Self-Reference in the Media



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Self-Reference in the Media

edited by Winfried Nöth Nina Bishara

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Introduction

Winfried Nöth and Nina Bishara

Communication, the conveyance of messages, is the purpose of the media according to the self-professed ethics of the mass communicators. Messages and their communication imply otherness: they are about something other than messages and communication, something in some other place and time, addressed to others by a self. Nevertheless, despite their dimensions of otherness, messages, communication, and the media have always been about themselves, too – self-referential messages about messages, communication about communication, media about the media. Street criers who once called out their public announcements did not only attract the audience's attention to their messages but also captured their imagination by means of their voices, rhetoric, gestures, and appearance. The newspaper in its competition with other media does not only inform its readers about the world of otherness, it also informs how and why it informs so well. The movies do not only bring ever new stories about heroes and heroines, they also raise an enormous interest and curiosity in the private lives of those who convey the messages about these heroes and heroines, i.e., the movie actors and actresses.

The topics of the present volume are the ways in which the media have become self-referential or self-reflexive (as some researchers prefer to call it) and the degree to which they have ceased to mediate between the real or fictional worlds about which their messages pretend to be and their audience which they pretend to inform, to counsel, or to entertain. The self-referential networks in which the media and their audiences are caught up – indeed, by which we are all so significantly shaped – will be investigated in the following chapters.

The papers are presented in seven sections. Part I on *Theoretical Frameworks* introduces two theoretical approaches to reference and self-reference inspired by the semiotics of Charles S. Peirce. In his keynote paper on "Self-reference in the media: The semiotic framework", Winfried Nöth contextualizes the general topic in its cultural background in postmodernity, gives a survey of its transdisciplinary implications, and draws the outlines of a systematic framework for the study of self-reference in the media as a matter of levels and degrees. Vincent Colapietro, dealing with "Distortion, fabrication, and disclosure in a self-referential

culture: The irresistible force of reality", investigates the concepts of reality, reference, and self-reference against the background of Peirce's realism and shows how media such as television, radio, and the world wide web constitute intricate and arguably insular networks of self-citation and self-commentary.

Part II, *Self-Referential Print Advertising*, studies self-reference in the pictorial and verbal messages of advertisements of the print media. Siegfried J. Schmidt introduces a systems theoretical perspective in his analysis of reflexive loops in advertisements in their relations to other social systems, and he proposes a typology of "Modes of self-reference in advertising". On the basis of a distinction between "Metapictures and self-referential pictures", Winfried Nöth shows how pictures in advertisements have become pictures about pictures, and Nina Bishara, in "'Absolut Anonymous': Self-reference in opaque advertising", argues how and why opaque elements in advertisements, which make their comprehension more difficult, evince a mode of self-reference in the media.

Part III, on *Self-Referential Photography*, begins with Winfried Nöth's paper with the metaphorical title "The death of photography in self-reference", in which the author examines the so-called loss of the referent in digital photography, especially in art photography. Kay Kirchmann follows with the essay "Marilyn: A paragone of the camera gaze", which studies Marilyn Monroe's modes of self-observation and self-presentation in photos for the media as presented in the 1999 ARTE series *Les cent photos du siècle / One Hundred Photographs of the Century*.

Part IV on *Self-Referential Films* is about the movies in the movies, filmic allusions to other films, quotations from films in films, and nostalgia created by filmic self-reference. Gloria Withalm presents reflections on "The self-reflexive screen" and draws the "Outlines of a comprehensive model" for the study of many forms of self-reflexivity and self-reference in the movies on the basis of Rossi-Landi's socio-semiotics. Andreas Böhn's paper, "Nostalgia of the media / in the media", discusses nostalgia, memory, remembrance, and oblivion as forms of filmic self-reference, and Jan Siebert, in his article on "Self-reference in animated films", presents examples from the cartoons offering insights into self-referential scenes and devices that testify to the close connection between humor, paradox, and self-reference.

Self-Referential Television is the topic area of Part V. In "On the use of selfdisclosure as a mode of audiovisual reflexivity", Fernando Andacht presents two studies, one of the television show *Big Brother Brasil* and the other of a documentary film by E. Coutinho, demonstrating the illusionary paradox that self-reflexivity is a means of the media to give additional evidence of the "real" reality in the presentations of these programs. In "The old in the new: Forms and functions of archive material in the presentation of television history on television", Joan Bleicher shows how the visual language of television has become self-referential in its more and more frequent presentations of archive material recalling the history of television itself thus creating a collective memory of the medium. From the point of view of media economics, Karin Pühringer and Gabriele Siegert, in "There's no business without show-business: Self-reference as self-promotion", give statistical evidence of how self-promotion has become one of the most important forms of self-reference in the mass media.

Computer games are the topic of Part VI, entitled *Self-Referential Games*. "Computer games [are] the epitome of self-reference" is Lucia Santaella's argument in her paper putting forward a typology of seven types of self-reference in games. Bo Kampmann Walther proposes "A formalistic approach" to the study of self-reference in computer games, defining rules, strategies, and interaction patterns as their core elements and examining how and to what extent computer games can be defined as complex dynamic systems. Britta Neitzel, in her paper on "Metacommunication in play and in (computer) games", shows that Gregory Bateson's theory of play is fundamental to the study of games, and Bernhard Rapp, in "Self-reflexivity in computer games: Analyses of selected examples" concludes the section with exemplary analyses and proposals for future research on the topic.

Part VII presents three papers on *Other Self-Referential Arts* in such diverse fields as web art, body art, and music. Marie-Laure Ryan contextualizes self-reflexivity in the history of literature since *Don Quixote* and gives evidence of the predominance of self-reflexivity in digital art on the Internet in her paper "Looking through the computer screen: Self-reflexivity in net.art". Christina Ljungberg, in "The artist and her bodily self: Self-reference in digital art/media", constructs a typology of degrees and forms of self-reference in digital art exemplified by multi-media works of visual artist and performer Laurie Anderson, video/digital artist Selina Trepp, and media artist Char Davies. Werner Wolf concludes the volume with his paper entitled "Metafiction and metamusic: Exploring the limits of metareference". Based on a definition of meta-reference in contrast to self-reference and self-reflexivity in the narrower sense, Wolf presents new typological tools for the comparative study of meta-music and offers original proposals for a comprehensive program of future research on the topic.

