Self-Reference in the Media[1]

Winfried Nöth

1. The semiotic paradox of self-reference in the media

Self-reference has been much discussed as a characteristic of postmodernism. The arts and the media have become increasingly self-referential. Instead of showing or representing the world as seen or experienced by the mediators of art, the press, advertising, or the movies, the artists, journalists, advertising agents, and film directors are referring more and more to what has been seen previously in the arts or to what the media themselves have more recently reported. The digitalization of pictures and films, which has liberated the media from the bonds of factual reference to a world which they used to depict, has contributed to an increase of self-reference, since such pictures originate no longer in a world which leaves its documentary traces on the negatives of films, but are the result of an artificial construction in a studio.

The forms and means of self-reference, or self-reflexivity, in the media advertising, film, and computer games are the topic of a research project about which the present paper gives a brief account.[2] Its theoretical background is semiotics, the study of sign processes. Signs, according to their standard definition, are a means of referring to something else. Alloreference (or simply reference as such), that is, reference to something else is their essence.

If reference is characteristic of signs, it should be even more so of the media. After all, the concept of "media" implies mediation, and mediation is a process of semiosis, the action of signs.[3] The media represent events or ideas and thus mediate between the mediators and their audiences, so that self-reference, in this process, appears to be a semiotic paradox, for how can self-referential signs mediate if they refer to nothing but to themselves?

2. Self-reference as a topic of research

Self-reference is a topic whose theoretical foundations have so far primarily been studied in the context of logic, the philosophy of language, systems theory, and postmodern culture. In computer science it has been a topic in the context of the recursivity of Turing machines. In semiotics, there have been only few studies which have dealt explicitly with this topic, although marginal reflections on self-reference can occasionally be found in the context of the theory of reference.[4]

Logic and the philosophy of language have given special attention to self-referential sentences that lead to antinomies and paradoxes, or to forms of reference implied in metalanguage. The accounts of these phenomena given in logical semantics are based on theories according to which human communication essentially makes use of language as a tool to refer to the world in which we live.[5]

In cultural studies, the phenomenon of self-reference has been discussed in the contexts of literature[6], the fine arts, film and television[7], advertising[8], *popular culture*[9], and especially postmodernism.[10] In

---

[2] loc. cit.

[3] In 1906, Charles S. Peirce expressed the close relationship between the sign and the concept of media as follows. «All my notions are too narrow. Instead of ‹Sign›, ought I not to say Medium?" cf. Nöth, Winfried, «Introduction», in: W. Nöth, (ed.), *Semiotics of the Media*, Berlin 1997, p. 1.

[4] Nöth, Winfried, *Handbuch der Semiotik,* 2. Aufl., Stuttgart/Weimar 2000.

[5] Cf. Whitehead, Alfred N. & Bertrand Russell, *Principia Mathematica,* Cambridge 1910; Bartlett, Steven J. & Peter Suber (eds.), *Self-Reference: Reflections on Reflexivity,* Dordrecht 1987; Fitch, Frederic B., «Self-reference in philosophy», in: S. J. Bartlett & P. Suber, loc. cit., p. 221-230.

[6] Jay, Paul, *Being the Text: Self-Representation from Wordsworth to Roland Barthes,* Ithaca 1984; Whiteside, Anna, «The double-bind: Self-referring poetry», in: Anna Whiteside & Michael Issacharoff (eds.), *On Referring in Literature*. Bloomington 1987, p. 14-32; Stam, Robert, *Reflexivity in Film and Literature: From Don Quixote to Jean-Luc Godard,*

these domains, the topic of self-reference is often the topic of metatextuality, which is one particular form of self-reference. The argument is that not only have novels and films become metanovels and metafilms, that is, novels about novels or films about films, but also painting and architecture have become metapainting and meta-architecture.[11] In the press, the news stories and comments have become increasingly self-referential since they are more and more quotations of what news agencies and newspapers have said elsewhere.[12] In popular culture, from comics to rock music and video-clips, pop has become metapop[13].

In the interpretation of the phenomenon of ever increasing self-reference in postmodern culture, we find the "apocalyptic" critics opposing the "integrated" ones.[14] The latter interpret self-reference as a symptom of increasing critical consciousness in a world that has lost its confidence in ultimate truths.[15] The former, among them Virillo and Baudrillard, have deplored the loss of referents in a more and more self-referential world in which reality has degenerated to constructed, simulated or virtual reality. However, while the integrated ones may lack critical distance in face of the aporias of postmodern self-reference, the apocalyptic ones run the risk of finding themselves involved in paradoxes as long as they are unable to explain the nature of those referents whose loss they deplore.[16]

More research has to be done concerning the semiotic dimension of self-reference in the digital media, whose foundations are lie in the theory of semiotic or symbolic machines[17], the theory of the digital media, and of virtual reality[18].

