

# ARNHEIM ON THE PERCEPTION OF MOVING IMAGES

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## ABSTRACT

The most eminent feature of Arnheim’s theory of film is the author’s sceptical view of sound film (“the introduction of the sound film smashed many of the forms that the film artists were using in favour of the intrinsic demand for the greatest possible ‘naturalness’”; 1957, p. 154). Instead of discussing dimensions of this ‘anachronism’, the present paper focuses on an element of Arnheim’s theory that is still relevant: the perception of moving images. Arnheim stressed that the movement of objects (not least: the moving human body) – besides being expressive – is essential for the viewer’s impression of three-dimensional space. As for the movement of the camera, Arnheim explained why it tends to produce disorientation and dizziness (which may sometimes be an intended effect). These insights contradict the still widespread mystification of camera movements as the core of the movie experience (cf. Gibson, 1982; Bordwell, 2001).

## I.

“If you come out of the bright cinema into the freezing dark night and are privileged to see with the eyes of the great film poet V. I. Pudovkin a couple of minutes beyond the actual film, you see that even our sluggish, apolitical, bland world is full of powerful images. Over there wait two coachmen, wrapped in heavy furs, beating their cumbersome arms together to keep warm, and on the corner stands a prostitute. The light strikes her from behind, so only her silhouette, and nothing of her face, is visible; but her breath comes out of her mouth in puffs like a white trail of smoke. By means of such motifs and lighting, the painful, exciting, sharp feeling ‘It is cold!’ seems powerfully translated into the visual.” (in 1997, 130; orig. 1928)

This quotation from the essay “The End of St. Petersburg, plus peripheral comments and side glances”, published in 1928, forms part of Arnheim’s refusal of the thesis that “the Russians can only make such good films because revolutionary thought provides them with a viable, universal theme” (ibid.). According to Arnheim’s point of view, it is not the importance of themes but the talent to “tell a story in pictures” that makes the difference: “... the Russians have a couple of

talented directors, and – if a more general factor must play a role perhaps a less narrow minded studio tradition ... ” (ibid.).

From a more general perspective, Arnheim’s appreciation of the artful eye of Pudovkin and his colleagues is an example of his specific focus upon the art of moving pictures. Arnheim is fascinated by the expressiveness of single images; regarding Pudovkin’s ‘The End of St. Petersburg’ he states: “He generates a thunderstorm of images so impressive that we cannot get rid of them, like when the sun appears to us all over the walls and tables after burning an image into our retina: the sharp glass of the shattered window when the revolt has broken out in the office, with the swooning face of the stenotypist lying on the windowsill; the white telegraph cables, as though etched with a hard diamond in the blackness of the night sky (...); the wet, loamy cliff on the front, the canals full of dirty water, with the faces and the boots of the dead men floating in them; the black, shiny blood stain on the temple of a beaten man (...).” (ibid.)

Arnheim’s specific interest, in my view, anticipates his farewell to writing about film a decade later.

In 1963, for the length of an essay, he returned to film theory and film criticism. It was Siegfried Kracauer’s film theory, published in 1960, that elicited this effort. According to Kracauer, it is the essence of moving pictures to represent “the flow of life”. In his view the possible ways of discerning filmic images are always limited; attending to moving pictures, Kracauer points out, is somehow akin to a stroll on a lively sidewalk; film audiences participate in the aesthetic attitude of a flaneur. Kracauer postulates that this openness to the flow of life is reflected in the affinity of the moving pictures to street scenes. – Arnheim, opposing Kracauer’s position, insists that filmic art is only achieved when directors – like those of the neorealist movement to which Kracauer alludes – construct moving pictures with “all the precision of aesthetic economy” (in Arnheim, 1966, 188). Arnheim also provides an example of a film which, as he judges, fails to meet this criterion: “As an example, one may cite Antonioni’s *L’Avventura*, a film of some merit, which meanders, however, perfunctorily through quantities of half-digested material, for instance, in the aimless and endless roaming of the characters on the island in the central sequence. I may be doing injustice to this particular work; but, assuming that it is what it appeared to me to be: is this a new, legitimate way of interpreting dissolution by unorganized

form or is it a clinical symptom of the mental dejection it purports to portray – melancholy unshaped?” (pp. 188-9)

Nevertheless Arnheim, in the preface to the reprint of the German edition of “Film as Art” in 1974, concedes that Kracauer’s focus on the “half formed, open and endless” aspects of filmic representation of reality is a valuable supplement to his own theory. Perhaps Arnheim, looking back, felt that his farewell to writing about film was due to a lack of interest in an essential aspect of the moving pictures. (Kracauer, by the way, in his review of “Film as Art”, published in 1933 (reprinted in Arnheim, 2002), saw the strength (as well as the limits) of the book in its analysis of “formal structures”.)

## II.

Arnheim stressed in “Film as Art” (as did Hugo Münsterberg in “The Photoplay” (1906/1916) a decade and a half before) that perception of moving pictures differs in various respects from the perception of reality. In this way Arnheim intended to justify the status of film as a form of art. Even if this somewhat ideological intent was responsible for some weaknesses in the argumentation, Arnheim’s book “Film as Art”, as well as related criticism and papers, provide lasting insights into the perception of moving pictures.

