

## Analyzing the Reality Effect in Dogma Films

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A certain challenge for contemporary film theory is presented by the fact that recent Scandinavian film production, especially the works of those Danish filmmakers associated with the well-known Dogma '95 manifesto, has attracted considerable attention among cineastes. The fascination with these films cannot be explained simply by their contents, for instance that they show contradictory and often emotional forms of spontaneous behavior. Instead, it seems to rest in the particular appeal, as difficult as it is to define, that emanates from the discovery or renewal of specific cinematic forms that are being used in these films to portray fine nuances in human emotions and actions. Certain distinctive forms of cinematic representation that had long been neglected are now suddenly in the center of attention and demand a more exact explanation. What at first glance seems to be just an unconventional form of filmmaking, characterized by the forced use of handheld cameras, proves on closer inspection to have important consequences for the movies as a whole: the camera does not just tell a story, but rather the actions it captures visually gain a value of their own, without which it is difficult to understand the story.

It is largely by means of these cinematic methods that viewers are moved emotionally, that they experience the particular excitement of the films. These methods also cause certain moments and details of life as they are shown in the films to appear exceptionally true and genuine. An intensive impression of authenticity is created, which - even if often only for fleeting and transient moments - does cause the viewer to believe the most unlikely things about the characters on the screen and willingly follow them in situations he or she would not accept in everyday life.

This so-called reality effect or impression of authenticity is a peculiarity of film reception, or, more broadly, of the processes of reception of audiovisual media. In general, however, it is nothing really new in theory or practice.

There have often been individual and group styles of film that have attempted to capture parts of life realistically. Interest in the reality effect has been articulated in connection with a concept of realism that seems particularly relevant to cinematic representation, even if it has also been claimed by other forms of art. Siegfried Kracauer's (1961) concept of the "redemption of physical reality" in film art, seems to confirm the reality effect by having stressed five strong affinities of the medium which describe the essential properties of a realistic filmic expression. The terms Kracauer uses for these affinities are well known: "unposed reality", "coincidence", "endlessness", "uncertainty" and "flow of life". Such characteristics can be identified in the formal aspects of neo-realism, for example. Artistic programs such as those formulated by Rossellini or Zavattini clearly prove this. Furthermore, the fiction films influenced by *cinéma vérité*, for example the documentary style in Eastern European fiction films in the sixties, tended toward a similar

understanding of the reality effect (cf. Wuss 1998).

Therefore, there has been and still is a tendency among filmmakers, critics, and film theorists to connect the reality effect to a certain canon of film forms which are linked with the concept of realism and show stylistic similarities to documentaries. Even the Dogma manifesto signed on March 13, 1995, despite its humor, nevertheless, pursues professional intentions and shows a remarkable resemblance to the programs of action of earlier documentary styles. The paper with the signatures of Lars von Trier, Kristian Løvring, Thomas Vinterberg and Søren Kragh Jacobsen gives such rules as: 1) All shooting must take place on the original set. 2) The sound may not be produced independently of the image. 3) Only handheld cameras are to be used. 4) Special lighting for color sets is forbidden. 5) Optical gimmicks must be refused. 6) Any gratuitous action is to be rejected. 7) The films must take place in the here and now. 8) Genre films should be avoided.

Despite similarities with earlier movements, the Dogma films are conceived differently from previous films. The reality effect appeared in a relatively dominant and pure form in the discussions around the middle of the century. In this way, it fused with other stylistic components into a homogenous, inseparable unity and caused the films of the movements I mentioned to approach the form and effects of documentary film quite closely. In the current films, however, there is little to be seen of this earlier documentary impulse. Instead, the Danish films tend to foreground their fictionality and artificiality. Von Trier's works, *Breaking the Waves* (a kind of predecessor of the Dogma films) and *Idioteren* (*The Idiots*), as well as Vinterberg's *Festen* (*The Celebration*) which I am using here to stand for the whole movement, do offer exact observations of life that are astonishing in their verisimilitude, but these are combined with obviously fictional worlds of an equally astonishing irreality. Thus the impression of authenticity is fractured or modified. Instead of trying to create an attitude of distanced observation in the audience, the camera now provokes a permanent inner agitation. Instead of leading to contemplation, it stimulates hectic attempts to find some orientation.

Can a reality effect come into being under such conditions? Christian Metz responded unequivocally in a similar context: "The impression of reality is a component both of realism and of the fantastic in film content." (1972, 61). Even if one might be glad to agree with this opinion, it is difficult to prove it scientifically, since even identifying the phenomenon empirically is problematic. It is methodically difficult to isolate the reality effect from the rest of the complex of cinematic effects, but that would be necessary to objectify it and evaluate it psychologically. There are productive approaches working in this direction, however, which I can use as a basis for my thoughts here. In this paper I will apply a cognitive psychological approach to help explain the general way in which the impression of authenticity functions and to identify the innovative contribution of the Dogma films to the development of the reality effect.

Cinematic Viewing and James Gibson's Theory of Invariance Detection.

Technically, film's particular quality of representation is

based upon the fact that moving pictures capture particular portions of the optical array of physical nature and retain them on the film strip so that they can be reproduced and experienced again in real time. Bazin expressed this idea and the director Tarkovsky picked up Bazin's idea in speaking about the "sealed time" of the film. He found that this new aesthetic device thus provided people "a matrix of real time" (Tarkovsky, 1989, 76).

