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Future Memories: The Construction of Cinematic Hindsight

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Introduction

Upon his return from work, a colleague of mine was buoyantly greeted by his ten-year-old daughter. She begged him to fetch his camcorder and come to her room, where she was playing with her sister—a karaoke of sorts in which they combined song and dance with typical kids' spells of laughter and fun. 'You need to tape us because when we'll become famous they may show this on television' his daughter explained with a sense of urgency. The children's motivation for being filmed betrays a sophisticated reflexivity of the camcorder as a tool for producing future memories. Even at a young age, children keenly apprehend the pliability of mediated experience; their father's film is not simply a registration of present fun activities, but a conscious steering of their future past. The camcorder constructs family life at the same time and by the same means as it constructs our memory of it; whereas the camcorder registers private lives, these images may help shape (future) public identity. The children's awareness was most likely triggered by contemporary television programs—anything from so-called reality TV and lost-relative quests to dating shows and celebrity interviews—deploying home video footage to represent a person's past life.

This scene helps articulate three levels of mediation at which the audiovisual construction of memory takes place. First, home movies could be considered mediated acts of cognition: minds instructing instruments to manufacture (desirable) images of personal or family life. Second, filming the children's play might be seen as the camera's registration of 'real' life—footage shot and stored for later reminiscence. And third, home videos may become visual resources in cinematic productions of remembrance; as the children in the above scene perfectly understand, the video camera shapes their individual or family's future past. These three levels of mediation structure of what I call 'cinematic hindsight': audiovisual retrospectives of remembered life as an aggregate of (actual or fictional) home videos and filmic (re)constructions. Cinematic hindsight could simply be considered a representational trope preferred by movie

directors and anticipated by home movie creators. Many contemporary films, documentaries, and television series reframe (actual or fictive) home movie footage into cinematic productions, either as a technique to create the illusion of intimacy and personal authenticity, or as a meta-commentary on the intertwining of memory and media (Van Dijck, 2004). The incorporation of personal home videos in public film or television productions has gained a new dimension in light of recent technological transformations, particularly digitization.

However, cinematic hindsight is more than a technique of representation. The layered concept of cinematic hindsight can be theorized from at least two different perspectives. Following the footsteps of philosophers like Gilles Deleuze and Mark Hansen, we may primarily consider filmed memories to be convergences of mental projections and technological scripts, privileging the body as an information-filtering agent and studying memory construction at the junction of body and technology. On the other hand, we may adhere to social constructivists like James Moran who direct their inquiry from the intersection of technology and culture, connecting the technological apparatus to cultural forms, when trying to account for audiovisual registrations of personal memory. Both theoretical approaches acknowledge the significant impact of technological transformations when film and video recordings are replaced by digital tools.

The main goal of this article is to bring together these two seemingly divergent approaches and to argue that cinematic hindsight may be a fruitful analytical concept if theorized as a co-production of mind, technology, and culture. Filmic constructions of memory are concurrently *embodied* mental projections, *enabled* by media technologies, and *embedded* in cultural forms. Two examples of recent cinematic productions will ground this combined theory of cinematic hindsight. A close reading of the documentary production, *CAPTURING THE FRIEDMANS*, will show how cinematic hindsight should be understood at the intersection of video montage and cultural form, but for its ultimate affect depends on the subtle interchange of digital technologies and mental projections. Analysis of a recent science fiction movie, *THE FINAL CUT*, explores how audiovisual inscriptions of lived memory, even if generated by bio-engineered recording chips, are firmly anchored in the cultural molds dictated by Hollywood cinema.

Future memories as mental projections of the past

The above scene of playing children who demand the presence of their father's camera, shows they are keenly aware of the power of video footage in defining their future public image. As young as they are, they grasp the concept of raw images serving as input for mediated memories that have yet to take shape. Could such awareness be the result of the movie camera's 'infiltration' into their consciousness? Or rather, is their concept of audiovisual memory the result of the ubiquitous use of camcorders in their everyday lives? Perhaps their awareness of the future role of home videos is defined by the many movies and television productions which prominently feature recycled video footage from someone's personal past. Let me succinctly explore the various hypothetical angles each favoring a different explanation, to account for the complex interrelation between mind, technology and culture in the construction of filmic memory.

