

Homo Sapiens: Beyond Biology to Narratives of Meaning

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This article delves into the intricate interplay between Homo sapiens' biological foundations and our inherent drive for narrative construction. Anchored by our evolutionary trajectory, especially the development and function of the neocortex, we explore the human propensity to craft and immerse in narratives while also harboring a capacity for present-moment awareness. Drawing upon insights from narrative psychology, cognitive neuroscience, philosophy, and sociology, we examine the implications of these dual tendencies, both at the individual and societal levels. The synthesis presented sheds light on the potential for harmonizing our narrative essence with a neocortical emphasis on the "here and now," offering fresh perspectives on the nature and future of human cognition and culture.

Keywords: *Homo sapiens, neocortex, narrative construction, present-moment awareness, cognitive neuroscience, narrative psychology, cultural narratives, "here and now," evolutionary biology, societal narratives.*

Introduction

Homo sapiens, while biologically categorized as an animal, occupies a unique space in the realm of cognition, primarily due to their proclivity to live in self-spun narratives. This paper delves into the intertwining domains of narrative psychology, cognitive neuroscience, discursive analysis of culture and history, and the philosophy of cognition to elucidate this phenomenon.

The human experience, unique and multifaceted, remains an enduring enigma at the intersection of biology and culture. While *Homo sapiens* share the Earth with countless other species, our capacity for abstract thought, introspection, and, most crucially, narrative construction, sets us apart. What propels humans, essentially biological entities, to venture beyond the immediacies of their tangible environment and immerse themselves in elaborate stories and imagined realities? Harari (2014) in his seminal work, "Sapiens: A Brief History of Humankind," postulated that what distinguishes *Homo sapiens* from other species is our ability to create and believe in fiction. This is underpinned by the interdisciplinary studies in the field of narrative psychology, cognitive neuroscience, and cultural discursive analysis.

To understand this phenomenon is to understand the quintessence of humanity itself. Historically, disciplines ranging from anthropology to neurology have attempted to shed light on this question. While anthropologists trace the emergence of cultural narratives and shared myths in ancient civilizations, neuroscientists delve deep into the human brain, endeavoring to map the neurological roots of our narrative predilections. Yet, despite these multifaceted efforts, the comprehensive synthesis of how biology informs our narrative essence—and vice versa—remains elusive.

Aim of the Article

This article seeks to bridge this interdisciplinary divide, melding insights from evolutionary biology, cognitive neuroscience, philosophy, and sociology. Through an exploration of the neocortex's pivotal role—a distinct and advanced neural structure within the human brain—and its interplay with narrative construction, we aim to elucidate how *Homo sapiens*, while grounded in biology, transcend it to live within a tapestry of imagined realities. In doing so, we hope to present a holistic perspective, shedding light on the evolution, function, and profound implications of narratives in shaping both individual and collective human experiences.

Narrative Psychology and Philosophy

Narrative psychology asserts that human beings primarily understand their lives in the form of stories (McAdams, 2006). These stories, while sometimes rooted in fact, are often embellished or modified for consistency, societal

acceptance, or self-enhancement (Bruner, 1991). Sarbin (1986) proposed that narrativity is a fundamental human way of thinking, suggesting that all human experiences are inherently structured narratively. Similarly, Gergen (1994) emphasized the significance of narratives in constructing self-identity and how external cultural narratives significantly shape our internal ones.

Cross (2000) analyzed the interplay between individual experiences and larger cultural narratives, indicating that the narratives we construct about ourselves often echo larger societal stories and paradigms. He argued that this reflection of broader narratives in individual lives serves both as a means of societal cohesion and an avenue for personal meaning-making.

From the standpoint of narrative philosophy, the manner in which humans weave their individual and collective histories is influenced by their cultural, social, and personal contexts (Ricoeur, 1984). Gallagher (1998) delved into how narratives are more than mere representations of events but are constitutive of our experience of them. He argued that narrative structures play a fundamental role in how we perceive, remember, and make sense of our experiences.

In summary, both narrative psychology and philosophy emphasize the essential role of stories in shaping human understanding, identity, and experience. The continuous interplay between individual narratives and broader cultural stories is a testament to the intricate narrative nature of human cognition and existence.

Cognitive Neuroscience

Modern neuroimaging studies underscore the profound impact of narratives on the human brain. These narratives activate a vast swath of neural regions, particularly those associated with understanding others' perspectives and introspecting on personal experiences (Mar, 2011). Hasson et al. (2004) discovered that when individuals listen to a narrative, their neural activations become synchronized, highlighting the unifying power of stories.

