

## **Is an overarching theory of affect in film viewing possible?<sup>1</sup>**

Carl Plantinga  
Communication Arts and Sciences, Calvin College

Ed Tan  
Amsterdam School of Communications Research, University of Amsterdam

### **Summary**

This piece consists of a tripartite exchange of conflicting views on the unity of affect in film viewing. Plantinga argues against notions of desire and more centrally, against Tan's theory of interest. First, there is no global mechanism motivating the viewer throughout the entire episode of watching a film. Second, the roots of affect in film viewing are too diverse and varied in order to be explained by any overarching theory. As an alternative, Plantinga proposes to locate unity of affect in the film's narration that serves as an intentional orchestration of multiple affects. Tan replies by explaining the suitability of interest as a 'centripetal' emotion. It is a basic emotion elicited by promising prospects in the stimulus. Film narration manipulates the element of promise. Narration provides for other emotions as well, and these are related to interest. A global framework is proposed for integrating the various emotions with narrative devices controlling these. In his final reply Plantinga enlarges on his claims against interest, emphasizing its breadth and presenting cases where it does not apply. He argues that using an overarching term tends to obscure specific emotions in relation to structure, style and point of view.

---

<sup>1</sup> The present article is based on an exchange of views that originally occurred at the May, 2001, Symposium of the Center for the Cognitive Study of the Moving Image in Pécs, Hungary. The second author was then based at Vrije Universiteit Amsterdam.

## **Desire, Interest, and the Search for Global Affect Structure in Film**

Carl Plantinga

Calvin College

December 9, 2001

The strongest reaction I've ever had to a film was at a 1979 screening of the Ridley Scott's Alien, during which the audience nearly panicked at several points. My companion and I considered walking out, not because we weren't enjoying the movie, but because it was too intense. The screaming and yelling of the audience left my ears ringing for hours afterward. My only film viewing experience to rival this occurred in 1963, when my parents, rather strict Calvinists who didn't know much about the movies, took me to the drive-in theater to see Hitchcock's The Birds. I was six years old. I escaped with minimal psychic damage only because I hid beneath the dashboard of the car. My sister, who was also present, long blamed my parents for instilling her with an irrational fear of birds.

Most of us have had similar experiences in which films have affected us significantly. Such experiences leave us wondering about the nature of film's appeal to the viewer's emotions. We sometimes wonder if there can be a universal or general account of what motivates us to view films. Is there a global mechanism that keeps the film spectator interested, curious, or fascinated through the length of the film viewing experience? Can some overarching theory of desire and pleasure account for the power of movies, and enable us to place more local affects into a structured context? Does there exist an affect structure that motivates both the more local, intermittent affect experiences, and keeps us viewing during times of low emotion arousal?

Let's suppose, for the sake of argument, that there is an overarching, global structure to film affect, some element of the film viewing experience that serves as the primary motivation for our viewing. I will call this elusive affect structure "global affect structure," or GLAS, for short. My plan in this essay will be to first examine two of the leading candidates for GLAS. These include the psycho-semiotic concept of desire and pleasure on the one hand, and Ed Tan's notion of interest on the other. In the second part of the paper I will argue that there has been no successful theory of GLAS, and furthermore, that the development of such an overarching theory is not possible. In the paper's third and last section, I argue for a model of film viewing that makes some presuppositions about the motivations of the film viewer, but that does not presume GLAS. This approach to film affect, I will argue, has the best chance to lead to significant discoveries about how films elicit affect, and how that affect relates to the rhetoric and aesthetics of film.

### **Psychoanalysis and Desire**

Like many film theorists sympathetic to cognitive approaches, I find much to disagree with in psychoanalytic theory, at least in the forms it takes in film and literary studies. By nature many of its claims are highly speculative, counterintuitive, unfalsifiable, and too dependent on the cultish authority of Jacques Lacan or another favored theorists. At the same time, however, Freud-based psychoanalytic theory has offered a cogent, and in some ways, attractive theory of Global Affect Structure.

In psychoanalytic theories of narrative, it is desire, as Peter Brooks writes in his book, Reading for the Plot, that "carries us forward, onward, through the text." (Brooks, 1984: 37). For most psychoanalytic critics, desire—which bubbles up from the seething cauldron of chaotic energy in

the unconscious--is thought to be that structuring essence we seek. Brooks writes at times as though a narrative were an engine running on the fuel of desire, granting the reader the pleasures offered by the indulgences that desire takes as its goal.

Psychoanalytic theories of spectatorship are more or less united in their assumption that narratives depend for their affects on the presumed human instinct to restore an earlier state of things. Narratives replay childhood fantasies and elicit psychic conditions that mimic early stages of childhood development. Christian Metz held that identifying with the camera allows viewers to experience the illusion of cohesiveness, reminding them of their earliest experiences of wholeness. (For an account of psychoanalytic film theory as it relates to affect, see Plantinga and Smith, 1999:10-13). The repetitious nature of film narrative, both within the individual film and in the repetition of conventions, genres, and modes, replays ground already covered. It is similar to the child's fort/da game, in which he repetitiously throws away and recovers an object, repeating the experience of mastery through recovery.

The fundamental motivation of the spectator's experience, then, is to replay the originary fantasies in order to recover the lost plenitude of early childhood, or to master the anxiety and fear arising from later stages of development. For Laura Mulvey (1999: 833-844), in her early writing at least, film viewing follows the contours of male desire, and film narratives are structured to diffuse the castration anxiety originating in the Oedipal Stage of childhood development. For Linda Williams (1999: 712), the so-called body genres—pornography, horror, and melodrama—have their roots in the originary fantasies of primal seduction, castration and the mystery of sexual difference, and the loss of origin, respectively.

Psychoanalytic theories, then, are united in that GLAS is taken to be a desire for a regression to psychic states that mimic and replay early stages of childhood development. Yet despite this

nod toward the unity of desire in film viewing, we find that the types of desires of which psychoanalytic critics write are very broad. For Brooks, desire is something like Freud's notion of Eros, and Brooks writes of developing a "textual erotics" of reading. This would seem to point to sexual desire as GLAS. However, Freud's notion of Eros, Brooks notes, cannot be limited to mere sexual desire. As Brooks puts it, Eros is "polymorphous," and desire takes other forms – many other forms. In his book Body Works, for example, Brooks writes of epistemophilia, or what Freud calls Wissstriebe, the desire for knowledge or meaning. This instinct for knowledge arises, in Freud's "Three Essays on the Theory of Sexuality," from the child's desire to solve "The Riddle of the Sphinx," or the mystery of where babies come from (Brooks, 1999: 96-99). This would seem to point to a desire for knowledge. But elsewhere desire takes on other shapes. In Reading for the Plot, Brooks writes of the "death instinct" as Freud's "master plot." Here Brooks (1984: 90-112) argues, by a pun on the word "end," that our desire for the end of the plot is motivated by our secret desire for our death. And Brooks (1984: 46) also writes of yet another form of desire, what he calls the "primordial homicidal impulse." Other psychoanalytic theorists locate desire elsewhere. In film theory, for example, Laura Mulvey writes of the pleasures offered by the cinema, of which scopophilia and voyeurism are of vital importance, eliciting the spectator's desire to look.

It is clear that for Brooks and other psychoanalytic theorists, the notion of desire is polymorphous indeed. In fact, the word "desire" becomes a kind of clearinghouse for the entire panoply of unconscious drives, instincts, and motivations. We are motivated by desire when we are motivated by the death instinct, by sexual attraction, by homicidal impulses, by curiosity, by pleasure in looking. To say that our viewing is motivated by desire is to say little more than that our viewing is motivated by unconscious instincts or drives, that the motivations are diverse, and that they can ultimately be accounted for by a need to regress, in fantasy, to stages of childhood development.

I do not wish to make the claim that psychoanalytic accounts of spectator motivation and pleasure are misleading or necessarily wrong. Rather, my claim here is less contentious. It is that the psychoanalytic theories will not work as an account of what I have been calling GLAS. Leaving broad criticisms of psychoanalysis aside for the moment, I say this for two reasons. First, the appeal to desire as GLAS is in fact not an appeal to a single affective structure but to a panoply of motivations for viewing, desires for this or that outcome or object, and pleasures taken in varying kinds of viewing experiences. It may well be true that some of our viewing pleasures harken back to basic human instincts and to childhood development. But those desires are so varied that a single concept of “Desire” cannot account for their diverse workings. Second, the psychoanalytic account of our motivations, desires, and pleasures is only partial, and seemingly uninterested in or unable to account for conscious or potentially conscious motivations. Psychoanalytic theory has yet to account for emotions such as suspense, anticipation, surprise, mystery, sadness, shock, and a host of other kinds of viewing affects and experiences. Were psychoanalytic film theorists to develop a comprehensive theory of GLAS, it would be reductive, in that it would have to reduce GLAS to some constellation of desires based on a discrete set of originary fantasies rooted in childhood experiences such as the Oedipus Complex. Thus it would downplay or deny affect rooted merely in present concerns – our concern, for example, that Victor and Ilsa escape to freedom in Casablanca, or that Selma (Bjork) escape execution in Dancer in the Dark. Psychoanalytic film theory has no mechanism to deal with the affects that accompany such narrative concerns.