Tarkovsky writes: "According to its nature, the cinematic image is an observation of details of life that are located in time, that are organized according to life itself and its laws of time." (74). The connection between the observed details of life and the time frame in which they are shown, which filmmakers see as crucial to film comprehension, also plays a central role in the work of the psychologist James J. Gibson. In his book, *The Ecological Approach to Visual Perception* (1979), which includes a short chapter on film, Gibson links the principles of the perception of actions to the discovery of invariance in reality and applies them to the interpretation of film reception.

Gibson views perception as an extraction or "pick up" of information. This is conceived in terms of a continuous process, as a form of human activity that continues life-long. The perceiving person picks structural invariants out of the flow of stimuli in reality. In this way, Gibson's theory of visual perception becomes something of a "theory of invariance detection" (1979, 249), whereby the observation of reality is tied to the matrix of time.

Within a mathematical context, "An invariant is understood as any function, number, or quality, which remains unchanged, or invariant, during certain transformations or more generally during operations" (Gellert/ Kästner/ Neuber 1977, 261). This elementary concept is also highly meaningful for psychology and epistemology, since (in that they are defined by homomorphy, that is, the constancy of differing structures) invariants provide a methodological approach to objectify their operation in mental processes as well. This applies to the perception of film, too. According to Gibson, images, including the images of film, open a kind of second-hand knowledge. Here, too, invariants are extracted from the flow of optical information. In fact, Gibson views the moving images of film and the perception of courses of events as a primary form of pictorial representation, whereas the static, stopped images of photography or painting are to be seen as special cases. In 1966, Gunnar Johansson had already drawn our attention to the important difference between "static percepts" and "event percepts" and pointed out that the visual event percepts are the most frequent ones in our every day life. In the development of vertebrates, event percepts are the most elementary and fundamental as well. Thus, for humans needing to orient themselves to a world which is in motion, the experience of event percepts is the "normal case" of perception. The cinema takes up this normal case and models it through its technological medium and thereby realizes specific invariance detection.

According to Gibson, in receiving the information provided by the environment, people instrumentally adapt to its invariants without having to link all the constants and variables analytically to each other.

Gibson writes:

In the case of the persisting thing, I suggest, the perceptual system simply extracts the invariants from the flowing array; it resonates to the invariant structure or is attuned to it. In the case of substantially distinct things, I venture, the perceptual system must abstract the invariants. The former process seems to be simpler than the latter, more nearly automatic. The latter process has been interpreted to imply an intellectual act of lifting out something that is mental from a collection of objects that are physical, of forming an abstract concept from concrete percepts, but that is very dubious. Abstraction is invariance detection across objects. But the invariant is only a similarity, not a persistence. (1979, 249).

If perception reacts in this way to invariance, it reacts to change with perceptual learning. The balance of change and endurance is of fundamental importance to cinematic perception, since each shot fixes and conserves certain amounts of information that contain moments of both variation and constancy. Thus whole complexes of relationships remain constant during perceptual interactions. They are perceived along with everything else, but require no new learning. Attention is directed to what is new and tends to concentrate on changes and divergences. "The essence of perceiving is discriminating" (Gibson 1979, 249). At these points perceptual learning begins, which Gibson refers to as a "continuous practice" that "purposefully directs attention to the information contained in the stimuli" (1973, 329).

The technical apparatuses of audiovisual media, particularly the camera, support this process in a specific way. They fix invariants and select certain portions of the spectrum of stimuli that reality provides. The technology of cinema has been able to capture these visual and auditory parts of reality in minute detail. What is produced, however, are copies of the original stimuli, not a complete copy of life. Because their technology works in a selective way in reproducing reality, the cinematic apparatuses reduce the portrayal to certain portions, and thus change the processing of information as a whole. This reduction, however, causes some configurations of stimuli to be perceived particularly intensely, probably because the perceptual learning initiated by new invariants also activates the sensory apparatus.

Many filmmakers use the fact that films are able to present viewers with partially unchanged, but second-hand sensory impressions of reality as the point of departure for their artistic endeavors. This is the case for many documentary filmmakers, for most representatives of the documentary style of fictional film, and also for Tarkovsky and the Dogma group. It is no coincidence that von Trier watched Tarkovsky's *The Mirror* some twenty or thirty times (cf von Trier 1998, 187). The particular possibilities of working with "sealed time" as a form of composition were of greatest interest to him too.

Because elements of real life, as Tarkovsky emphasizes, remain in their proper temporal relations within individual shots, the medium of film allows viewers to observe or discover aspects of reality that would be difficult to notice otherwise. Furthermore, the perceptual effort required leads to a stronger involvement.

In the thirties, Walter Benjamin (1969, 235) wrote: "Fifty years ago, a slip of the tongue passed more or less unnoticed. Only exceptionally may such a slip have revealed dimensions of depth in a conversation which had seemed to be taking its course on the surface. Since the Psychopathology of Everyday Life things have changed. This book isolated and made analyzable things which had heretofore floated along unnoticed in the broad stream of perception. For the entire spectrum of optical, and now also acoustical, perception the film has brought about a similar deepening of apperception.."

Film has delved ever deeper into the possibilities of extending perception through the technical capacity of the medium to isolate invariants. For contemporaries of the Lumières, it appeared to be an attraction because it could show the "ripple of the leaves stirred by the wind" (Kracauer 1961, IX). Later on, it was "unvoluntary gestures, and other fleeting impressions" (ibid.), which film suddenly made conscious.