Some neurobiologists who study the physiological mechanisms of (autobiographical) memory concentrate on the brain as an explanatory framework, choose to ignore the constitutive function of technology or culture in the process of remembering. If referring to technology or culture at all, they typically use movies, screens, and cameras as *metaphors* to describe the intricate mechanism of human consciousness and memory. When neurobiologist Antonio Damasio (1999: 11), for instance, speaks of a 'movie-in-the-brain,' he uses the term metaphorically: *as if* the brain were both a camera, a movie screen, a filmed production, and a moviegoer. Without a proper analogy, it seems impossible to explain the complexity of the brain's involvement in configuring a sense of self over a period of time. However, the use of this metaphor presents a peculiar paradox. Apparently, we need a techno-cultural set of metaphors (movie, screen) to imagine a physiological process (memory, consciousness), whereas actual movies are obviously also the result of a complex brain-machine network involved in the cultural act of film production (scripting, directing, camera work, editing, watching, etc). Damasio's theory is understandably oblivious of *actual* movies as input for *actual* brains; he is simply disinterested in the role of the camera or other media technologies in 'equipping' the mind to produce images. The brain/mind is hierarchically offset from technology and culture; the latter two are mere conceptual aids in the neurobiological theory of 'movies-in-the-brain.'¹

It is illuminating to compare Damasio's inquiry into memory as a form of consciousness with philosopher's Gilles Deleuze's philosophical reflections on cinema, memory, and time. Building on Henri Bergson's conjectures in his 1896 publication *Matter and Memory*, Deleuze (2003) has theorized the internalization of the film camera in the human mind to explain memories as filmic projections of the present. The 'matter' of memory, according to the French philosopher, emerges at the intersection of mind/brain and technology/materiality. In his book *The Time-Image*, Deleuze highlights the intimate relation between memory and cinema—between moving images in the mind and moving images on the screen. When Deleuze suggests that 'the brain *is* the screen' he does not mean this metaphorically but literally: recollection is inherently defined by the input of actual moving images which are always partly constructions of the brain (Flaxman, 2000; Kennedy, 2000; Bogue, 2003). Whereas Damasio's 'movie-in-the-brain' implies a figural equation—to understand the brain's mechanism *in terms of* film productions—Deleuze explicitly connects cognitive mechanisms to the movement-image of cinema. Cinema is as much a production of the individual mind as it is a production of a mechanical apparatus. Echoing Bergson, Deleuze distinguishes between different categories of images in motion: the perception-image, the affection-image, and the action-image (Pisters 2003). 'External images' act upon the mind and become 'internal images,' moving images that stir action or affection, converging into experience.

Memory, in Deleuze's concept, is never a retrieval of past images, but is always a function of the present—a function embodying the essential continuation of time. Body and cinema are part of the same organic, connective system: just as the body constantly renews itself molecularly, images never remain the same when processed in an individual's mind. In other words, moving images produced by film are 'input' for the brain, always resulting in 'updated' output. Such dynamic concept of movement-image sharply contrasts semiotic theories that consider film footage as representations or signs. Image-perceptions of the present determine how actual images of the past are interpreted, and yet, both are inevitably injected with projections of the future: idealized images, virtual images, desire. It is instructive to quote Deleuze's words in full here:

But instead of a constituted memory, as function of the past which reports a story, we witness the birth of memory, as function of the future which retains what happens in order to make it the object to come of the other memory. ...

[M]emory could never evoke and report the past if it had not already been constituted at the moment when past was still present, hence in an aim to come. It is in fact for this reason that it is behavior: it is in the present that we make a memory, in order to make use of it in the future when the present will be past. (2003: 52)

Films are imagined in the brain—a process involving the convergence of mental projections and technological scripts. If the past is a filmic product of the present, so is the future; according to Deleuze, memory is always in a ‘state of becoming.’

The film apparatus is thus inseparable from the individual who deploys the camera to articulate a sense of connection between self and family or between self and the world-at-large. As a memory object, a home movie changes meaning each time it is seen, shown or reframed. The act of memory includes the actual shooting of the movie; the later use of home movies and video footage—even if unspecified—is already anticipated at the moment of shooting. In addition, home movies are never simply ‘found footage’ of the past: each time they are reviewed or recycled, they are ‘edited’ by the brain. Moving images, first shot and later edited, project the intricate time-movement of mental recollection so characteristic of the human mind; the mind’s tendency to impact future remembrance is implicated in technologies of memory, particularly the movie camera. Deleuze’s philosophical reflections stress the interdependency of the brain/mind and the technology/materiality of the camera in the act of memory. Applying his theory to specific (fiction) films, Deleuze minutely analyzes how the brain is engaged in articulating moving images produced by the cinema apparatus—an apparatus that only works because the anticipation of mental images is part of its technological script.

