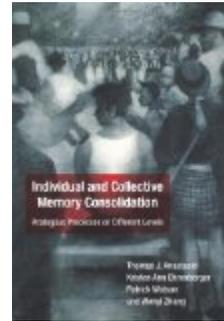


Thomas J. Anastasio, Kristen Ann Ehrenberger, Patrick Watson, Wenyi Zhang. *Individual and Collective Memory Consolidation: Analogous Processes on Different Levels*. Cambridge: MIT Press, 2012. ix + 333 pp. \$40.00 (cloth), ISBN 978-0-262-01704-6.

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Individual and Collective Memory Consolidation: Analogous Processes on Different Levels

Most interdisciplinary work is done among closely related fields, as with the intersection of history, literature, sociology, and others in American studies, or, among the “hard sciences,” the regular intersection of biology and chemistry necessary for exploring life at the microscopic level. Cross-fertilization between the humanities and the sciences tends to be more controversial, as per Julian Jaynes’s 1976 book *The Origin of Consciousness in the Breakdown of the Bicameral Mind*, which attempted to reach conclusions about the brain functions of ancient peoples based upon what little has survived in the way of the earliest literary and historical records.[1] Often, the bridges built between the sciences and the humanities seem one-way streets, with science bringing the great weight of its legitimacy and quantitative analysis over into the “softer” realms of study—because, after all, what might a historian or an anthropologist actually have to contribute to the field of neuroscience, for example?

As it turns out, plenty. What proves impressive about *Individual and Collective Memory Consolidation* is not only the range of disciplines represented by its four authors (neuroscience, psychology, history, and anthropology) but also a true, two-way interdisciplinary scope which acknowledges and builds upon the important work done by both cognitive scientists and humanities scholars on the subject of memory—specifically memory consolidation, defined as “the conversation of more immediate and fleeting bits of information into a stable and accessible representation of facts and events, includ-

ing a representation of the world and the entity’s place in it,” or the process by which short-term memories become long-term memories (p. 3).

After a brief survey of the relevant literature defining individual and collective memory, the authors put forward their own model of memory consolidation, a “three-in-one” model composed of a buffer, a relater, and a generalizer, all located within the consolidating entity, considered a component of the model. The buffer engages in short-term storage; on the individual level, this constitutes a mental sketchpad of working memory, while on the collective level the mass media, for one, play this role, “providing substrates for consolidation, holding the ‘ephemera,’ directing the public’s attention, and responding to its desires” (p. 85). The relater establishes relationships between the new information temporarily stored in the buffer and schemas already long laid down. Physiologically, this would be the hippocampus, which carries out these operations in the brain, just as for the collective “relation-makers in society (including opinion leaders in journalism, academics, politics, etc.) ... function as its ‘social hippocampus’” (p. 106). The third part of this process is the generalizer, the long-term memory storage component in which firm narratives are established. On the collective level, this would be an institution like a museum or a general textbook presenting only scientific knowledge that has withstood the test of time and repeated inquiry.

However, this is not the end of the consolidation process: “Just as the function of a thermostat is continuously to regulate the temperature of a house, the function of the consolidation process is continuously to reshape generalized knowledge constructs” (p. 128). Indeed, a feature of the model offered by Anastasio et al. is an ongoing recursion between the three levels, for the meanings attached to events at the relater stage often depend upon schema already long established: “The looping, recursive nature of our consolidation model accounts for the fact that what is already remembered will influence the formation of new memories” (p. 71). In addition, the entity as a whole (the individual or the collective) influences what is remembered, adding “non-mnemonic factors such as goals, desires, emotions, and a sense of coherence” (p. 167). The effect of the entity as a whole is part of the reason that stable, generalized memory is so slow to change, given that such memory constitutes a large portion of one’s identity on both the individual and collective level.[2]