Precise observation of such apparently unintended gestures and spontaneous expressions also plays a major role in the new Scandinavian films. However, these are presented to the viewers in the context of conflicting behavior as an act of the intentional extraction of invariants. For example, in *Breaking the Waves* we observe the protagonist as she tries to live her life in an emotionally honest way and remain open for love, despite the bigoted environment around her. The same pattern of behavior is repeated again and again in slight variations: the desire to do good and the readiness to make any sacrifice for love. When, in the course of the story, her naive unconditionality turns into blind surrender to an obsession and makes her into a borderline mental case, this reveals a contradictory aspect of behavior to be an invariant in a way that had never before been shown on screen or made publicly conscious. Here, the camera discovers a perceptual invariant in Gibson's sense, and it does so, by the way, by employing unusual formal devices that I will discuss later.

Thomas Vinterberg's *The Celebration* shows a strange form of group behavior: at a patriarchal hotel owner's birthday party, the toast that his son proposes to him reveals to the guests that he used to molest his children sexually. Although this fact is revealed several times, the guests ignore it. Here again, the film turns an invariant of behavior into a perceptual invariant. Finally, in von Trier's *The Idiots*, young people from a good background imitate the behavior of the mentally handicapped, thus provoking confrontations both with society and their own way of life. Here once again, a specific form of contradictory behavior becomes evident through the extraction of invariants. In each case, perceptual learning occurs in the viewers, even if it involves much more complicated patterns of stimuli than those Gibson describes. Still, it works in an analogous way.

If I draw on Gibson's ideas here, I should mention that in fact it is an approach that has been elaborated by Anderson (1996). With its integrative ideas, Anderson's approach has addressed some of the facets of Gibson's thought that have been variously criticized (cf. J. D. Anderson 1996, 19ff. and P. Ohler 1990, 1991). Perception is not seen as limited to an immediate interaction between the environment and the

perceptual system, but is also situated within hierarchical cognitive processes as well as within biological evolution and its phylogenetic and ontogenetic dimensions. Gibson chose an ecological strategy that assumed that psychologically relevant phenomena could better be described using ecological concepts borrowed from biology, rather than those of traditional physics, since organisms and environment are inseparable. This meant that perception was to be understood as a form of interaction. However, for Gibson, perception remained an immediate form of interaction, which required neither mediation nor interpretation.

Therefore, concepts such as mental representation play no role in his theory. Memory is also not explicitly mentioned, even though his understanding of the reception of information through changes in stimuli does involve a relationship of change and constancy, which seems to imply some form of internal representation or memory. And as Anderson has shown, Gibson's understanding of the extraction of invariants is not inconsistent with Ulric Neisser's perceptual cycle or with David Marr's Computational Theory.

Perhaps we should re-evaluate Gibson's theory with its paradoxical gaps and view him as a transitional figure between traditional theory and a form of mid-range model-building. Gibson was able to view many things with inexorable exactitude because he just as inexorably pushed other things to the periphery of his attention. In the context of traditional psychological theories, which aimed at closure and consistency, an approach like that was seen as unacceptable. From the perspective of model-building processes, which are always limited, such abstraction need not necessarily be seen as one-sided, but can be viewed in terms of its usefulness as a model, as a tool to gain information.

#### Modeling the Reality Effect

It is important that the integration of perceptual processes in more comprehensive systems be treated not just on the level of perception. It is also important to view unconscious processes of perception as closely connected to conscious processes of thought. Furthermore, they must be conceived in close relation to the production of cultural stereotypes. That is important in order to understand film reception in general, but more specifically in order to grasp the dynamics of the reality effect.

The reality effect has to do with the way viewers experience how a certain appearance of reality, cast on the screen by a film, becomes intensely conscious. What is shown then appears extremely authentic and close to life. Sometimes you even have the impression that you could never perceive it so clearly in real life. Surely it is the transition from sensory apprehension to consciousness, which gives the viewer the opportunity to see such appearances at once more analytically and more emotionally.

In order to examine this inner dynamic, it makes sense to understand the information processing in the film experience as a phasic one, i.e., not as homogenous and equal, but rather as an adaptive learning process developing on different levels. A film does not merely depict concrete events: the events are also a product of an artistic abstraction deployed upon the material, which transforms and focuses it in a

particular manner and is a product of cognitive schema formation, which has taken place in the filmmakers own mind.

When I speak here of schemata formation, I suggest that one must reconsider the entire term and in particular its previously somewhat monolithic nature; I argue therefore for a more differentiated model. Rumelhart (1980, 34), who aptly defined cognitive schemata as "data structures for representing the generic concepts stored in memory" , also pointed out that "schema represent knowledge at all levels of abstraction" (Rumelhart / Orthony 1977, 40). In the works of George Mandler (1984, 112) you can find similar positions.

The epistemological approach makes a distinction between levels of abstraction, as evidenced in its division of the formation of invariants in our cognitive apparatus into three levels of abstraction: 1) on the level of perception, 2) on the level of thought (based on concepts), and 3) on the level of complex motive (based, for instance, on moral norms) (cf. Klaus 1966, 65). Accordingly, it is useful to attempt to identify the corresponding processes of schemata formation in the realm of film analysis, if one wants to describe the nature of an entire work as stimulus configuration. The processing of information operates along one of three different paths, depending on whether: 1) the external structure caught on film is to be appropriated by the viewer's internal model in the context of his own perceptual formation of invariants; 2) the external structure has already had a sufficient mental representation so that it can already submit itself to thought; or 3) its shape has long since been formed into a stereotype by communicative use.

It is along these lines of differentiation that three types of filmic structures may be distinguished, each corresponding to a different phase in the formation of schemata:

- 1) perception-based structures;
- 2) conception-based structures;
- 3) stereotype-based structures.