New York 1992; Block, Friedrich W., *Beobachtung des ‹ICH›. Zum Zusammenhang von Subjektivität und Medien am Beispiel experimenteller Poesie,* Bielefeld 1999.

[7] Withalm, Gloria, *Fernsehen im Fernsehen im Fernsehen[...]: Selbstreferentielle Zeichenprozesse*, Wien 1999; Karpf, Ernst, Doron Kiesel & Karsten Visatius (ed.), *Im Spiegelkabinett der Illusionen. Filme über sich selbst,* Marburg 1996; Kirchmann, Kay, «Zwischen Selbstreflexivität und Selbstreferentialität. Überlegungen zur Ästhetik des Selbstbezüglichen als filmische Modernität», in: Ernst Karpf et al., loc. cit., p. 67-86; Paech, Joachim, «Zur theoretischen Grundlegung von Intermedialität», in: J. Helbig (ed.), *Intermedialität. Theorie und Praxis eines interdisziplinären Forschungsgebiets,* Berlin 1998, p. 14-30.

[8] Schmidt, Siegfried J. & Brigitte Spieß, *Die Geburt der schönen Bilder: Fernsehwerbung aus der Sicht der Kreativen,* Opladen 1994; Schmidt, Siegfried J. & Brigitte Spieß, *Die Kommerzialisierung der Kommunikation: Fernsehwerbung und sozialer Wandel 1956-1989,* Frankfurt/Main 1996.

[9] Dunne, Michael, *Metapop: Self-Referentiality in Contemporary American Popular Culture,* Jackson 1992.

[10] Lawson, Hilary, *Reflexivity: The Post-Modern Predicament,* London 1985; Bartlett & Suber, loc. cit. [Footnote 5]; Bartlett, Steven J., *Reflexivity: A Source-Book in Self-Reference,* Amsterdam 1992. – Kirchmann also remarks that «postmodernism only quotes modern self-referentiality», loc. cit. [Footnote 7].

[11] Lipman, J. & R. Marshall (eds.), *Art about Art,* New York 1978; Wittig, Susan, «Architecture about architecture», in: S. Chatman et al. (eds.), *A semiotic landscape,* The Hague 1979, p. 970-978.

[12] Marcus, Solomon, «Media and self-reference: The forgotten initial state», in: W. Nöth (ed.), *Semiotics of the Media,* Berlin 1997, p. 15-45.

[13] Dunne, loc. cit. [Footnote10].

[14] um die Begriffe Umberto Ecos aufzugreifen (U. Eco, *Apokalyptiker und Integrierte*, Frankfurt/Main 1984).

[15] Lawson, loc. cit. [Footnote 11].

[16] Nöth, W., «Autorreferencialidad en la crisis de la modernidad», in: *Cuadernos: Revista de la Facultad de Humanidades y Ciencias Sociales* [Universidad Nacional de Jujuy, San Salvador de Jujuy, Argentina] 17 (2001), p. 365-69; Nöth, Winfried & Christina Ljungberg (eds.), *The Crisis of Representation: Semiotic Foundations and Manifestations in Culture and the Media* = [Special Issue] *Semiotica* 143.1-4 (2003).

[17] Krämer, Sybille, *Symbolische Maschinen,* Darmstadt 1988; Coy, Wolfgang, «Aus der Vorgeschichte des Mediums Computer», in: N. Bolz, F. Kittler & G. Christoph Tholen (ed.), *Computer als Medium,* München 1994, p. 19-37; Nöth, Winfried, «Semiotic machines», in: *Cybernetics and Human Knowing* 9.1 (2002), p. 5-22.

[18] Rötzer, Florian (ed.), *Digitaler Schein. Ästhetik der elektronischen Medien,* Frankfurt/Main 1991; Andersen, Peter Bøgh, et al., *The Computer as Medium*, Cambridge 1993; Müller, Michael & Hermann Sottong, *Der symbolische Rausch und der Kode,* Tübingen 1993; Kittler & Tholen, loc. cit. [Footnote 17]; Mayer, Ruth & Ernst-Peter Schneck (ed.), *Hyperkultur. Zur Fiktion des Computerzeitalters*, Berlin 1996; Bolter, Jay David & Richard Grusin, *Remediation: Understanding New Media,* Cambridge, MA 1999.

3. Semiotic premises: Reference

Reference is a basic concept of linguistics and of the general theory of signs.[19] According to the classical definition, a sign is something that stands for, or refers to, something else: *aliquid stat pro aliquo* as the Scholastics said.[20] Reference connects the world of signs to another world beyond the world presented by the signs. If reference to something else is the essence of signs, self-reference, that is, reference to the world of signs only, must seem to be a semiotic paradox, since a sign referring to itself only does no longer refer to something else.