One might well analogize this process, in terms of collective memory consolidation, by reference to the September 11, 2001, attacks. Mass media (television, newspapers, radio, and Internet sites) acted as the buffer in which the latest happenings were held but briefly. The American social hippocampus—politicians, opinion leaders in the media, and certain academics of national standing—shaped how the attack was understood by relating it to events already a part of long-term memory, such as the attack upon Pearl Harbor or the lengthy history of Muslim-Christian conflict. Of course, any event can be polysemic, and even an individual, according to some researchers, “has not one but many autobiographical networks that interconnect, so that memory items stored in one network can be recalled by associations that have been activated in another network” (p. 113). Memory consolidation consists in part of ongoing contest and negotiation over meaning on the individual and collective level. Some social hippocampi in American society (“alternative” thinkers such as Noam Chomsky) attempted to frame the events of September 11 within the context of ongoing American support for dictators across the world, as well as numerous violations of the sovereignty of nations whose policies went counter to American political and financial interests. However, the entity effect of American society at large, eager to see itself as the object, rather than the perpetrator, of evil, limited the extent to which such divergent views could be disseminated.

The authors extend their analogy between individual

and collective memory consolidation to consider interruptions to the process and the resultant loss of memory. On the individual level, damage to the hippocampus can result in retrograde amnesia, in which memory of recent events (those in the process of consolidating) is lost, while those long-term memories already consolidated remain preserved. For societies, social trauma, such as political revolution or natural disaster, can damage or destroy the social hippocampus. To determine whether or not this causes a loss of collective memory analogous to an individual’s retrograde amnesia, the authors compared three populations of Chinese people—mainland China, Taiwan, and those in northern Thailand—to determine if the mainland population that experienced the communist takeover and reordering of society experienced any collective memory loss regarding certain cultural touchstones of the immediate pre-revolutionary period. Indeed, knowledge of critically acclaimed literary works of that period remained within the non-communist populations, where “bourgeois” works were not so roundly suppressed. Religion was also suppressed on the mainland, and what the comparison between the three Chinese populations reveals is that “collective memory for some of the central tenets of religions, established in the remote past, have [*sic*] survived the Cultural Revolution. What has been destroyed in China is memory for the recent events that would have lighted the path that connects their current experience to their traditional past,” a memory which survives in Taiwan and northern Thailand (p. 224). Where collective memory differs from individual, however, is in the possibility of recovering lost and unconsolidated memory, as has happened in the mainland after censorship was relaxed somewhat, allowing for a renewed appreciation of pre-revolutionary works of literature, to give one example.

While the authors do yeoman work in laying out their thesis and following this up with real-world examples drawn from neuroscience and history, there is one subject which they raise but briefly and immediately drop—acts of the imagination and the consolidation of false memories. On the individual level, “many of the normal functions of human remembering closely resemble the same processes used in the creation of a personal, fictional narrative” (p. 139). The authors recount experiments that have shown how false memories consolidate in the same manner as do true ones, noting also the demonstration, by those in the field of literary criticism, of how the production of autobiographical narratives recursively shapes the events recalled. However, the authors fail to offer any analogue for such production of

false memory on the collective level despite the prevalence of examples. Sociologist Jeffrey C. Alexander, in his exploration of the phenomenon of trauma, has written that the source of trauma need possess no ontological reality: "Imagination informs trauma construction just as much when the reference is to something that has actually occurred as to something that has not." [3] One example of collective false memory might be the interpretation offered by feminist neopagans of the witch trials that occurred in early modern Europe (the so-called burning times), which holds that the persecutions were directed against members of a pagan religion and that nine million women lost their lives during this period (a number which holds as much rhetorical power among some such groups as does the figure of six million among Jews). Whatever one's take on the witch-cult hypothesis, the estimate of nine million murdered has been roundly debunked by scholars, though this has not stopped the ongoing invocation of that number by feminist neopagans, for whom it has come to represent the most brutal manifestation of patriarchy and part of the "psychocultural narrative" (to use Marc Howard Ross's terminology) by which that group constructs its communal identity. [4] Does this not constitute false memory implantation on the collective level?