### **Ed Tan’s Theory of Interest**

The chief alternative to psychoanalytic theories of film viewing has recently come from cognitive film theory, broadly considered here to be rooted in a combination of neoformalist film theory,

cognitive psychology, and/or analytic philosophy. The findings of cognitive theory, it seems to me, have the advantage of currency. While the discipline of psychology (in the United States, at least) has more or less abandoned psychoanalysis, cognitive psychology has become a dominant approach in the discipline. Although psychoanalysis is still favored in film studies, the cognitive approach is becoming more accepted, and psychoanalysis is becoming increasingly problematic for many film scholars. Until a few years ago it was thought that a key weakness of cognitive film theory was its supposed inability to deal with affect in film viewing. Now many scholars study the elicitation of emotion in film from a broadly cognitive approach.

Yet it is obvious that there is much yet to be done. Whatever you may think of the evidentiary status of psychoanalytic film theory, it does have the advantage of accounting for GLAS (Global Affect Structure) at the deepest levels, rooting the pleasures of the text in the hidden recesses of the human psyche, in fundamental drives, instincts, and desires.

What have the cognitive theories to say about such issues? Perhaps the most comprehensive account of GLAS has come from Ed Tan (1996) in his book, Emotion and the Structure of Narrative Film: Film as an Emotion Machine. For Tan, what he calls “interest” is the chief emotion elicited by film. It is the glue that holds the spectator’s attention, motivating her to continue viewing. High emotion points, characterized by crying or screaming, for example, help to sustain interest, and are more enjoyable, memorable, and intense than interest. But interest ideally covers the entire span of the narrative, and can serve as a background for shorter emotion episodes of other more intense types.

Tan (1996: 86) defines interest as “the inclination to call on resources from a limited capacity, and to employ them for the elaboration of a stimulus, under the influence of the promises which are inherent in the present situation with respect to expected situations.” Interest dominates the

affect structure of the feature film, and thus it functions as a global affect structure. It guides our attention, in both its intensity and selectivity. Interest is self-enhancing; it builds on itself, and ideally increases in intensity. Interest increases the intensity of the more episodic emotions (such as fear, relief, loathing, etc.), and in turn they feed into the intensity of interest. Interest should increase in strength as the narrative progresses, postponing the greatest psychic reward for the last possible moment. This rise in dramatic action, Tan (1996: 203) writes, just is a rise in the level of interest. As Tan writes, “Interest . . . dominates the other emotional responses, forming the backbone of the affect structure.”

Interest is molded both by theme (narrative situation) and character. Interest takes various courses, finding its way into the narrative structure of a film in diverse manifestations. For Tan, the three most important means of varying the level of interest during film viewing are suspense, surprise, and mystery.

On the face of it, when we think of basic or fundamental emotions, “interest” doesn’t come immediately to mind. The use of the term in Tan’s theory raises many issues, some having to do with interest as an emotion, and some having to do with interest as GLAS in film viewing. The first question we might ask is whether interest is in fact an identifiable, distinguishable emotion. One can page through many of the university textbooks on emotion and find little or nothing about interest. In fact, many psychologists of emotion ignore interest altogether. Others, such as Ortony, Clore, and Collins (1988: 174), in The Cognitive Structure of the Emotions, consider interest to be a cognitive state, preparatory to emotion, and not an emotion itself.

A few other psychologists, including prominent psychologists like Carroll Izard and Nico Frijda, do find “interest” to be an important and even basic, i.e., universal, emotion. Izard (1977: 211) holds that interest, or what he terms “interest-excitement,” is “the most prevalent

motivational condition for the day-to-day functioning of normal human beings,” and is fundamental to human constructive and creative endeavors. Nico Frijda (1986: 88, 91), similarly, finds interest to be a fundamental emotion. For Frijda, each emotion has an associated action tendency. In this regard, interest encourages us to attend to something for the purpose of learning about it and also encourages us to orient ourselves to our environment.

Like Nico Frijda, Tan holds that the function of an emotion is to control the cognitive processes and initiate responsive action. Emotion regulates the relationship between the individual and the environment in relation to the concerns of the individual. As Tan (1996: 44) writes, the “emotional system is geared toward establishing the relevance of certain situations for the concerns of the individual and, if such relevance exists, to enforce the priority of cognition and action in accordance with those concerns.” An emotion has an appraisal dimension and an action dimension, and various appraisal and action patterns are unique to each emotion. Other phrases used to describe an action pattern associated with an emotion are “action readiness” and “action tendency.”

In a fear-arousing situation, for example, the subject will likely appraise the situation as one in which some kind of harm threatens. The action tendency will be to protect oneself by whatever means are salient. Action tendencies can also be cognitive, Tan says. Thus the action tendency associated with interest will be to heighten our attention to the object. For Tan, interest is an emotion because it makes possible relational action, even if it is cognitive and not physical action. In fact, Tan says, when states like pity, fear, anger, and compassion are evoked in films, these are more like feelings than true emotions because the action tendency involved is merely virtual, and not actual.

### **Problems with Interest**

To consider interest as an emotion, however, raises some thorny issues. First, the emotion of interest, if we assume that it is indeed an emotion, is so broad and far-ranging that it is nearly shapeless. In its milder forms, at least, it seems to be a precondition for any kind of directed, conscious activity. The emotions are typically defined in part by a particular kind of judgement about an object or person. Fear results when we judge that an object poses a threat; the object of our anger is a person who has committed a wrong against us; we feel shame or guilt when we judge that we have failed with respect to some standard or goal.

Interest seems to require only that an object have some more or less intense hold on our attention, of any type whatsoever. The possible objects of my interest include just about anything -- a car accident, a sexually attractive person, a good conference paper, a landscape, a particularly large cockroach, the stars at night, or the itchy feeling on my right arm. Emotions other than interest require that a particular kind of judgement be made about the object. I must judge it threatening to have fear, judge it to have wronged me to experience anger, or judge that I have failed with respect to it (if it is a standard or goal) to have guilt or shame. For me to experience interest, on the other hand, my judgement can be of just about any sort. I may judge an object to be attractive or repulsive, threatening or potentially bliss-making, to have wronged me or to have done me significant good. I will take an interest in just about anything that has significance for or to me, in just about any way that it can be significant.

Tan suggests that interest arises from a concern to avoid boredom or to increase stimulation. I would wholly agree that human beings require such stimulation. But why not call this amusement rather than interest? Even if we do see this need for stimulation as a cause for interest, it surely isn't the only cause of interest. I take interest in that lion over there not because I want stimulation, but because I want to ensure that it doesn't eat me. I take an interest in my

child's accomplishments not because I want to avoid boredom, but because I care about the child and feel a certain amount of pride. Again we see that interest, unlike fear, anger, or disgust, has no identifiable single concern. Something may interest me for just about any reason.

In fact, it seems that interest is a prerequisite for, and accompanies, most of the other emotions. I cannot feel anger, sadness, guilt, or fear without also being interested in the objects of those emotions. It is for these reasons that some psychologists find that interest is a precondition for an emotion rather than an emotion itself, while others completely ignore interest, failing to deal with it at all.

My second question about interest is more specific to the elicitation of emotion in film. Tan (1996: 206) writes that the affect structure of film is "characterized by a limited number of different possible courses of interest." Over the span of a film, interest is manipulated by such techniques as rising action, turning points, and the problems and questions that the narration introduces to focus our attention. On the level of the individual episode, Tan writes, suspense, curiosity, and surprise are the three dominant means of varying interest. The problem is this. How do the emotions or affects of suspense, curiosity, and surprise relate to the emotion of interest? In other words, narrative strategies designed to elicit surprise, curiosity, and suspense also elicit interest. But are these emotions separate from interest, or examples of interest? Tan might answer this question in two ways, each of which raises further problems.

First, Tan might say that suspense, surprise, and curiosity are emotions separate from and different than interest. Structures of interest govern the elicitation of suspense, for example, but suspense remains a separate kind of emotion. But this conception of the relationship between interest and the other emotions creates significant problems. If interest and suspense, say, are separate emotions, then the structures that elicit suspense should be separable from the structures

that elicit interest. In fact, for Tan, the narrative procedures of suspense, surprise, and curiosity are in fact means of varying the level of interest.

So perhaps Tan would say that suspense, curiosity, and surprise just are types of interest. We might also say that fascination, anticipation, and similar related emotions are kinds of interest as well. Thus we would consider “interest” to be an umbrella term under which we might place a number of emotions elicited by the narrative strategies of a film. Were we to make this claim, however, we would have to conclude that interest, like desire, is a broad concept indeed. To speak of interest per se is to speak about affect at a very broad level of generality. If we consider suspense, surprise, and curiosity to be kinds of interest, does this enable a better understanding of suspense, surprise, and curiosity? Or do we need to understand the mechanisms of suspense, surprise, and curiosity in their own respects, apart from broad notions of interest? Our answer to this question has implications for whether we consider the notion of interest to be useful in determining global affective structure.