However, the classical theory of the sign and its referential nature has not remained without objections. One of the critics of the theory of reference is Luhmann, in whose theory of the sign as form we read:

> In the theory of signs as a form, there is indeed no reference. […] The distinction between signifier and signified may be used or not, but there is nothing 'external' that obliges us to apply this distinction, and there is no criterion of truth for the necessity of an initial distinction. Therefore, a theory of language, conceived as a semiotics, has to abandon the idea of an external referent in language.[21]

Long before Luhmann, a semiotics which aims at studying signs without consideration of their referents has been founded in the framework of structuralism.[22] It was Saussure who defined the verbal sign as a semiotic entity that is constituted exclusively by its relations to other signs, and not to any referents, and Lacan radicalized this theory of the sign by postulating an "unsurpassable abyss" between the signifier and the signified of the sign.[23]

There are, indeed, affinities between structuralism and constructivism. The argument of the constructivist S. J. Schmidt[24] that signs are not anchored in "a sphere beyond discourse" could also be the argument of a semiotic structuralist, but while the structuralists have tried to determine the value of signs by means of its position within the sign system, the constructivists' frame of reference is communication. Reference, in their framework "is a renvoi from communication to communication, which permits connections and relays".[25]

Even though self-reference is the topic of the present study, its basic assumption is neither a naïve theory of reference nor the structuralist or constructivist theory of the signs that have no referents. Our study will be based on Charles S. Peirce's semiotics, in the framework of which reference is the relationship of the sign to its object.[26] However, the object to which a sign refers back is not a piece of the so-called real world, but something which precedes and thus determines the sign in the process of semiosis as a previous experience or cognition of the world. Such an object (or referent) of the sign can be a sign itself, and in this sense, self-reference becomes possible as a mode of a sign referring to a sign.

4. The increase of self-reference in the media

According to their self-declared public image, the media function as mediators between a social reality about which they have knowledge and an audience which lacks information about this reality. The primary task of the media is hence to produce referential, not self-referential messages. Reference and not self-reference is the principle of mediation.

Despite this basic assumption, an increase of self-reference in the media can be observed. The messages of the media are more and more about messages of the media whose origin has become increasingly difficult to trace. Films become metafilms, novels have become metanovels, in the visual arts, the artist and his bodily self has become a central topic, television makes television its central

---

[19] Nöth, loc. cit. [Footnote 4].

[20] Cf. loc. cit., p. 9.

[21] Luhmann, Niklas, «Zeichen als Form», in: D. Baecker (ed.), *Probleme der Form*, Frankfurt/Main 1993, p. 50.

[22] Cf. Nöth, loc. cit. [Footnote 4], p. 74f.

[23] Cf. loc. cit., p. 50.

[24] Schmidt, Siegfried J., *Kognitive Autonomie und soziale Orientierung,* Frankfurt/Main 1994, p. 97.

[25] Schmidt, loc. cit.

[26] cf. Nöth, loc. cit. [Footnote 4].

theme, and advertising has begun to perpetuate its self-made myths about the unsurpassable values of the products instead of informing about or presenting what is new in the world of commodities. Our research project investigates these self-referential phenomena in the media in their cultural context, focusing on film, advertising and computer games.

These three media differ as to the degree to which they evince self-reference. In *advertising*, genuine self-reference would be counterproductive. A genuinely self-referential text is unable to convey a message about a product or a service. The genuinely self-referential message would fail to fulfill its function of propagating a message about the market to whose service it is dedicated. Due to their fictional and aesthetic character, *movies*, on the other hand, cannot restrict themselves entirely to referential messages about a "world of facts or realities". Hence it is not surprising that, in the course of a hundred years of film history, self-reference has increased in the medium of film, with the situation of film production and its audience becoming more and more a topic, whereas the stories conveyed in the filmic narrative have become of secondary importance. In *computer games* we are finally faced with a medium in which reference to the world and consequently alloreference has been secondary since its beginning, since games tend to create their own realities beyond the world of reference.

5. The indexicality of reference and the iconicity of self-reference

In Charles S. Peirce's semiotics[27] the principle of reference is most characteristic of genuinely indexical signs. Self-reference, by contrast, is typical of the genuinely iconic sign. A genuinely indexical sign refers directly to a particular object and identifies it in space and time, whereas a genuine icon, according to Peirce[28], is a sign due to qualities which it has independently of an object to which it may refer. Whereas a genuine index denotes an object existing in reality, a genuine icon is the mere possibility of something that has not yet been actualized.

Both attributes of the genuine icon – exhibition of a quality of its own and reference to a mere possibility – evince characteristics of self-reference. If a sign is a sign by its own quality, it is a self-referential sign. It *shows* or *exhibits* those qualities in itself, and therefore its object is to a certain degree already present in the sign. Another aspect of self-reference in genuine iconicity is that it denotes a mere possibility. Although there may be some vague mode of reference in something that denotes something merely possible, this referential potential of the genuine icon remains extremely weak, since mere possibility is never actualized. Insofar as the genuine icon remains referentially undetermined, the essence of this kind of sign lies once more in itself.