However, as we move into an age when the cinematic apparatus and the video image are gradually replaced by the multimedia apparatus and the virtual image, Deleuzian philosophy needs updating in several respects. As Mark Hansen (2004) contends, processes of digitization and virtualization call for a new concept of embodiment—the body’s relation to image and its affects. Whereas Deleuze still accepts a distinction between perception and simulation—between ‘external’ and ‘internal’ images that stir action or affection, converging into experience—Hansen argues that our bodies, brought into contact with the digital image, experience the virtual through affect and sensation, rather than through techniques, forms, or

aesthetics.² Drawing examples from digital art works and virtual reality environments, Hansen counters Deleuze's neuroaesthetics and 'cinema-of-the-brain' with a concept in which the 'brain is no longer external to the image and is indeed no longer differentiated from an image at all' (2004: 194). Rather than talking about an affect caused by a technological (cinematic) apparatus, Hansen considers the digital apparatus to be an integral part of a new embodied experience: '[A]ffectivity is the privileged modality for confronting technologies that are fundamentally heterogeneous to our already constituted embodiment, our contracted habits and rhythms' (2004: 133). In other words, digital technologies call for an approach to cinematic hindsight that privileges the bodily basis of vision; the mind, he says, filters the information we receive to create images of the past, instead of simply receiving images as preexisting technical forms.

Whereas Deleuze's and Hansen's explanatory frameworks for understanding cinematic hindsight are firmly located at the junction of body/mind and technology/materiality, another relevant approach comes from social constructivist thinkers who position the phenomenon of audiovisual remembrance at the crossroads of technology and culture. Cultural theorists like Belinda Barnet (2001, 2003) and James Moran (2002) find themselves more comfortable to talk about mediated memories as a co-construction of media technologies and cultural forms. We need to differentiate between the levels of home movies as reconstructions of past life, as registrations of the present, and as cinematic projections of the future, only to show how their intricate mixture is the result of careful editing and reinterpreting. The importance of this approach surfaces more acutely when real or fictive home movies are 'absorbed' by, or interwoven in, cinematic productions such as films, documentaries or television programs.

In his excellent study of the home video, Moran has theorized the historical and technological specificity of what he calls the 'home mode'—the place of home movies (and later home videos) in a gradually changing media landscape. Rather than identifying the home movie according to its ontological purity or as a technical apparatus, Moran rethinks the 'home *mode*' as a historically changing effect of technological, social, and cultural determinations—a set of discursive codes that helps negotiate the meaning of private selves in response to their shared social environment. The home mode, according to Moran, is not simply a technological device deployed in a private setting, but is defined as an active mode of media production representing everyday life: 'a liminal space in which practitioners may explore and negotiate the

competing demands of their public, communal, and private personal identities' (2002: 59). The home mode articulates a generational continuity over time, providing a format for communicating family legends and stories, yet it concurrently adapts to technological transformations, such as the introduction of new types of equipment: first the movie camera, later the video, and more recently the digital camcorder. Moreover, the home mode is affected by social transformations such as the position of the family in western society (Zimmerman, 1995). As Moran poignantly sums up: 'While we use these media audiovisually to represent family relations to ourselves, we also use family relations discursively to represent these media to each other' (2002: 103). The changing depictions of families on private as well as public screens, most notably television, are part and parcel of the socio-cultural transformation he is trying to sketch.

The intricate intertwining of technology and cultural form emerges even more poignantly in the age of camcorders, webcams and multimedia productions, where home movies are becoming a seamless part of the cultural fabric of cinematic hindsight. In the digital age, it becomes increasingly easy to refurbish old footage into technically smooth productions and to revivify former memories while retroactively adjusting them to present levels of knowledge and cultural forms. Indeed, digital video in many ways destabilizes the supposed 'naturalness' of analogue video, as an emerging digital infrastructure shifts the center of gravity from simply shooting to complete processing, and from image-sound recordings to multi-media productions. Today's computer hardware and software allows for affordable near-professional standards of editing and full-fledged productions, complete with subtitles, sound, and sophisticated montage, to be completed on personal computers in our private homes. Burned onto a DVD, the family's summer vacation in Cuba is now an audio-visual product that may compete technically and stylistically with travel programs featured on television. And multimedia productions on DVD break with inscribed codes of sequential episodes, allowing past and present images—even if shot in different technical modes—to merge in a smooth media product.

New technological devices, such as the digital camcorder, the world wide web, the webcam, the DVD, and the compact disc are of course not in and of themselves triggers for new cultural forms. As James Moran rightly argues, a medium is both a material and a social construct, whose metaphors and models provide a horizon for decoding present knowledge:

Digital icons undermine the authority of the video image and distance the artist from the actual process of image creation: whereas analogue video's aesthetic has been valued as immediate, literal, and naturalistic, digitized video is more often construed as contrived, synthetic, and analytic. (2002: 13)

Digital tools appear to give the individual more autonomy over his or her (multi)mediated portrayals of a family's past: *mentally* by reconstructing and projecting remembered family history by means of various media; *technically* by editing old footage into (re)constructed versions of family life; and *culturally* by interweaving private portrayals with fragments of public footage (e.g. newsreels), turning the aggregated montage into a smooth format.