In his book, Mystifying Movies, Noël Carroll (1988: 227) claims that contemporary film theory has a penchant for “Platonizing.” As Carroll writes,

All different sorts of desire, such as the male viewer’s sexual desire for a movie character and any viewer’s desire that the movie be intelligible, are slotted under the abstract noun Desire, whose laws the Lacanian then charts. One, of course, wonders whether, ontologically, there is such a thing as Desire per se, rather than particularized desires for this or that. Desires, that is, are individuated by reference to their objects . . . not as instances of some unified, univocally named force called Desire.

Carroll's criticism, although aimed correctly, falls slightly off target. Why deny that there could be a coherent and useful concept of desire per se, and that it could be useful to chart the laws of desire apart from specific instances of it. Similarly, the concept of an emotion is useful to us apart from specific instances of emotion. Knowing what an emotion is, per se, allows us to better understand the various sorts of emotions and their particular instantiations. Were we to disallow the use of the general concept of desire, then should we also disallow other general terms, such as narrative, genre, emotion, and character? This would be neither wise nor possible.

The trouble with the use of the term "desire" is not that there is no entity as desire per se, but rather that the term is rarely defined and is used loosely and ambiguously. It is one of those terms that can take on many meanings. It can be an instinct, a drive, or a wish. It can refer to erotic arousal, our interest in spectacle, and so on. It has little use because we don't quite know what it means, and its use too easily leads to equivocation. We cannot chart its laws because, as it is used in contemporary film theory, it is not a univocal concept.

Tan, on the other hand, is careful to define his notion of interest. The problem here is rather that the notion of interest, as he defines it, is nonetheless, far too broad. T.S. Eliot, in his essay, "Tradition and the Individual Talent," writes that the proper object of our research should not be the emotion elicited by a work, but what he calls the "objective correlative" of that emotion. The objective correlative is "a set of objects, a chain of events which shall be the formula of that particular emotion. . ." (Eliot in Boorstin, 1992: 638). Without necessarily accepting Eliot's disinterest in emotion per se, we can agree with him that the objective correlative of a particular emotion – the textual operations and structures which elicit that emotion – must be a primary element of our investigation. In the case of interest, we have seen, those textual operations can extend to just about any way in which a text draws our attention. There is no particular objective correlative, but rather a variety of attractions, narrative structures, devices, images, actions, and

sounds, all of which elicit interest. To posit interest as a global affective structure in film viewing fails, I argue, because it is too broad to be of explanatory value.

### **Film and Affect: Basic Assumptions**

Tan brings us far in understanding film affect, and initiates a discussion of many of the relevant topics for such an investigation. As will become apparent below, I have borrowed much from Tan's discourse on the elicitation of emotion in film. Here I argue only against his idea that an emotion called "interest" is the global affective structuring principle for a film, the primary motivation for film viewing.

If I am right, then, what does constitute the overarching motivation for film viewing? My response to this question will be to reject the question. This is to say that there can be no theory of global affective motivation for film viewing. I say this for two broad reasons. For one, our psychological theories do not, and cannot at present, account for the complexity of human interaction with films. We have no satisfactory universal or even general theory of the spectator's motivation in film viewing. Moreover (and this is my second point), the appeals of the text are too disparate to allow for such a theory. The film viewer may be driven by curiosity and by the need to know. The film viewer may find empathetic reactions to characters to be a fundamental motivation for viewing. Perhaps childhood development has something to do with our fascination for narratives. But so are a thousand other attractions and interests provided by the texts. The sources of these pleasures of the text are too various to be admitted under a single theory of human motivation, or at least, a theory of human motivation that is sufficiently nuanced to be useful in the study of film affect.

This clearly leads to a call to piecemeal theorizing about affect, a call for bottom-up theorizing about film affect rather than attempting to subsume all affects, in a top-down fashion, under an overarching theory of spectatorship. This is a project that many would assent to as a worthwhile method of investigating film-related topics. The danger of piecemeal theory, however, is that it sometimes leaves implicit assumptions about the nature of the spectator and spectator motivations unexamined. David Bordwell (1996: 29) writes (correctly, in my opinion) that “you do not need a Big Theory of Everything to do enlightened work in a field of study.” Yet we must also take care to recognize and make explicit the basic assumptions in our work, and even in our piecemeal work.

We can usually find a kind of “assumed spectator” in the work of film scholars. For David Bordwell, Kristin Thompson, and the neoformalists, for example, film viewing largely consists of inferential and perceptual activity. The neoformalist spectator is an industrious and curious spectator, attempting to manage the various tasks set before him by the text, parsing *syujet* from *fabula*; anticipating and making inferences about both present and future in light of the past; adjusting and readjusting expectations; gauging time and measuring space. For Bordwell and Thompson, the spectator is primarily an information manager. (See, for example, Bordwell, 1985).

Torben Grodal, on the other hand, argues that the primary affective experiences of the spectator are empathetic, a kind of sharing in the emotion experience of the main character, or protagonist. For Grodal (1996: 81-105), viewer identification with a central protagonist is basic to our understanding of film-elicited emotion. In both of these cases, broad assumptions about the nature and motivations of the film viewer govern the kinds of questions that are asked and the types of answers given. I raise this issue not to question piecemeal theorizing, but to argue that piecemeal

theorizing must not close off discussion of certain broad issues having to do with spectator motivation and psychology. In some cases, these are unavoidable.

The approach I would advocate for the study of film affect would make the following assumptions:

1. The study of affect is best initially approached at the local level, as the attempt to isolate and describe individual affects or affect trajectories, and the structures that elicit them.
2. At the global level, we can best approach a film as an intentional orchestration of multiple affects, rather than as a text that generates a single, overarching affective or emotional state.
3. The overarching and unifying principle of a text is its narration, and narration is best described as a formal, not an affective construct. In other words, the unity of affect in a film should be located at the level of narration rather than in the affective experience, and the actual affective experience should be considered to be a potentiality of the text rather than a guaranteed outcome in the spectator.
4. Affect is also integral to the cognitive structure of a text, and usually fundamental to a text's meaning and thematics. As such, it plays centrally into a film's aesthetics and rhetoric.

### **The Orchestration of Affect**

For heuristic purposes, I have divided the kinds of affects generated by films into four broad categories. Mood and tone are words for affective states distinguished from emotions typically

by (1) a longer duration, (2) a lower intensity, and (3) diffuseness or globality. Examples might include fearful uneasiness, gloom, and cheerfulness.

Attraction is a term coined (as it is used in film) by Eisenstein and then inflected by Tom Gunning. I see an attraction as any use of spectacle, broadly considered. An attraction can be any image or event of interest for its own sake and not solely in relation to the concerns of a character or for the progression of a narrative. Attractions are too diverse to enumerate, but may include anything beautiful, awe-inspiring, intricate, repulsive, violent, fast moving, erotically attractive, etc.

The most important distinction I'd like to make is between the third and fourth forms of film-elicited affect, what I call assimilation affects and sympathetic emotions. The basic recipe for the elicitation of a discrete emotion in film might be described as follows. The filmmaker presents a scenario in which the spectator recognizes important implications for a favored character's goals, standards, attitudes, or well-being. The favored character is portrayed as assessing the situation, having a positive or negative reaction, and changing his or her behavior or judgement in response. Depending on the strength of allegiance with the character, various techniques of narrational priming, and the extent of the spectator's knowledge in relation to the character, the spectator will have an emotional response.

This account of film affect, however, may overlay or misplace the role of sympathetic and empathetic emotions in spectatorship. The spectator's reactions are never identical with those of the favored character, but are the reactions of a witness whose position is more or less independent from that of the characters. Moreover, the spectator's understanding of a character's situation is filtered through a narration, and the spectator is aware of that fact. The fundamental relationship in film viewing, after all, is not between the spectator and characters, and not

between the spectator and the story. The primary relationship in the film-viewing situation is between the spectator and a film text, including the spectator's self-conscious knowledge that she or he is being shown or told a story.

This much we have learned from Tan. In some regards, the affective experience of the film as a film is prior to and molds our response to characters in a film. We view films as narrated stories. As Joseph Anderson writes, by nature we are active information seekers who respond to the nature of the information presented and the structuring of its presentation. I call the affect elicited in relation to the presentation of story information "assimilation affect."

The grid below lists some of the characteristics of assimilation affect and the sympathetic and antipathetic emotions.

### Assimilation Affect

- Diverse kinds of affect generated primarily by the narration's chronological unfolding of story or "fictional world" information, but also including meta-response, that is, our reactions to our initial responses to the film.
- The orchestration of assimilation affect is among the primary and global structuring principles of the text.
- Assimilation affects may include both what Tan calls A-emotions and F-emotions.
- Emotions: curiosity, interest, suspense, anticipation, fascination, admiration, awe, amazement, revulsion, shame, guilt, admiration, etc.
- Affects: startle, shock, surprise, relief, tension, orientation reflexes.