In the media and in the arts, iconic self-reference can be typically encountered in the aesthetic dimension and, more recently, in virtual reality. The aesthetic sign, according to semiotic aesthetics, is a sign which functions as such due to its own quality and not on the basis of its reference to something else.[29] Aesthetic signs are signs that direct our attention to their own material substance or form.[30] In this sense, the aesthetic function of a message is opposed to its referential function, as Roman Jakobson has argued.[31] As far as virtual reality is concerned, it is evident that cyberreality belongs more to the category of mere possibility than to the category of the real.

Bettetini has argued that realism in the movies is essentially a matter of indexicality. In realist films, the signs that show the realities of everyday life are indices of the world that they depict with photographic precision.[32] The more real life leaves its traces in the film, the more realistic it is. The

---

[27] cf. loc. cit., p. 193-95.

[28] In contrast to the «hypoiconic» sign, which functions as such due to its similarity with the object which it represents.

[29] Cf. loc. cit., p. 426.

[30] See also Nöth, Winfried, «Semiotic form and the semantic paradox of the abstract sign», in: *Visio* 6.4 [Hiver 2001–2002; = *Théories et objets métissés / Hybrid Theories and Objects*], p. 153-163; Nöth, Winfried, «Fotografie zwischen Fremdreferenz und Selbstreferenz», in R. Horak (ed.), *Rethinking Photography I: Narration und neue Reduktion in der Fotografie*, Graz 2003.

[31] Cf. Nöth, loc. cit. [Footnote 4], p. 428.

[32] Bettetini, Gianfranco, *L'indice del realismo*, Milano 1971.

virtual reality of digital films, by contrast, is no longer constructed on such principles. There is a loss of indexicality, which Manovich describes as follows:

> Once live events are digitalized (or directly recorded digitally) they lose their privileged indexical relationship to reality outside the film. The computer no longer distinguishes a picture made with a photographic lens from a picture that was designed with a picture processing program or a 3D graphic program, since all three consist of the same material, namely pixels, and pixels can be changed or replaced irrespective of their origin.[33]

The signs of virtual reality in digital films are referentially undetermined, and they denote mere possibilities instead of something actually existing. In this way, they have come closer to self-referential genuine iconicity in Peirce's sense, but the indexically real can no longer be distinguished from the iconically virtual. Real reference and self-reference are beginning to merge.

6. Levels and degrees of self-reference: Examples from advertising

Just as signs may self-referentially refer to the world of signs, the media may refer to the world of the media in a self-referential manner. Citations, intertextuality, intermediality, metatextual references, repetitions, recursions, and references to the communicative situation are some of the symptoms of self-reference in the media.

Various degrees of self-reference must be distinguished, from the sign that refers to nothing but itself to the sign that refers only partially to itself and partially still to something else. Furthermore, self-reference occurs at different levels of the message in which it occurs. Beginning with the smallest elements of the message, the first three levels of self-reference are derived from Peirce's trichotomy of the interpretant:[34] rhematic (equivalent to the unit of a word), dicentic (equivalent to a proposition), and argumentative self-reference. In extension of this Peircean triad, textual, intertextual, intermedial and communicative self-reference will be distinguished.

Rhematic self-reference is a popular strategy in advertising. The focus is on a mere word, mostly the name of a product, about which nothing is said, or the product itself is the sign, which is shown without any other context from which further information about the product may be derived. The meaning is left to the consumers' imagination or their prior knowledge about the product. The prototype of this form of advertisement is the classical Coca-Cola sign at a countryside highway. It shows nothing but the Coca-Cola bottle with the name of the product inscribed: "Coca-Cola and nothing else" is the implicit message.[35] The rhematic-iconic message remains widely open to interpretation.

A rhematic sign, like a word in a dictionary, does not designate anything in specific, but refers to many possible objects in many possible contexts. The difference of our example to traditional trade signs is instructive here. Consider the sign that indicates a shoemaker by means of a picture of a shoe. This sign has also the extension of a rheme, since it corresponds to a mere word, but in contrast to the Coca-Cola sign, it refers indexically to a specific shop of a specific shoemaker. The message is approximately "Here you find shoemaker X." Such messages are rhematic indices and due to their indexical element alloreferential signs. Whereas the shoemaker's sign refers to a specific location, the Coca-Cola sign is a rhematic icon, which lacks any concrete reference to something else. In its referential indeterminacy, it constitutes a self-referential sign.

Dicentic self-reference can be illustrated with another advertising slogan, namely the famous German slogan for Persil washing powder "Persil bleibt Persil" ['Persil remains Persil']. At first sight, the claim takes the form of a predication. However, instead of a predicative and thus alloreferential statement of the form "A is B" we are confronted with a tautological and consequently self-referential

---

[33] Manovich, Lev, «Was ist digitaler Film?» *Telepolis.* URL: http://www.telepolis.de/deutsch/special/film/6109/1.html, 1997.

[34] Following Peirce's differentiation of interpretants; cf. Nöth, loc. cit. [Footnote 4], p. 66.