Any given film may be reproduced in an approximate manner through the description of a net of structural relationships, which include, potentially, each of these three types. These three types of filmic structures differ according to their respective combination of conspicuousness, degree of consciousness, semantic stability, the manner in which they are retained in memory and the learning strategies employed in the process of reception, but most of all according to their strategies regarding the principle of repetition. Perception-based structures require constant repetition throughout the entire work, while conception-based structures usually do not require this same degree of repetition and often appear only a single time in a film. Stereotype-based structures depend on the intertextual repetition of the same form in many different works within the same cultural context. The various structures each interact with one another, and thus together form the content of the whole of the work, or, in other words, each has a semantic function. Perception, conception and stereotype-based filmic structures are involved in the construction of meaning, and they also lead to specific narrational structures, i.e. topic lines, causal chains and narrational stereotypes. According to the dominant role of one of these components, there are

different narrative modes, for instance: episodic form, plot stories, canonical stories of genres (Cf. Wuss 1993, 1996, 2000).

The model not only helps to describe structural relationships, but also to represent the dynamic transitions between levels and the corresponding effects. The transition from perceptual to conceptual structures is probably most relevant for the reality effect. Ulric Neisser, whose theory of perception is fully compatible with Gibson's (cf. J. D. Anderson 1996), pointed out that perceptive schemas are subjected to dynamic developments within a cycle of perception: "Schemata develop with experience. Information pick up is crude and inefficient at first, as are the perceptual explorations by which the cycle is continued. Only through perceptual learning do we become able to perceive progressively more subtle aspects of the environment. The schema that exist at any given moment are the product of a particular history as well as the ongoing cycle itself" (Neisser 1976, 64f).

The realization that perceptually guided structures can be made noticeable through cyclical repetition and in this way become consciously received and conceptualized, when applied to the reality effect of film, leads to the hypothesis that the same thing happens to at first hardly noticeable invariant structures in film, too. The reality effect probably characterizes phases in which one level of abstraction turns into another, for example the transition from perceptual to conceptual structures or the conscious re-discovery of stereotype structures that had dropped down into the unconscious.

Such turning points arise from the interaction between what is currently being shown and what the viewer has previously stored in his or her memory. Psychological activity or cognitive work is necessary for this to occur. That may explain why reality effects are felt to be significant, to be an attractive stimulus that can be meaningful and emotional at once.

What Mukarovsky fittingly referred to as the "semantic gesture" can certainly be found in very different areas of life. In the early days of the movies, elementary movements of nature captivated the audiences when they were shown repeatedly. Later on, human expressions, from the simplest to highly complex patterns of behavior, came to be ever more important.

#### Conditions for the Reality Effect

The reality effect is thus never simply a cinematic structure per se, but rather always the result of psychological activity on the part of the viewer, for instance the effort of perception necessitated by the interaction of the film form and the viewer's internalized models. Dziga Vertov, who made decisive steps in regard to both the theory and practice of the reality effect, wrote: "Mayakovski is the Kino-Eye. He sees things the eye does not." (1960, 54). He emphasizes here that there is an additional effort that must be made in advance of the specific form of documentary called "Kino-Eye." Rolf Richter (1964, 1003) interpreted Vertov's statement with the words, "[...] authenticity is the result, not the point of departure of the artistic experience." Richter continues: "Out of the merely apparent familiarity comes a true one. A creative process of appropriation takes place. We go behind the outward nature of things. The film reveals certain structures, it generalizes, hence it can

not be identical with reality." In this way is " the authenticity the result of our work in the experience of art, i.e., we formulate our own relationship to the world represented on the screen as - we think - a relationship to the real world" (1964, 1003).

The creative work of the spectator is to a large degree a cognitive one, which is accomplished largely by means of the construction of perceptual invariants. It makes certain aspects of occurrences more conscious and helps to conceptualize them. This leads to the impression that only the medium of film can let one see certain portions of reality with this clarity and certainty for the first time. Active participation on the part of the viewer is therefore a necessary prerequisite for the effect to occur. That means, even if the cinematic techniques create representations of the natural world that help the viewer to select and retain patterns of stimuli, these techniques do not automatically lead to a reality effect. Furthermore, it is not a necessary result of particular objects of representation or their characteristics, such as moments of reality that seem unposed and coincidental.

There are other conditions that must be met along with the technical prerequisites if the reality effect is to be produced: An important compositional and dramaturgical condition is that those moments of life that are to be made conspicuous and conscious must be presented tersely, but at the same time must be presented to the viewers through multiple repetitions. Terseness can often be achieved when the film images capture contradictory moments of what is shown, a subtle field of conflicts, such as minimal actions or behavior of the characters. The principle of repetition, which keeps the cycle of perception active, is often an episodic, open form of narration, which causes the important invariant structures to be repeated in certain intervals. This can be reinforced by principles of montage, such as appear in the so-called distance montage (cf. Peleshian 1989). The required perceptual learning does not occur unless there is such an organization of the invariants being shown.

The three Danish films all utilize the intratextual repetition of recurrent forms, or, to be more exact, of certain invariant behavior patterns. Along with the conflict-oriented behavior already mentioned, which is written into the script and becomes an effective part of the narrative in the form of sequences of topics, the actors also always show similar spontaneous reactions, which result from their improvisation and which vary the semantic gesture of the film as a whole. In *Breaking the Waves*, even the fickle weather of the Scottish Isle of Skye where most of the outside shots were taken played a role, in that unplanned changes in light and wind visually embodied the theme of restlessness.