### Sympathetic and Antipathetic Emotion

- Emotions rooted in sympathy, empathy, and/or antipathy, and fundamentally dependent on the spectator's allegiance with or antipathy toward a character or characters.
- Called "object fate" emotions by Tan, "fortunes of others" emotions by Ortony et al.
- Depend primarily on the judgement of an incongruity between a character and his or her goals, standards, and attitudes.
- The discrepancy between an event or situation and the character's goals, standards, or values initiates an emotional response in the character.
- The spectator's response is dependent in part on her or his degree of allegiance with the character.

- Fear, pity, anger, vengeance, sadness, happiness, compassion, etc.

Much good work on the film-elicited affect has been done. But there is also much left to do. In our eagerness to embrace the cognitive approach to the emotions, and in our contention that film-elicited emotions are structurally similar to human emotions outside of the theater, we have neglected the extent to which the film viewing experience occupies a unique place human life. Tan has shown us that we need to understand the primary relationship between the film viewer and the text, considering the text as an entity that reveals information in a structured pattern that must, as its primary function, hold our interest. What I have argued today is that the text holds our attention, fascinates us, and amuses us in diverse ways, but that these diverse mechanisms and attractions cannot be subsumed under the general rubric “interest.” It is not interest per se that we must investigate, but the diverse means by which films elicit a variety of affects and emotions.

## References

Bordwell, David, 1985.

Narration in the fiction film. Madison: University of Wisconsin Press, 1985.

Bordwell, David, 1996.

Contemporary film studies and the vicissitudes of grand theory. In: David Bordwell and Noël Carroll (eds.), Post-theory: Reconstructing film studies. Madison: University of Wisconsin Press.

Boorstin, Daniel J., 1992.

The creators: A history of heroes of the imagination. New York: Vintage Books.

Brooks, Peter, 1984.

Reading for the plot: Design and intention in narrative. New York: Alfred A. Knopf.

Brooks, Peter, 1993.

Body works: Objects of desire in modern narrative. Cambridge, MA: Harvard University Press.

Carroll, Noël, 1988.

Mystifying movies: Fads and fallacies in contemporary film theory. New York: Columbia University Press.

Frijda, Nico H., 1986.

The emotions. Cambridge: Cambridge University Press.

Grodal, Torben, 1997.

Moving pictures: A new theory of film genres, feelings, and cognition. Oxford: Oxford University Press.

Izard, Carroll E., 1977.

The emotions. New York: Plenum Press.

Mulvey, Laura, 1999.

Visual pleasure in the narrative cinema. In Leo Braudy and Marshall Cohen, eds., Film theory and criticism: Introductory readings, 5<sup>th</sup> ed, 833-844. New York and Oxford: Oxford University Press.

Ortony, Andrew, Gerald L. Clore, and Allan Collins, 1988.

The cognitive structure of emotions. Cambridge: Cambridge University Press.

Plantinga, Carl, and Greg M. Smith, eds., 1999.

Passionate views: Film, cognition, and emotion. Baltimore: Johns Hopkins University Press.

Tan, Ed, 1996.

Emotion and the structure of narrative film: Film as an emotion machine. Mahwah, NJ: Lawrence Erlbaum Associates.

Williams, Linda, 1999.

Film bodies: gender, genre, and excess. In: Leo Braudy and Marshall Cohen, eds., Film theory and criticism: introductory readings, 5<sup>th</sup> ed., 701-715. New York and Oxford: Oxford University Press.

## **Interest as Global Affect Motivation in film: A reply to Carl Plantinga**

Ed S. Tan

Vrije Universiteit Amsterdam

January 2002

### **Introduction**

A key problem in film aesthetics is whether or not there is a single overarching mechanism in responding emotionally to a movie. Carl Plantinga has addressed the problem that has essential ramifications for basic issues such as how film is perceived, understood and interpreted, and for more advanced questions including how films are (to be) appreciated, received and analysed as to structure, genre and meaning. The advanced issues touch on problems of aesthetics at large, so that it is clear that the problem is a complex one, that many a film researcher would be quite willing to leave to philosophers. Plantinga and I agree on the conviction that we should not. But in contrast to Plantinga, I feel that there is an overarching mechanism, although I agree with him as regards his conclusion that piecemeal research is called for to expose the multitude of affects that films can elicit in their viewers, and to unravel how they relate to each other and to the film's narration. Elsewhere, I have proposed the construct of the *affect structure* of a film as the general matrix in which the various emotional responses and cognitive appraisal processes are represented, together with their causal antecedents, that is the narrative structure of the particular film (Tan, 1996). Both local and global antecedents of emotion processes can be distinguished in the affect structure. My proposal was and is that in the affect structure of all traditional narrative films, and possibly other films as well, interest is the dominant emotion, as I also proposed in the special issue of this journal on Emotion and Cultural Products (Tan, 1995). As Plantinga signals

major problems with this conception of interest as the driving force behind film viewing, I will first respond to these at some length, and then comment on Plantinga's alternative option to a theory of Global Affect Motivation.

### **Is interest an emotion?**

Is interest an emotion? True enough, not all emotion researchers regard it so, as Plantinga makes clear. Those who do, regard interest as a basic emotion, that is one that has a special adaptive significance, resulting in a standard action repertoire being attached to it. One of them, Carroll Izard, who argued for interest as a basic emotion in earlier work, and with some success,<sup>1</sup> discussed the actions promoted by it in the recent second edition of the *Handbook of Emotions* (Izard and Ackerman, 2000, 256-257). Izard defines interest as an urge to explore objects in the face of a novel stimulus or situation. Thus, in interest energy is freed from a limited source for focusing attention and for engagement in games and interaction. Interest is an emotion that occupies the individual relatively often and for prolonged periods of time. It overlaps with terms like curiosity and intrinsic motivation and as an emotion it is unique in sustaining creative thought and action. That interest is a basic emotion characterized by a tendency to explore the stimulus at least in part for the sake of exploration, is illustrated by the fact that it has been observed in animals as well as in men. Chimpanzees engage in simple video games (shooting a dynamic target) not for an extrinsic reward, such as food, but for the fun of the game (Washburn, Hopkins and Rumbaugh, 1991). And even rats exhibit interest, as when their curiosity prevails over their hunger. Food-deprived rats consistently chose to approach food only when offered in a visually complex T-maze, if they were raised in a visually impoverished environment. In contrast, rats reared in a normal environment went to food regardless of the visual complexity of the goal (Sackett, Keith-Lee, and Treat, 1963). Chimpanzees are willing to do hard work in order to peep through a door into a room. Butler (1954) observed that they were more interested, i.e. more often

worked to open the door if they could see another monkey in a cage, and a running electric train than if they could see food. Interest caused by film has also been observed in rhesus monkeys and chimpanzees. Butler and Woolpy (1963) discovered that rhesus monkeys perform labour in order to see film through a window. Premack (1976) reported that chimpanzee Sarah watched a movie about monkeys for thirty minutes without interruption. The former researchers also established a preference for the more realist formats, observing that monkeys spent more time watching films over slides, and that looking times increased when projection was bright, in focus, at normal speeds, in colour and right side up. It may be that they also find some subjects interesting that people like to watch. Under natural circumstances, and not viewing movies but real scenes, bonobos like to watch others having sex and also show strong interest in aggression, such as fights between others (Kano, 1992, in Oatley and Jenkins, 1996).

In the same edition of the *Handbook of Emotions* in which Izard discussed interest in general terms, I have attempted to make a plea for interest as a crucial emotion not only in film viewing but in experiencing works of art in general, deviating from Izard to some degree by emphasizing *promise* next to novelty as its determinant in the stimulus situation. There must be something in the stimulus, projected by the individual as it may be, that keeps him or her going. Being absorbed by a movie, a book, a car in a showroom, or a street scene has something in common, although the stimuli differ enormously. In order to arrive at an account of interest, in each case it has to be explained what it is that holds a promise at some moment. This does not necessarily mean that a reader, or a witness of a street incident, or a film viewer can verbalize what keeps them reading or watching. It merely means that a theory of interest as an emotion should indicate the general *qualia* that make stimuli interesting, and that researchers in various domains should be able to translate these into parameters of cognitive processing. Thus, cognitive film theory should establish what parameters constitute promise or at least a challenge, at any stage of viewing a film. Film viewers in a theatre typically have the emotion of interest due to the film's

narrative. The film's narrative delivers a continuously growing promise, based on a short-list of potential outcomes favored by the viewer, such as the protagonist's victory, escape, happiness, etc. Furthermore, in the film's story world, things, events and people are present that are by themselves attractive to watch, that is beautiful, spectacular, incredible, fascinating, and so on, some of which not quite unlike those bonobos love to see. Both the promise held by the narrative and that of images with some intrinsic value result from particular judgements that Plantinga rightly sees as a precondition for any emotion to occur. If no promise is appraised, any attention for some object is merely a cognitive state.