[35] Nina Bishara [Footnote 1] shows how rhematic self-reference is especially frequent in current print advertising for fashion labels by merely presenting a model and the designer logo (e.g. Joop, Boss, Gucci etc.).

statement of the type "A is A". Of course, this strategy of recursive self-reference does not intend to break the rules of logic but rather to point out the quality of the product – a quality that no longer needs to be named. The advertising slogan simply presupposes the knowledge of the quality inherent to the product.

Argumentative advertising gives or suggests reasons for the quality of the product for sale and presents these as reasons, for example, a cigarette is recommended *because* it has "less tar". The implicit syllogistic argument is: *Premise 1*: Cigarettes with less tar are better for the lungs. *Premise 2*: This cigarette has less tar. *Conclusion*: This cigarette is better…

Argumentative self-reference occurs when such an argument turns out to be circular. "Winston tastes good as a cigarette should" was an advertising slogan of the 1960s with a semi-circular way of arguing. The reason for the quality of this cigarette is already only implied in its being a cigarette. The conclusion only confirms what was the general premise presupposes: all cigarettes(should) taste good, and therefore this cigarette tastes good, too.

Textual self-reference focalizes on the message as such, commenting on its form, its content, and its being a text with a beginning, an end, and a message. In the movies, textual self-reference occurs when the film begins and ends with a trailer marking its beginning by presenting its title and its end by concluding with the message THE END in writing. Other forms of textual self-reference are recurrences or even loops in films such as *Lola rennt*. The text returns to its beginning, anticipates its end, in short, any kind of diegetic reference is textual reference.

In advertising, the line *Advertisement* above the text refers to the text as a particular type of text (and not one that belongs to the news reports, for example). Textual self-reference of this kind in advertising runs the risk of being in conflict with the goals of the genre. The meta-message "This it is an advertisement" reminds the readers that the message is one-sided and pursues the goal of influencing the public for the sole purpose of buying the product. Instead of saying (alloreferentially) "Product X is good", the advertisement says: "This message is an advertisement for product X." Advertisements tend to avoid this kind of self-reference, since the credibility of commercials is generally low, and the admission that the message is "only" publicity puts the efficiency of the message at risk.

Intertextual self-reference occurs in the form of allusions or quotations to passages from other texts. On the one hand, quotations or allusions are, of course, genuinely alloreferential, since there is reference for one message to another so that the object of the quoting sign is a quoted sign from which it differs textually and in time and space. On the other hand, an advertisement, or a film that quotes another advertisement or film is not referential beyond the world of texts to which it belongs. The tv spot that quotes another tv spot remains within the world of advertisements. In the same sense, the film that alludes or quotes another film remains self-referential. The message is an intertextual message that remains within the world of films. In the quotation or allusion, there is no message referring to a world beyond films.

There is *intermedial* self-reference when the intertextually quoting sign and its quoted sign differ as to their media,[36] for example, when a film refers to a novel, a novel to a well-known advertisement, or a film to a famous piece of music. Intermediality,[37] too, is alloreferential insofar as it involves reference to a different sign in a different medium, but there is self-reference insofar as the message involves

[36] Cf. Paech, loc. cit. [Footnote 8], p. 26. – Bolter & Grusin have introduced the term term remediation to specify translations from one medium to another. – Spielmann has investigated the relationship between intermediality and self-reference and coined the terms "intermedial self-reference" or "self-referential intermediality", cf. Spielmann, Yvonne, «Die hypermediale Bildstelle und andere Formen intermedialer Selbstreflexion», in: Helmut Schanze & Helmut Kreuzer (ed.), *Bausteine 4*, (=Arbeitshefte Bildschirmmedien 65), Siegen 1997, p. 33-40.

[37] Müller, Jürgen E., *Intermedialität: Formen moderner kultureller Kommunikation,* Münster 1996; Paech, loc. cit. [Footnote 8]; Paech, Joachim, «Figurationen ikonischer n... Tropie», in: S. Schade & C. Tholen (ed.). *Konfigurationen: Zwischen Kunst und Medien,* München 1999, p. 122-136; Spielmann, Yvonne, *Intermedialität. Das System Peter Greenaway,* München 1998. – Paech, loc. cit. [Footnote 8] describes structures of medial difference as configurations which define "intermediality" as processes between forms of aesthetic production.

reference from the media to the media creating a kind of intramedial *déja-vu* effect that leaves those unfamiliar with the media uninvolved.

6. Communicative self-reference

Communicative self-reference pertains to pragmatics, the situation of text production and reception. The roles of the readers or the spectators and the enunciative roles of the authors, the producers, the actors or the players become the topic of the message. Instead of presenting or representing ideas or events in the world beyond the message, the text deals with its own communicative context, its communicative function, and its presuppositions. The text has thus its own pragmatic dimension as its topic. For example, the audience of a film is reminded of the fact that it is participating in the film while sitting in the film theatre.[38] Peter Greeanway's actors that step out of their role as actors and mingle with the audience, or Alfred Hitchcock, who steps out of the role of a film producer to become an actor are further examples of communicative self-reference.

