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Challenging the Risk - Benefit Paradigm A critique of research on children and television

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Risk–benefit Paradigm

Most of the North American research on children and television has taken place within what I term the "risk–benefit paradigm", where the research questions can all be positioned somewhere on a continuum between the risks and the benefits these media are assumed to present to children. I believe that it is important to challenge this paradigm, because of its enormous – and probably unwarranted – international influence on public opinion, research funding provision and even, in some cases, national policy (Délibération n° 2008–85 du 22 juillet 2008). This paper offers a brief, selective review of the literature and indicates the possible grounds for such a challenge.

The risk-benefit continuum is heavily weighted towards one end. A keyword search of Percora et al's 2000–item bibliography shows the terms "violence", "effects", "behaviour" and "advertising" each recurring well over 200 times, while "play" scores 46 and "understanding" scores 34.

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"Learn/ing" scores 82, "education" 69, "information" 54 and "interpret" 13, but "pleasure" and "enjoy/ment/ing" all score zero (Pecora et al 2007). And given that "adolescent" scores 259 but "toddler" and "infant" score 21 between them, the subjects of this research have clearly tended to be older children. However, since 1999 there has been an increase, especially in the USA, of broadcaster-funded studies that seek to demonstrate the extent to which "baby TV" can lay the foundations for later learning, which Anderson and Pempek see as an attempt to counter the American Academy of Pediatrics' recommendation that TV viewing for children under two should be restricted (D. R. Anderson & Pempek 2005; Brown 2011). The new research focus is more on infants than on children in their third year, due mainly to the proliferation of "baby videos" such as *Baby Einstein* and *Baby Mozart* (Linebarger & Vaala 2010) and also to an increase of evidence about television viewing in infancy (Courage & Howe 2010).

A minority of researchers in this field do acknowledge the need to understand "the act of television viewing itself", as Bryant and Anderson state in the preface to their important and influential book, which collected together much of the earlier work of this type (Bryant & Anderson 1983). For example, Huston and Wright ask (as I do), "What's attractive about television? How does the child learn the codes of television and become increasingly sophisticated in understanding its content?" (Huston & Wright 1983). However, developmental psychologists still struggle to get to grips with what may be going on in children's engagements with television, because their ideas about what actually constitutes "television" are very limited, and the range of television genres they consider is both narrow and monocultural. And because there remains a relative paucity of studies involving children under 3, the processes of learning progression inferred by Huston and Wright remain uncharted.

Researching very young children's understanding of television presents some obvious methodological problems. Attention – usually assumed to be signalled simply by direct gazes or "looks" – has therefore been a

recurrent focus of interest. Since the 1980s it has been assumed to be a good indicator of whether or not children understand what they are watching, and is thought to be measurable by video–recording of eye movements or observation of looks towards and away from the television screen. Anderson and Lorch dismiss "the reactive theory", which did not see attention to television as evidence of comprehension, but as a passive surrender to its brightness, movement and sounds (J. L. Singer 1977). They contend instead that attention "is actively under the control of the viewer, and is in the service of the viewer's efforts to understand the television program and to deploy attention efficiently between the television and other aspects of the viewing environment" (D. R. Anderson & Lorch 1983).

I have some sympathy with this statement, but my own findings differ markedly from Anderson and Lorch's accounts of "the viewing environment" and children's behaviour in it. They assert that children view television from a distance and that "only in the most extreme cases

do young children sit [sic] so close to the screen that successive eye movements might be necessary for identification of scenes" (6). Secondly, their central thesis – that visual attention to television is "active, selective and strategically guided by learned comprehension schemata" (21) – is based upon their observations that attention to television depends in part at least on "what else is available to do/look at in the viewing environment" (7). Thirdly, they dismiss somewhat contemptuously any "qualitative, anecdotal descriptions of children staring intently at the television, invulnerable to distraction", on the grounds that such "anecdotes virtually never derive from systematic observation and may describe only exceptional circumstances" (10–11). All three of these assertions are contradicted by my own data from systematic observation of children in a home environment. Some more recent research on infants and toddlers has in fact found longer attention–spans (Courage & Setliff 2010) but does not offer radically different explanations for this.

