSSION

6.1 General Discussion

The primary purpose of this study was to further investigate the role of negative affect in entertainment. Previous research has primarily focused on positive affective states, and often when negativity has been considered, it is in the face of a positive narrative resolution of some form. But not all dramas end on a positive note, and those that end tragically are arguably still enjoyed. In this study, participants were faced with either a happy ending or a sad ending. The mechanism assumed to create enjoyment of the sad ending was empathy, which was developed by manipulating the context provided for the protagonist. It was also believed that individual differences in attitude toward such content might also play a part in the enjoyment of sad endings, thus participants were measured on their preference for eudaimonic appreciation.

From this study, it is clear that empathy formation plays a critical role in the way we enjoy dramas. Both dimensions of dispositional empathy, however, had no effects within the experiment, although situational empathy played a pivotal role. This lends support to the idea of entertainment as experience (McDonald, et al., 2008). Whatever empathic tendencies the participants may have had coming in to the experience were not as influential as the empathy evoked by the content itself.
In order to fully test the entertainment processes involved in happy and sad program conclusions, it is essential to reliably manipulate the hedonic tone of the ending of the program. By constructing a modular episode of the program “LOST,” the last act of the program was able to be seamlessly altered to create two endings. Respondents who viewed the sad ending reported feeling greater negative affect at the time of exposure than the viewers of the happy ending, and also rated the ending as being less sad on a survey measure. Those who saw the happy ending, even though they still considered it to be only moderately happy, still differed in the evaluation from their experimental counterparts. They also experienced significantly more positive affective feelings as a result of viewing the happy ending. By manipulating the plot and other cues in the content, affective responses and evaluations were reliably created.

Just as the modular endings were manipulated, portions of the first act of the stimulus were also able to be interchanged as a means of providing information about targeted characters. The manipulation was successful in that it allowed viewers to evaluate pertinent character information and thus create stronger initial relational meanings (Tamborini, 1996) of the character which served as a basis for empathy formation. Using different programs or even different episodes of a program to allow participants to form empathic relationship with characters is problematic when experimental control is desired. The stimuli developed for this experiment maintained tighter control by showing the same scene to participants and only changing aspects of the program that would be responsible for helping the viewer understand and relate to characters of interest. The television program “LOST” lent itself to such manipulation
because the show follows multiple characters through multiple timelines. The program’s use of flashbacks to contextualize character actions in the present tense has proven to be a popular technique with the show’s fans. This narrative technique was employed in the creation of the stimulus by showing the same “present day” scene of a group of characters, but inserting flashbacks for different characters as the context manipulation. The results showed that not only was the attempt to create empathy towards the targeted protagonist successful, but in the condition in which subjects were shown context for the foil (Sawyer) instead of the target (Michael), there was greater empathy toward that character. This is especially encouraging since Michael shows many more likable qualities and benevolent actions than does Sawyer, whose scene was violent and antagonistic.

The predicted interaction between experimental conditions is a promising finding. This data suggests that the enjoyment of the entertainment experience is evaluated differently depending on the empathic bond that exists between the viewer and the protagonist. Although significant differences were not found between entertainment ratings between those who viewed happy or sad endings, the data suggest that the ending that creates the negative affective state is deemed more entertaining than that which creates positive moods, but only in the presence of the empathy generated by character context. This should be considered as a further refinement to entertainment theory, as the mechanisms that would explain the enjoyment of tragedies such as *Romeo and Juliet* or *Oedipus Rex* have been conspicuously absent from Mood Management Theory and Affective Disposition Theory. Furthermore, this study found evidence of enjoyment in
the presence of negative affect, with no opportunity given for the valence of the mood to change. This valence shift has been the explanation provided by Excitation Transfer Theory as to why suspenseful drama can be enjoyed. This study found through experimental means that the positive ending to the program was not necessary. Even the possible sense of relief that might have served as the catalyst for valence switching and excitation transfer was not found, as negative affect was still relatively high at the time entertainment was measured.

