

Cultural Memory: Data, Brain, Creativity

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I. Difference between memory and recollection (storage vs. creation of data)

Thanks for invitation and readiness to change programme: No Cyborgs, instead "cultural memory".

But cyborg good to start with, helps to explain my subject.

In a situation like this coming from Germany to talk to you, somehow I would not mind to be a cyborg: I could have put a memory chip in my brain with a complete dictionary of the english language and switch off my drowsiness, caused by my jet lag. Unfortunately, I cannot retrieve data from my brain in the flawless way a machine could do it. I have to confront you with the very rusty and fragmentary memory of my school english. I apologize for that, but on the other hand, the discomfort you and me have to face because of the gaps in my memory is giving us a very good example of the condition of our everyday memory function: Usually, we have no direct access to the data we try to remember. Only those data whose remembrance has been automated, like the word "hello", which comes automatically to your mind, when you meet someone on the street, we can reproduce in a way that is comparable to the retrieval system of a computer. But that's not the specific human kind of memory, it's rather the computerized part of it. In opposition to the information retrieval of a computer, our remembrance is not merely a reproductive but rather a creative process: We rely upon fragmented data to fill their gaps with our imagination – that is we produce new meanings out of old ones. What makes our memory specific we realize best when we have problems with it. For example, as I am not a native english speaker, I have no memory at all about the english usage of what I describe with the german word "Erinnerung" in opposition to "Gedächtnis". All I know are the words memory and recollection which do not match completely the meaning I have in mind. So what I have to do is creating new meaning out of old one. For example I can say, my concept of memory is that of a storage and retrieval system while the meaning I want to express with recollection is that of a creative process. A computer can have memory but no recollection. Memory we can look at from outside in the perspective of a "third person science", while recollection can be understood only within the perspective of a "first person science". And so on.

So, the obvious lacks in my remembrance of vocabulary are forcing me and you to use our phantasy and imagination about what I want to say – even if I do not say it literally. You have – so to speak – to "read between the lines" of my speech. But not only that: Even if you get the right words, they would be meaningless for you, if you would not activate your own remembrance of past situations where you have heard the same words and transform their meanings according to the present situation. So, in a way, you do the same job like me, trying to reproduce what I have jot down before and by this making something new out of it. So the first thing we have to understand when we talk about cultural memory, is that recollection is a creative process. How does it work?

The functioning of the recollective process: interpreting and thus making the past
In opposition to a computer our memory is not a storage and retrieval system but rather, as previous research on brain activity has shown very clearly, a network of neural connections that activate particular regions, that have been stimulated before, when there is a similar sensation. A light smell of tea for example can recall a whole lifespan like in Proust's remembrance of things past. So recollecting is not taking out data out of an archive but rather stimulating neural structures that reproduce the sensation of perceiving data and thus bringing to mind images, feelings, sounds and so on, transformed by the present situation in which we recollect them. The traces are there, but when they are activated, they do not lead to exactly the same associations and inner perceptions, but rather are changed according to our present condition.

Most of the time we do not realize this creative supplementary function of our memory. Normally, everyone is very convinced that his or her version of the past is right. On family meetings however, there can be big arguments among brothers or sisters about the different versions of childhood events. For example my elder brother is very certain that he beat me only a few times, while I have the impression it happened almost everyday. Probably we are both wrong. Because we all are interpreting and thus making our own past. In a way, it is irritating and even frightening when we reflect upon what is the truth of the past. What is reliable on our memory if not the data that are stored in it? But if we take a closer look, we find that even information is not reliable at all. Every information is an interpretation of the data we perceive. Data would be absolutely meaningless to us if it was not interpreted by subjects. And this is the reason why an absolute memory would be the

extinction of memory. Imagine a storehouse full of things. Would it be easier to find something particular? Of course it would be more difficult. If everything would be equally present, nothing would be present. So the big illusion about the information systems of our days is that we increase our cultural memory. The opposite is true, as Clifford Stoll puts it: "Getting information out of the internet is like drinking of a fire extinguishing hose – you get all wet but you remain thirsty."

So we always need to interpret data in a subjective way to understand them at all. The same is true in relation to the data of our own past. Without the creative potential of human recollection there would be no feeling of an identity of the self. Even if the facts that we integrate in our own life course are obviously mistaken, we can build a feeling of "authenticity" out of them – as long as we are not forced to face the difference between the facts and our life story. Memories can be true or false, but recollecting is either authentic or not. In America there has been a big discussion on this, known under the term of "false memory": This phenomenon has shown that it is possible to make a person believe that something in his life has occurred what in fact did not occur at all. Still the fiction can be felt as being very authentic.