Anderson et al do admit that children sometimes go on looking at material for longer than they had expected. Based on probability analysis of the duration of "looks" in their observations, they found, essentially, that the longer children looked at a programme, the more they were likely to go on looking at it. They call this "attentional inertia", but it is uncomfortably close to the "reactive theory" that Anderson and Lorch later wanted to demolish: the idea that television somehow mesmerises viewers and holds them in thrall. It leads them into a rather contorted rationalisation:

"Attentional inertia allows the child to keep processing a stimulus even when it is not completely understandable. Attentional inertia thus sometimes produces a dynamic tension with program comprehensibility: although in general the young child stops paying attention when the program becomes incomprehensible, attentional inertia serves to maintain attention further than it might otherwise go ... [and] may thus occasionally provide the child the means by which he or she ventures into unknown cognitive territory, occasionally leading to new cognitive discoveries." (D. R. Anderson & Lorch 1983: 25)

There is a fascinating tension here between Anderson and Lorch's central idea, that it is comprehensibility that drives attention rather than, as the reactive theorists would have it, attention driving comprehensibility; and their duty, as diligent researchers, to account for the highly attentive behaviour they cannot help but document. As Doubleday and Droege commented ten years later, "much needs to be answered about the nature of attentional inertia and its relation to comprehension, memory and other attentional phenomena" (Doubleday & Droege 1993), and few researchers have drawn attention to the enormous importance of video in the last 20 years, which enables children to view and re–view intently and selectively.

Symbol Systems

Gavriel Salomon's important and influential body of work draws attention to the "symbol systems" and codes through which moving-image media make meaning (Salomon 1979). He asks:

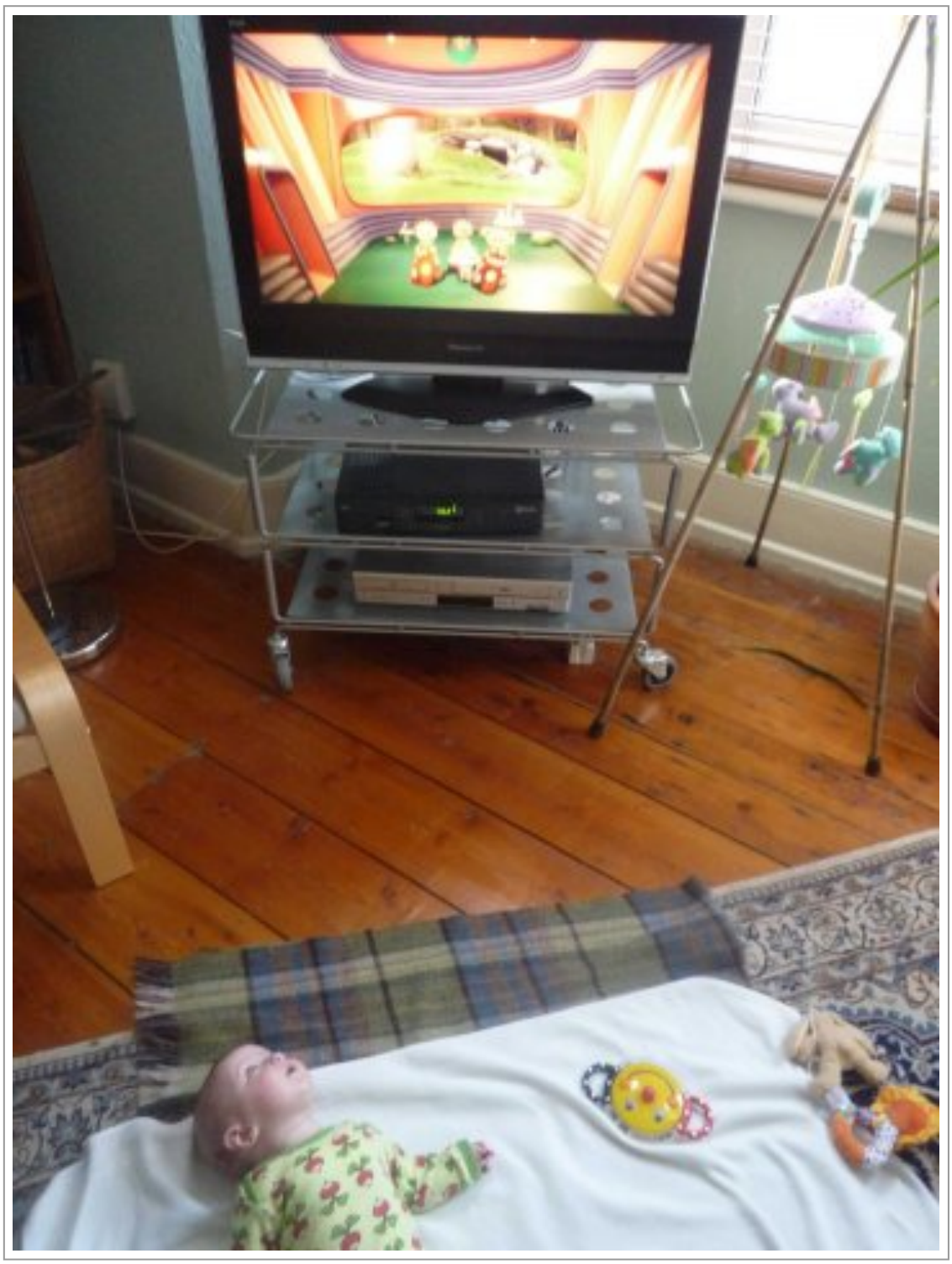
"What is the utility of specific skills which are cultivated by particular symbolic elements of the media? Do they develop at the expense of other skills? How can their development be facilitated? ... If children can acquire particular symbolic modes by observational learning (say, as the result of imitating skill-supplanting elements) can they also learn to represent the world to themselves *in terms* of these elements? Thus, can some of the media's symbolic elements become internalised and used as 'tools of thought'?" (80)