In their beginnings, films tried to conceal the traces of their production, for example the artificial world of a film studio, as much as possible with the purpose of creating a perfect real-life illusion. Alloreference was on the agenda. Modern digital film technology has increased the potential for illusion and enables the alloreferential representation of previously impossible "realities". The audience is no longer restricted to the observation of the sinking Titanic above the sea level but can also participate in the drama below the water surface. As a result of the new forms of digital picture manipulation, it is no longer possible to distinguish real shots from digital additions. The alloreferential perfection of this pictorial manipulation makes us forget its digital construction. More and more accurate representations and the increasing possibilities of representing the world in all of its visual facets create the illusion of a growth of alloreference of the medium.

On the other hand, there are those new strategies and effects of illusion that lead from a world of the "real" to the awareness of a world of simulation. The more the pictures distance themselves from reality, the more doubts in the authenticity and plausibility of the feigned worlds arise. The ever repetitive effects of simulation shatter the audience's belief in the communicative contract between filmmaker and audience. Films deal with the premises and conditions of this communicative contract as a result of a crictical relexion of this situation. It eventually becomes the subject matter of filmed representation itself: filmmakers appear on the screen in the role of actors, actors play the role of the producer, and last but not least, they leave the screen entirely to join the audience in the cinema in the style of Peter Greenaway.[39] New forms of communicative self-reference are emerging with interactive films in which the spectator becomes the producer of his own viewing.

Communicative self-reference is of a different style in computer games. Not unlike other games, reference to the world is secondary in computer games. Games do not want to simulate real life. In contrast to other forms of play, the computer game offers still more possibilities for the creation of new worlds. Their virtual character is highly self-referential from the beginning on. Players can interact with the program code and thus control the referential action, and they can become producers of the text. In which way communicative self-referential autonomy of the players is actually attained remains open for further investigation.[40]

---

[38] In film semiotics pragmatic self-reference is discussed under the keyword of cinematic enunciation. Cf. Buckland, Warren (ed.), *The Film Spectator: From Sign to Mind*, Amsterdam 1995; Buckland, Warren, *The Unfinished Project of Film Theory: Cognitive Film Studies in Europe*, Cambridge 2000.

[39] For earlier forms of communicative self-reference of this kind see footnotes 6 and 8.

[40] Karin Wenz [Footnote 1] observes: «Players can interfere with the program code by making use of cheats. Despite all interactive possibilities they still remain consumers / users of the game since modern computer games also contain numerous video sequences in addition to the game sequences. These video sequences only allow for observation and not for interaction. In contrast to popular opinion, interactive possiblities in computer games are not really increasing. Classic text adventures offered far more interaction than do modern 3-D-games.»

7. Self-reference, recursion, and recurrence

Striking forms of textual, intertextual, and intermedial self-reference are recursion and recurrence. Recursion,[41] the circular or loop-like return to an earlier point in the same text, in other texts, or media, is similar to recurrence, the principle of repetition. There are diverse functions and effects. In music, art, and literature, the nontrivial recurrence of varied forms is a source of aesthetic effects: *repetitio delectat.* As the trivial repetition of the same, recurrence and recursion are indices of the trivial, for example in soap operas. In games, recursion can even be a means of punishment, for example in the classical ludo (Mensch-ärgere-dich-nicht), where the return to the point of departure can be an element of suspense, satisfaction, or disappointment.

In *advertising*, repetitive campains à la Marlboro exemplify best the principle of intertextual recurrence and hence intertextual self-reference with their permanent return to the same scenario. Evidently, the Marlboro man does not only refer alloreferentially to scenes of the myth of the Wild West, but also self-referentially to the never changing world of the Marlboro posters.

In the *film*, too, we are accustomed to intertextual self-reference. The most recent James Bond films, for example, are less an less interpreted and discussed in terms of what they represent, but more and more by intertextual self-reference in terms of how they succeed in comparison to all of the preceding ones.[42] One of the characteristic features of digital film is the increasing possibility of self-repetition in the form of loops, as in *Lola rennt*,[43] where several variations of the same event are connected by means of time loops. There is no true beginning and no real end when this form of textual self-reference predominates. There is nothing but a sequence of recursive loops.[44]

In *computer games*, recursion in the form of textual self-reference is still more advanced. For example, the player can chose a certain point of departure in the game and then try out a number of possible variations of the same strategy. Furthermore, the well-known command "Return to X" (i.e., to a previous position) clearly exemplifies textual self-reference. Textually self-referential recursion is probably the most characteristic feature of computer games, since the underlying algorithms are not only the basis of the production, but also of the execution of the game.

References

Andersen, Peter Bøgh, *The Computer as Medium*, Cambridge 1993.