Family portraits captured in moving images are never simply retrospectives—found footage as relics of the past—but they are complex constructions of mental projections and technological substrates, as Deleuze and Hansen would have it, and technical substrates interwoven with socio-cultural norms and conventions, if we were to accept Moran's line of argument. Peculiarly, (cognitive) philosophers show little interest in the socio-cultural component of converging brains-cum-apparatuses, whereas cultural theorists tend to disregard mental-cognitive functions when theorizing the home mode. And yet, I think we need a merger of both approaches in order to fully comprehend the intricateness of current mediated constructions of hindsight, especially now that digital technologies prompt us to develop a renewed awareness of mediated memory as a fabric woven of cognitive, technological, *and* cultural threads.

In order to buttress my argument for a combined approach, I will now analyze two filmic expressions of cinematic hindsight. First, I will depart from Moran's social constructivist angle to analyze a recent documentary, only to arrive at the conclusion that a techno-cultural construction of cinematic hindsight is intricately interwoven with the concept of 'embodied technology.' After that, I will turn to a recent science fiction movie to show how Deleuze's and Hansen's theory of embodied technology cannot satisfactorily explain this phenomenon without acknowledging cinematic hindsight to be firmly cemented in cultural forms.

Capturing a family's past in the digital age

As eloquently theorized by Moran, our remembrance of recorded family life is prone to constant revision; the emergence of a digital type home mode makes cinematic (re)constructions of remembered family life even easier to come by. Because of their versatile and manipulative nature, moving images may also become part of a dispute over disparaging versions of what family life was like. In watching contemporary (digital) re-constructions of hindsight, we need to deploy at least various types of analytical awareness. For starters, we need to acknowledge how camera work and editing hand always imply an individual who imposes a particular perspective on a family's past. We also need to distinguish between various time levels implied in historical home modes: movie or video reels shot in previous eras beget a new illocutionary force when integrated in digital productions. And finally, we should not forget the social codes and cultural contexts of historical and contemporary home modes while watching a production of screened family life. I will demonstrate the significance of each level in a concrete example.

The documentary *CAPTURING THE FRIEDMANS* (2003) confronts viewers with the powerful role of various home mode technologies in authenticating and reshaping family life in retrospect. Director's Andrew Jarecki's 'document' is not just a documentary; the DVD-version, which I will focus on here, renders a much more comprehensive view of the harrowing family saga he is trying to tell.³ The Friedmans are a typical middle-class Jewish-American family living in Great Neck, Long Island, where Arnold and Elaine, both into their fifties, have raised three sons: David, Seth and Jesse. A retired schoolteacher, Arnold teaches computer classes for kids in his home basement and is helped by his youngest son Jesse, then eighteen; in November 1987 they are both arrested on charges of repeated sexual abuse of boys who attended their classes. The police raid heralds months of denigrating incarceration, release on bail, a media frenzy, a neighborhood witch hunt, and—within the Friedmans home—family rows over the best strategy to keep Arnold and Jesse out of jail. The family is torn apart by conflicting emotions of guilt, doubt, suspicion, and loyalty; David chooses the side of his father and brother and resents his mother Elaine, who is the family's outsider in more than one way. She is never convinced of Arnold's innocence, as he has lied to her in the past about his pedophile inclinations and molestations. When her endearing attempts to save Jesse, by urging both father and son to plead guilty, inadvertently backfire, her oldest son David bitterly turns against her. In separate hearings, Arnold and later his youngest son enter their guilty pleas and are sentenced to substantial jail

time; Arnold commits suicide in 1995 while imprisoned, and Jesse is released in 2001 after having served thirteen years of his sentence.

Rather than following a chronological narrative logic, the documentary relies on the viewer's ability to identify three different technical types of film and to logically connect the distinct historical and contemporary home modes to which they refer: the home movies shot by Arnold in the 1950s through 1970s; David's home video footage recorded after the arrest in 1987; and interviews conducted in the present by Jarecki. The home movies and family pictures shot by Arnold Friedman, primarily in the 1950s and 1960s, are in perfect tune with the conventions of home movies at the time, featuring happy scenes of birthday parties, beach fun, and family vacations. David's memory is consolidated by Arnold's home movies of his three sons harmoniously playing with their father, having fun, and joking amongst themselves. Clearly, the home movie reels authenticate idyllic family life, but their status as verification documents becomes highly doubtful once we are confronted with other types of footage. The second type of 'authentic' footage stems from David's deployment of the video camera. Honoring the family's tradition of home movie making, David had bought a video camera in 1987, just before the family started to fall apart following the arrest and the subsequent trial. In line with the conventions of cinema vérité and home video of the 1970s and 1980s (Beattie, 2004; Lane, 2002), the camera keeps rolling as siblings engage in heated disputes at the dining table. Mother Elaine often begs to turn off the camera, but the men clearly hold sway over the camera, ignoring her requests. David and Jesse take turns in filming family rows but they also record remarkable moments of frivolous acting—a sense of humor that obviously causes father and sons to bond. The video camera, evidently deployed to capture life-as-it-is, turns out to be just as unreliable as the old home movie camera capturing life-as-it-was. Both home modes record a version of reality that later paradoxically serves as a desired benchmark for truth—whether this truth is a memory of ideal family life or a memory of a family at the verge of total disintegration because of false allegations.