Moreover, Ochsner and Lieberman (2001) delved into the neural underpinnings of social cognitive processes, revealing that our capacity to understand and predict others' behavior (Theory of Mind) is closely linked to our ability to process narratives. These findings illuminate the neural connections between narrative comprehension and social cognition.

Ferstl et al. (2008) conducted a study that found the dorsal medial prefrontal cortex (dmPFC) and the temporo-parietal junction (TPJ) to be particularly active

during narrative comprehension, signifying the role these regions play in understanding the intentions and beliefs of story characters. This further bolsters the idea that stories serve as tools for mental simulations, allowing us to "step into the shoes" of others.

Furthermore, the posterior cingulate cortex, associated with self-reflection and autobiographical memories, is also activated during narrative processing, indicating that narratives help us relate external stories to our personal experiences and memories (Spreng et al., 2009).

In essence, from a cognitive neuroscience standpoint, narratives are not just passive receivers of information but rather play an active role in empathy, social cognition, and self-reflection.

The Imagined Realities: Homo Sapiens in the Nexus of Biology and Narratives in Connection with the Neocortex

Homo sapiens, as a species, represent a profound blend of biology and narrative cognition. Central to this interplay between biology and narrative is the neocortex—a unique and advanced structure in the human brain. Drawing from foundational work by Rakic (2009) and others, this article aims to explore how the neocortex facilitates the transition from raw biological impulses to complex narratives, underscoring our species' distinctive ability to craft and live within imagined realities.

The Neocortex: A Brief Overview

The neocortex, the outermost layer of the cerebral hemispheres, is responsible for higher-order cognitive functions, such as conscious thought, spatial reasoning, and sensory perception (Mountcastle, 1997). Among primates, humans have a uniquely expanded and sophisticated neocortex, especially in areas linked to abstract thought, language, and introspection (Deacon, 1997).

From Biological Instincts to Abstract Thought

Building on insights from Damasio (1994), we understand that while lower animals respond predominantly to immediate biological impulses and instincts, the human neocortex allows Homo sapiens to contemplate abstract concepts, anticipate future scenarios, and reflect upon the past. This capacity for abstraction is what sets the groundwork for narratives.

The Emergence of Narratives

The neocortex, particularly regions explored by Pinker (1994) linked to language and symbolic processing, enables the creation and comprehension of

stories. These narratives, ranging from personal anecdotes to grand societal myths, serve multiple purposes: they provide meaning, foster group cohesion, and guide individual and collective behaviors.

Living in Imagined Realities

Harari (2011) offers a compelling analysis of how one of the most striking outcomes of our advanced neocortical processing is the ability to live in "imagined realities." Concepts like nations, money, and religions are not tangible, biological realities but are narrative constructs. They exist and hold power only because large groups of people believe in and act upon them. The neocortex facilitates this transition from tangible to intangible.

Neocortical Narratives and Culture

Drawing from Tomasello (1999), we can posit that cultural evolution and the proliferation of diverse belief systems, traditions, and societal structures can be traced back to our neocortical aptitude for narrative creation and comprehension. Cultures, in essence, are intricate systems of shared narratives.

The neocortex bridges the realms of biology and narrative, grounding Homo sapiens in both their immediate biological realities and the imagined worlds they construct. This unique duality—rooted in biology yet transcending it through narratives—is central to understanding the cognitive, cultural, and societal complexities of our species.

Discursive Analysis of Culture and History

Discursive analysis emphasizes the intricate and pivotal roles that language and narratives play in the construction and representation of reality. Through a Foucauldian lens, we see that discourses—those structured methods of thinking and speaking about reality—are not merely reflective but are constitutive of our world (Foucault, 1972).

Fairclough (1992) expounded on the concept of 'discursive events' to highlight the role of social practices in shaping discourse. Such practices, which include institutional traditions and personal habits, influence the production and consumption of narratives. They ultimately determine which stories gain prominence and which are marginalized.

Hall (1997) explored the power dynamics embedded within discourses. By analyzing the interplay between dominant and subaltern narratives, he shed light on the sociopolitical mechanisms that reinforce or challenge the status quo. The

ways historical events are represented, remembered, and forgotten often hinge upon these dynamics, effectively shaping collective memory.

Butler (1990) delved into the performativity of discourse, suggesting that repeated and regulated patterns of speech not only describe reality but also enact and produce it. For instance, national narratives not only depict a nation's history but also play a role in constituting its identity.

Barthes (1972) asserted that every cultural product, from literature to advertisements, can be seen as a form of narrative that reflects and perpetuates societal values and norms. These "myths," as he termed them, subtly frame our understanding of the world around us.

In essence, the discursive analysis of culture and history underscores the interwoven relationship between language, power, and reality. Narratives don't merely chronicle events; they play a pivotal role in shaping perceptions, identities, and historical legacies.