Salomon identifies some of the key singularities of moving-image media, for example montage, and "the spatialisation of time" (58); notes that children's learning about media "is hardly ever accompanied by any tutoring" (62); and can ask profound questions about the further learning implications of children's early media encounters. But his actual research is mainly related only to *Sesame Street* and to children well beyond the crucial earliest stages of learning. The only other article of similar depth that I have found so far is Meringoff et al's chapter in the Bryant and

Anderson collection (Meringoff et al. 1983), who are interested in "the distinctive cognitive consequences for children of their experience with television and other story-bearing media" (151) and do at least recognise the relevance of classical film theory to their research questions:

"Descriptions of the specific ways that editing techniques are used to suggest associations between shots and to imply transitions in time and space have aroused our curiosity about children's ability to 'read' across film and television story lines. For instance, dissolves and jump cuts imply the passage of time only to those audience members who understand the meaning of those conventions." (157)

But the main thrust of their investigation involved 6–7–year olds and 10–11–year–olds and was concerned with story apprehension in two media: book and film. The functions of features such as dissolves and jump cuts must be learned long before the age of 6: a likelihood that Collins admitted over thirty years ago (Collins 1979).



Other researchers, while looking primarily at "attention", have attempted to identify the formal features of television itself that may have served to

elicit or hold attention. So Alwitt et al in 1980 coded three hours of children's television programmes for "37 simple visual and auditory attributes" as the basis for trying to establish which attributes "related positively" to attention (Alwitt, Anderson, Lorch, & Levin 1980). Looking at gender differences in attention, Alvarez et al coded four programmes for "high and low violence" and "high and low action" before showing them to 5– and 7–year olds in one study, and to 3– to 11–year–olds in another (Alvarez, Huston, Wright, & Kerkman 1988), finding mainly that girls seemed to attend more to verbal auditory content and boys to visual content. Gola and Calvert focused on "pacing", defined as the rate of scene and character change per minute, and showed "high paced" and "low paced" commercial baby DVDs to infants aged 6, 9 or 12 months old (Gola & Calvert 2011). Valkenburg and Vroone, researching infants and toddlers in their own homes, coded material taken from three sources (*Sesame Street*, *Teletubbies* and *Lion King II*) for 36 features: but they took these from research published in the 1980s, combining "auditory, visual and content features" and ignoring the possibility of more systematic content analysis or indeed the likelihood that the production styles of children's TV had changed in the meantime. (Valkenburg & Vroone 2004).