The third type of footage, on-camera interviews conducted by director Andrew Jarecki, reframes and unsettles the documentary evidence offered by pieces from the Friedman's family archive.⁴ Interviews with family members are supplemented by a number of interviews with people who were at that time involved in the Friedmans' indictment.⁵ Mixing contemporary interviews with old news footage and trial tapes, the filmmakers manage to demonstrate the many angles on this case without ever

privileging a single truth. For instance, the joyful pictures of Arnold's childhood sharply contrast Elaine's commentary that her husband admitted to having repeatedly raped his younger brother Howard while sleeping in the same bed with him. Howard, interviewed by Jarecki in the present, desperately denies having any recollection of his brother's self-confessed acts ('There is nothing there').

A condition for understanding the compilation of private reels is that viewers recognize the various perspectives at work in this cinematic hindsight production, laid in there by various family members who each try to steer and influence the outcome and thus attempt to define what happened to their family. The conundrum of slippery and quivering truth, which is clearly present in the screen version of *CAPTURING THE FRIEDMANS*, is even more palpable on the DVD version of the documentary. Needless to say, digital equipment was instrumental in the seamless cross-editing of the three (historical) types of recordings, and in braiding together the various individual perspectives of the family members. Turning the movie into the cultural format of a DVD—often including 'making of' scenes and evidentiary material—viewers assume the position of active co-constructors of hindsight. The DVD includes many extras: full interviews with witnesses for the prosecution, a family scrapbook with photos, more home video footage, and news reels on the case. In addition, a second DVD disc features coverage of the discussion after the New York premiere, where many people involved in the case dispute each other's versions of what happened to members of the Friedman family. As the extra documents become an integrated part of the puzzle, the viewer is encouraged to sharpen his or her judgment by seeing more evidence, both to buttress the judge's decision and to back up the family's defense. In fact, as director Jarecki suggests in an interview, the documentary serves as 'the trial that never was' (there were only hearings in front of a judge), and the audience serves as a jury. From the puzzle of recordings, viewers ultimately decide for themselves what happened to this family. The seamless web of digitized documents weaves the family's narrative into and open-ended hypertext of possibilities: facts, testimonies, truths, and illusions.

In line with Moran's constructivist theory, technical and socio-cultural codes codetermine the construction of 'family' and our personal and collective memory of it. We can witness the disparity between the signified meaning of home movies in the 1950s as depictions of ideal families, and the signified meaning of analogue video as a record of 'real' family life, even in its destabilizing stages. Two generations of 'home

modes' are carefully crafted into a third cinematic construction of hindsight, prompting the viewer to reflect on what exactly constitutes our recollection of life-as-it-was.

Yet beyond this constructivist analysis, we need to acknowledge that *CAPTURING THE FRIEDMANS* is also a co-production of mind and technology, involving both the reconstruction of past images and the projection of future memories. Future construction of cinematic hindsight is already inscribed at the moment of each Friedman's home movie shootings, most notably when David Friedman takes up the video camera and turns it onto himself. Sitting on his bed, he starts a monologue into the static camera lens: 'This is a private thing, you know... if you're not me, you're not supposed to be watching this. This is between me and me, between me now and me in the future.' In this scene, David is talking to himself in the future. Indeed, why make a video if there was no intention of telling the family story some day, in some form? Another instance illustrating the intentional inflection of future memories shot in the past, comes in response to director Jarecki's question why David started to film his family's ordeal:

Maybe I shot the video tape so I wouldn't have to remember it myself. It's a possibility. Because I don't really remember it outside the tape. Like your parents take pictures of you but you don't remember being there but just the photographs hanging on the wall.

David cogently identifies the power of home video and home movies as dual instruments for recording and constructing family life. On the one hand, he needs to record his own version of reality because his father is going to jail and he does not want his own future children to remember their grandfather from newspaper pictures. On the other hand, he wants to 'document' his father's and brother's version of what happened and prove their innocence. David films Jesse while driving the car on his way to the court house where Jesse intends to enter his guilty plea hoping to obtain a reduced prison sentence. When David turns the camera onto his brother and asks: 'Did you do it, Jess?' to which Jesse solemnly responds: 'I never touched a kid.' This home video footage painfully contrasts the official court video, included later in the documentary, that shows a crying, remorseful Jesse who admits his guilt to the judge—an act so convincing you no longer know which 'documentary evidence' you're supposed to believe. David and Jesse undoubtedly utilize the home video to assert some measure of

control over the events as they are unfolding, perhaps in an attempt to prevent the family from breaking up. But in doing so, they consciously build their future defense—their personal memory of a torment that was, in their version, uncalled for and unjust.