Philosophy of Cognition

Understanding the nexus between narratives and cognition requires a foray into the philosophy of mind and its intricate relationship with the external world. Dennett (1991) postulated that the human mind is a collection of narratives competing for dominance, with our conscious self as a byproduct of this competition. This perspective is not just cognitive but is deeply interwoven with sociocultural narratives.

Merleau-Ponty (1962) emphasized the body as a locus of experience, arguing that cognition is rooted in our embodied interactions with the world. Narratives, then, are not just cerebral constructs; they emerge from our physical, situated experiences in the world.

Gadamer (1975) introduced the notion of "horizons of understanding," suggesting that our comprehension of the world is shaped by our historical and cultural contexts. Narratives, in this light, serve as bridges, connecting individual cognition to broader historical and cultural narratives.

Clark and Chalmers (1998) in their influential paper on the "Extended Mind" hypothesized that external tools and artefacts, including narratives, can be considered extensions of the mind. Thus, narratives aren't just stories we tell; they are crucial cognitive tools that extend our processing capabilities.

Varela et al. (1991) developed the concept of "enaction" to describe the way cognition arises through a dynamic interaction between the organism and its

environment. Narratives can be seen as enactments—ways in which we actively shape and are shaped by our world.

In conclusion, the philosophy of cognition offers profound insights into the interdependence of narratives and cognition. Rather than passive stories, narratives are active constructors of our understanding, deeply rooted in both our individual psychologies and the broader sociocultural milieu.

Discussion

The exploration of the nexus between *Homo sapiens*' biological framework, particularly the role of the neocortex, and our predilection for constructing and living within narratives opens up a myriad of philosophical, neurological, and anthropological avenues.

First and foremost, the prominence of the neocortex in human evolution cannot be understated. Rakic (2009) underscores the evolutionary trajectory of the neocortex, yet it's not just about size or complexity alone. It's about the unique integration and the resultant functions that set *Homo sapiens* apart. Mountcastle's (1997) elucidation of the columnar organization of the neocortex offers insights into how neural computations occur, but the leap from these computations to abstract thought, introspection, and the creation of intricate narratives remains an area rife with speculation.

Damasio's (1994) perspective on the pivotal role of emotions in reasoning offers a nuanced layer. Can the creation and acceptance of narratives be seen as a deeply emotional process, where the neocortex and older brain structures, such as the limbic system, work in concert? This could explain our deep emotional ties to certain societal narratives and our vehement defense, or sometimes even aggressive propagation, of these narratives.

Pinker's (1994) emphasis on language is of paramount importance in this discourse. The neocortex's capabilities for language and symbolic processing don't just enable communication; they provide a medium for the evolution of complex cultural, societal, and individual narratives. However, is it language that shapes our thoughts, or do our thoughts shape language? This age-old linguistic debate finds renewed vigor in the context of our discussion.

Harari's (2011) notion of "imagined realities" brings an anthropological and sociological dimension. How have these imagined realities, facilitated by our neocortical capabilities, driven human history, societal structures, and power dynamics? These narratives, be they of religion, nationhood, or currency, have

mobilized millions, sparked wars, and shaped civilizations. The very tangibility of these narratives, despite their intangible nature, speaks volumes about the power of the human mind's creations.

Drawing inspiration from Tomasello (1999), it becomes evident that our narratives aren't mere by-products of an advanced brain; they are evolutionary tools. They fostered cooperation among early Homo sapiens, allowing for the creation of larger, more cohesive groups than other primates, which might have been a significant factor in our species' survival and dominance.

Finally, while the exploration so far has predominantly focused on the constructive and cohesive power of narratives, it is essential to recognize their potential for division, misinformation, and manipulation. In an era of information overload, the narratives constructed and propagated can have far-reaching consequences, echoing the same primal neocortical drives for dominance, acceptance, and societal positioning.

In conclusion, the interplay between the biology of Homo sapiens and our capacity for narrative creation and belief is a testament to the intricate tapestry of evolution, culture, and cognition. This exploration, while providing numerous insights, also underscores the vastness of what remains unknown, prompting further interdisciplinary research into the mysteries of the human mind and its stories.

The Interplay of Narratives and the Neocortical Emphasis on the Present

The enthralling tapestry of human narratives, both individual and collective, has long been considered a fundamental hallmark of our species. These narratives, whether personal anecdotes, societal myths, or cultural frameworks, provide context, meaning, and guidance in an often chaotic world. Yet, the evolution of Homo sapiens, and more specifically, the development of the neocortex, offers a paradoxical counter-narrative. If the neocortex enables us to craft and immerse ourselves in these elaborate stories, might it also hold the key to living more firmly in the present—a state of being "here and now"?