My concern about these studies is the relative crudity of the programme features eg "action", "pace" or "violence", selected in each. To isolate just a few of these for experimental purposes, or to select a jumble of features "known to stimulate infants', toddlers' and preschoolers' attention to television content" (Valkenburg & Vroone 2004), seems unlikely to produce findings that relate to children's real experiences of the medium. However, each study has produced some interesting indicative findings that have encouraged me to interrogate their results. They do at least assume, as I do, that children of two and younger may be paying attention to television – and films – in order to try and understand the *system* of meaning-making with which they are confronted, just as they are, at the same time, listening with increasing attention to adult talk and internalising its patterns, as they move towards becoming talkers themselves.

In a special issue of *Developmental Review* in 2010, Anderson and Hanson review the literature and set out the rationale for attending to formal features:

"Watching television, and by extension, the use of other screen media, is in many ways a demanding cognitive activity, one that requires special forms of attention, perception, and comprehension ... Our point of view is that television viewing has its own developmental course that must be understood in order to clarify the impact that television can have on children. The impact is likely to be different at different points in development, based in part on how children perceive and understand the medium. ... As part of comprehending television as a medium of communication, children must recognize and comprehend the specific codes and conventions that characterize the medium." (D. R. Anderson & Hanson 2010)

In principle, I entirely agree with these statements. But I also believe that Anderson and Hanson commit a basic ontological error in assuming that television's claim to be simply a "window on the world" must govern children's own expectations of the medium. Thus their inquiries are premised on concerns that the differences between the television image and real–life visual and audio perception must present a learning challenge for infants and toddlers, supporting their theory that a factor they term "the video deficit" comes into play between 1 and 3 years of age and holds back children's ability to learn from television. Their arguments in support of the video deficit theory focus on the differences between television and real life and seem to assume that this distinction is one that young children have difficulty in negotiating. I am investigating the opposite possibility: that it is this very difference that is of interest to infants and toddlers.

TV space is different from real space

Firstly, Anderson and Hanson define one key category of difference as "TV space is different from real space". They note the fact that television

cannot support the mechanisms of depth perception that are used in real-life contexts: stereopsis and motion parallax. While this is evidently true (at least in non-3D television), to propose it as a learning problem for children seems to me to overstate the case. It is indeed interesting to speculate about the extent to which infants may be able to perceive depth of field in television: it may be possible that moving-image media actually contribute to children's development of depth perception by offering sequences of people and objects moving towards the camera or past other stationary or slower–moving people and objects, which children now can – and do – re–view many times; which, to use Anderson and Hanson's own criterion, they cannot do in real life.

Anderson and Hanson also assert that "televised sound is inferior to that which is experienced in everyday life", again disregarding the possibility that this could be interesting, rather than problematic. Adding music and sound effects to stories is generally assumed to stimulate interest and enhance enjoyment: I have observed that children may jump at sudden sound effects, or start dancing to music, even if they do not appear to be following the programme itself. However, where Anderson and Hanson do identify a potentially interesting issue is in their discussion of "audio that is not obviously synchronized with any action on the screen". They rightly explain that "this may derive, for example, from voiceovers, sound effects from off–screen events, and musical underscores". But they fail to make the useful and important distinction between diegetic and non–diegetic sound.