James Moran's theory, favoring a social constructivist approach of home movies, emphasizes precisely the inseparability of technical instruments and socio-cultural codes in the conceptualization of memory, family, and home movies. Through our home modes we construct the memories of tomorrow, and via our technologies we create projections of the future past. However, as shown in this analysis, such theoretical approach ignores the functions of mind and cognition in the construction of home movies—an aspect quite relevant to the construction of mediated memories. Former family life is remembered through technological, cultural *and cognitive* means of mediation, and cinematic hindsight necessarily braids mental projections inscribed in technological home modes with the cultural conventions of public cinema. Combining both theoretical perspectives helps to acknowledge the various constitutive elements of audio-visual remembrance. Home videos shape and feed our memories while cinematic reconstructions coil with mental projections. We will now turn to a contemporary film that seemingly privileges bio-technical explanations of cinematic memory at the expense of cultural explanation, only to arrive at the conclusion that both perspectives are needed to comprehend this phenomenon.

The construction of cinematic hindsight in THE FINAL CUT

In recent years, quite a few movies have been made echoing a Deleuzian connection between brain and screen in the configuration of human memory. While Hollywood productions like *ETERNAL SUNSHINE OF THE SPOTLESS MIND* (2004) and *MEMENTO* (2000), capitalize on confounding past and present in an individual's mind, science fiction films like *THE MATRIX* (1999) and *STRANGE DAYS* (1995) typically envision the potential of media technologies to mix past and future memories. The advent of digital technologies, and particularly virtual reality environments, inspire the creation of 'virtual consciousness,' allowing either a glimpse of the past through the 'eyes' of a former self (*STRANGE DAYS*) or offering an embodied perspective on future events (*THE MATRIX*). In these movies, media technologies enable individuals to escape the constraints of their present state of being, instead moving effortlessly between past, present, and future. Philosophical concepts articulated in science fiction films, in turn,

help shape our mental and technological constructs of memory. The function of these movies is to ‘imagineer’ what memory may look like in the future. A projected collapse of the brain with sophisticated chip technology, far from an incidental concept, is a recurring trope in science fiction films.

One film that specifically mingles a projection of memory’s future with an imaginative home ‘mode’, is Omar Naim’s *THE FINAL CUT* (2004). The movie is interesting because it almost literally illustrates Deleuze’s theory on the conflation of brain and screen. Staged in the unspecified future, the latest hit in home movie technology is the so-called Zoe Eye Tech Implant: an invisible organic device implanted in the brains of a fetus, equipping the recipient to automatically shoot a lifetime of experiences through his or her eyes—an audiovisual recording straight from the brain. The implanted camera starts rolling the moment the fetus passes its mother’s birth canal, and won’t be removed until that person’s death. In Naim’s imagined society, one out of five people carry an implant, often unwittingly, as parents are not supposed to inform their children of this surprise until they turn twenty-one. The Zoe-implant is one of the most precious gifts a parent can donate to a child; it replaces the need for personal photographs or home movies because the eye-camera offers a full and exhaustive registration of someone’s life. After the person’s death, the chip is removed to be edited into a so-called ‘re-memorial’, a 90-minute film reminiscent of a made-in-Hollywood biopic. The re-memorial comes with a new ritual: a commemorative gathering taking place forty days after a person’s death at a cinema-alias-funeral parlor where the feature length retrospective of the deceased is premiered to an invited audience.

Main character of *THE FINAL CUT* is Alan Hakman (Robin Williams), one of the best professional cutter’s of re-memorial movies. His job is to turn the lifetime reels, once removed from the deceased’s brain, into conventional audio-visual productions—a kind of anthologized digest presented as the ultimate obituary. In the main plot line, Alan Hakman is asked to perform the ‘final cut’ on the life movie of Charles Bannister, one of Eye-Tech’s attorneys who recently died. His widow Jennifer instructs Hakman to edit her husband’s implant-footage into a glossy retrospective, honoring the principles ‘family, community, career’ and thus carefully omitting any scenes that would compromise his public image. As all cutters do, Hakman betrays the cutter’s code proscribing to refrain from manipulation, instead accommodating the wishes of surviving relatives. While sorting through Bannister’s life files, the editor is not only confronted with dubious money laundering schemes and fraud, but also witnesses

scenes in which the attorney commits adultery and incest with his daughter Isabel. Hakman discretely erases all compromising evidence from the deceased's ultimate portrait: the delete function turns out to be the cutter's most important re-memory tool. The result is a sanitized life in review, a public version of a family man with a brilliant career. Although every re-memory visitor understands the subtext of this film, the dark side of Bannister's life remains invisible to the public eye. The ultimate home movie is everything but a 'true' memory of the deceased's life. Like any film, this one is a mediated construction rather than a concatenation of 'pure' registrations of 'authentic' past events; after all, the editor defines both the choice and order of scenes. By definition, the retrospective captures the idealized family, and by removing painful episodes of adultery and incest, the family's memory is literally cleansed of its troubled past.