The volume is one of the main results of a research project on self-reference in the media with special focus on advertising, the movies, and computer games, carried out at the Interdisciplinary Center for Cultural Studies of the University of Kassel from 2003 to 2006. Supported by a grant from the Deutsche Forschungsgemeinschaft (DFG), the project was directed by Winfried Nöth, whose collaborators were Nina Bishara (Kassel), Britta Neitzel (now Siegen), and Karin Wenz (now Maastricht). With few exceptions, the papers presented here were contributions to the international conference *Self-Reference in the Media* organized in the framework of the aforementioned DFG project by Winfried Nöth, Britta Neitzel, and Nina Bishara at the University of Kassel in July 2005.

Thanks are due to the DFG for their substantial support and encouragement of this volume as well as to the University of Kassel for unbureaucratically providing the necessary infrastructure. Especially worth mentioning is the DFG supported collaboration of the research project *Self-Reference in the Media* with the Postgraduate Program in Semiotics and Communication Studies of the Catholic University of São Paulo, whose immediate results presented in this volume are the contributions by Lucia Santaella, Vincent Colapietro, and Fernando Andacht.

Thanks are also due to Dr. Renira Gambarato for improving several diagrams and to Diena Janakat for editorial assistance.

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Part I. Self-referential media: Theoretical frameworks

Self-reference in the media: The semiotic framework

Winfried Nöth

1. Self-reference in postmodernity and in the media

Self-reference is a much discussed characteristic of postmodernity (Lawson 1985; Nöth 2001; Petersen 2003). In an era in which everything seems to have been said, the "grand narratives" have lost their credibility, and representations can no longer represent (Lyotard 1979: 27). To escape from this dilemma, literature, the visual and the audiovisual arts and media have become increasingly self-referential, self-reflexive, autotelic.

Instead of representing something heard about, seen, lived, or otherwise experienced in social life, culture, and nature, journalists, commercial artists, designers, and film directors report increasingly what has been seen, heard, or reported before in the media. The mediators have turned to representing representations. Instead of narrating, they narrate how and why they narrate, instead of filming, they film that they film the filming. The news are more and more about what has been reported in the news, television shows are increasingly concerned with television shows, and even advertising is no longer about products and services but about advertising. The messages of the media are about messages of the media, whose origin has become difficult to trace. In *literature*, fiction has become metafiction, novels have become metanovels, and texts are being discovered as intertexts whose reference is not to life but to other texts. Last but not least, art is now about art, and even architecture is about architecture.

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 the increase of self-reference. No longer originating in a world which leaves its documentary traces on the negatives of a film, the pictures of the new media have become the result of digital imaging and art work, whose origin is in the software of the semiotic machines (cf. Nöth 2002) by means of which they are produced.

One of the most striking symptoms of the current concern with self-reference in culture and in the media is probably the recent phenomenon of *culture jamming* (Klein 2000, chapt. 12), the critical transformation of media messages by activists who display their protest against the age of consumerism, globalization, and social surveillance in public places and urban spaces in subversive forms such as adbusting, graffiti, flash mobs, hacktivism, cybersquatting, or sousveillance (cf. http://en.wikipedia.org, 16.05.06), not without creating the self-referential paradox that they depend on the media in their subversive attacks against the media.

2. Self-reference as a multidisciplinary topic of research

The study of self-reference and related phenomena, such as self-similarity, selforganization, autopoiesis, replication, or recursion is a topic of interest to various fields of research. Bartlett (1987: 10–24) gives a comprehensive survey of relevant topics and studies in no less than twenty-one fields of research, from mythology to neurophysiology, among them the following ones not dealt with in detail below: *linguistics* (reflexivity), *space and time* (loops, circles, Moebius strip), *law* (self-referring and self-limiting laws, mutuality of contracts), *economics* (business cycles), *game theory* (rules permitting self-modification), *anthropology* (Sapir-Whorf hypothesis: culture determining language and hence culture), *mythology* (cosmic cycles), *psychiatry* (narcissism), *psychotherapy* (Bateson's theories of play and double bind), *neurophysiology* (neuronal circuits), and *general systems theory* (see Nöth 1977). The following survey of more recent research in self-reference excludes *systems theoretical* approaches to self-reference which have been reviewed elsewhere with particular reference to *semiotics* (Nöth 2000b; Jahraus and Ort 2003).

In the *natural sciences*, the theory of complex systems in *physics* and *mathematics* (chaos and fractals: Peitgen, Jürgens, and Saupe 1992), *chemistry* (dissipitative structures: Prigogine and Stengers 1984), *biology* (self-reference, self-description, autopoiesis: Hoffmeyer 1996: 39–51), and even *meteorology* (butterfly effect) are bringing more and more evidence of the omnipresence of self-reference and related phenomena in nature: self-observation, self-description, self-organization, self-replication, self-similarity, autopoiesis, feedback loops, iteration, replication, recursion, or downward causation (Andersen et al. 2000) are the key concepts in this context.

In *computer science*, the recursivity of Turing machines (Winkler 2004: 170– 182) and the theory of autonomous agents (Pattee 1995; Nöth 2002) are relevant to the study of self-reference. The close affinity between recursion and selfreference, for example, is evident when we consider the mathematical definition of recursivity as a group "using the own group or function that it calls to the own function" (http://www.mind-graph.net/foundations/mathematical/ recursivity.htm, 16.05.06). Logic and the philosophy of language have given special attention to selfreference with respect to tautology, the petitio principii (taking for granted what should first be proved), other semantic circularities (Myers 1966), or selfreferential propositions that lead to antinomies and paradoxes. Much attention has been paid to forms of self-reference implied in metalanguage (Hofstadter 1979, 1985) and paradoxes (Whitehead and Russell 1910; Bartlett and Suber 1987; Fitch 1987; Bartlett 1992b; Scheutz 1995; Schöppe 1995). Other philosophical aspects of self-reference are philosophical reflexivity (Nietzsche, Heidegger, Derrida: Lawson 1985), the phenomenology of the self and its identity (Büttner and Esser 2001), the problem of self-consciousness (Potthast 1971; Colapietro 1989; Kienzle and Pape 1991), also a topic of cognitive science (self-awareness: Brook and DeVidi 2001), and the topics of self-reflection, selfrepresentation, autosymbolism, or the autotelic function in *aesthetics* (Shir 1978; Luhmann 1984; Menninghaus 1987; Nöth 2000a: 425, 432; Metscher 2003).