Bartlett, Steven J. & Peter Suber (eds.), *Self-Reference: Reflections on Reflexivity*, Dordrecht 1987.

---

[41] cf. Winkler, Hartmut, *Über Rekursion: Eine Überlegung zu Programmierbarkeit, Wiederholung, Verdichtung und Schema*, URL: http://www.uni-paderborn.de/~winkler/rekursio.html, 1999.

[42] Nina Bishara [Footnote 1] comments the forms of selfreferentiality in the most recent James Bond movie *Die Another Day*: «Not only are well-established and recurrent James Bond themes taken up (e.g. good against evil, the pre-titles sequence s, <My name is Bond – James Bond> etc.), this 20th Bond movie also has strong allusions to the previous movies so that the real connoisseur can indulge in a guessing game. One scene with current Bond girl Halle Barry resembles a scene with Ursula Andress from the first Bond movie *Dr. No* (1962) and props that played an important role in previous movies reappear. Allegedly, each of the previous films is included in the new Bond movie in some form or other. Moreover, cases of intermedial selfreference can be found in the product placements of cars (Ford, Jaguar, Aston Martin), Bond's favourite champagne (Bollinger), spy tools such as the watch by Omega or the Ericsson mobile phone. Even print advertisement selfreferentially refers back to these product placements, for example a BMW ad which advertises the fact that the new BMW model appears in the James Bond movie *The World is not Enough* (1999). Another intermedial form of selfreference can be observed in the video clip for the title song by Madonna which is also called *Die Another Day* and which re-enacts scenes from the movie.»

[43] Winkler, loc. cit. interpretiert Schleifen als einen «Modus der Wiederholung» betont dabei aber weniger den Aspekt des selbstreferenziell Gleichen, sondern eher des variierend Neuen. «Gleichzeitig aber», so Winkler, «stehen Schleifen für ihr Gegenteil. Sie verkörpern den Vorbehalt gegen die Wiederholung, weil sie eine Formulierung finden, die die Wiederholung selbst gerade nicht enthält.»

[44] Winkler (loc. cit.) defines recursion as «the reapplication of a processing instruction to a variable which already presents the result or partial result of the same processing instruction Thus, the value of the variable changes each time the loop is executed, the result of this repetition not being a new identity but a predefined variation. Hence, recursion is not single but multiple reproduction, and recursion abridges repetition and variation with the aim to bring forth something new, a result that cannot be obtained in this form. ».

Bartlett, Steven J., *Reflexivity: A Source-Book in Self-Reference*, Amsterdam 1992.

Bettetini, Gianfranco, *L'indice del realismo*, Milano 1971.

Block, Friedrich W., *Beobachtung des ‹ICH›. Zum Zusammenhang von Subjektivität und Medien am Beispiel experimenteller Poesie*, Bielefeld 1999.

Bolter, Jay David & Richard Grusin, *Remediation: Understanding New Media*, Cambridge, MA 1999.

Buckland, Warren (ed.), *The Film Spectator: From Sign to Mind*, Amsterdam 1995.

Buckland, Warren, *The Unfinished Project of Film Theory: Cognitive Film Studies in Europe*, Cambridge 2000.

Coy, Wolfgang, «Aus der Vorgeschichte des Mediums Computer», in: Norbert Bolz, Friedrich Kittler & Georg Christoph Tholen (Hg.), *Computer als Medium*, München 1994, pp. 19-37.

Dunne, Michael, *Metapop: Self-Referentiality in Contemporary American Popular Culture*, Jackson 1992.

Eco, Umberto, *Apokalyptiker und Integrierte*, Frankfurt/Main 1984.

Fitch, Frederic B., «Self-reference in philosophy», in: Steven J. Bartlett & Peter Suber (eds.), *Self-Reference: Reflections on Reflexivity*, Dordrecht 1987, pp. 221-230.

Jay, Paul, *Being the Text: Self-Representation from Wordsworth to Roland Barthes*, Ithaca 1984.

Karpf, Ernst, Doron Kiesel & Karsten Visatius (Hg.), *Im Spiegelkabinett der Illusionen. Filme über sich selbst*, Marburg 1996.

Kirchmann, Kay, «Zwischen Selbstreflexivität und Selbstreferentialität. Überlegungen zur Ästhetik des Selbstbezüglichen als filmische Modernität», in: Ernst Karpf et al. (Hg.), *Im Spiegelkabinett der Illusionen. Filme über sich selbst*, Marburg 1996, pp. 67-86.

Krämer, Sybille, *Symbolische Maschinen*, Darmstadt 1988.

Lawson, Hilary, *Reflexivity: The Post-Modern Predicament*, London 1985.

Lipman, J. & R. Marshall (eds.), *Art about Art*, New York 1978.

Luhmann, Niklas, «Zeichen als Form», in: D. Baecker, (Hg.), *Probleme der Form*, Frankfurt/Main 1993, pp. 45-69.