### **Interest and the law of concern**

If interest is an emotion, it should be linked to a concern, that is, his or her goals, motives, values, and sensitivities. Any emotion signals a concern, and there is no emotion without concern. That is what the law of concern is about (Frijda, 1988). That interest is not immediately recognized by every researcher as an emotion may have to do with the fact that the concern involved is not obvious, less obvious at least than the concern for bodily integrity that is at the basis of pain, or that for attachment in sadness e.g. because of the loss of a parent. The concern that is related to interest is a need for novel experiences and engagement, or negatively stated, a need for avoiding boredom. This need is illustrated by so-called sensory deprivation experiments (Solomon et al., 1957). Subjects were lying on a bed in an isolated, lighted room, wearing translucent goggles, gloves and cardboard cuffs. They had their head resting on a u-shaped rubber pillow. The air conditioner delivered a masking noise. The lack of external as well as internal stimulation – e.g. the cuffs and pillow prevented active movements, soon made the subjects irritable, and hardly anyone could endure the test for more than a day or so. Moreover, hallucinations were reported within hours, testifying to the fact that boredom is an aversive condition that the individual attempts to counter. Watching fairly simple events is a remedy; it raises interest in chimpanzees

as in young children as a comparative observational study showed (Ladygina-Kots, 2001). Macaca monkeys that had been sensorily deprived from birth on much more often manipulated a handle that caused a dark room to be illuminated than monkeys that were reared under normal conditions, and showed an insatiable “appetite” for seeing the room (Wendt et al. 1963). The general need for variety or perceiving and seeing, and knowing new things can be considered a *source concern* (see Frijda, 1986). Depending on the situation it takes the shape of more or less specific facts, outcomes, etc. that the individual wants to perceive, know, etc. In accordance with this, *promise* takes the shape of specific facts and outcomes that the individual favors and that have some probability of coming true. In film, the viewer comes to hope for specific favored outcomes, and fears their opposite.

### **The emotional response in interest**

The action tendency in interest as an emotion is an active search for knowledge about the object. Exploratory behavior, including approaching, circling around the object, and manipulation are among the actions to which interest predisposes the individual. Depending on the object, one really engages in these behaviors or merely feels an urge to, as some objects do not allow for close approach or manipulation. Interest in film viewing is an instance of the witness emotions, that is, emotions caused by watching events that touch on the individual’s concerns, while he or she cannot act upon or participate in them. (For an extensive discussion, see Tan, 1995). Seeing a traffic accident happen in a street below from the tenth floor of a building, and witnessing a religious procession from the board walk are simple examples. The action tendency consists of allocating attention from a limited source, actively following and interpreting the event and perhaps construing expectations of what is going to happen next. The gaze is, therefore, considered an index of interest by neuro-psychologists in all primates (Emery, 2000). The promise is to know how the event unfolds and event outcomes. Film is a particular case of

witnessing events without being able to act. A narrative film is a guided exploration of a story world, creating interest and at the same time sustaining exploration *in imagine*. The viewer's action tendency consists of a readiness to spend effort in watching on and finding out how the events develop.

The fact that in high interest states all attention goes to the stimulus contributes to the fact that interest is not readily experienced as an emotion (whereas boredom is!). We may understand after the fact that we have been interested, for instance when we observe that time has flown.

However, the action tendency in interest can be observed during the emotion, in a way proposed by Sir Francis Galton: the amount of fidgeting in his audience to him was a (negative) index of their interest in his talk; many of us who have to give presentations have dealt or tried to deal with this measure. Philip Tannenbaum devised another ingenious test of interest. He had informants watch television programs, while exercising on a fitness bike. The pedaling was set at a prefixed rate, below which image and or sound became difficult to perceive. Tannenbaum varied the force that had to be applied in biking across participants, and so could exactly establish how much effort participants would yield in order to see a given program segment. (Tannenbaum, 1980, p. 119). Apart from its attractiveness as a non-obtrusive measurement, Tannenbaum's device reveals the essence of interest as a unitary concept. In principle interest is the response given by any viewer when we stop a film show, and ask him or her: 'How eager are you to watch the rest of the film?'<sup>2</sup> The emotional response of interest, a willingness to spend efforts, not only constitutes a readiness to go on watching rather than do something else, but it facilitates specific efforts, or what I have called viewer investments, such as sympathizing with a character in spite of sometimes extreme delay of gratification, and enduring emotions that are by themselves unpleasant, such as strong fear and disgust.

## **The centrality of interest**

In my opinion, interest is the backbone of the affect structure of any film. Interest blends with other emotion. When interest is very high, usually other emotions are evoked as well. To give an example, in Hitchcock's *Rear Window* James Stewart and Grace Kelly share a suspicion that a man in the opposite apartment, Thorwald, has killed his wife. Stewart, immobilized in his wheel chair due to an accident, cannot stop Kelly from intruding into the killer's apartment and anxiously follows her through a telescope. Then the killer returns and surprises Kelly, and the viewer. Stewart calls the police. Suspense increases. The police arrives, just in time, it seems. While Thorwald and the policemen argue, the killer sees that Grace Kelly signals something by waving her hand – in fact, she shows Mrs. Thorwald's wedding ring to Stewart. The killer traces back the line of her sight, apparently realising that he has been watched all the time, and that Kelly's intrusion has been set up by the person who is watching him right now. Stewart tries to recoil from the window in panic. Thorwald's spying movement ends in a close-up of his face, almost frontally looking into the camera, and almost returning James Stewart's gaze, promising no good for him. More than once I have heard an audience scream at this maximum interest moment, with fear and excitement. It is plausible that they also experienced surprise, and concern for Stewart, who is now a lame duck, and possibly anger at Lisa, who acts irresponsibly, or regret because she was so close at proving Thorwald's guilt.<sup>3</sup>

The logic of interest's blend with other emotions is this: first, if interest has its highest level, then the most valuable information is about to be given by the narration, one or more story outcomes, very often states of the world that are relevant to the protagonist's well-being. Satisfaction of the concern in interest, The nature of the information addresses concerns other than knowing what will happen or understanding what has happened. Any story outcome has significance in light of what the viewer wishes for a protagonist. And second: interest usually never has zero intensity. If

all is well, the viewer has at least some motivation to keep on watching. As Plantinga rightly observes, all other emotions are dependent on interest, because if there is no interest, there is no attention for the events and all other emotion, except boredom and frustration, are made impossible to occur. The combination is not exclusive for film viewing. According to Izard, it is typical of interest that it blends with other emotions, especially fear and pleasure. However, in my view it is again useful to distinguish between interest and attention in this connection. Attention spent on the emotional stimulus is a prerequisite for many emotions, whereas interest may or may not accompany other emotions. Proposing a dependency of other emotions on interest seems unwarranted in my view.

### **Interest provoking narrative procedures**

Plantinga's second question regarding interest as an emotion has to do with a confusion between cause and effect that I am to be blamed for. He wonders whether surprise, curiosity, and suspense are separate from interest or examples of interest. The answer is that I have caused confusion by using the same words for both emotions related to interest, and also for narrative procedures causing interest by manipulating the viewer's knowledge of events and ensuing expectations. Throughout Tan (1996), but especially in the paragraphs on narrative procedures and course of interest (pp. 207-209) I have attempted to distinguish between the two by explicitly mentioning the word 'procedure' wherever I felt that confusion might exist, but looking back this solution did not work, and it would have been better to refer to the procedures causing the emotions suspense, surprise and curiosity as 'delay of consequences', 'surprise gaps' and 'curiosity gaps', as Sternberg (1978) does in his standard work on the subject. Suppose the narrated story consists of three events:

- 1) Charles is standing before a window,
- 2) A sniper aims at Charles from a building opposite to the window and shoots, and

3) Charles falls over dead.

A surprise gap is created by leaving out antecedent information (i.e. 2), with the reader only being aware of the missing information at the moment that it is presented (i.e. 3) : Charles fell over dead. He had been standing before a window. A sniper had shot him from a building opposite to the window.) A curiosity gap is created by a clearly visible omission of the antecedent: Charles was found dead, with a bullet in his chest. The detective found out that he had been standing before window, where a sniper in the building opposite to it had hit him. Delaying the consequence, i.e. 3, provokes suspense: Charles stood before a window. A sniper aimed at him from a building opposite to the window. Charles wondered if the weather would improve, so that he could go out for a walk. The sniper had Charles's chest clearly in the bull's eye of his telescope and moved his finger to the trigger, and shot. Charles fell over dead.