Literary studies are one of the fields of research (besides aesthetics) in which the theory of self-reference has its longest tradition since the essence of literature has often been described in terms which imply self-reference. Key concepts in this context are aesthetic autosymbolism (Shir 1978), self-representation (Hempfer 1976: 70, 129; Jay 1984; Johansen 2002: 174–288), literary autonomy, autonymy, or the autotelic function of literature (cf. Nöth 2000a: 458). While most of these theories have been developed against the background of poetry, often with reference to Jakobson's definition of the poetic language as a selfreferential language (Jay 1984; Whiteside 1987; Block 1999; Nöth 2000a: 453; Johansen 2002: 174-182), self-reference in prose and drama is a more recent topic. It has first been approached in the 1970s under the heading of metalanguage (Smuda 1970), later as metatext, especially metafiction (Waugh 1984; Siedenbiedel 2005), or metanovel (Zavala 2000). In the study of narratives, the topic has also been subsumed under the general heading of reflexivity (Stam 1992), self-reflexivity (Hempfer 1982; Scheffel 1997; Huber, Middecke, and Zapf 2005), or self-reference proper (Wolf 2001; Krah 2005a, 2005b). Comprehensive surveys on the topic can be found in Scheffel (1997) and Wolf (2001).

Language about language, fiction about fiction, or the novel about the novel, these are evidently topics which deal with self-reference at a very general semiotic level. The theory of intertextuality (Broich and Pfister 1985) implies a similarly general mode of self-reference since it deals with the way a text refers to a text instead of to the adventures of its protagonists. Metafiction containing reflections about the text in which these reflections are narrated may be described as evincing a higher degree of self-reference than intertextuality. Intertextual references also evince references to texts, but these references are to *other* texts.

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Like literature, *music* and the traditional *visual arts* have had self-reference inscribed in their canonical definitions since the classics of philosophical aesthetics. *L'art-pour-l'art*, autonomy and autoreflexivity have been key concepts in this tradition (cf. Nöth 2000a: 434, 426–427). The new trend since postmodernity has been that artists have begun to reflect programmatically about art in their art works, so that art has become art about art (Lipman and Marshall 1978) and even architecture has become architecture about architecture (Wittig 1979). A conspicuous symptom of the increasing concern with self-reference in the visual arts is the current interest in representing and exhibiting the artist's own bodily self in works of visual art (cf. Santaella 2004; Nöth and Hertling 2005; Nöth ed. 2006; Ljungberg, this vol.).

Media studies have discussed the argument that self-reference is at the root of every medium. Each individual medium has a historical precursor to which it refers back in media history. The more the media interact today and turn *intermedial*, the more they refer to the media in self-referential loops. These were some of the reasons why McLuhan (1964) declared that the *medium is the message*. The famous tenet expresses among other things the view that each message in the media refers both to its own medium and to other media, and thus characterizes messages as partially self-referential. McLuhan (1964: 8) develops this argument on the basis of his very broad concept of medium as an extension of man, according to which even light is a medium:

The electric light is pure information. It is a medium without a message, as it were, unless it is used to spell out some verbal ad or name. This fact, characteristic of all media, means that the "content" of any medium is always another medium. The content of writing is speech just as the written word is the content of print, and print is the content of the telegraph. If it is asked, "What is the content of speech?", it is necessary to say, "It is an actual process of thought, which is in itself nonverbal".

Notice that in this description of how the messages in the media circulate in a process of infinite semiosis which even includes thought as a content of a medium, the medium described as the most self-referential of all is light. A medium without a message which nevertheless conveys "pure information" can only be a medium that refers to nothing but to itself. All other media evince self-reference to the degree that they refer to other media, which implies a divided reference. To the degree that the media refers to the media, they are self-referential, to the degree that they refer to other media, it is (allo)referential (see below).

Intermediality (Müller 1996; Paech 1998; Spielmann 1998; Helbig 2001; Rajewsky 2002), the media in the media (Liebrand and Schneider 2002), media change (Ort 2003), as well as remediation (Bolter and Grusin 1999), i.e., the

refashioning of the traditional media in the digital media, are the topics of research in self-reference in the media related to McLuhan's dictum in one or the other way. From various other perspectives, self-reference in the media has been approached in the contexts of *film* (Karpf, Kiesel, and Visarius 1996; Kirchmann 1996; Paech 1998; Buckland 2000: 53–76), *television* (Withalm 1995; Frieske 1998; Bleicher 1999), *journalism* (Marcus 1997; Blöbaum 1999; Kohring 1999; Weber 1999), and *advertising* (Schmidt and Spieß 1996). For further references, see the papers of this volume.

Various aspects of self-reference concerning other domains of *culture* are discussed by Hofstadter (1979, 1985), who has shown that self-reference is at the root of cultural creativity (see also Schöppe 1995), in particular of humor and paradox. Self-reference in *popular culture* from the comics to rock music and video-clips is the topic of the book on metapop by Dunne (1992). Among the topics of cultural semiotics with particular relevance to self-reference are the semiotics of mirrors (Eco 1984; Ort 2003) and the semiotics of fashion. It was Barthes (1967: 287) who described fashion as a "tautological system" which defines itself reflexively only through itself, a system of signs "deprived of content but not of sense, a kind of machine to operate sense without ever fixing it" with the only goal of making the "insignificant significant", or, as Goebel (1986: 476) put it, a system that keeps conveying the same message for ever: fashion is hence "a language that consists of nothing but synonyms".

In the interpretation of the phenomenon of ever increasing self-reference in postmodern culture, we find the "apocalyptic" critics opposing the "integrated" ones. The former, among them Baudrillard (1976, 1981, 1991), deplore the loss of referents in a more and more self-referential world in which reality has degenerated to constructed, simulated or virtual reality. The latter interpret self-reference as a symptom of increasing critical consciousness in a world that has lost its confidence in ultimate truths (Lawson 1985). 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 (Nöth 2001; Nöth and Ljungberg 2003).

3. Self-reference and reference: Semiotic premises

In the framework of the present research project on self-reference in the media (cf. Nöth 2005b), the concept of self-reference has been adopted in the very broad sense similar to the outline proposed by Bartlett (1987: 6), whose point of departure is the following reflection on self-reference in human thought:

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When we employ thought to understand the nature of thinking, when we seek to know the presuppositions involved in knowing, we define a task that essentially involves the subjects we would study. Reflexivities of this kind are widespread: sociology, anthropology, biology, and many other disciplines, as we shall see, exhibit varieties of self-reference. Attempting to understand reflexivity gives one the sense of trying to lift oneself by the bootstraps.

Our own point of departure is a semiotic one: any sign that refers to itself or to aspects of itself is a self-referential sign. Signs that do not refer exclusively to themselves but only to parts, aspects, constituents, or elements of themselves are self-referential to a degree that remains to be specified (see below on levels and typology of s.-r.).