The likely mechanism at play in this process was dispositional eudaimonic preference for films. Though it was predicted that eudaimonic preference would override the context and that individuals who are meaning-seekers would actually prefer to see sad endings, this was not the case. The context and associated empathy turned out to be key players in the process as well. The interaction that was observed between context provision, hedonic valence, and eudaimonic preference shows that the balance between these factors is worthy of further investigation. Eudaimonic preference had persistent effects on the enjoyment within the experiment, being the only dispositional variable to account for significant variance in the original model tested. With no context presented, eudaimonic preference made no significant contribution to enjoyment of either the happy or the sad ending. In the presence of character context, empathy developed for the protagonist seems to add to the sense of enjoyment for the content. The entertainment experienced through happy and sad endings in relation to eudaimonic preference was encouraging. The data suggest that at the maximum level of eudaimonic preference, happy and sad endings are enjoyed equally. This is likely evidence of a ceiling effect,
although it provides insight to an assumption made within this research. The assumption that those who enjoy looking for greater meaning in films should automatically find it in sad films rather than happy ones should be re-examined. While meaning can be found through the trials of others, there is certainly room to find meaning through others’ triumphs, as well. Furthermore, there was not a correlation between eudaimonic and hedonic preference in the sample, therefore the presence or absence of eudaimonic preference tells us nothing about how hedonic preference might have determined enjoyment of the stimulus. Items used to measure hedonic preference specifically addressed preferences for “happy endings” and “feel good” messages, while eudaimonic measures did not tap into preferences for negativity. Indeed, while the hedonic measures address emotional aspects of films, the eudaimonic items are distinctly more cognitive in nature. Further development of this measure should address the emotional aspects of eudaimonic preferences, and perhaps the cognitive aspects of hedonic preferences.

Those who had average-level eudaimonic preferences showed that dramas with sad ending might provide them with enjoyment, or some level of well being, but only when adequate contextual information is provided so that they can better understand the plight of the character and thus relate vicarious experiences to their own. The interaction of eudaimonic preference with the 2-way interaction of context and ending shows that this is an important individual difference to consider in entertainment research. When controlling for the across-the-board effects of eudaimonic preference for film, this research showed no differences in enjoyment for happy or sad endings when context was present, when entertainment theory would suggest that the negative ending should be
enjoyed less than the positive ending. When examining participants with average eudaimonic preferences, the effects demonstrated by this research seem to directly contradict prior research, while providing valuable insight into counterintuitive observations that have been raised regarding entertainment media over the past 30 years. When viewers are willing to make sense of the plights of fictional characters by way of adequate information from which emotional attachments can be formed, it is possible to find satisfaction in witnessing hedonically negative performances. Whether this experience should be called “entertainment,” “enjoyment,” “appreciation,” or some other label remains to be decided by further study, but in this experiment, the experience of feeling negative affect did not negate a positive media experience.

The investigation into the temporal processes shows encouraging results that should be teased out further with more sophisticated methods. Empathy, within this experiment seemed to be a relatively stable measure when measure as a situational variable across time, as empathy scores at each time period remained correlated, despite the experimental condition. Entertainment was only related to empathy in conditions in which context was provided. This suggests that the provision of character context information and the empathy it generates is key to entertainment. When context was not provided, empathy was not absent, but rather it was present for a different character. As Michael’s trajectory through the narrative evolved, those who had not seen his backstory formed weaker empathy for him and it did not correlate with entertainment whatsoever. Even the positive affect experienced toward the happy ending was not related to enjoyment when context was absent. Those who had formed stronger empathy showed an
interesting pattern of correlations, however. Empathy toward Michael for those who had received context was strongly related to entertainment at each of the three measurements. Empathy was also related negative affect at Time 2. Finally, only when the participants who received context for Michael were shown the sad ending was empathy correlated to negative affect at Time 3. The only correlate for empathy when shown the happy ending was entertainment.