Problems like this are inevitable. To get a feeling of oneself, everyone has to "write" his or her own life story, and usually we rewrite it every time when there is a significant change in our lives, that is giving us the feeling that our latest version of our selves needs an update. So it is the experience of a break in the automated course of life events that activates our creative memory functions. An artist who lives with the self-awareness of being a failure because nobody shows interest in his or her works, can suddenly be discovered and be made a star. From that moment on his whole past may appear him or her as a preparational process for this final success. His recollection reifies to memory again, and a good artist will be one who never stops questioning the rightfulness of his memory picture about himself.

Interrupting the automated mechanisms of memory to activate the process of recollection. It is always the awareness of having memory gaps, of not having already the desired data, which turns on the recollective process and thus brings us in touch with the perception of our own identity.

To give you a very simple example of the interconnection between experiences of an interruption and self-awareness: When I move my hand automatically just like I do while

talking, there is very little consciousness of this movement. But when I stop, in the very moment of stopping I feel the bodily sensation of the movement. What has been a mere mechanical outer activity has turned into an inner perception. The same happens when there is a break in the automated course of memory functions: When we stop retrieving automatically data that have been previously stored, as we always do while talking i.e. reproducing words we have learned, in the moment of cutting through this data flow of words, we can come to an awareness of the situation. This is the reason why many meditation techniques recommend silence to achieve deeper insight, i.e. to come to the state of a collected mind. And facing the absence of data, this collected mind is open for the process of recollection. This can also happen undeliberately, of course. For example, when there is a computer breakdown with a loss of data, this catastrophe can lead to a recollection of what our eager collecting and retrieving of data is all about.

Now, this is not only true for individuals, it can be said also for social groups. Our cultural memory might well be laid down in archives, monuments, museums and so on, but the experience of living in a culture and being part of it, demands the same creative process of supplementary imagination of things that are not stored in the cultural memory. Also our cultural memory is only turned into a living process of recollection, when there is a break in the outer routines of its functioning. This break could come from outside, as a historical event, for example when the experience of the holocaust is demanding for a complete change in the perception of german cultural history. What might have been seen before as a quite sophisticated cultural life, has suddenly turned into an unspeakable barbarism, demanding for a new understanding of how this change could happen, i.e. a new writing of the past.

But of course, it is not a good idea, to wait always for a historical change to start with a new interpretation of our cultural memory. To prevent events like the holocaust, or any other decline of culture, we have to break the routine of cultural memory deliberately. And the field in which this can happen most convincingly, is arts.

Example of how artistic work can stimulate the experience of recollection: by disturbing cultural memory

To illustrate, how artistic work can stimulate the process of recollection by destructing the illusionary consistency of cultural memory, I want to give you a short impression of the work of the architect Daniel Libeskind.

Libeskind is the builder of the Jewish Museum in Berlin. And the concept of his project gives a very good example of what I have told you about the relationship between breaking the outline of the databased cultural memory in order to stimulate new experiences of recollecting the past.

Libeskind started with drawing a hexagon on a Berlin map that linked the addresses of famous German Jews that were the upholders of the spiritual and cultural life in the city. This drawing resembled the Star of David. Libeskind himself called it a cliché, but, he said, you have to take just anything to start with – namely to start with the work of Deconstruction: According to the Jewish history in Germany, the construction of the museum doesn't leave much left over of the original hexagon. It forms a zigzag-line, whose fragmentation is symbolizing the interruptions and breaks in the continuity of Jewish history – symbolizing the invisible parts of it, the unrealized hopes of the past. Thus, the museum is built around a void, a void that is going through the building, so that it can be experienced by the public as such. In consequence, there are only very few exhibits left, because what shall be shown is not a presence but rather an absence, an absence that is in fact still forming the cultural life of Berlin today, but less and less experienced as such. So the museum, unlike other museums of the classical kind, is not serving cultural memory by presenting a collection of data, but in the contrary activating the recollection of the public by interrupting the expectation of getting data and thus opening to the experience of memory gaps that have to be filled by their own imagination.

Libeskind has also created a "memory machine" (p. 39). With its lavish production that is obviously malfunctioning, it reminds us of the fact that our belief in the reliability of memory is illusory.

There is no time to go more in detail right now. To conclude, I would just like to raise the question, if a corresponding piece of art could be designed in the medium of the computer. A computer is a memory machine through and through. Can its mnemonic functionality be transcended to the experience of recollection? If we look at older mnemonic devices like writing or taking photographs, which can be used both to serve memory as well as to activate the process of recollection, we find no reason why we shouldn't be able to use also

a computer in both ways. But I doubt that we have yet enough convincing examples of how this can happen. There hasn't been enough time yet to establish the aesthetics of electronic arts to the extend of the aesthetics of older media. But its main task remains the same: To be creative, we must destroy our identification with the illusion of consistency that our cultural memory is giving us. The new aesthetics of electronic arts would have to show on the proper field of the computer, wich is a memory machine through and through, how its memory functions can be questioned and deconstructed and thus being opened for the imaginative process of recollection.

I stop here, being very certain about being successfull in one concern: namely that the understanding of my fragmented ledcture, brought to you in a broken english, has left your own imagination a lot of work to do.