Self-reference in the broad sense adopted here includes a number of concepts which are sometimes used as synonyms of this term as well as certain concepts which some authors, in the context of media and cultural studies, explicitly distinguish from self-reference. The most frequent synonym is *reflexivity* (Whitehead and Russell 1910; Lawson 1985). Typically enough, both concepts appear in title of the book by Bartlett and Suber (1987), which is *Self-reference: Reflections on Reflexivity*. Some other terminological alternatives are *self-reflexivity* (Huber, Middecke, and Zapf 2005), *self -representation* (Johansen 2002: 174–288), or *autoreferentiality* (Pavličić 1993).

Some authors distinguish these alternative concepts from the one of selfreference. Connotations associated with such distinctions are the following: reflexivity and self-reflexivity connote reflections on the process of the author's own writing or self-cognition and self-consciousness, for example, in the philosophical tradition of the Romantics (Menninghaus 1987), the tradition of phenomenology (Lawson 1985), or anthropology (Babcock 1980); selfrepresentation is often preferred in the context of aesthetics (Metscher 2003). In the context of literary semiotics, Johansen (2002: 174-288) avoids the concept of self-reference and uses the term self-representation instead (in opposition to other-representation). This terminological decision is understandable from the point of view of Peircean semiotics, since representation, and not reference is a key concept of Peirce's theory of signs. Wolf (2001: 56) distinguishes between self-reference as a "noncognitive" and "self-reflection" as a cognitive process, using the former term to describe textual recurrences and repetitions and the latter term to designate reflection on the writer's self (for details, see Wolf, this vol.). In Luhmann's systems theory no such distinctions are drawn; the general term is always self-reference. Luhmann's concept is very fundamental: it refers to the capacity and tendency of a living system to establish reference to itself in its interactions with the nonself, that is, its environment (cf. Nöth 2000b).

The study of self-reference requires an elucidation of its opposite, reference. By definition, reference, in contrast to self-reference, means referring to something else. When the term is used in opposition to self-reference, it is also called *alloreference*, *heteroreference* (Wolf 2001) or *other-reference*, which comes closest to Luhmann's German term "Fremdreferenz".

What *is* reference and what does it mean to refer? Despite much controversy over the "inscrutability of reference" (cf. Geach 1970; Evans 1991; Katz 2004), Bartlett (1987: 5) takes the concept for granted, when he considers reference as a necessary constituent of human communication, stating that "without a wide range of abilities to refer, we would be bereft of thoughts, memories, and sensations" and that "the world as we perceive it, remember it, and conceptualize it would, in the absence of appropriate referring capacities, collapse into impossibility". However, is reference really a necessary ingredient of human communication and a necessary term in semiotics? Ferdinand de Saussure is known to have banned reference from linguistic semantics for decades, Peirce hardly uses the term, and the linguist Roman Jakobson, defines the referential function of language as only one of six functions of verbal communication all of which differ from the concept of reference although they do not exclude the possibility of the message being referential to a certain degree either (see below on the semiotic paradox and degrees of s.-r.).

In English, the concept of reference has been introduced in its current sense with Max Black's translation of Gottlob Frege's dichotomy of "Sinn" vs. "Bedeutung" as *sense* vs. *reference* (Münch 1992: 385; Nöth 2000a: 152–54). In this tradition, *reference* is defined as the relation between a verbal expression and the observable things or qualities to which it refers; that to which it refers is called its *referent, extension,* or *designatum*. An expression that refers to a referent identifies it as an individual or a class of objects, actions, or events (Kempson 1977: 13). For example, the word *king*, at the turn of the millennium, refers to the present kings of Spain and Sweden and the past kings of these and many other countries. Sense or *meaning*, by contrast, consists of the ideas or concepts evoked in the mind of those who use or understand the word. The word "king" has the conceptual meaning "man who rules a country as a descendant of a royal family".

In this tradition of logical semantics, it is possible for a word to have meaning but no reference. In the year 2000, the expression "the present king of France" is meaningful and makes sense because we understand the ideas associated with its words, but the expression is without a *referent* because there is no individual in France to whom it might presently refer. Although there are even abstract objects, such as the object of *imagination* which refers to the class of all acts of imagination, some words have no reference, since they refer to nothing that has extension, for example, and, or, what, whether, of, unicorn, or the first woman to land on the moon.

The logical theory of reference as something in the external world to which the sign refers, or points to, has not remained undisputed. In the framework of Saussurean structuralism, linguists developed a semantic theory which ignored the theory of reference for decades (cf. Nöth 2000a: 74–75). The semiotic structure of a verbal sign was sought in its meaning only, which was studied exclusively in its relation to other signs and not in relation to its referents. The same aversion against approaching the dimension of reference is characteristic of constructivism and systems theory. Niklas Luhmann, for example, justifies his exclusion of the referent from his theory of social and cultural systems as follows:

There is indeed no reference for the sign as a form; which is to say: one can either make use of the distinction between signifier/signified or not. There is no "external" point of reference that would force one to select either option; neither is there any truth criterion for choosing a first distinction as a starting point. That is why a theory of language constructed as semiotics must relinquish the idea of language's external referent. (Luhmann 1993: 24)

Nevertheless, despite this plea against the theory of reference, *self-reference* vs. *alloreference* is a fundamental dichotomy of his systems theory of communication, culture, the media, and the arts (cf. Nöth 2000b). Both concepts have to do with observation. While alloreferential observing is directed towards phenomena in the environment of a system (or an observer), self-reference is directed towards the observing system, the observer, the process of observation, or the process of communication (Luhmann 1995: 15, 28). Furthermore, quite against basic tenets of both the Peircean and the Saussurean semiotics, Luhmann (1993: 24) even defines alloreference as *external reference*, when he states that "an operationally closed, language-using system [...] must distinguish between self-reference can apparently be used without assuming the Fregean view of reference.

Among the constructivists, S. J. Schmidt adopts a similar position. On the on hand, he argues that signs are not anchored in "a sphere beyond discourse", hence, are not anchored in referents; on the other hand, he nevertheless uses the term of reference, albeit in a different sense. Reference, according to Schmidt, is not a matter of semantics, but one of pragmatics; it concerns the process of communication and not the relation between the sign and its referent. Reference, in this perspective, "is a renvoi from communication to communication which permits connections and relays" (Schmidt 1994: 145), while self-reference is

a matter of how communication refers to communication (and hence to itself). Schmidt even goes so far as to postulate that signs and communication, being essentially *about* signs and communication, are always self-referential "in the first place".

Still other premises of a theory of self-reference derive from Charles S. Peirce's semiotics on which this outline of a program for research in self-reference in the media and several papers in this volume are based. Peirce would never have subscribed to Frege's theory of reference, nor does the noun *reference* or the verb *to refer* belong to Peirce's basic vocabulary (Nöth 2006). Instead of the referent or extension, Peirce speaks of the *object of the sign*, and instead of saying that the sign *refers to* its object, Peirce says that the sign *represents* its object.