All three emotions are types of interest, as Plantinga suggests, because they all involve a promising prospect of getting wanted knowledge. Plantinga is also right in noting that the types of interest differ as to intensity. However, that is not in itself an argument against their usefulness or plausibility. Rage is a strong form of anger, elation of joy, and terror of fear, to name a few examples of common and valued distinctions among emotions belonging to one and the same class. The difference as to procedures produces the three types, that each have their characteristic temporal course. In suspense interest, that is the urge to know the outcome event, rises sharply with time between the antecedent and the consequence, in curiosity it is stable from the deformed antecedent to the presentation of the complete antecedent, and in surprise it peaks and immediately drops. Accompanying emotions differ also: in suspense hope and fear clash, surprise may be accompanied by startle and many other emotions, from disgust to relief and joy, depending on previous emotions, and curiosity may go together with anxiety rather than fear, and with sympathy for the character that solves the mystery. As said, the three types of interest share the element of promise (of knowledge). More thought has to be given to differences in appraisal

structure of the three types than I can do here. If we start from significance structures as proposed by Frijda (1986) and Ortony, Clore and Collins (1988), it would seem that focality is higher in suspense and lower in curiosity, whereas strangeness is high in curiosity. Unexpectedness and uncontrollability are distinct elements of appraisal in surprise.

### **Is interest too broad a concept to explain global affective response in film viewing?**

We can now turn to Plantinga's objection to the breadth of interest as a concept. Plantinga is absolutely right when he states that textual operations and structures that elicit interest constitute a large and varied set. But I disagree with his conclusion that interest fails as a global affect structure in film 'because it is too broad to be of explanatory value'. It is exactly its breadth that lends it a unique explanatory power, namely to account for the viewer's readiness to go on watching, at any moment during a film show. And this is not an insignificant contribution to our understanding of the cinema. Interest as an 'ontologically existing' and even measurable emotion answers the question why people are disturbed when a film show is interrupted. Experienced interest in the end determines to a large degree cinema patrons' satisfaction with a film as a whole. It accounts partially for cinema patrons' motivation to go to the movies at all, because experiencing high interest levels is an important reason for visits to the cinema or seeing movies, because allocating all attention that you have to the film stimulus literally makes you forget everything else. In other words, interest is an explanatory concept that because of its breadth connects various layers of the cinematic experience, from the micro-processing of events within a scene to the appreciation of an entire film. For the cognitive study of film viewing in particular, the concept of interest accounts for control processes that we need in order to explain that any perceptual and cognitive processing will settle into some final results at all. And as a most specific contribution to the cognitive study of film affect should be mentioned, first, that most emotions in the cinema are limited to a genre, or even particular films, whereas interest is present

in viewing all sorts of films. Second, that it is the only emotion that has a real action tendency attached to it, instead of merely virtual ones. You cannot run in fear, walk towards a hero in order to express your admiration, but you can turn away from the screen and leave the theatre. The reality of the action tendency is of course a result of the fact that interest is an A emotion, that is, the object of interest is the film as an artifact, whereas most other emotions are F-emotions, that is responses to imagined events, objects and persons in the fictional world. So we could also say that interest has a real object, and is the major A emotion among others such as admiration for the film maker, or surprise because of a style breach.

The breadth of interest as an umbrella term for a number of emotions that differ as to intensity, temporal course and some other parameters of appraisal should be well understood. On the one hand there is a unitary response that defines the class of interest emotions: spending attention and processing effort. There is also the appraisal of promise that unifies various forms of interest. On the other, the objective correlates, that I prefer to simply call: causes of interest are manifold, as Plantinga notes. And, indeed, interest is an abstract notion in the sense that its object is not clearly implied in the term, but its manifestation, that is the actual response as well as its experience, an urge to watch, are highly concrete. In sum, interest is not only a collective *term*, as Plantinga states, but it is a collective process, in the sense that it integrates various appraisals and emotions into one single appraisal of promise and one ensuing emotional response.

### **Towards a model of the Global Affect Structure of film viewing**

Now let me address the main issue of Plantinga's argument. In contrast to Plantinga I believe that it is possible to model the global affect structure of film. By 'possible' I mean that we can make a start with theorizing about the hierarchical structure of cognitive and emotional processes that contribute to explaining the affective film experience, if we limit ourselves to only a few essential

parameters of that experience. I assume that current cognitive and formal film theory in combination with cognitive and social sciences provide the knowledge that affords us to set up a causal model of emotional experience in film viewing and its determinants.<sup>4</sup> A sketch of such a model was presented in Tan (1996, pp. 195-223) and I can only go into the major points. meanwhile it may be helpful to realize that Plantinga and I agree to a large extent on the essentials of the model, but it seems that what I consider to be (causal) hypotheses are assumptions in his proposal.

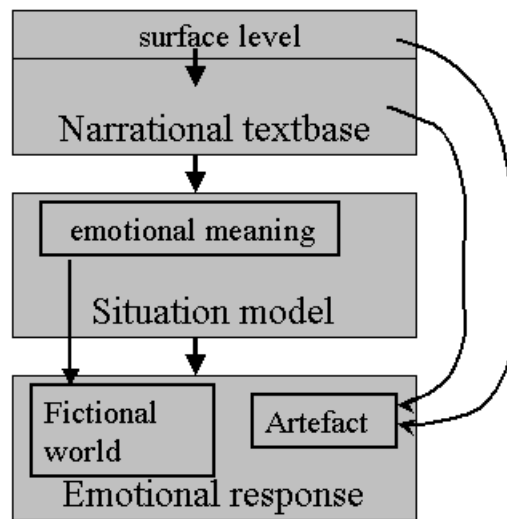


Figure 1. *Three layer causal model of emotion in film viewing*

The basic causal model incorporates the knowledge on processing of narrative discourse, e.g. as represented in Kintsch's construction-integration model (Kintsch 1988).<sup>5</sup> The model of emotion in the film viewer consists of three layers, as illustrated in Figure 1:

## 1. the narrational text base

In research into cognitive processing of discourse, a distinction is made between the representation of a text, and the representation of the situation described in the text. The first is called the text base (e.g. Kintsch, 1988). The text base contains propositions derived from sentences, or shots/ sequences in the case of film, called surface level characteristics by discourse researchers, and propositions obtained as a result of inference operations (Graesser, Singer, and Trabasso, 1994). It also represents structural relations between groups of propositions, e.g. cause and effect, temporal relations, parallelisms and so on. A match between an opening shot and a final one is marked in the text base. The text base is created in processing by transforming input surface structures into propositions, Surface level characteristics tend to get lost in the process, as lots of experiments done in the seventies have shown, although they contribute to the extraction of meaning, expressed in the propositions. I assume that the same happens with film style; as a rule it does its work without the viewers noticing, unless they have expertise. Stylistic or technological highlights, such as conspicuous exceptions to a convention, or a particular clever solution may be noted by viewers without special expertise, and give rise to A-emotions such as admiration for the film maker, or actor, or enjoyment of the film as film. The text base also explains some of Plantinga's assimilation emotions, in my view it contains the correlates of narrative procedures such as delay, surprise and curiosity gaps. The inference work done in construing the text base is a causal determinant of interest. For instance explanatory inferences contribute to preliminary understanding, and predictive inferences are the basis for hopes and fears. Unfinished understanding and specific expectations keep perceived promise at a level required to sustain interest, or cause even higher levels.

## 2. the situation model

The objects, events, characters portrayed in the film are represented in a so called situation model. The idea of a cognitive semantic model of events, persons, situations, objects, and so on that is constructed in comprehending a text has been elaborated at least since Johnson Laird's seminal book *Mental Models* (1983).<sup>6</sup> In the case of fictional film the situation model corresponds with the fictional world. Various experiments have shown that the situation model contains most of the information relevant for traditional narratives, such as the character's intentions and goals (Long, Golding, Graesser and Clark, 1993; Morrow, Bower and Greenspan, 1989), emotions (Gernsbacher, Goldsmith, and Robertson, 1992), plans (Suh and Trabasso, 1993) and maps of the story space (Morrow, Greenspan and Bower, 1987). The situation model is input to emotional appraisal: some elements of the situation have emotional significance to the viewer. To my knowledge there are not any studies that focus on how the situation model as a whole is dealt with in the emotional appraisal process. In some way, elements of the situation model are tagged as to contribute to an emotion, in the first place because they are relevant to the viewer's concerns. I assume that the situation model is sufficient for emotional appraisal, or even specifically geared towards it. For instance, a threat to the well-being of a favored character, say Jeff in *Rear Window*, is recognized in the situation model constructed from the moment when Thorwald has understood that he has been observed from outside and has localized the whereabouts of the observer. The surface characteristics of the sequence involved, especially the staring gaze of Thorwald in the direction of Jeff, cues an inference of evil intention and acuteness of ensuing actions against Jeff. The appraisal results in suspense, curiosity and fear.