A further important condition is connected to contents and cultural developments. It is not enough that certain invariants be isolated from reality and composed into a structure. In addition, it is crucial that the cinematic observations of life also have an innovative character for the viewers. They must bring new insights, which revise, extend or differentiate the pre-existing view of the world. If such observations relate to behavior patterns of the characters that are already familiar from other films, perceptual learning is unnecessary. The

phenomena are already conceptualized, often even stereotyped, since the stimuli have lost their edge through overuse. Thus it always depends on pointing the camera at phenomena that are new or can be seen in a new, perhaps more differentiated or complex, way. Furthermore, the circumstances shown must also be relevant to understanding the story and characters. Antonioni produced an impression of authenticity in the 60's when he disclosed certain emotional deficiencies in his characters and through repetition made them into noticeable invariants. The Danish films present new, more pronounced forms of such disorders. These films do not just present critical observations of human behavior, but rather show a borderline syndrome of the entire society. Vinterberg (1999) describes the conflict situation in the behavior of his characters so: "When something terrible happens in my film and the evil comes at last to light, the people's only reaction is: "Let's have a coffee!" That is cynical. The "good nature" serves often for hindering social explosions or for suppressing truth. Even the son in *The Celebration* is using the means of good nature. When the father is expelled finally from the family, the others, smiling, continue in having their breakfast. So they kill him definitely."

Lars von Trier describes the paradox on which the behaviors of the protagonists in *Breaking the Waves* is founded: "For a long time I have been wanting to conceive a film in which all driving forces are 'good'. In the film there should only be 'good', but since the 'good' is misunderstood or confused with something else, because it is such a rare thing for us to meet, tensions arise....Bess is fooled; she is doing 'good' for him. He is doing 'good' for her. Nobody is forcing anybody. They both act from their will to do 'good'....By trying to save her, he loses her. By doing 'good'! By trying to save him, by doing 'good', the world that she loved turned against her." (1996, 20ff)

The reality effect is not an isolated phenomenon of perception, but instead becomes effectual within a feedback process that links the individual work and its innovative observations to the entire media culture. A material and technical dimension thus joins the dimension of content. Spectators watch many films and TV shows, and in doing so come to accumulate knowledge about how media deal with reality. In the early years of the movies, it was enough just to realize that film could reproduce basic physical processes of motion, for instance the rhythm of a train trip. Now, if it is to appear authentic, the cinema must reveal the smallest psychological changes in the protagonists by means of minimal physical movements. Therefore it is no wonder that film delves ever deeper into the private sphere of people, as these three examples show. Since the audience is involved in what seems to be a permanent cultural process of learning, its demands on the technical standards grow continuously. Thus it is often necessary for a filmmaker to make use of the newest recording and reproduction technology to capture the details of real life effectively. In this way, the new technical capacities of *cinéma vérité* and Direct Cinema provided important impulses for the creation of a new culture of observation in the fiction film, particularly the Eastern European documentary style of fiction film, in their use of the portrayal of seemingly authentic and spontaneous human reactions and behavior (cf.

Wuss 1998). The forced use of handheld cameras has a similar function for the Dogma films, which I will describe more closely later.

### Play and Possible Worlds

The reality effect is incorporated into an active process of film perception, for which according to J. D. Anderson certain special characteristics apply: "The postulates here proposed are the following: first, that from the viewer's side, a motion picture is an illusion (with illusion defined as a nonveridical perception); second, that the viewer voluntarily enters into a diegetic world of a movie by means of a genetically endowed capacity for play; and third, that the motion picture is a surrogate for the physical world (a surrogate being an actual substitute for something else, as distinguished from an arbitrary symbol that stands for something else)." (1996, 161).

The connection between the surrogate character and the diegetic world of a film, which is based on play, places the reality effect under extremely variable functional conditions. That play is anything but an unimportant part of life is something Anderson discovered some time ago, as he spoke of "play as cognitive practice" (1996, 115) and particularly emphasized the elements of play involved in characters' actions in film. It seems sensible to expand these anthropological components and grasp the aspect of play involved as something more fundamental and general. The philosopher Georg Klaus characterized the activity of homo ludens in us this way: "The human being as homo ludens engages in playing by playfully anticipating future situations with his inner model of the external world, i.e., he plays out possible forms of struggle. In this way is the activity of homo ludens a form of anticipation." (1968, 9) Without play we would have no forethought, and without the anticipation and evaluation of coming events we would have no chance of mastering the future.

Dieter Langer wrote about the internal model: "With regard to the totality of environmental occurrences, we look upon our knowledge of 'what is connected with what' and 'what follows after what' as the expression of a pattern of expectations of what might be called statistical nature" (1962, 14). The images that thereby emerge are characterized by Ulric Neisser as "derivatives of perceptual activity" (1976, 130). "In particular, they are the anticipatory phases of that activity, schemata that the perceiver has detached from the perceptual cycle for other purposes" (130). Following Neisser, "Images are not reproductions or copies of earlier percepts, because perceiving is not a matter of having percepts in the first place. Images are not pictures in the head, but plans for obtaining information from potential environments" (131). Therefore, in the authors opinion, "even counterfactual images are still potentially functional anticipations" (133).

That possible, as well as real, relationships can be mentally modeled is of great importance in dealing with the real world of the future, since it is generally different from the present. One must expect change and development in reality, and thus it is part of rationality in the sense of survival, as Antonio R. Damasio (1994) thinks of it, that behavior be optimized for possible future worlds. Art is useful here, since the

viewers not only remember their experiences, but are also able to vary the schema they have learned.