The Peircean object, which a sign represents, does not necessarily have an extension, and it does not need to be a piece of the so-called real world at all, since signs or ideas can be the object of a sign. The object of the sign is something which precedes and thus determines the sign in the process of semiosis as a previous experience or cognition of the world (cf. Nöth 2006). Such an object of the sign can be a sign itself, and this is where self-reference begins with signs representing signs.

Reference in the narrower sense of referring or even pointing to something else is a semiotic characteristic of only one of Peirce's major classes of sign, the indices. For example, the deictic words *you*, *there*, or *then* refer to a person, a place, or a moment which is distal in relation to the speaker and the place and time of speaking. Indexical signs identify and in this sense refer to objects and events in time and space in many other ways, for example by means of adverbial descriptions or nonverbal gestures of pointing. However, indexical signs can also evince self-reference, namely in the case of proximal deixis in words such as *I*, *here*, and *now*, which refer to the speaker and the circumstances of the utterance. Symbols, such as *cat* or *speaker*, by contrast, do not refer in this sense; they represent general concepts with which our experience of these objects is connected. Even less so can icons, such as the speaker's picture, be said to refer to their objects. Pictures *represent* or *show*; they do not *refer to* their object.

In sum, instead of self-reference, Peirce would use the term *self-representation*, but out of consideration for the wider acceptance of the term *self-reference* in media theory, this term will not be adopted here.

4. The semiotic paradox and degrees of self-reference in the media

A sign, according to its medieval definition, is something that stands for something else: *aliquid stat pro aliquo* (cf. Nöth 2000a, 2000b, 2006). If we disregard certain problems associated with the verb to stand for and admit a broader range of relational verbs as its interpretation, such as *referring to*, *representing*, or *evoking the concept of*, the formula is reduced to a dyad which is considered in all definitions of the sign. Whether dyadic or triadic, the basic assumption of the difference between the sign and something other than the sign to which it refers or which it represents is a distinction drawn in all definitions: the *signifier* is not the *signified*, the *sign* is neither its *referent* nor its *object*, just as the *map* is not its *territory*, as A. Korzybski (1933) put it. Self-reference thus creates a semiotic paradox: the sign does no longer refer to or represent something else; it is its own object, a map that is its own territory.

It is true that signs also have other functions in addition to the one of reference. Roman Jakobson, e.g., distinguished no less than five other functions of language besides the one of reference in the narrower sense: the expressive, the conative (appellative), the metalingual, the phatic, and the poetic function (cf. Nöth 2000a: 105–106). Some of them, for example the expressive, the poetic, and the metalingual function, indeed evince characteristics of self-reference since they are associated with messages about the sender of the message, or the message itself and its signs, but language without a potential of representing and referring to a world it represents and above all which is absent in time and place would fail its evolutionary, cultural, and social purpose.

If it is the purpose of signs to represent or to refer to something else, this purpose should be no less characteristic of the signs in the media. After all, the concept of "media" implies mediation, and mediation is a process of semiosis, the action of signs. *Medium* is even a synonym of *sign* in the framework of Charles S. Peirce's semiotics, and Peirce even considered substituting the concept of *sign* for the term *medium*, when, in 1906, he exclaimed: "All my notions are too narrow. Instead of 'Sign', ought I not to say Medium?" (MS 339: 526).

The media must be able to inform about, narrate or evoke events, persons, places, and messages from elsewhere in time and space. Their potential to do so has turned the world into a global village. Global communication without reference is unthinkable. To fulfill their function, the signs of the media must evince the potential of reference or representation. Any message from the mass media is referential by necessity as far as its enunciation is concerned, since it is a message from elsewhere, the radio station for example, about an event which happened or originated at still another place in the world. Even the music that we hear is not without elements of reference to other times and other places;

jazz refers to New Orleans, samba to Brazil, and Bach to 17th century Europe, but music is essentially self-referential, in particular the art of the fugue which is highly recursive and in this respect self-referential (Hofstadter 1979).

Reference and self-reference are thus evidently a matter of degree. Various degrees of self-reference can 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. No message in the media is completely devoid of self-reference. Even in everyday verbal communication, the speaker indicates himself or herself as a speaker, whether intentionally or unintentionally. A message in the *New York Times* refers self-referentially to the profile and status of this newspaper, and each television picture that shows the station logo in its upper left or right hand corner refers self-referentially to the station itself, but at the same time it is an alloreferential message which serves to draw a distinction to all other stations. A statement of the President of the USA about the Iraq is highly referential, since it concerns events in very remote places, but it is also self-referential insofar as it is a message referring to Bush, his own and the US politics as well as to his own language, the English language in which he transmits the statement.

The media differ as to the degree to which their messages are typically selfreferential or (allo)referential. Consider advertising, film, and computer games. Advertising is referential at its roots, since it has the purpose of promoting and selling products or services. For this reason, genuine self-reference would be counterproductive; a genuinely self-referential message would be unable to fulfill its commercial purpose of propagating a message about goods and services. Nevertheless, advertisements make use of the creative devices of selfreference to draw the consumers' attention towards the message. Feature films, by contrast, which have both fictional and aesthetic qualities, are referential and self-referential at the same time. While their narrative plot is referential or indexical (Bettetini 1971) insofar as it narrates events from the lives of its protagonists, their aesthetic devices are based on self-reference, and if Lyotard (1979: 27) was right when he proclaimed the end of the grand narratives, it is only natural that self-reference in films must have increased. In *computer games* we are finally faced with a medium in which alloreference has been secondary since its beginning, since playing and games create their own self-referential worlds apart from the world of referential facts and realities.

5. Levels and typology of self-reference in the media

Self-reference occurs at different *levels* of the media and the message in which it occurs. The degree of self-reference is related to the level in the hierarchy from the level of elementary signs to the one of complex signs and from the level of a text or message to the level of the media system as a whole. For example, a newspaper article (level: text) that criticizes the media in general (to which it belongs itself) is less self-referential than a newspaper article that criticizes only the newspapers and not the other media; and an author's selfreferential comments on his or her own story are more (directly) self-referential than reflections of an author on the principles of narrating in general since these refer only partially to the story in which it is included.

A distinction between different levels of self-reference is implicit in some proposals that have been suggested for a typology of forms of self-reference. Among other varieties of self-reference, Bartlett (1987, 1992a), for example, distinguishes between self-reference at the level of indexical *words*, paradoxical and tautological *sentences*, and *pragmatic* or *performative* self-reference in statements in which the speaker's intentions are self-referentially involved. Scheutz (1995: 24) proposes a typology beginning with self-referential symbols, having self-referential sentences as its second, and self-referential theories as its third level.