While the correlational analyses show corroborating evidence for the experimental findings, they also warrant further investigation into the argument for temporal measures of entertainment, affect, and situational empathy. The discussion of these results thus far presents a chicken/egg conundrum as to the nature of the relationship between negative affect and empathy. Since empathy at Time 1 was related to empathy at Times 2 and 3, the results discussed should not be assumed to suggest that the Time one empathy was the contributor to the negative affect at Times 2 and 3 without a more sophisticated approach to the data analysis.

6.2 Contributions of the Study

A primary contribution made by this study was the quality of the stimulus video that was used. Rather than take an episode of a program directly from the broadcast or DVD and then compare it to another episode, this study made good use of experimental control with the stimulus and was able to manipulate variables of interest without being left to the mercy of the show’s producers. The audio and video used in the stimulus creation came from no less than nine different episodes of the program, yet was perceived to be a single narrative by the participants. Those who viewed the video were also
generally attentive to the content, despite the fact that they were watching television in a computer lab rather than at home. The success of this manipulation could be replicated in a variety of circumstances due to the availability of inexpensive video editing software and the availability of not only films, but also complete television series on DVD.

The fabrication of two contrasting endings was also effective in creating two different mood states. This was slightly more difficult to construct from the material available than was the empathy conditions, however this type of manipulation can be more easily replicated with programs or films that have “twist” endings—endings in which a resolution occurs, but is then followed by a second startling resolution. Another possibility for successfully manipulating the ending to a drama is by taking advantage of extra features provided on some commercial DVDs, which may give alternate, previously unused endings.

Another key contribution of this study was the employment of a temporal design with multiple measurements of key variables. As researchers of emotions have claimed and as entertainment researchers are beginning to realize, processes involved within media enjoyment may evolve at different rates while viewing a film or television program. To leave all measurement to immediately before or immediately after an entertainment experience leaves open the possibility that changing variables will go unnoticed.

The primary theoretical contribution of this study is the contribution that negative affect plays in entertainment, not as a mere generator of excitation or tension, but as something that might be enjoyed outside the bounds of Excitation Transfer Theory. The
finding of negative affect along with entertainment in certain conditions suggests that we may find some benefit to the negativity provided by the drama. By introducing eudaimonic preference as a covariate, this study has advanced the notion that certain people look for meaning in their entertainment choices rather than simple hedonic pleasures. The evidence that we find such meaning and subsequently enjoy the well-being that accompanies it should be considered in future investigations of entertainment.

6.3 Limitations

By manipulating the hedonic tone of the stimulus and selectively equipping participants with the information to understand and bond with fictional characters, it was expected that differences in entertainment would manifest themselves. While this ultimately was the case, the interpretation is limited by the unidimensional nature of the entertainment measurement. The scale by Bartsch (personal communication, August 6, 2007), while intended to tap four unique dimensions of entertainment, did not seem to capture the nuances of this experiment. The cognitive dimension of the scale did not seem to provide the necessary specificity that would help to explain the different reactions to the experimental conditions. The scale contained several items that related to surface features of the stimulus, which did not contribute to explaining the psychological processes assumed to be at play in this study. While aesthetics are certainly an important contributing factor to media enjoyment, it is arguable that there are more important features that contribute to entertainment, as is evidenced by the plethora of primitive and crude media that is available—from “South Park” to amateur videos on YouTube—aesthetic quality is not always required for entertainment to occur. Further refinements
should go into entertainment scales that hope to tap multiple dimensions so that surface features, psychological processes and affective outcomes can be addressed.