Jurij Lotman, who refused the view that play and cognition are activities opposing each other, originates the hypothesis on artworks as art models: "Art models represent a unique synthesis between the scientific model and the play model by organizing intellect and behavior at the same time" (1967, 145). In regard to its semantical function the play effect of art models is highly relevant: "The mechanism of the play effect doesn't rest on a rigid simultaneous coexistence of different meanings but on the permanent consciousness that also other meanings are possible than those which one just realized. The play effect consists in the fact that different meanings of an element don't remain rigid side by side, but keep oscillating" (141). This makes clear how close the processes of aesthetic understanding are connected with intuition. William James, who considered intuition to be of great importance, believed that "As much as a third of our psychological life is made up of these sudden, early outlooks on thoughts that are not yet clearly perceptible" (1950, 253). Art activates and trains the capacity to grasp new cognitive structures as a whole in an emotional or intuitive, playful way. Strictly speaking, it plays with different systems of preferences and evaluates phenomena according to different values. In this way, various systems of values can prove their usefulness for possible future worlds.

The concept of possible worlds seems quite useful to me. I am borrowing it from Umberto Eco (1987), who dealt with the question of how readers actively work with the text to make predictions about how the story will go on.

The possible worlds of film can be constructed in quite different ways. They can be very similar to the world we inhabit in everyday life, or they can be an obvious fiction or fantasy very far removed from it. As the history of cinema shows, extremely different forms have developed, including many that worked only during a short period as well as others that functioned for a long time. Both the similarity to real life and the difference from it can produce meaning and aesthetic effects equally well.

Bazin wrote: "The guiding myth, then, inspiring the invention of cinema ... is a re-creation of the world in its own image" (qtd. in Currie 1995, 79). Film is able to link its fictions and fantasies - its possible worlds - to the processes of sensory perception so well because it does not just produce representations of reality, but also simulates the natural processes of perception by utilizing many of the functions of our perceptual mechanisms. As Gibson convincingly explained, this strategy is aimed at a complex way of grasping the world.

According to Gibson, the five sensory systems (seeing, hearing, touching, smelling, and tasting) correspond to "five different forms of attention directed at the exterior world. Their functions overlap one another, and they are all more or less subordinated to a general system of orientation" (1982, 257). They are arranged asymmetrically and thus can access the world together, whereby they also regulate and correct each other (I may be able to hear something I cannot see or vice versa). Since cinema does not activate the whole sensory system, different

conditions apply to the system of orientation in this case. The activities of the perceptual system shift in order to compensate for what is lacking. This additionally activates our processing of certain stimuli, and thus also seems to make it easier to apprehend the possible worlds. The processing of information by certain systems - in this case the optical and acoustic ones - as well as the basic regulatory strategy remain the same, but the interaction between the systems is reorganized. That makes it possible to construct possible worlds with new rules of probability without having them lose plausibility. At the same time, the viewer's active contribution to this process often leads to the impression of extremely intense sensations.

If the new rules of probability in the possible world of the film, which may well be totally improbable in the real world, are set up and prove to function in the story, then it is easy for the viewer to accept further steps in the same direction. He or she accepts the possible world as a playful variant of the real.

He or she can accept the unbelievable turns of plot in *Breaking the Waves*, when the protagonist comes to believe that she could do her paraplegic lover good by looking for sexual adventures and later telling him all about them, something that even seems to be blessed by God at the end, as the bells toll in heaven during Bess's burial at sea.

In the same way, the viewer accepts the unbelievable situation in *The Celebration*, in which not only the patriarch's children give up their opportunism and tell the truth that no one wants to hear, but even the servants hide all the keys so that the guests are forced to stay to the end of this experiment with the truth.

And in the end the viewers probably even accept the offensive conduct of the intellectuals in von Trier's film *The Idiots*, who imitate the mentally retarded and at first enjoy the shock. Of course, in each individual case this acceptance always has to do with the extent to which the viewers are able to follow the narration and genre of these films, since the possible worlds of the films are largely legitimated and stabilized by narrative and genre structures.

The Possible Worlds of the Dogma Films and the Reality Effect

Narration and genre mold the possible worlds of the movies particularly in that they shape their macrostructures. Films with classical narrative structures, for example plots arranged along a conceptualized causal chain or the kind of stereotypical plots known as canonical stories, evoke rigid patterns of expectations in the viewers. The use of genres, which set up stable connections between a complex form and certain intended effects, is similar.

Of course, any cinematic form, character, configuration of conflicts, image, or style of editing can become a stereotyped structure, whereby the concept of stereotype is neutral and by no means pejorative, since according to the model I sketched earlier, all it means is that a certain form can build upon a set of relatively fixed expectations in the viewer. Genres rest on very complex, higher-degree relationships and create stereotypes of a second or higher order, which often encompass the elementary forms (cf. Wuss 1993, 313ff).

Arising out of a cultural and historical process, they serve

to standardize and diversify aesthetic devices and their effects. Theories of genre are thus something of a land registry for possible worlds. Nowadays, their typologies are even instrumentalized in everyday life, in video shops, where the stock is classified according to the expectations of various target groups.

Within the macrostructures dominated by genres, reality effects, in so far as they exist at all, are given the status of microstructures. They are often hardly noticeable and become negligible in the whole experience. However, reality effects can gain a considerable value of their own in those cases in which neither a plot structure nor a genre exists. The same applies to documentary styles like *cinéma vérité* or the American Direct Cinema, to documentary styles of fiction film like Italian neo-realism, the Western European *cinéma du comportement* (e.g. Antonioni, Rohmer, or Rivette), British Free Cinema, or the Eastern European documentary style of the 60's.