The levels of self-reference in the media distinguished in the following are equally inspired by the ambition of establishing a hierarchy from the most elementary to the highest level of self-reference in the media. The first three levels are derived from Peirce's trichotomy of the interpretant, which draws the distinction between the rheme, the dicent, and the argument (cf. Nöth 2000a: 65–67). A rhematic sign or rheme is a verbal or pictorial sign at a level equivalent to the one of the word or concept in language. The above-mentioned self-referential symbols and indexical words are types of rhematic self-reference. A dicentic sign corresponds to the level of sentences or statements in language. Paradoxical and tautological sentences belong to this level of self-reference. An argument presupposes a sequence of sentences in which a conclusion is derived from premises. The logical fallacy of the *petitio principii* (the taking for granted what should first be proved) and similar argumentative circularities evince argumentative self-reference.

In extension of these levels derived from the three Peircean categories of the interpretant, forms of self-reference at the following higher levels will be distinguished: intratextual, intertextual, and intermedial self-reference and enunciative self-reference. While (intra)textual self-reference concerns the level of an individual text, a single advertisement, film, or computer game, for example,

intertextual self-reference concerns references from one text to other texts of the same genre or medium, e.g., from one to another advertisement or film or game, respectively. The term "intermedial" will be used to refer to the relation between different media or genre, for example painting and film, film and games, or advertising and cinema.

In addition to these forms of self-reference distinguished according to the hierarchical order of signs in the media, three other forms of self-reference will be distinguished according to criteria which overlap or combine with the above hierarchical typology: enunciative, iconic, and indexical self-reference (cf. Nöth 2007). Enunciative self-reference involves the communicative situation and describes reference of the speaker, writer, composer, or producer of the sign but also the role of the audience or spectators. Iconic and indexical self-reference involves self-reference that is not specific of the media, such as the elementary self-referentiality of communication (we communicate that we communicate), will not be considered in this context.

5.1. Rhematic self-reference: Examples from advertising

"Maybe, just maybe" was the advertising slogan of the British national lottery of 1998 (Knowles 2004: 4) which illustrates well rhematic self-reference. The slogan is a verbal rheme, a sign that affirms nothing but expresses a mere potentiality, and the slogan is self-referential in its repetition to the same extent that any repeated form refers back to itself in an iconically self-referential way.

Rhematic self-reference is a popular strategy in advertising. One of its most frequent forms is the advertisement that attracts the consumers' attention to nothing but the brand name without saying anything *about* the product. A parallel strategy is the mere showing of the product in the form of a picture. In both cases, the message consists of a rhematic sign. Unlike a dicent, a rheme affirms nothing. Without a predication, a praise of its qualities, for example, an advertisement of his kind merely shows, and thus remains open to many interpretations. Like a word without context, e.g., "beer", the rheme refrains from designating anything in specific. Its meaning is a mere possibility, and its context in time and space is undetermined. In advertising, the meaning of the rhematic message about a product is left to the consumers' imagination, but their prior knowledge about the product is important. A new product cannot be introduced with rhematic advertisements.

The prototype of a rhematic advertising campaign is the classical Coca-Cola sign at a countryside highway. It shows nothing but the Coca-Cola bottle with the name of the soft-drink as its label. "Coke, nothing but Coke" or "Coke

forever" seems to be an implicit quasi-tautological message. Since it remains unsaid whether the drink is good, desirable, or unique it seems to be assumed that the consumer knows its qualities well enough. The tacit assumption is that it would be a tautology to repeat what everybody knows anyhow. However, not to repeat it makes the message equally redundant, for if it need not be said what else is the purpose of the advertisement? This is the circularity which constitutes the basic self-referentiality of these advertisements.

Rhematic signs of a product that conveys no other message than the one of its name or picture have some affinity with signboards, for example, the pictorial sign of a shoe indicating a shoemaker's shop. However, the difference between signboards and rhematic advertisements is semiotically important. The shoemaker's shop sign is also a rheme since it corresponds to a mere word, but in contrast to the Coca-Cola sign, the shoemaker's shop sign refers indexically to a specific place. It is a rhematic index, which conveys the alloreferential message: "Here is a shoemaker." Rhematic advertisements which merely show the product, by contrast, indicate nothing. Without any reference to a specific object, they are rhematic icons, signs which evince qualities of their objects without any indication of it. Insofar as it shares the qualities of its object and insofar as it is tautological in its reference to the well-known and hence presupposed qualities of the product, the rhematically iconic advertisement is a self-referential sign.

Self-reference of this kind is frequent in current print advertising for fashion labels which reduce their message to a mere showing of the clothes for sale with the inscription of the designer logo (e.g., Joop, Boss, Gucci, etc.; cf. Bishara, forthcoming). Without any further comment, the message suggests that neither the name nor the product need any comment since they speak for themselves. On its surface, it is an open and hence rhematic message, but in a certain way, advertisements are never open; their message always presupposes or takes for granted that quality and desirability are characteristics of the product. On this assumption, the rhematic sign disguises a dicentic message affirming that there is only one product that deserves consideration which is the best, the most desirable, and the one that must be bought.

5.2. Dicentic self-reference in advertising

Dicentic self-reference can be illustrated with the famous German tautological advertising slogan for Persil washing powder "Persil bleibt Persil" ['Persil remains Persil']. Explicit tautologies, such as the one of this slogan, or quasitautologies are statements and hence dicentic signs. At first sight, the claim has 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 statement of the type "A is A". The rhetoric of tautology serves to remind of a quality that no longer needs to be stated. The advertising slogan simply presupposes the knowledge of the quality inherent to the product. In a more recent BMW campaign, the tautology is even a twofold one: "A BMW is a BMW is a BMW..."

Other popular kinds of dicentic circularities are created by means of elliptical constructions. A slogan for the detergent Domestos bleach of 1959 claims: "Kills all germs" (Knowles 2004: 4). To understand this message, the reader is obliged to fill the gap left by the ellipsis of the subject "Domestos" from the packaging of the product and to substitute the missing proper noun from the product which it designates. The product in its package utters, so to speak, the self-referential message: "I kill all germs."

Still another rather frequent kind of self-referential circularity caused by elliptical constructions at the level of the dicent has the form of an open predicate whose scope includes the argument from which it should differ. The slogan "Persil washes whiter" is an example (Persil washing powder, GB, 2006). The enigma is: "whiter than what?" The comparative clause left out at the end of this slogan seems to be "than everything", and this interpretation does not exclude the paradoxically self-referential reading "Persil washes whiter than Persil".