Director Naim takes Deleuze's idea of the brain as screen very literally: the eye *is* the camera; the home movie is allegedly shot straight from the visual cortex. The theory of the movie camera coinciding with the mind's eye and the screen with the brain suggests the inseparability of thought processes from the technological substrates enabling their manifestation—what Deleuze (2003: 262) touts cinema's 'psychomechanics'. The vector of time is an arrow bent into a circle: projections of the past become memories of the future and vice versa. Naim's movie conveys a philosophical reflexivity based on Deleuze's contention that cinema is not *about* concepts, but is itself a conceptual tool, raising questions like: What are the new forces unleashed by memory once it becomes an organic biological-mechanical construct? What are the ethical and social consequences of eye-implants?⁶ Updated to Hansen's conjecture of digital technologies, Naim underscores the bodily basis of vision by making external and internal views indistinguishable. We constantly switch from the mind of Hakman, whose filtering of information is clearly tainted by his own memory, to images 'shot' by Bannister's chip implant—the very images Hakman is supposed to filter. Instead of simply receiving images as preexisting technical forms, mind-images and movie-images are mutually constitutive, consequently questioning the ultimate liability and reliability of bio-engineered vision.

However, the convergence of brain and technology is not enough to account for this intricate construction of cinematic hindsight. *THE FINAL CUT* attests to the idea that, despite the merger of eye and camera, the manipulating power of memory lies neither in the brain nor in the technology, nor in a combination of both, but in the interaction

between brain, technology, *and culture*. With the help of advanced media technologies, every ‘re-memory’ made up of mind-footage is modeled after the accepted cultural form of an audiovisual obituary: a life-in-review movie that conspicuously conforms to the conventional Hollywood format. In fact, the brain is the camera shooting the movie, but that movie is ultimately a product of culture. Capturing and projecting life, even in the futuristic bio-digital society of science fiction, remains the work of an editor whose final cut is subject to the cultural norms and social codes of the present: a smooth 90-minute biopic. As becomes eminently clear from Naim’s movie, mind and brain may fuse with technologies of memory, but all mental-technological constructs of past family life are always in and by themselves social and cultural constructs.

What we learn from an analysis of this film is that the construction of cinematic hindsight is arduously interwoven with dominant social and moral codes, anchoring futuristic extrapolations of techno-engineered memory in hegemonic cultural forms. The malleability of memories over time is not in the least facilitated by molecular-digital technologies enabling first their conception and later their re-vision. We wield camcorders and home videos to construct a pleasant future memory of the past, thus anticipating the editing function as a feature of the mind as much as a feature of technology. And we wield film cameras to construct a version of memory that accounts for the conventional use of home recording technologies, while concurrently reflecting on the potential formative power of future technologies. At first sight, Naim’s science fiction movie offers a straightforward illustration of Deleuze’s and Hansen’s theory of embodied memory as an amalgamation of mind and technology. Closer analysis, however, yields the inescapable significance of cultural forms as constitutive elements in the construction of cinematic hindsight.⁷

Cinematic hindsight in the future

Cinematic productions incorporating real or fictive home movies provide a running commentary on the status of ‘home modes’ as audiovisual reconstructions of family life. According to James Moran, the home mode is a techno-social construct in which concepts of ‘family’ and ‘home’, are intricately intertwined, at once revising old notions of memory and media and anticipating new ones. Changing technologies (first 8mm film, then video, now camcorders) are instrumental to the construction of familial memories—images of how a family was, how it presents itself, and how it wants to

remember and be remembered in the future. At the same time, conventional forms—both fiction and non-fiction genres—inherently shape our home modes, molding private footage to fit or thwart dominant cultural molds. In Moran's view, the future of cinematic hindsight is likely to be determined by our tools for remembering as much as by the cultural forms informing our imagination.

Beyond Moran's techno-cultural thesis, it is imperative to consider the brain/mind as a contributing factor to the construction of cinematic hindsight. Gilles Deleuze (2003) has stated that cinema makes the invisible perceivable; in movies, past reconstructions and future projections materialize into image sequences, which in turn feed the viewer's imagination. Cinema is a matter of 'neuro-physiological vibrations' where the image 'must produce a shock, a nerve wave which gives rise to thought' (2003: 167). The cultural forms we produce, whether home movies or science fiction films, are at once the result of, and input for, our 'brainwaves.' The future of cinematic hindsight is therefore also contingent on the mind's shaping power of past and present film productions—a shaping power that leads Mark Hansen to shift his focus to the 'post-cinematic problem of framing information in order to create (embodied) digital images' (2004: 270).