Just as Antonioni could portray the "disease of emotions" of his protagonists, the Documentary Style in Eastern Europe exhibited subtle moments of conflict and contradiction in the behavior of characters influenced by the social problems of the so-called socialist society. Naturally these styles vary in regard to the shape of particular components, but the conditions for the occurrence of the reality effect remain similar. In each case, they aim at homogeneous relationships to the - possibly existing - narrational structures or the first signs of genre forms in the filmic macrostructures; they search for a successive development from the real to the possible world.

The Dogma '95 manifesto seems at first glance to want to follow this tradition, but closer examination reveals that while the films do in some ways use documentary devices and are not truly genre films, they do have a stable macrostructure, which is anchored in stereotypes of genre and narration. That represents a clear difference from earlier films using the reality effect: stimuli resulting from a salient macrostructure can now enter into new forms of interaction with the reality effects resulting from the microstructure.

Von Trier's *Breaking the Waves* must be viewed as a genre mix, a hybrid form made up of fairy tale, parable, and melodrama and structured in blocks according to epic form.

It is rumored that in the beginning the film was conceived to be an early fairy tale experience of the director. In *Gold Heart* a little girl gives away all she possesses, but finally is rewarded for her compassion with stars falling from the heavens as golden coins. The film treats the well known fairy tale motif like the ancient Greek dramaturgists their myths; this motif becomes a narrational stereotype. In the end of the film a miracle is needed to do the girl justice. The central event has the function of a parable, i.e., it can be transformed into sentence or maxim. Indeed, in an early phase of screenwriting the story was titled: "Amor omnia" - "Love is everything". The paradigm of the melodramatic approach originates out of the Romantic literature of the 19th century, particularly the emotional dramas of the Bronte sisters, and out of Douglas Sirk's lofty film melodramas of the fifties (cf. Björkman 1996, 4). The flow of the melodramatic action is interrupted by

panorama-like landscapes in the style of Turner, which - although cinematic shots - have a postcard-like effect. They are underlaid by well known music out of the early 1970s (from David Bowie to Elton John). Per Kirkeby, who created these sequences, told about their function: "...fundamentally it was perfectly obvious that they were intended as the antithesis of the palpitation intrusion of the other images into the propistic intimacy of the film" (Kirkeby 1996, 12).

Corresponding plot stereotypes are used to organize the story. They build up expectations that from the beginning go in divergent ways and seek mediations, thus leading to a certain activation of the viewer, who searches for fitting genre patterns and tries to discover perceptual invariants of certain forms of behavior that suddenly become conscious when they are stylized into a reality effect. This creates a certain feeling of unrest, which is reinforced by the cinematic images.

The Celebration also tends toward a genre mix. Strangely enough, at first the film's video aesthetic awakens genre expectations well known from family soaps in TV. However, it soon becomes clear that the film is rooted more in the tradition of the Scandinavian social drama, which rarely paid so much attention to Aristotle's three unities, but was generally a family drama and also often approached melodrama quite closely. A parable also seems to take shape in the background, in the theme of socially accepted mechanisms of (psychological) repression, since child molestation is not really the theme of the film, even if it does play a central role in the plot. Instead, the director uses this motif, and the stereotypes associated with it, to intentionally emotionalize the story. Further stereotypes also stabilize the film's macrostructure. The ritual of the birthday celebration is one of these. It gives the plot an extremely rigid structure and at the same time shows that this form cannot be upheld, because the usual family relationships have gotten out of control. The characters appear at first to be standardized types, but at times they break out of their stereotyped behavior and exhibit spontaneous behavior that seems remarkably authentic.

The borderline syndrome of society becomes most clearly evident in *The Idiots*. The action takes place on two separate levels. Karen, a young, working class woman sees how a group of middle class intellectuals pretend to be mentally handicapped. This behavior at once fascinates and repulses her. She decides to remain with the group, but stays in the background until in the end she takes on a stance of protest against her rigid and conventional family. Parallel to this story, the film confronts the viewer with six apparently "documentary" interviews, in which the members of the group look back on this strange experiment and explain their personal relationships to it. The film's macrostructure thus does not seem to offer a real plot or a clear use of multiple genres. Still, it is based on recycling previous forms and thus on a process of cinematic and cultural stereotyping.

A parable seems to form the center of the film, insofar as the characters do not just dissociate themselves from the normal way of life in their scandalous experiment, but also recognize that their provocations are just as flawed as the conventional attitudes in society. In as much as it paints a group portrait, the film hooks up to the tradition of the

Scandinavian social drama.

In a certain way, the film also shows resemblance to comedy or farce, since it keeps to a fiction that one can equally well interpret as morally perverse or as a carnivalesque act of violence. The ambivalent forms, individually and in their interaction, then make the story appear to be artificial and intentionally alienating, but also hinder attempts to grasp it intellectually, since the action remains too enigmatic to allow it to be understood rationally or judged morally.

Despite the postmodern denial of responsibility in the film as a whole, there are also exact observations of human behavior that appear to be highly authentic, particularly when subtle spontaneous reactions are captured in the cycle of perception. Perhaps it is characteristic of all three films and the Dogma style as a whole that they create a semantic conflict between the familiar course of events in the macrostructure and the fine nuances of behavior shown in minimal character actions. The Russian Formalists might have found the films to be excellent examples of how "ostranenie" comes to be. With that term, they referred to the alienation or defamiliarization effect, which is produced by "difference qualities" and can break open automatized forms of perception to create new meaning (Shklovsky 1988, 13ff., 31).