Similar, though operating from an entirely different motive, are those narratives which allow a dominant group to feel itself the real victim of persecution—for example, the fabricated Jewish "blood libel" stories that became entrenched in European Christian consciousness, even enshrined on the liturgical calendar (through the canonization of William of Norwich, among others), all designed to make the Jews appear the persecuting rather than persecuted party. Or take another example, the Confederate flag. Before 1948, the flag most often associated with the Confederacy was the pattern known as the "Stars and Bars," the national flag of the Confederate States of America, rather than the pattern with the St. Andrew's cross, which was, most notably, the battle flag of Robert E. Lee's Army of Northern Virginia. However, in 1948, Strom Thurmond made a point of displaying the latter during his campaign for the presidency on the platform of the racist States' Rights Democratic Party. Since then, the display of this Rebel flag has been the cornerstone of "Confederate heritage" movements, lauded as the banner under which Southerners had fought. In fact, the concept of "invented tradition," as formulated by Eric Hobsbawm and Terrence Ranger, could easily be understood as false memory implantation on the collective level, be it the story of Thanksgiving (not originally

proclaimed in honor of the Puritans) or the noble lineage Southern white aristocrats in antebellum America fabricated for themselves in order to be distinguished from "white trash." [5]

Of course, the question as to what extent memory—either individual or collective—is fabricated lies beyond the purview of this book, perhaps being best left to the philosophers. What this book does, and does very well, is establish a firm and consistent analogy between individual and collective memory consolidation, demonstrating that the processes of consolidation on both levels bear more than simply metaphorical similarities to each other. The cognitive scientist's analytical insights into personal memory formation prove applicable at the group level, while cultural theorists' more intuitive work in collective memory can, in turn, offer a vocabulary and model for describing brain states. The four authors of *Individual and Collective Memory Consolidation* had set themselves a herculean task in aiming to delineate a full-fledged analogy between these two kinds of memory, and they have more than met their own demands, laying out their argument step by patient step. If, at times, the book seems repetitive, it is because the complex processes they describe are themselves perpetually recurring upon each other, never following the straight and easy line from start to finish, and the book captures this reality grandly. This is not only a compelling volume on memory, it is also a model of what interdisciplinary scholarship can be.

Notes

[1]. Julian Jaynes, *The Origin of Consciousness in the Breakdown of the Bicameral Mind* (Boston: Houghton Mifflin, 1976).

[2]. The entity effect might be best described by Randall Studstill, according to whom the human mind is "essentially an ongoing locus of resistance requiring continuous maintenance and monitoring" in order to perpetuate a homeostatic state between self-perception and sensory input that might contradict it. The internal narrative we all process at all moments of wakefulness "functions as a reinforcing mechanism, by continuously 'telling the story' of self and world as defined by our conceptual constructs." See Randall Studstill, *The Unity of Mystical Traditions: The Transformation of Consciousness in Tibetan and German Mysticism* (Leiden: Brill, 2005), 155, 117. On the collective level, the entity effects have been described by Manus I. Midlarsky, who has noted that one of the problems with tackling structural evils such as political extremism is that, for many people, their sense of self-worth is wrapped up within the perceived worth of

the group, so that calling into question the fundamental goodness of the collective identity can call into question the fragile ego of the individual. See Manus I. Midlarsky, *Origins of Political Extremism: Mass Violence in the Twentieth Century and Beyond* (Cambridge: Cambridge University Press, 2011), 358.

[3]. Jeffrey C. Alexander, *Trauma: A Social Theory* (Cambridge: Polity Press, 2012), 14.

[4]. For a definition of “psychocultural narrative,” see Marc Howard Ross, *Cultural Contestation in Ethnic Conflict* (Cambridge: Cambridge University Press, 2007), 22–26.

[5]. Eric Hobsbawm and Terrence Ranger, eds. *The Invention of Tradition* (Cambridge: Cambridge University Press, 1983). Regarding the proclivity of antebellum Southerners to claim noble lineage, see W. J. Cash, *The Mind of the South* (New York: Knopf, 1941).

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