This brings attention to the recurring issue of the definition of entertainment (e.g., Vorderer, 2001). Most entertainment measures, Bartsch's included, have face validity. But it seems increasingly obvious that the social scientist is not interested in entertainment in the same way that the entertainment industry, or even the consumer, is interested. Entertainment conceptualized simply as enjoyment or appreciation of superficial features of media continue to fall short in terms of discriminating between a wide number of underlying individual preferences and processes that contribute to the experience. Conceptualizing entertainment as a process, rather than an event, could mean that scales intended to find multiple dimensions at a single time might be replaced by models that measure process variables over the length of exposure. These models are under development. This research has utilized a process model with a simple enjoyment-analogous measure of entertainment measured with key variables of interest across time, and has shown promising results.

In this study, empathy was the process at work that led to enjoyment of the stimulus. Preference for eudaimonic film was thought to be a viewer trait that would explain how individuals might enjoy media that invoked negative mood states more than simply the positive mood states that Affective Disposition Theory would predict the viewer to enjoy. The individual difference scale for hedonic preference and eudaimonic preference was introduced. Though helpful, this instrument also needs more work. As
discussed earlier, cognitive and affective motivations may be playing a role for both hedonic and eudaimonic preferences, so scale items should be developed to reflect this.

6.4 Future Research

While demographic differences between participants did not seem to interfere with the results of this study, such possibilities should be considered in future research. The use of an African-American protagonist did not create differences among viewers of different races, which suggests racial issues may not have been salient within the episode. It may also be that viewers were desensitized to seeing the black character commit violent acts, become hunted and captured like an animal, or in the case of the negative ending, be bound and held captive. While the former scenario seems more likely, the latter should not be discounted. As future researchers develop more stimuli to test entertainment, race and gender roles of characters should be monitored to ensure negative stereotypes are not reinforced.

This study attempted to measure processes contributing to entertainment by using multiple time points. The challenge in doing so is to maintain ecological validity while also having enough data to witness processes unfolding. In this experiment, the viewers’ responses were measured at what would be perceived as commercial interruptions. While this would probably seem to be the least obtrusive way to collect multiple measures, it lacks a certain degree of control over the potential multitude of thoughts and feelings that could be occurring during the actual viewing of the stimuli. In this study, the time between measurements ranged from 15 minutes for the first two measurements to under five minutes between the last two. While it is conceivable that more interruptions could
have yielded a better picture of the processes at hand, the disruption of a program for the purpose of filling out psychological instruments would certainly detract from the enjoyment of the show, and could also make it more difficult for viewers to form the empathic relations that were of particular interest here. Physiological measures might provide a better source of data to complement similar studies, as they would allow for continuous measurements that could then be associated with specific actions within the content of the program. Other measurement options that deserve exploration are ecological momentary assessments, which can gather data in a manner more surreptitious by cueing the viewer to answer short questionnaires on a portable device while he or she is watching in a more natural setting. Another option that would be more conducive to laboratory experiments would be to create a viewing interface that gathers data during the program by asking short questions at times within the content that are most critical for measurement.

Collecting data longitudinally is becoming more viable due to advances in technology, but another step forward for studies such as this has been the adoption of more advanced methods of analyzing complex data sets. As more advanced data analysis techniques are adopted by social scientists, the potential for understanding phenomena within dynamic contexts will only increase (Hayes, 2006). Measurements that can occur unobtrusively within naturalistic viewing environments should be a goal to further advance our understanding of media enjoyment.


APPENDIX A

PRETEST MEASURES
The purpose of this page is to collect demographic information about our participants. It is also necessary for us to be able to identify you as you participate in the second stage of this study. For this reason, we have collected your OSU email address. Your responses will remain anonymous. The identifying information will be used to link the results of this survey to your responses in the second half of the study. At that time, your identifying information will be removed and the researchers will have no way of linking your responses to your identity. Your name will only be used for purposes of reporting your participation to your instructor so that you receive course credit.

For what course are you participating for extra credit?

Please indicate your sex.

- Male
- Female

Age:

Please enter your age in years.

Which of the following best describes your race?