#### Camera Work and Orienting Reactions

The Dogma films differ noticeably from other films in their cinematic images and editing and thus lead to visual "difference qualities" with a special mode of "ostranenie". The immediate and individual expressions that involve the viewer in the characters of *Breaking the Waves* are not created just by the acting and a specific form of dramaturgy, but also by a specific form of camera work. The constantly moving handheld camera in CinemaScope format follows the protagonist in a setting that allows it the freedom to move in a 360° range. Frequently using close-ups, it attentively follows the action and adjusts its rhythms to it. It follows the action in a way that the cinematographer Robby Müller referred to as "a search for a naive way of seeing, for an uninhibited way of filming" (1996, 5, 23). Certain conditions were created for this attitude. After the actors had rehearsed for weeks in advance of filming and the cinematographer and camera operators had become very familiar with the script and the setting, the scenes were often filmed in a way such that the camera team did not know the exact arrangement in advance (von Trier had already worked this way in filming *Kingdom*). They walked onto the set without final instructions as to what exactly would happen during the scene and attempted to orient themselves to the action as it happened. They received no further instructions from the director and had to just "shoot away" (ibid.). The camera team spoke of "random shooting" (Oppenheimer/Williams 1996, 19). Surprised by the course of events, the crew often was not able to frame their shots "properly" or compose the images. There were even a number of unfocused shots. The spontaneous camera action gave the images a documentary quality and made many of them quite rough. Von Trier was very much interested in producing this effect and is supposed to have put up a cardboard sign on the video monitor with the instruction, "Make Faults!".

The actors had to play through whole scenes without interruptions, and without knowing when exactly the camera was shooting. In this way, spontaneous reactions were generated by the long rehearsal processes as well as the uncertainties of actual shooting.

This way of shooting visually transmits the camera team's search for orientation to the viewer. When the film is shown in the cinema, this effect is amplified into an orienting reaction.

The orientating reaction, which Pavlov called the "What-is-that reflex," is in psychological terms the organism's reaction to new or unfamiliar stimuli or to insufficient data to allow it to recognize an object. It is independent of the stimulus and thus can be induced by varying sensory impulses. Following the studies of Sokolov (1960, 1963), we know that primarily low to mid-intensity stimuli induce such reactions and that they increase the organism's receptivity for stimuli. Therefore, they can be viewed as a specific component of the activation of the organisms (cf. Clauss 1976, 377).

That orientation reactions lead to increased psychological activation applies to film reception, too. While the camera work in *Breaking the Waves* attempted to present recognizable objects and to present the decisive events of the psychologically complex story in close-ups, the spectator found him or herself confronted with the unfamiliar stimuli of a story filmed in a way that - quite the opposite of mainstream cinema - seemed quite uncertain and rarely allowed reliable prognoses about the coming plot development. *Breaking the Waves* brings together the emotional unrest of the protagonist, the agitation produced in the viewer by the reality effect and the moments of insight it leads to with the visual turbulence caused by the camera's attempts to find an orientation, which again provoke orientating reactions in the viewer.

For the other two films, different technical conditions applied, but similar orientation reactions were produced in the audience. Furthermore, a similar interaction is to be found among the conflict-laden story events, vibrant reality effects, and the orientation reactions caused by the camera in these films.

The *Celebration* as well as *The Idiots* are shot with the handheld camera on Video (Sony VX 1000) for a projection on Academy 35 Format. The action radius of the camera also allows it to move in a 360 range; original sets that give the impression of natural lighting are used, and the spontaneous reactions in the affective situations of the protagonists are taken over from the set as directly as possible.

Thus, they lead to exact observation of conflict-laden patterns of behavior, which are at once highly relevant to the story and are charged with reality effects. They are also accompanied by orientation reactions and psycho-physiological activity. The protagonists' search for functioning forms of behavior are thus linked to uncertainty at the perceptual level, induced by disturbances in the ordinary perception of events and the orienting reactions this leads to.

Models of the reality effect and of hypotheses for the orientation reaction could be extended by empirical research, thus leading to evidence for both on the psycho-physiological level, and marking a first step toward an analysis of the phenomenon for a psychology of

cinema. Monika Suckfüll (1997, 2000) was recently able to gain empirical evidence for the unconscious reception of narrative structures at the level of perceptual invariants by measuring significant changes in heart frequency. It would be useful to investigate the related invariant structures which lead to the reality effect in the same way.

An analogous research design could perhaps be used to test components of orienting reactions at the same time, using aspects of film images as a point of departure. Separate tests could be applied, which have already proved to be relevant indicators of orientation reactions, for example autonomous reactions such as increased heart frequency, galvanic reactions of the skin, contraction of peripheral blood vessels, and widening of the cranial arteries. EEG reactions such as the blocking of alpha waves, reactions of the sensory organs such as widening of the pupils, or motor reactions including head and eye movement could also be measured. Presumably, measurements of this sort would correlate significantly with changes in heart rhythm.

In this way, the cognitive approach builds a bridge between theoretical film analysis and empirical psycho-physiological research. Even though the path leading from these experiments to a deeper knowledge in the psychology of cinematic impacts is a long one, the three-leveled cognitive model of filmic structures gives a chance for systematic differentiation of subtle moments of impact such as the reality effect. Thereby it is plausible that the reality effect can generally occur when analogic structural relationships are repeatedly observed by the viewer and lead up to a transition from the unconscious perception to a conscious viewing, to a conceptionalization of the shaped things. Whereas in earlier years, these reality effects worked in episodic or, plotless, film stories, in which the effects themselves became narrational topics, nowadays they are more and more integrated into a macrostructure that uses narrational stereotypes, often combining several genre stereotypes. The contradiction between stereotypes in the filmic macrostructures and the perceptual invariances in the microstructure of the Dogma 95' films comes to a head in the extraordinary visual form which provokes orienting reactions that intensify the impression of authenticity.

Translated from the German by Stephen Lowry

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