With the advent of digital camcorders and advanced digital editing facilities, our awareness of moving images serving as input for future audiovisual reconstructions is likely to become even more prevalent. The rapidly growing cultural practice to record one's life audiovisually by means of ever more digital instruments, combined with the innate inclination of human memory to select and reinterpret the past, presages the immanent expansion of cinematic retrospection. Bolstering this trend is the growing interest of people in multi-media productions that galvanize their remembrance after death; like artists or actors, we want to secure an eternal place in the virtual universe (Veale, 2004). Personal 'live' recordings of someone's life increasingly resemble fashionable television formats or conventional film genres. A perfect example is the popularity of 'memorial videos' as part of a funeral experience. Businesses like 'Life on Tape' and 'Precious Memories' offer the possibility to turn pictures and home video footage into a smooth five-minute eulogy to be screened during the memorial service or to be burned on a DVD as a gift to family and friends after the funeral.⁸ Reminiscent of the fictive re-memorial in *THE FINAL CUT*, the five minute eulogy proffers a seamless blend of personal (moving) images into a standard format of pre-selected soft-focused imagery, complemented by the deceased's music of choice. A recent trend to shoot and

edit your own memorial movie while still alive and edit the footage into a memorial video—which not coincidentally resembles the biopics of public figures broadcast on television upon their death—seems the next stage in the construction of cinematic hindsight.

Mental projections, technical imagineering, and cultural imaginations can hardly be analyzed as separate manifestations of audiovisual remembrance. Therefore, we need both Deleuze's and Hansen's concepts exploring the construction of memory at the junction of mind and technology, and Moran's constructivist theories analyzing the home mode at the intersection of technology and culture. Cinematic constructions of hindsight are the result of concerted efforts to save and shape our private pasts in a way that befits our publicly formatted present and that steers our projected futures. Combining cognitive philosophical and social constructivist perspectives, we will be better equipped to understand future constellations of cinematic hindsight as the multifarious products of mind, technology, and culture.

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NOTES

¹ In recent years, philosophers of mind reject such implied hierarchy between two constitutive agents in the process of memory. Mind and technology are closely interwoven in our projections and memories of self (Clark, 2001; Sutton, 2002). The desire to identify oneself as belonging to a family may be deeply implicated in use of the private camera as a mnemonic tool—to save visual evidence of family life for later reference—but it may just as well be a function of the brain to funnel conscious perceptions of self into desirable or idealized (moving) images.

² Hansen argues that Deleuze in fact detracts from his source of inspiration Henri Bergson; Hansen claims his ‘updated’ modification of Deleuzian theory stays more in tune with its roots in Bergson’s philosophy of mind (1911).

³ The documentary CAPTURING THE FRIEDMANS, produced by Magnolia Pictures, came out in 2003. In that same year, the DVD containing two disks with the documentary and lots of extra materials was distributed by HBO Video.

⁴ In the interview with Andrew Jarecki featured on the DVD, the director relates how in the middle of shooting the film, David Friedman came up with 25 hours of taped home video and consented to its being used for the documentary.

⁵ Interviews with the Friedman family members include Arnold’s brother Howard, his wife Elaine, and their sons David and Jesse; their brother Seth declined to be interviewed. Interviews with people who were involved in the child molestation case include Arnold’s and Jesse’s former lawyer, police investigators, alleged victims—then children, now adults, who both confirm and deny former allegations—parents of alleged victims, and an investigative reporter who wrote on the case.

⁶ A second storyline in the movie narrates the protests of a violent anti-implant group who opposes any form of bio-technological recording; two activists chase Hakman in order to obtain the Bannister files, which would provide a damaging blow to the implant-industry.

⁷ One of my criticisms of Deleuze’s theory concerns his disregard of movies as cultural forms and watching movies as a socio-cultural practice. However, when writing his *Cinema 2*, Deleuze had limited ends in mind, and the cultural dimension I emphasize here, simply lies outside his stated object. I am not saying, though, that Deleuze completely ignores culture and politics in his writings; the micro-politics of culture are discussed more generally in his works *A Thousand Plateaus*, *Capitalism and Schizophrenia* (1988) and, with Felix Guattari, *Anti-Oedipus*, *Capitalism and Schizophrenia* (2003)

⁸ Life on Tape, a Dutch producer, specializes in memorial videos: <http://www.lifeontape.nl>. ‘Precious memories and more’, an American company, offers memorial DVDs to ‘help survivors memorialize their loved ones’: <http://www.preciousmemoriesandmore.com>

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