The Neocortical Conundrum

While it's established that the neocortex plays an instrumental role in facilitating abstract thought, introspection, and the creation of narratives, its emphasis on temporal cognition is equally intriguing. The same structure that permits us to weave intricate tales also enables us to understand, appreciate, and prioritize the present moment (Gazzaniga, 2000). So, how does this duality of past-

reflecting and future-anticipating narratives mesh with the neocortical capacity for present-moment awareness?

Redefining Narratives in the Present

Perhaps the crux lies not in the narratives themselves but in their constant rewrites. The human tendency to incessantly modify and adapt stories, especially personal narratives, can be seen as an adaptive mechanism—evolving stories for evolving circumstances. But with the "here and now" principle, the emphasis shifts. Instead of constantly rewriting our narratives to fit new contexts or perceptions, we become more attuned to the current moment, allowing experiences to unfold without the compulsive need to fit them into a pre-existing storyline.

This approach aligns with practices observed in mindfulness and some philosophical traditions that emphasize the importance of being present (Kabat-Zinn, 1994). By consciously choosing to live "neocortically" in the moment, we can recalibrate our narrative tendencies, offering a more immediate, genuine, and perhaps, more fulfilling human experience.

The Societal Implications

At a societal level, the shift from a narrative-dominated existence to one rooted in the present moment poses profound implications. Societies often operate on shared myths and narratives, be it about nationhood, religious beliefs, or socio-economic systems. A collective embrace of the "here and now" might disrupt these established stories, potentially leading to a more fluid, adaptable, and real-time societal response.

However, such a transition is not without its challenges. Narratives, for all their fluidity, provide structure, predictability, and a sense of continuity. A society heavily grounded in the present might grapple with issues of identity, purpose, and direction. Would a balance between narrative reliance and present-moment awareness be the ideal?

The intricate relationship between the human propensity for narratives and the neocortical emphasis on the present moment poses both fascinating questions and profound possibilities. By understanding and potentially harmonizing these dual aspects of our cognition, *Homo sapiens* might discover novel pathways of experience, understanding, and evolution. Whether this leads to a richer tapestry of human experience or introduces unforeseen complexities remains a tantalizing question for further exploration.

Conclusion

The intricate dance between Homo sapiens' biological underpinnings and our proclivity for narrative construction unveils the profound depths and complexities of the human experience. Through our exploration, we've discerned that narratives, far from mere tools of communication, serve as the foundation of our individual and collective identities. They offer coherence in a seemingly chaotic world, bestowing meaning upon events, relationships, and our very existence.

On the other hand, the neocortex, the crown jewel of human evolution, not only facilitates our narrative abilities but also presents an opportunity—a call to embrace the immediacy of the present, to live in the "here and now." This emphasis on the present, while seemingly at odds with our story-driven nature, might represent an evolutionary refinement, an adaptive mechanism that encourages a more immediate and genuine interaction with our environment.

Future Perspectives

Narrative Fluidity. As the world undergoes rapid socio-cultural and technological changes, how will our narratives evolve? Will there be a greater emphasis on collective global narratives over localized ones, given our interconnected world? Research into the fluidity and adaptability of narratives in response to global challenges will be crucial.

Neurological Insights. Advanced neuroimaging and neurocognitive techniques can offer deeper insights into how the neocortex processes narratives and the present moment. Such studies can elucidate the neurological pathways and mechanisms that underpin our narrative tendencies and our capacity for present-moment awareness.

Societal Impacts of "Living Neocortically".: As individuals and communities increasingly explore the concept of living in the "here and now," what will be the broader societal implications? Exploring this could provide insights into future societal structures, relationships, and cultural dynamics.

The Interdisciplinary Approach. The intersection of narrative psychology, philosophy, cognitive neuroscience, and anthropology offers a rich tapestry of perspectives. Encouraging further interdisciplinary research will provide a holistic understanding of the human penchant for narratives and the potential paradigm shift towards embracing the present.

Applications in Well-being and Mental Health. The benefits of present-moment awareness, often associated with mindfulness practices, have been documented in mental health contexts. Future research could delve deeper into the therapeutic applications of combining narrative therapies with practices that emphasize the "here and now."

In encapsulating our journey, it becomes evident that while *Homo sapiens* might be biologically rooted, our essence transcends mere biology. Our narratives, interwoven with the capabilities and potentials of the neocortex, paint a vivid portrait of what it means to be human. By understanding, embracing, and harmonizing these facets, we not only illuminate our past but also chart a course for a promising, nuanced future.

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