### 3. the emotional response

Any emotional response consists of 1) an action tendency, 2) the experience of that tendency and 3) the experience of appraised emotional significance of the stimulus. Globally speaking, Artefact emotions are fed by appraisal of the film as film, that is by matching surface level and text base

properties with relevant concerns, such as taste and expectations. Fictional world emotions occur in constructing the situation model. They can be divided into empathetic and non-empathetic emotions. The former have events as objects that are meaningful to a character in light of his or her concerns. They correspond roughly with Plantinga's Sympathetic and Antipathetic emotions. I agree with Plantinga that the emotion in question does not necessarily match with the character's affect, because there may be information in the situation model that the character is unaware of, and the viewer can have different concerns. Non-empathetic emotions are not related to the well-being of any character. They include e.g. spectacular events in which no protagonist is involved, views of beautiful objects and landscapes, etc. They are called attractions by Plantinga.

The causal relations between the three layers have been indicated in Figure 1. Following the narration the viewers build up a text base, and this causes or rather enables them to construct a situation model. A-emotions are caused by striking surface level and text base structures or relations among these. F-emotions are responses to aspects of the story world represented in the situation model.

If we concentrate on two crucial film emotions, interest and liking, we can be more precise about causal relations, and propose an inclusive model, as in Figure 2. If we assume that at least traditional narrative films are especially designed to evoke emotions, and elected by viewers for this very reason, then overall liking for a film at any moment should be a function of the amount of (wanted) emotion that has been delivered, and especially interest. A first requirement for enjoying a movie is that it is enthralling. However, liking and interest do not correlate perfectly, as a final appreciation may depend on other factors than experienced interest alone. As Figure 2 shows, in this model liking may be dependent on aesthetic enjoyments of a film, at least in some viewers capable of focusing at a film's surface characteristics. The same goes for interest.

Furthermore, the number of F emotions seems to be a good predictor of interest, since the more numerous and more intense F emotions, the more important events happen to protagonists.

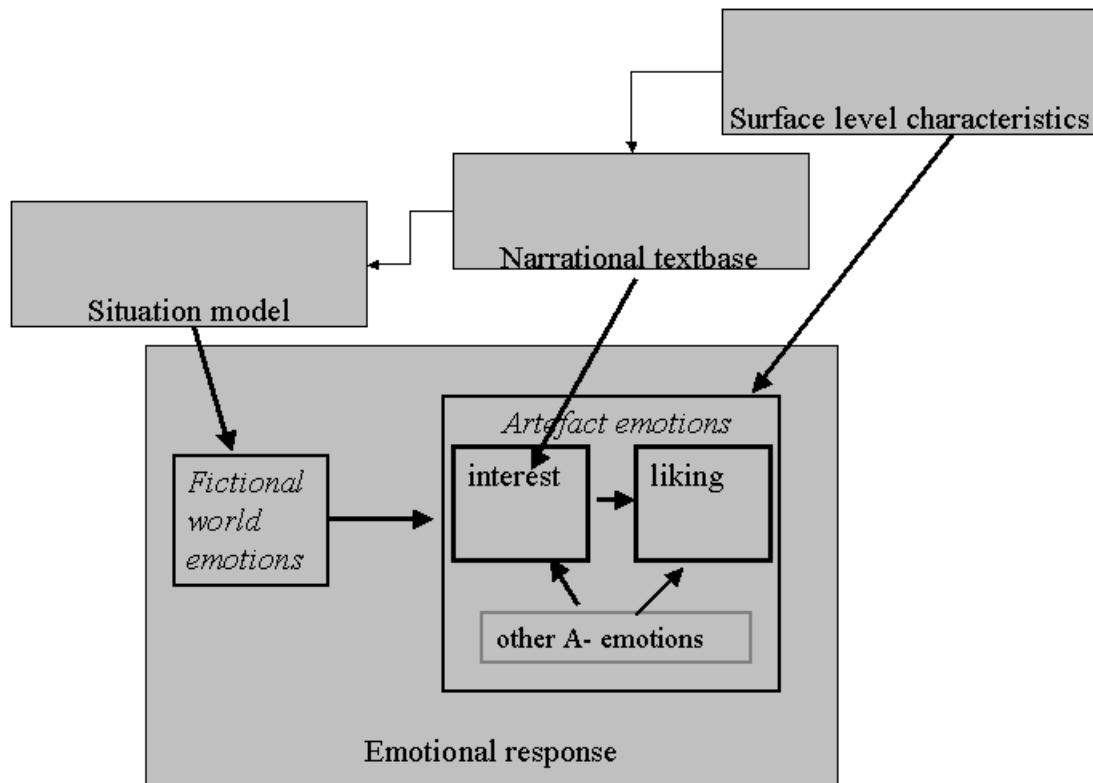


Figure 2. *Emotional response to film. Underlying causal relations*

That is, the more outcomes we want to know, and the more ‘attractions’ we like to see are presented in the film. F- emotions may also cause all sorts of other A-emotions, because paradoxically enough, intense feelings caused by fictional representations make us sensitive to the skill and intentionality underlying the effects. For instance, in strong fear we may feel that the film maker is teasing us, and when we have to cry we may wonder how the film got us as far as to behave silly. In other words, the stronger the emotions caused by fiction the higher the probability that they will be attributed to some instance, i.e. the narration, and ultimately to the film maker. Interest, as said, is hypothesized to depend on narration, with some narrative procedures being

specialized to evoke interest, and of course, on what happens and is to be seen in the fictional world, with many F emotions mediating between the comprehension of story events and interest response.

### **Conclusion: piecemeal research within a global framework**

A causal model like the one proposed here is not more difficult to test than any other complex model of cognitive processes. It is a merely a number of systematized and interrelated hypotheses. An accepted way to go about testing and revising it is to isolate a few causal relations, and put these to test, in experiments or in a simulation study. Altering interest eliciting narrative procedures is one good candidate for such a component test. Another would be to vary the viewer's understanding of the protagonist's plans and goals and observe effects on sympathetic emotion and interest. We could – and should – test the idea that popular films, loaded with genre specific F- emotion, also evoke admiration for the film as an artifact in their audience. We should also spell out the affect structure of films, by identifying emotional episodes, and test its empirical reality using questionnaires that register a variety of emotions at various points in time. And finally, we should do experiments with alterations of text base and situation model, in order to establish effects on emotional responses. Of course testing the model is not too difficult in principle. To illustrate this point it may be realized that most of the experiments performed in studying the situation model constructed in reading written stories might be repeated with films rather than texts as stimuli. Of course, there is generally much more work in preparing experimental film materials – in the scientific sense of the word - , than in manufacturing experimental narrative texts. But the real hard work awaiting us is to conceive of ways in which one causal factor can be manipulated separately from another, and in parametrizing the model, that is quantify each of the variables. However, this is the sort of difficulty that is quite common to fundamental cognitive and social research.

Finally, let me go back to Plantinga's plea against a grand theory. The causal model of two core affect variables in the experience of traditional film, interest and liking, is not identical with some grand theory, and alternative, comparable models, featuring other emotions as criterion variables would not be either. A causal model can act as a framework or a scenario for piecemeal research that should aim at testing each of the numerous hypotheses contained in it. The model as a whole may in most research only be considered in passing, just in order to situate any more specific research question. In the longer run, the larger picture of the complex network of affect structures will gradually arise. I believe that all this can be done under the prevailing state of the art in cognitive film theory and its sustaining disciplines cognitive science, discourse processing and social psychology.

## References

Butler, R.A., 1954.

Incentive conditions which influence visual exploration. Journal of Experimental Psychology, 48, 19-23.

Butler, R.A. and J.H. Woolpy, 1963.

Visual attention in the rhesus monkey. Journal of Comparative Physiological Psychology, 56, 324.

Emery, N.J., 2000.

The eyes have it: the neuroethology, function and evolution of social gaze. Neuroscience and Biobehavioral Reviews, 24, 581-604.

Frijda, N.H., 1986.

The emotions. Cambridge, MA, and Paris, France: Cambridge University Press and Maison des Sciences de l'homme.

Frijda, N.H., 1988.

The laws of emotion. American Psychologist, 43, 349-358.

Gernsbacher, M.A., H.H. Goldsmith, and R.R.W. Robertson, 1992.

Do readers mentally represent characters' emotional states? Cognition and Emotion, 6, 89-111.

Graesser, A.C., M. Singer, and T. Trabasso, 1994.

Constructing inferences during narrative text comprehension. Psychological Review 101, 371-395.

Hitchcock, A., 1954.

Rear window. USA: Paramount.

Izard, C.E. , and B.P. Ackerman, 2000.

Motivational, organizational, and regulatory functions of discrete emotions. In: Lewis, M. and J.M. Haviland-Jones, Handbook of emotions, 2nd ed., 203-264. New York: Guilford.

Johnson-Laird, P.N., 1983.

Mental models. Cambridge: Cambridge University Press.

Kintsch, W., 1988.

The role of knowledge in discourse comprehension: A construction - integration model. Psychological Review, 95, 163-182.

Ladygina-Kots, N., 2001.

Infant chimpanzee and human child. Oxford: Oxford University Press. Original work in Russian published 1935.

Long, D.L., J.M. Golding, A.C. Graesser and L.F. Clark, 1990.