5.3. Argumentative self-reference in advertising

Self-referential arguments in advertising occur in many forms of circular reasoning. Most of them are elliptical and oblige the consumer to substitute the missing links in the chain of arguments. In 2006, Unilever of Great Britain launched a new advertising campaign under the name "Dirt is good" (http:// www.unilever.co.uk/ourbrands/advertising/persil_persil_dig.asp, 16.05.06). The paradoxical slogan "Persil – Dirt is good" can only be understood as an elliptical argument or more precisely pseudo-argument, whose pseudo-syllogistic line of reasoning must be: *Premise 1*: Dirt is bad. *Premise 2*: Good Persil removes bad dirt. *Conclusion*: Bad dirt removed by good Persil: how good!

Implicitly circular or quasi-circular arguments are quite frequent in advertising. The quality of a product stated at the end of the elliptical argument is already presupposed from its beginning. Such a rhetorical device suffers from the fallacy of the *petitio principii*. "Winston tastes good like a cigarette should" was a famous advertising slogan of the 1960s with a semi-circular way of arguing (cf. http://www.anagramgenius.com/archive/winsto4.html, 16.05.06). The reason for the alleged quality of this cigarette is already only implied in its mere being a cigarette. The conclusion only confirms what the general premise presupposes: all cigarettes (should) taste good, and therefore this cigarette tastes good, too. – "The world has changed. The dictionary also", was the slogan with which Hachette launched a new dictionary. The two propositions of this slogan sound like the major and the minor premise of a syllogism ("All S is P" and "Some S is P") calling for the conclusion that the new dictionary incorporates al recent changes of the world of which it is a part. The second premise with its syntactic and semantic parallelism to the first creates an iconically self-referential circular argument: the dictionary must be good since it reflects the changes of the changing world of which it is a part. Of course, the conclusion is not valid since the dictionary could have changed from good to bad, or it could not have changed at all. Furthermore, there is another circularity in the argument, since a dictionary, being a part of the world that has changed, must change in a trivial sense by necessity with every new edition.

5.4. (Intra)textual self-reference: Cinema and advertising

There are two major sources of (intra)textual self-reference, poetic features and metatextual passages of a text about the text. As Jakobson has argued, poetic features draw the readers' attention towards the text as a text by means of recurrence, symmetry, rhyme, loops, or stylistic and rhetorical devices. The former devices evince iconic self-reference since they are based on similarities and forms of sameness, the latter testify to indexical self-reference, insofar as style is indicative of an author, epoch, or otherness in general (cf. Nöth 2005a). Self-reference is particularly conspicuous in filmic loops (Manovich 1999: 187–191) in general and in the film *Run Lola Run* (Tom Tykwer, D, 1998; http://www.lola-rennt.de, 16.05.06), a film that is self-referential already in its English title and which returns to its beginning and anticipates its end several times.

Examples of metatextual self-reference are comments on the text, its narrative form, its content and its structure, its plot, previous or subsequent chapters, its beginning and its end. 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. 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 metamessage "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.

5.5. Intertextual and intermedial self-reference

Quotations, allusions, adaptations, influences, borrowings from texts, films, or any other medium are the sources of intertextual self-reference. When several media are involved, such as painting in the cinema, films in games, or novels in the film, there is intermedial self-reference. In a way, borrowings from other texts or media are certainly alloreferential, since there is reference from one message to another so that the object of the quoting sign is a quoted sign from which it differs. On the other hand, a film A that quotes a film B makes intertextual reference to its own medium and not to the world which both films represent, and the TV spot that quotes another TV spot remains within the world of advertising. These messages are intertextually self-referential to the degree that its quotations remain within their own world beyond films. Furthermore, every quotation presupposes repetition and sameness which is the source of iconic self-reference.

There are several kinds of loops and circularities in intertextual and intermedial self-reference which have been studied elsewhere. One of them is the intermedial déjà-vu effect which has often been exemplified with certain side effects created by the news reports on September 11. In one of his "Essays on September 11 and related dates", Žižek (2002: 17) writes: "The question we should have asked ourselves as we started the TV screens on September 11 is simply: Where have we already seen the same thing over and again?" In our context, only the aspect of self-reference addressed by Žižek is of relevance. What Žižek reminds us of is that the TV pictures of the collapsing World Trade Center on September 11 did not only arouse shock, horror, and despair but it also created some feeling of déjà-vu. In a way, the film reports of the September 11 catastrophe in the news media only seemed to repeat the scenarios which the genre of disaster movies had displayed for decades. The TV pictures seemed to lack absolute novelty because the viewers had been all too familiar with similar pictures of catastrophes, wars, destruction, and invasions by enemies and aliens, some of them even in New York City. As Tim Dirks's (2006) list of the "Greatest disaster film scenes" demonstrates, the world's highest glass tower building had been aflame before (although in a fictional version in which the towers were located in San Francisco), namely in the movie The Towering Inferno of 1974,

and there are dozens of catastrophe film scenarios resembling the September 11 events with plane crashes, terrorists of many kinds, out for control fires, nuclear annihilations, and even end of the world scenarios. On September 11, the media had been ahead of the event; reality seemed to lag behind. In short, the déjà-vu effect on the screen accounts for a particular form of self-reference in the media, which consists in the repetition of the same scenario, whether fictional of nonfictional.

5.6. Enunciative self-reference: Examples from the movies

Enunciation has been a key concept in film semiotics since Christian Metz (Buckland 2000; Buckland 1995). It pertains to the communicative situation of a message, the way the addresser interacts with the addressee of a message. In verbal communication, the study of enunciation is concerned with the many voices of the speaker, especially the narrator, their intentions and modes of manipulating the addressee (Santaella and Nöth 2004: 113–126).

Enunciative (or communicative) self-reference occurs when the author, the narrator, the actor, the reader, or the spectator become the topic of the message. Instead of presenting or representing ideas or events in the world from elsewhere, the text deals with its own communicative context, its function, the presuppositions of its narration, and the text has thus its own communicative situation as its topic. Alfred Hitchcock, for example, leaves his place behind the camera to mingle with the actors on the screen, reminding the spectators of his permanent presence in his film, even when invisible. In a so-called screen passage, one of Woody Allen's actors in *The Purple Rose of Cairo* (US, 1985) even steps out from his role as an actor on the screen to mingle with the audience.