Diegetic sound may not be "obviously related to any action on the screen" but it can still be part of the world of the story (ie the diegesis). Just as, in real life, the sound of a slammed door or of ice-cream van chimes may not relate to an infant's immediate field of vision but can nevertheless be salient, diegetic sound in a filmed scene may be perceived as salient by very young viewers. The function of non-diegetic sound is more interesting in terms of Anderson and Hanson's concern with understanding the various modes at work in moving–image media. Not only voice-over and music, but also "atmosphere" tracks and non–

naturalistic spot effects, to signal comical or sinister intentions, are established conventions, and I have observed children responding appropriately to these at a very early age.

Despite the importance of sound in moving-image media and its vital functions in determining how the visual track may be "read", it is the visual track that has received most attention from theorists, and film and television are usually referred to as "visual media" in popular, academic and educational literature. Smith, Anderson and Fischer acknowledge that young children's poor comprehension of television had previously been attributed to their "inability to comprehend events portrayed through the use of camera techniques and editing manipulations, known generally as *montage*", and offer to examine this assertion more directly (Smith, Anderson, & Fischer 1985). Despite invoking film theorists such as Kjorup (Kjorup 1977) and Monaco (Monaco 1981), they choose to define "montage" as "the juxtaposition of shots in a film". This results in a lamentably thin, if impressively "scientific" account of film language:

"Most prime–time family TV programs incorporate a remarkable amount of montage. In one randomly selected episode of "Little House on the Prairie," we counted 311 cuts, 56 pans, 10 zooms and 4 fades. There was thus a density of about 8.1 cinematic techniques per minute." (962)

Troseth reveals similar difficulties with basic accounts of what television is (Troseth 2010). She depends on simple distinctions between television and reality: "seeing a video [sic] brings to mind information about what is depicted, just as directly viewing the real thing would"; that "pictorial images (and other symbols) reflect the *communicative intentions* of their creators"; and that "video [sic] has the capacity to depict events that bear *little or no relation to reality*, including dramas and cartoon" (her emphases). Her interesting questions about infants' and toddlers' early encounters with moving-image media would, it seems to me, be better illuminated with the help of theoretical work on representation in Media Studies (Dyer 1985). She also confuses "television" and "video", using the terms almost interchangeably (as do a number of other more recent researchers) and thus losing the crucial distinction between television's capacity to communicate live action and video's function as a recording medium. Because of the limitations of her account of the medium, its technologies and its representational nature, I find it hard to accept her contention that infants' early explorations of the screen (which I have also observed and recorded in home settings) indicate an "inappropriate" response and that they believe the things shown on the screen are literally "real".

Conclusion

My own research is based on the assumption that the moving image is an immensely complex and highly multimodal form, and that if children are already making some sense of it by their third year of life, then they must have learned much earlier how to recognise and interpret a range of formal features. By studying a pair of non–identical twins (girl and boy) in family environments, using ethnographic methods, I am investigating how

this learning develops between 17 and 42 months, when children's capacities for language, thought, imagination and social activity are also burgeoning. I am bringing aspects of film theory together with perspectives on child development, in the hope of pointing the way towards a different paradigm for the study of children and moving–image media.

References

Alvarez, Mildred/Huston, Aletha C./Wright, John C./Kerkman, Dennis D. (1988): Gender differences in visual attention to television form and content, in: Journal of Applied Developmental Psychology, 9, 459–475.

Alwitt, Linda F./Anderson, Daniel R./Lorch, Elizabeth P./Levin, Stephen R. (1980): Preschool children's visual attention to attributes of television, in: Human Communication Research, 7 (52–67).

Anderson, Daniel R./Levin, Stephen R. (1976): Young Children's Attention to Sesame Street, in: Child Development, 47, 806–811.

Anderson, Daniel R./Lorch, Elizabeth P. (1983): Looking at Television: Action or Reaction?, in: Bryant, Jennings/Anderson, Daniel R. (Eds.): Children's Understanding of Television: Research on Attention and Comprehension, New York: Academic Press, 1–33.

Anderson, Daniel R./Pempek, T.A. (2005): Television and very young children, in: American Behavioral Scientist, 48 (5).