- African American
- Asian
- Caucasian
- Latino/Hispanic
- American Indian
- Other

What is your present year in college?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate Student
- Other
We are interested in the types of movies that you enjoy. Please read each statement below and indicate the degree to which the statement applies to you and your general attitudes toward movies.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Neither agree nor disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find movies valuable when they grapple with questions about the purpose or meaning of life.</td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td>I like movies that focus on meaningful human conditions.</td>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>For me to really like a movie, it has to provide me with greater insight and understanding.</td>
<td>○</td>
<td>○</td>
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<td>○</td>
<td>○</td>
</tr>
<tr>
<td>When I watch serious or dramatic movies, I feel like I’ve learned important things about life.</td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td>I find it most gratifying to watch movies that have happy endings.</td>
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</tr>
<tr>
<td>I really like movies with a “feel good” message.</td>
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<td>○</td>
</tr>
<tr>
<td>For me, the best movies are ones that are entertaining.</td>
<td>○</td>
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</tr>
<tr>
<td>Among my favorite types of movies are ones that make me laugh.</td>
<td>○</td>
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<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Please read each statement below and indicate the degree to which the statement applies to you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Neither agree nor disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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</thead>
<tbody>
<tr>
<td>I don’t become upset just because a friend is acting upset.</td>
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<td>The people around me have a great influence on my moods.</td>
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<td>I sometimes try to understand my friends better by imagining things from</td>
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<td>their perspective.</td>
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<td>I try to look at everyone’s side of a disagreement before I make a</td>
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<td>decision.</td>
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<td>I am the type of person who is concerned when other people are unhappy.</td>
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<td>I often have tender, concerned feelings for people less fortunate than</td>
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<td>myself.</td>
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<td>I sometimes don’t feel very sorry for people when they are having</td>
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<td>problems.</td>
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<td>I am often touched by the things that I see happen.</td>
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<td>Even though I often try to console someone who is feeling bad, I never</td>
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<td>seem to be able to say the right thing.</td>
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<td>Others think of me as an empathetic person.</td>
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<td>I really get involved with the feelings and characters in a novel or</td>
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<td>film.</td>
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<td>After acting in a play or seeing a play or a movie, I have felt partly</td>
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<td>as though I were one of the characters.</td>
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<td>I become very involved when I watch a movie.</td>
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<td>I cannot continue to feel okay if others around me are feeling</td>
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<td>depressed.</td>
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<td>I become nervous if others around me seem nervous.</td>
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<td>Before criticizing someone, I try to imagine how I would feel in their</td>
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<td>I sometimes find it difficult to see things from another’s perspective.</td>
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<td>When I am upset with someone, I usually try to put myself in his or her</td>
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<td>shoes for a while.</td>
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<td>When I see someone being taken advantage of, I feel kind of protective</td>
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<td>toward them.</td>
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<td>I would describe myself as a pretty soft-hearted person.</td>
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<td>Other people’s misfortunes do not usually disturb me a great deal.</td>
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<td>I am the type of person who can say the right thing at the right time.</td>
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<td>I usually respond appropriately to the feelings of others.</td>
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<td>My friends come to me with their problems because I am a good listener.</td>
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<tr>
<td>When I am reading an interesting story or novel, I imagine how I would</td>
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<td>feel if the events were to happen to me.</td>
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<td>When I watch a good movie, I can easily put myself in the place of the</td>
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<td>lead character.</td>
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APPENDIX B

EXPERIMENTAL BASELINE MEASURES
Log In

Please log in and answer the following brief series of questions before continuing with the study.

Please enter your OSU e-mail address (lastname.#@osu.edu).