The remainder of my paper focuses on Arnheim’s discussion of movement in the moving pictures – movement in front of the camera and movement of the camera itself.

## III.

From its creation till today, the set of “The Cabinet of Dr. Caligari” has elicited many reverent comments on the magic seduction of its expressive spaces (cf. Vidler, 1996, 16). Arnheim was obviously not infected by this fascination. In “Dr. Caligari Redivivus”, published in 1925, he describes the set as “charming tapestry which falsifies the nature of things and does not provide nearly as much ‘essential’ expression as does merely faithful photographie.” (in Arnheim, 1997, 111). Marionettes would suit these sets better than human beings. Later Arnheim stated, “... the ludicrous aspects of Caligari are not due to the artificiality of the setting as such. The solidly Euclidean continuity of space, revealed by the movements of the actors, appears as an embarrassing giveaway only because the scenery attempts to break up that unity of space in the manner of Expressionist and Cubist painting. There is a contradiction within the dimension of

space” (in Arnheim, 1966, 185). Filmed movement of human beings makes audiences perceive the three dimensional space they are used to. This seems to be self-evident – or...almost trivial.

In “Film as Art” Arnheim (1957) nevertheless insisted that film should evoke the impression of a flat two-dimensional picture even if a “certain illusion of depth holds the spectator” (31). This, in his view, contributes to the fact that “film is most satisfactorily denuded of its realism” (ibid.). That film “is always at one and the same time a flat picture postcard and the scene of living action” (ibid.) is, according to the general line of argumentation in this book, a prerequisite to its becoming an autonomous art form. – Without doubt: The usual monocular camera allows takes that offer surprising or enigmatic views of overlapping objects that don’t occur under the condition of binocular vision. But such illusions don’t reduce the phenomenal three-dimensional space of living action appearing behind the screen to a flat picture.

#### IV.

Whereas movement that takes place in front of the camera provides secure orientation for film audiences, camera-movements tend to make the observer dizzy. In “Film as Art” Arnheim explained why this happens: “Our eyes are not a mechanism functioning independently of the rest of the body. They work in constant co-operation with the other sense organs. Hence surprising phenomena result if the eyes are asked to convey ideas unaided by the other senses. Thus, for example, it is well known that a feeling of giddiness is produced by watching a film that has been taken with the camera travelling very rapidly. This giddiness is caused by the eyes participating in a different world from that indicated by the kinesthetic reactions of the body, which is at rest. The eyes act as if the body as a whole were moving; whereas the other senses, including that of equilibrium, report that it is at rest.” (1957, 34)

Unfortunately modern film theory and film practice still fail to understand this problem. Everybody seems to be fascinated by the way the moving camera involves the observer in the space the camera travels through (cf. Gibson, 1982; Bordwell, 2001; Mikunda, 2002).

Even James Gibson (1982) in his sketch of a film theory (in the last chapter of “The Ecological Approach to visual Perception”, originally published in 1979) argued that – far more than movements in front of the camera – movements of the camera itself engender the participation of the audience. Gibson ignored the irritating effects of the moving camera. He, who saw himself somehow as the ‘inventor’ of “visual kinaesthetic” (namely the vivid impression of self-

movement caused by visual flow alone), did not take into account the conflict of visual, sensorimotor and vestibular information caused by moving pictures produced by a travelling camera.

Today, it is rather in the field of virtual reality than in the field of film theory and practice that there is a consciousness of the problematic consequences of isolated visual flow (Biocca, 1992). Researchers in this field discuss various means of reducing dizziness and disorientation (called Simulator sickness or Cyber sickness).

Of course the irritation caused by camera movements may be used – as Arnheim described in his book – to let the audience participate in a disoriented state of mind of a protagonist.

On the other hand, Arnheim appreciated the moving camera as a means of keeping in touch with a moving protagonist: “The moving camera is especially useful when the scene of action is not an immobile setting, in which the actors come and go, but the actors are, as it were, the constant setting while the surroundings vary. The camera may accompany the hero through all the rooms of a house, down the stairs, along the street; and the human figure may always remain the same, while the surroundings pass as a panorama, continually changing. The film artist is thereby able to do what is very hard for the theatre director, namely, to show the world from the standpoint of an individual, to make man as the centre of his cosmos – that is, to make a very subjective experience accessible to the eyes of all.” (p. 96)

Arnheim does not discuss any possibly irritating consequences of such camera-movement.

However, in my view the problems discussed above are virtually nonexistent in this case since the focus on the moving person reduces the optical flow to a background phenomenon, which is simultaneously rendered ‘intelligible’ via the involvement of the audience in the movement of the protagonist (cf. Schönhammer 2004).

## V.

Thus, with Arnheim, we can argue that movement of objects (not least: the moving human body) – besides being expressive – is essential for the viewer’s impression of three dimensional space and that movement of the camera tends to produce disorientation and dizziness if it is not used to follow moving objects. (Sometimes disorientation and dizziness may be intended.)

As these insights contradict the still widespread mystification of camera movements as the core of the movie experience (cf. Gibson, 1982; Bordwell, 2001; Mikunda, 2002), it would be worthwhile to demonstrate convincingly the different effects using case studies (cf. Schönhammer 2004) and experiments.

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