Goal, event, and state inferences: An investigation of inference generation during story comprehension. In: Graesser A.C. and G.H. Bower (eds.), Inferences and text comprehension, pp. 89-107. San Diego: Academic Press.

Morrow, D.G., G.H. Bower, and S.L. Greenspan, 1989.

Updating situation models during narrative comprehension. Journal of Memory and Language, 28, 292-312.

Morrow, D.G., S.L. Greenspan, and G.H. Bower, 1987.

Accessibility and situation models in narrative understanding. Journal of Memory and Language, 26, 165-187.

Persson, P. 2001.

Understanding cinema: Constructivism and spectator psychology. Lecture presented at the 3rd Biennial Symposium of the Center for Cognitive Studies of the Moving Image (CCSMI): Problems of representation in a cognitive theory of film. Pécs (Hungaria), University of Pécs, May 21-25, 2001.

(<http://www.gsu.edu/~wwwwscsm/3rdconference/index1.htm>)

Premack, D. 1976.

Intelligence in ape and man. Hillsdale (NJ): Erlbaum.

Oatley, K. and J.M. Jenkins, 1996.

Understanding emotions. Cambridge, MA: Blackwell.

Ortony, A., G.L. Clore, and A.M. Collins, 1988.

The cognitive structure of emotion. Cambridge: Cambridge University Press.

Roeckelein, J.E., 1998.

Dictionary of theories, laws, and concepts in psychology. Westport: Greenwood Press.

Sackett, G.P., Keith-Lee, P., & Treat, R., 1963.

Food versus perceptual complexity as rewards for rats previously subjected to sensory deprivation. Science, 141, 518-520.

Solomon, P., P.H. Leiderman, J. Mendelson, and D. Wexler, 1957.

Perceptual and sensory deprivation: A review. American Journal of Psychiatry, 114, 357-363.

Sternberg, M. (1978).

- Expositional modes and temporal ordering in fiction. Baltimore: Johns Hopkins.
- Suh, S. and T. Trabasso, 1993.
- Inferences during reading: Converging evidence from discourse analysis, talk-aloud protocols, and recognition priming. Journal of Memory and Language, 32, 279-300.
- Tan, E.S., 1995.
- Film-induced affect as a witness emotion. Poetics, 23, 1-2, 7-32.
- Tan, E.S., 1996.
- Emotion and the structure of narrative film. Film as an emotion machine. Hillsdale, NJ: Erlbaum.
- Tan, E.S., 2000.
- Emotion, art, and the humanities. In: Lewis, M. and J.M. Haviland-Jones, Handbook of emotions, 2nd ed., 116-134. New York: Guilford.
- Tannenbaum, P.H. (1980).
- Entertainment as vicarious emotional experience. In P.H. Tannenbaum (Ed.), The entertainment functions of television, 107-132. Hillsdale (NJ): Erlbaum.
- Washburn, D.A., W. Hopkins and D.M. Rumbaugh, 1991.
- Perceived control in rhesus monkeys (*Macaca mulatta*): Enhanced video-task performance. Journal of Experimental Psychology: Animal Behavior Processes, 17, 123-127.
- Wendt, R.H., D.F. Lindsey, W. Ross Adey and S.S. Fox, 1963.
- Self-maintained visual stimulation in monkeys after long-term visual deprivation. Science, 139, 336-338.
- Zwaan, R.A., and G.A. Radvansky, 1998.
- Situation models in language comprehension and memory. Psychological Bulletin, 123, 162-185.

## **Reply to Ed Tan**

Carl Plantinga

March 20, 2002

Let me first thank Ed Tan for his cogent response to my essay. Despite our disagreements, we share the belief that this kind of dialogue brings us closer to the understanding that we seek.

Many ideas raised by Tan in his reply warrant a response. In the interest of space, my reply will cover only those I consider to be the most important.

I do not dispute that we are (usually) interested in films while we view them, nor that the maintenance of interest is essential for a film that wishes to keep an audience. “Interest” is a perfectly good word to casually describe our attraction to movies and other phenomena. It is not, however, well enough defined to serve as a foundational concept for a theory of film spectatorship. When we track the affects we have while viewing films, we must gauge emotions such as suspense, curiosity, anger, vengefulness, admiration, and so on, together with various other reactions. Interest itself, unlike the above emotions, has no defining concerns, and just about anything can serve as its object.

To defend the notion of interest as an emotion, Tan cites Carroll Izard and Brian Ackerman (2000), who write that interest serves “as an urge to explore objects in the face of a novel stimulus or situation”. Tan describes research that shows that animals have an inherent desire for novelty in their daily lives. The object of interest, then, would be a novel stimulus. In addition, next to novelty, Tan emphasizes “promise” as a determinant of interest. Every genuine emotion, Tan writes, must have a concern. The “concern” of interest is a need for novel experiences and engagement, or a need to avoid boredom.

This conception of interest, however, raises more issues than it resolves. I certainly agree that humans, like rats and monkeys, enjoy novelty and avoid boredom when possible. Yet it seems that the concern of my interest, in many cases, has little to do with either novelty or boredom. The interest I take in a stalking lion stems not from a desire for novelty, but from fear. But I am obviously intensely interested in the lion. When a rival is promoted before I am, I take an interest. But that interest stems from my concern that I have been mistreated, not from a need for novel engagement. The concerns of interest are variable, not specifiable. This is why many psychologists do not find interest to be an emotion, but rather a precondition for an emotion. We have a need for novelty and engagement, that is granted. But this cannot be the defining concern of an emotion called interest. Interest sometimes results from a desire to be amused, but also stems from myriad tasks and situations that hold promise in more practical ways.

Tan says that proposing interest as a precondition for other emotions is unwarranted. But if I am not interested in the lion, why would I feel fear? When confronted with a lion, isn't this a novel situation that arouses an urge to explore, to learn more about the lion's capabilities and whether the lion poses a bodily threat? If I take no interest in my promoted rival, then would I feel jealousy? Or if my child wins a prestigious award, surely I must take an interest in that as a precondition for feeling pride. Would it not be odd for me to admit pride in my child's accomplishments, but to deny an interest in them? Tan writes that we must distinguish between attention and interest, but in the above cases, the way we attend to these stimuli calls for stronger language than the word "attention." I would contend that we are strongly interested.

Let me summarize my chief objections to using "interest" as a global structuring principle in gauging affective responses to film. Tan is right to say that film theory needs to identify and describe the techniques and strategies that elicit promise in film viewing, and thus keep us interested. But the emphasis should be on those techniques and strategies, rather than on the

notion of interest itself. Interest, I would maintain, is not a clearly-defined emotion, with no clear object and no identifiable single concern. Suspense, curiosity, and surprise, which Tan says are types of interest, seem to me to be separate emotional responses, as varied as are fear, disgust, and hatred. To subsume them under a general emotion called interest muddies the waters, and makes it more difficult for us to understand those emotions themselves, together with their structural antecedents. It seems that we understand suspense, curiosity, surprise, and other emotion responses, much better than we do interest. For these reasons, I would resist the impulse to make interest the foundational concept in a study of filmic emotion.

Rather than attempt to find a structure of interest, it would be more useful to carefully describe a film's narrational strategies. That is, we can specify the elicitation of affect within the context of the narration and structure of a film, as an orchestration of affect that depends not fundamentally on interest, but on the manipulation of a diverse set of emotions, moods, affects, and tones in relation to structure, style, and point of view. Thus we can avoid overly-broad concepts, and ground our discussion of film affect on film structures which elicit clearly identifiable affects and emotions.

## **References**

Izard, C.E. , and B.P. Ackerman, 2000.

Motivational, organizational, and regulatory functions of discrete emotions. In: Lewis, M. and J.M. Haviland-Jones, Handbook of emotions, 2nd ed., 203-264. New York: Guilford.

## Notes

---

<sup>1</sup> For instance, Izard's theory made its way into the introductory psychology text books of the eighties and nineties, where it is dealt with more often than James' theory of emotion, but less often than Schachter and Singer's two factor theory of emotion (Roeckelein, 1998).

<sup>2</sup> Interest's emotional control precedence may be informally demonstrated by distracting a viewing cinema patron during a high interest film episode, e.g. a suspense scene. You squash a soft drink can at close range to your neighbor, apparently on purpose. The ensuing anger is a good index of the emotional control of this viewer's attention.

<sup>3</sup> A detective and friend of Stewart found out that Thorwald's wife had been sent on holiday by him. The wedding ring would prove that this cannot be true, because, as Lisa reasons, a woman would never leave her wedding ring behind.

<sup>4</sup> Per Persson (2001) has recently reviewed the elements of perception psychology, social psychology and cognitive science – especially research into discourse processing that contribute to a model of film spectatorship.

<sup>5</sup> However, in Kintsch's model there is no account of emotion, and I have collapsed his surface level and text base components.

<sup>6</sup> For more recent conceptualizations and research into contents of the situation model and updating mechanisms see e.g. Kintsch (1988), Morrow, Bower and Greenspan (1989), and Zwaan and Radvansky (1998).