Manovich, Lev, «Was ist digitaler Film?» in: *Telepolis*. URL: http://www.telepolis.de/deutsch/special/film/6109/1.html, 1997.

Marcus, Solomon, «Media and self-reference: The forgotten initial state», in: W. Nöth (ed.), *Semiotics of the Media*, Berlin 1997, pp. 15-45.

Mayer, Ruth & Ernst-Peter Schneck (Hg.), *Hyperkultur. Zur Fiktion des Computerzeitalters*, Berlin 1996.

Menninghaus, Winfried, *Unendliche Verdopplung. Die frühromantische Grundlegung der Kunsttheorie im Begriff absoluter Selbstreflexion*, Frankfurt/Main 1987.

Müller, Jürgen E., *Intermedialität: Formen moderner kultureller Kommunikation*, Münster 1996.

Müller, Michael & Hermann Sottong, *Der symbolische Rausch und der Kode*, Tübingen 1993.

Nöth, Winfried, «Introduction», in: W. Nöth, (ed.), *Semiotics of the Media*, Berlin 1997, pp. 1-11.

Nöth, Winfried, *Handbuch der Semiotik*, 2. vollst. neu bearb. & erw. Aufl., Stuttgart/Weimar 2000.

Nöth, Winfried, «Autorreferencialidad en la crisis de la modernidad», in: *Cuadernos: Revista de la Facultad de Humanidades y Ciencias Sociales* [Universidad Nacional de Jujuy, San Salvador de Jujuy, Argentina] 17 (2001), pp. 365-69.

Nöth, Winfried, «Semiotic form and the semantic paradox of the abstract sign», in: *Visio* 6.4 [Hiver 2001–2002; = *Théories et objets métissés / Hybrid Theories and Objects*], pp. 153-163.

Nöth, Winfried, «Semiotic machines», in: *Cybernetics and Human Knowing* 9.1 (2002), pp. 5-22.

Nöth, Winfried, «Fotografie zwischen Fremdreferenz und Selbstreferenz», in R. Horak (Hg.), *Rethinking Photography I: Narration und neue Reduktion in der Fotografie*, Graz 2003.

Nöth, Winfried & Christina Ljungberg (eds.), *The Crisis of Representation: Semiotic Foundations and Manifestations in Culture and the Media* = [Special Issue] *Semiotica* 143.1-4 (2003).

Paech, Joachim, «Zur theoretischen Grundlegung von Intermedialität», in: J. Helbig (Hg.), *Intermedialität. Theorie und Praxis eines interdisziplinären Forschungsgebiets*, Berlin 1998, pp. 14-30.

Paech, Joachim, «Figurationen ikonischer n... Tropie», in: Sigrid Schade & Christoph Tholen (Hg.). *Konfigurationen: Zwischen Kunst und Medien*, München 1999, pp. 122-136.

Rötzer, Florian (Hg.), *Digitaler Schein. Ästhetik der elektronischen Medien*, Frankfurt/Main 1991.

Schmidt, Siegfried J., *Kognitive Autonomie und soziale Orientierung*, Frankfurt/Main 1994.

Schmidt, Siegfried J. & Brigitte Spieß, *Die Geburt der schönen Bilder: Fernsehwerbung aus der Sicht der Kreativen*, Opladen 1994.

Schmidt, Siegfried J. & Brigitte Spieß, *Die Kommerzialisierung der Kommunikation: Fernsehwerbung und sozialer Wandel 1956-1989*, Frankfurt/Main 1996.

Spielmann, Yvonne, «Die hypermediale Bildstelle und andere Formen intermedialer Selbstreflexion», in: Helmut Schanze & Helmut Kreuzer (Hg.), Bausteine 4, (=Arbeitshefte Bildschirmmedien 65), Siegen 1997, pp. 33-40.

Spielmann, Yvonne, *Intermedialität. Das System Peter Greenaway*, München 1998.

Stam, Robert, *Reflexivity in Film and Literature: From Don Quixote to Jean-Luc Godard*, New York 1992.

Whitehead, Alfred N. & Bertrand Russell, *Principia Mathematica*, Cambridge 1910.

Whiteside, Anna, «The double-bind: Self-referring poetry», in: Anna Whiteside & Michael Issacharoff (eds.), *On Referring in Literature*, Bloomington 1987, pp. 14-32.

Winkler, Hartmut, Über Rekursion: Eine Überlegung zu Programmierbarkeit, Wiederholung, Verdichtung und Schema, URL: http://www.uni-paderborn.de/~winkler/rekursio.html, 1999.

Withalm, Gloria, *Fernsehen im Fernsehen im Fernsehen[...]: Selbstreferentielle Zeichenprozesse*, Wien 1999.

Wittig, Susan, «Architecture about architecture: Self-reference as a type of architectural signification», in: S. Chatman et al. (eds.), *A semiotic landscape*, The Hague 1979, pp. 970-978.