Anderson, Daniel R./Hanson, Katherine G. (2010): From Blooming, Buzzing Confusion to Media Literacy: The Early Development of Television Viewing, in: Developmental Review, 30 (2), 239–255.

Brown, Ari (2011): Media Use by Children Younger Than 2 Years, in: Pediatrics, 128 (5).

Bryant, Jennings/Anderson, Daniel R. (Eds.) (1983): Children's Understanding of Television: Research on Attention and Comprehension, New York: Academic Press.

Collins, W. Andrew (1979): Children's Comprehension of Television Content, in: Wartella, Ellen (Ed.): Children Communicating: Media and Development of Thought, Speech, Understanding, Beverly Hills: Sage.

Courage, Mary L./Howe, Mark L. (2010): To watch or not to watch: Infants and toddlers in a brave new electronic world, in: Developmental Review, 30 (2).

Courage, Mary L./Setliff, Alissa E. (2010): When babies watch television: Attention-getting, attention-holding, and the implications for learning from video material, in: Developmental Review, 30 (2).

Doubleday, Catherine N./Droege, Kristin L. (1993): Cognitive Developmental Influences on Children's Understanding of Television, in: Berry, Gordon L./Asamen, Joy K. (Eds.): Children and Television: images in a changing sociocultural world, Newbury, CA: Sage.

Dyer, Richard (1985): Taking popular television seriously, in: Lusted, David/ Drummond, Phillip (Eds.): TV and Schooling, London: British Film Institute.

Délibération n° 2008-85 du 22 juillet 2008, Retrieved 25th August, 2012, from http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000019342258 (20.05.2013)

Gola, Alice A. H./Calvert, Sandra L. (2011): Infants' Visual Attention to Baby DVDs as a Function of Program Pacing, in: Infancy, 16 (3).

Huston, Aletha C./Wright, John C. (1983): Children's Processing of Television: the informative functions of formal features, in: Bryant, Jennings/Anderson, Daniel R. (Eds.): Children's Understanding of Television: Research on Attention and Comprehension, New York: Academic Press, 35–68.

Kjorup, Soren (1977): Film as a meeting place of multiple codes, in: Perkins, David/Leondar, Barbara (Eds.): The Arts and Cognition, Baltimore: Johns Hopkins Press.

Linebarger, Deborah L./Vaala, Sarah E. (2010): Screen media and language development in infants and toddlers: An ecological perspective, in: Developmental Review, 30 (2).

Meringoff, Laurene K./Vibbert, Martha M./Char, Cynthia A./Fernie, David E./Banker, Gail S./Gardner, Howard (1983): How is Children's Learning from Television Distinctive? Exploiting the Medium Methodologically, in: Bryant, Jennings/Anderson, Daniel R. (Eds.): Children's Understanding of Television: Research on Attention and Comprehension, New York: Academic Press.

Monaco, James (1981): How to Read a Film, New York: Oxford University Press.

Pecora, Norma/Murray, John P./Wartella, Ellen A. (2007): Children and Television: Fifty Years of Research, Mahwah: Lawrence Erlbaum Associates.

Salomon, Gavriel (1979): Shape, not only content: how media symbols partake in the development of abilities, in: Wartella, Ellen (Ed.): Children Communicating: Media and the Development of Thought, Speech, Understanding, Beverly Hills: Sage.

Singer, Jerome L. (1977, Aug 1977): Television, Imaginative Play and Cognitive Development: Some Problems and Possibilities, U.S. Department of Health, Education & Welfare, National Institute of Education, Educational Resources Information Center.

Smith, Robin/Anderson, Daniel R./Fischer, Catherine (1985): Young children's comprehension of montage, in: Child Development, 56 (4).

Troseth, Georgine L. (2010): Is it life or is it Memorex? Video as a representation of reality, in: Developmental Review, 30 (2).

Valkenburg, Patti M./Vroone, Marjolein (2004): Developmental changes in infants' and toddlers' attention to television entertainment, in: Communication Research, 31 (3).