Please enter the code that you were given by the researcher.
## Circumplex

Please respond to the following questions based on your feelings at this moment:

<table>
<thead>
<tr>
<th>Question</th>
<th>0 Not at all</th>
<th>1 Slightly</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Moderately</th>
<th>5</th>
<th>6</th>
<th>7 Extremely</th>
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<tbody>
<tr>
<td>How CALM are you?</td>
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<td>How TENSE are you?</td>
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<td>How RELAXED are you?</td>
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<td>How STRESSED are you?</td>
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<td>How HAPPY are you?</td>
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<td>How PLEASED are you?</td>
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<td>How DISPLEASED are you?</td>
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<td>How EXCITED are you?</td>
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<td>How DEPRESSED are you?</td>
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</tbody>
</table>
LostQ

How familiar are you with the television program "Lost"?

- 0 Not at all familiar
- 1 Slightly familiar
- 2
- 3
- 4 Moderately familiar
- 5
- 6
- 7 Extremely familiar

To what degree do you consider yourself to be a fan of the television program "Lost"?

- 0 I am not at all a fan of "Lost"
- 1 Slightly
- 2
- 3
- 4 Moderately
- 5
- 6
- 7 I am very much a fan of "Lost"

Please report your best estimate (in minutes) the amount of time you spend EACH WEEK reading about, discussing, watching or listening to information related to the program "Lost". (This can include interpersonal discussions, newsgroups, magazines, Web sites, podcasts, etc.)

Approximately 80 episodes of the show "Lost" have aired over the past 4 television seasons. In your estimation, how many episodes of the show have you seen?

Enter number of episodes:
Please take this short quiz designed to test your knowledge of the show "Lost". If you are unsure of an answer, please make your best guess.

What is Hurley’s last name?
- Davila
- Dominguez
- Reyes
- Ramirez

What is the hometown of Charlie Pace?
- Manchester, England
- Dublin, Ireland
- Madrid, Spain
- Edinburgh, Scotland

What is the underwater DHARMA station that Charlie swam into?
- The Pearl
- The Sentinel
- The Nauvohuo
- The Looking Glass

What is the name of the foundation that provided financial backing to the DHARMA Initiative?
- Amistad Foundation
- Hanso Foundation
- Hattori Foundation
- Lepper Foundation

What is the name of the slaving ship that was found on the island?
- Adelaide
- The Black Rock
- Henrietta Marie
- The Wanderer
What was the position that Jin held at the Seoul Gateway Hotel?
- cook
- desk clerk
- doorman
- night watchman

How often does the "execute" button in the hatch need to be pressed?
- Once every 4,815 minutes.
- Once every 23 minutes.
- Once every 108 minutes.
- Once every 42 minutes.

Which principal character was killed in the first season of LOST?
- Boone
- Jack
- Rose
- Sayid

What is the name of Walt’s dog?
- Arnold
- Rex
- Tiger
- Vincent

Which character was seated in the tail section of Oceanic flight 815?
- Claire
- Kate
- Libby
- Rose

Who returns to the show as Kevin Johnson?
- Desmond
- Henry
- Michael
- Mr. Eko
Who is Alex's boyfriend?

- Jack
- Karl
- Rousseau
- Sayid
APPENDIX C

EXPERIMENTAL REPEATED MEASURES
Log In

Please log in and answer the following brief series of questions before continuing with the program.

Please enter your OSU e-mail address (lastname.#@osu.edu).
### Circumplex

Please respond to the following questions based on your feelings at this moment:

<table>
<thead>
<tr>
<th>Question</th>
<th>0 Not at all</th>
<th>1 Slightly</th>
<th>2</th>
<th>3</th>
<th>4 Moderately</th>
<th>5</th>
<th>6</th>
<th>7 Extremely</th>
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</thead>
<tbody>
<tr>
<td>How CALM are you?</td>
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<td>How TENSE are you?</td>
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<td>How RELAXED are you?</td>
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<td>How STRESSED are you?</td>
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<td>How HAPPY are you?</td>
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<td>How SAD are you?</td>
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<td>How PLEASED are you?</td>
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<td>How DISPLEASED are you?</td>
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<td>How EXCITED are you?</td>
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<tr>
<td>How DEPRESSED are you?</td>
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</tbody>
</table>
The items below refer to the episode of the program you are currently watching.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Neither agree nor disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is fun for me to watch this program.</td>
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<tr>
<td>This program is entertaining.</td>
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<tr>
<td>I am enjoying watching this program.</td>
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<td>I find the program to be artistically valuable.</td>
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<td>I like the style of this program.</td>
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<td>This program is aesthetically appealing.</td>
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<td>This program is thought provoking.</td>
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<td>This program has a deeper meaning.</td>
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<td>The program has something important to say.</td>
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<td>The program will leave me with a lasting impression.</td>
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<tr>
<td>This program will stay in my mind.</td>
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<td>I will remember this program.</td>
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</tbody>
</table>
The questions that follow refer to Michael.

Based on the segment you have just seen, what are your reactions to Michael?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Rather agree nor disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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<tbody>
<tr>
<td>Before criticizing what he has done, I try to imagine how he would feel</td>
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<tr>
<td>I try to understand him better by imagining things from his perspective.</td>
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<td>I find it difficult to see things from his perspective.</td>
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<td>His misfortunes do not disturb me greatly.</td>
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<td>I feel concerned when he seems unhappy.</td>
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<td>When he is in a vulnerable situation, I feel kind of protective of him.</td>
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</table>
The items that follow refer to Sawyer.

Based on the segment you have just seen, what are your reactions to Sawyer?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Slightly disagree</th>
<th>Neither agree nor disagree</th>
<th>Slightly agree</th>
<th>Agree</th>
<th>Strongly agree</th>
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<tbody>
<tr>
<td>Before criticizing what he has done, I try to imagine how</td>
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<td>I would feel in his place.</td>
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<td>I try to understand him better by imagining things from his</td>
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<td>perspective.</td>
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<td>I find it difficult to see things from his perspective.</td>
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<td>I feel concerned when he seems unhappy.</td>
<td></td>
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<tr>
<td>When he is in a vulnerable situation, I feel kind of</td>
<td></td>
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<tr>
<td>protective of him.</td>
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</tbody>
</table>

Note: Empathy toward Sawyers was measured at Time 1 only.
APPENDIX D

TIME 3 POST-TEST MEASURES
The questions that follow refer to Michael.

In this episode:

<table>
<thead>
<tr>
<th>How violent were Michael’s actions?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Not violent at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 = Extremely violent</td>
<td></td>
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</tbody>
</table>

In this episode:

<table>
<thead>
<tr>
<th>To what degree are Michael’s actions rewarded?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Extremely rewarded</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 = Not rewarded at all</td>
<td></td>
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</tr>
</tbody>
</table>

In this episode:

<table>
<thead>
<tr>
<th>To what degree do you think Michael felt remorseful for his actions?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Not remorseful at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 = Extremely remorseful</td>
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</tbody>
</table>

In this episode:

<table>
<thead>
<tr>
<th>How justified were Michael’s actions?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Not justified at all</td>
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<td></td>
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<td></td>
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<tr>
<td>2 = Extremely justified</td>
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</tbody>
</table>

In this episode:

<table>
<thead>
<tr>
<th>To what extent is Michael similar to people that you know?</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Extremely similar</td>
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<tr>
<td>2 = Not similar at all</td>
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</table>
### In this episode:

**How fair do you think was what happened to Michael?**

<table>
<thead>
<tr>
<th></th>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extremely fair</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not fair at all</td>
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</tbody>
</table>

### In this episode:

**How difficult is it for you to identify with Michael?**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Extremely difficult</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>No difficulty at all</td>
<td></td>
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</tbody>
</table>

### Please think about the ENDING of the episode that you just watched.

**How HAPPY would you say the ending of this episode was?**

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all</td>
<td>Slightly</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Extremely</td>
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</tr>
</tbody>
</table>