For decades, films used to conceal the traces of their production, for example the details of the film studio and the staff behind the scenes, 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 viewing the sinking Titanic above the sea level but can also participate in the drama below the water surface. As a result of the new possibilities of digital picture manipulation, it is no longer possible to distinguish real shots from digital additions (cf. Manovich 1999). 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 conduce 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 critical reflection 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 in an effective screen passage to join the audience in the cinema (cf. Stam 1992; Karpf, Kiesel, and Visarius 1996, and Withalm, this vol.). New forms of pragmatic selfreference are emerging with interactive films in which the spectator becomes the producer of his own viewing.

Enunciative self-reference is of a different kind 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 selfreferential autonomy of the players is actually attained remains open for further investigation.

5.7. Iconic self-reference: Loops, repetitions, and recursion

Among the most important iconic modes of textual, intertextual, and intermedial self-reference are recursion and recurrence. Recursion, 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 signs of the trivial, for example in soap operas. In games, recursion can even be a means of punishment, for example in the classical *ludo*, where the return to the point of departure can be an element of suspense, satisfaction, or disappointment.

In *advertising*, repetitive campaigns 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 *movies*, too, we have become accustomed to intertextual self-reference. The most recent James Bond films, for example, are hardly discussed in terms of what they represent. Instead, intertextuality is the topic as public interest focuses on the question of how these films can be compared with those which preceded. Nina Bishara, in a comment on this paper, describes this form of self-reference in the most recent James Bond movie *Die Another Day* (UK/US, 2002) as follows:

Not only are well-established and recurrent James Bond themes taken up (e.g. good against evil, the pre-titles sequences, "My name is Bond - James Bond" etc.), the 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 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 self-reference can be found in the product placements of cars (Ford, Jaguar, Aston Martin), Bond's favorite champagne (Bollinger), spy tools such as the watch by Omega or the Ericsson mobile phone. Even print advertisements self-referentially refer 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 self-reference can be observed in the video clip for the title song by Madonna for the 20th Bond movie which is also called Die Another Day and which re-enacts scenes from the movie.

One of the characteristic features of digital film is the increasing possibility of self-repetition in the form of loops, as in *Run Lola Run*, 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. Loops and recursivity, however, are not only modes of repetition; they are as well loci of variation (cf. Winkler 2004: 170–182).

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 order "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.

6. Self-reference between subversion, play, and art

Self-reference in the media is hardly subversive, as it might seem when it results in paradox; its functions tend to be predominantly playful and aesthetic. Being directed towards itself without any ambition to represent, the world beyond the signs, a self-referential message cannot transmit a subversive message in the sense of a message that wants to undermine social or cultural values.

However, a self-referential message can be subversive in the sense of breaking with the codes and conventions of the genre. In this sense, self-reference is most subversive in advertising, where the self-referential message is incompatible with the goal of advertising services or products. In films, too, self-reference has been a subversive device of the genre when it was first introduced as a stylistic device. Both media, however, have always shown self-referential elements in their poetic and aesthetic dimensions, since poetry and art are self-referential by nature.

In games, by contrast, self-reference is not the exception, but the rule, since play and playful conduct have always tended to be self-referential. The values of chess figures, such as the king, the queen, the bishop, or the pawn, find very little correspondence in real life. Carnival seems to be revolutionary in allowing the peasant to become the prince, but carnival has never been suppressed by those in power, since they quickly recognized that playful conduct is self-oriented and cannot develop a revolutionary impetus.

Computer games, however, have begun to create new realities and to simulate virtual realities which raise the question of subversion in a new way. Do they conduce to merely self-referentially playful activities, to play for play's sake, as in chess, or do they create virtual realities with the potential to subvert the conventional values of culture and society?

References

Andersen, Peter B	øgh, Claus Emmeche, Niels Ole Finnemann and Peder Voetmann Chris-
tiansen (eds.)	
2000	Downward Causation. Aarhus: University Press.
Babcock, Barbara	aA.
1980	Reflexivity: Definitions and discriminations. Semiotica 30: 1–14.
Barthes, Roland	
1967	Système de la mode. Paris: Seuil.
Bartlett, Steven J.	
1987	Varieties of self-reference. In: Steven J. Bartlett and Peter Suber (eds.),
	Self-Reference: Reflections on Reflexivity, 5–30. Dordrecht: Nijhoff.

1992a	The role of reflexivity in understanding human understanding. In: Steven J. Bartlett (ed.), <i>Reflexivity: A Source-Book in Self-Reference</i> , 3–18. Amsterdam: North Holland.
Bartlett, Steven J.	
1992b	<i>Reflexivity: A Source-Book in Self-Reference</i> . Amsterdam: North Hol-
17720	land.
Bartlett, Steven J.	and Peter Suber (eds.)
1987	Self-Reference: Reflections on Reflexivity. Dordrecht: Nijhoff.
Baudrillard, Jean	
1976	L'échange symbolique et la mort. Paris: Gallimard.
1981	Simulacres et simulation. Paris: Galilée.
1991	La guerre du Golfe n'a pas eu lieu. Paris: Galilée.
Bettetini, Gianfra	nco
1971	L'indice del realismo. Milan: Bompiani.
Bishara, Nina	
forthcoming	Selbstreferenzielle Werbung.
Bleicher, Joan-Kr	istin
1999	Unterhaltung in der Endlosschleife. In: Michael Latzer, Ursula Maier-
	Rabler and Gabriele Siegert (eds.), Die Zukunft der Kommunikation,
	109–114. Innsbruck: Studien-Verlag.
Block, Friedrich V	N.
1999	Beobachtung des ICH. Zum Zusammenhang von Subjektivität und
	Medien am Beispiel experimenteller Poesie. Bielefeld: Aisthesis.
Blöbaum, Bernd	
1999	Selbstreferentialität und Journalismus. In: Michael Latzer, Ursula Maier-Rabler and Gabriele Siegert (eds.), <i>Die Zukunft der Kommunikation</i> , 181–188. Innsbruck: Studien-Verlag.
Bolter, David and	
1999	Remediation: Understanding New Media. Cambridge, MA: MIT Press.
	d Manfred Pfister (eds.)
1985	Intertextualität. Tübingen: Niemeyer.
	nd Richard C. DeVidi (eds.)
2001	Self-Awareness and Self-Reference. Amsterdam: Benjamins.
Buckland, Warren	
2000	The Cognitive Semiotics of Film. Cambridge: University Press.
Buckland, Warren	
1995	The Film Spectator: From Sign to Mind. Amsterdam: University Press.
	d Andrea Esser (eds.)
2001	Unendlichkeit und Selbstreferenz. Würzburg: Königshausen & Neu- mann.
Colapietro, Vincer	
1989	<i>Peirce's Approach to the Self.</i> Albany: State University of New York Press.