

MBC 501: Multidisciplinary Approaches to Mind, Brain, and Culture

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Course Description

This course is designed to:

1. introduce the history and philosophy of science as it applies to the social, psychological, and brain sciences,
2. review different types of disciplinary and methodological approaches to the study of mind, brain, and culture
3. highlight how exemplary research using approaches from different levels of analysis converge to provide synthesis and insights not readily gleaned from a single disciplinary perspective.

RESOURCES

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Philosophy

“Mind, brain, and culture” is a vast topic interesting spanning disciplines from philosophy and computer science to archaeology and biology. This presents exciting opportunities for interdisciplinary consilience but also numerous pitfalls arising from disparate usage of similar terminology, fundamental differences in methodology and standards of evidence, and underlying assumptions that are often left implicit.

Whether you are a neuroscientist, a social scientist, or a philosopher, there is thus much to be gained from careful (re)examination of core concepts. Rather than providing a basic primer in, e.g., functional neuroanatomy or experimental psychology, this course will thus focus on conceptual foundations, confusions, and controversies, including their broader social context. A unifying thread is provided by the adoption of a multi-level evolutionary perspective.

Course Organization

Course Summary

- We meet twice a week (TTh 1:00-2:15) for discussion. Do the readings and review media before class so you can contribute!
- We will extend the course online by using the Canvas discussion board before and after class.
- Readings will be posted on Canvas.
- You will write a research paper on a topic of your choice (developed in consultation with me)
- You will also give (and receive!) feedback on drafts of your classmate’s papers

Our Learning Community

Science is a team effort. In the field and lab, experts with different backgrounds and perspectives work together to get the job done. The same is true when it comes to learning. I know I learn something every time I teach, and I hope you actively participate as well so we can all benefit. I have found the quality of this class depends as much on the students and on me!

Your Professor



Hi! My name is Dietrich Stout and I'm a Paleolithic Archaeologist.

Talk to me!

The best way to contact me is by email at dwstout@emory.edu. If that's not working, my phone is 404-712-1828.

Office Hours are by appointment in ANTH 114 or on [Zoom: \(emory.zoom.us/my/dwstout\)](https://emory.zoom.us/my/dwstout)



Coursework & Grading

- ❖ Course activities are designed to help you achieve our learning goals.
- ❖ Staying engaged is the best way to learn - We will be doing a lot of discussion in class and online. If something is unclear, ask! You won't be the only one wondering.
- ❖ Coursework provides low-stakes activities throughout the semester to help you stay engaged and on top of things.
- ❖ Most grades in the class are Satisfactory/Unsatisfactory and usually completion will earn full credit. If you do submit work that does not clearly satisfy requirements, I will let you know, and we can discuss revision/make-up options.
- ❖ Work should be completed on time - get in touch right away if you anticipate problems participating and/or making deadlines!

Coursework Overview

Activity	When	Purpose	Grading	Worth
Complete assigned readings	Before Class	Establish shared foundation	N/A	
Participate in online discussions	First post before 11:59pm M/W	Explore topics in greater depth and learn from each other.	S/U (0/1 points)	15% of final
In class participation	Tu/Thr 1:00-2:15	Clarify, consolidate, apply, and extend concepts	S/U (0/1 points)	10% of final
Class Topic Proposal	October 13	Help set the agenda!	S/U (0/1 points)	10% of final
Research Topic Proposal	October 20	Consolidate, apply, and extend concepts to develop a research question	S/U (0/1 points)	5% of final
Research Paper Initial Submission	November 20	Generate original research	S/U (0/1 points)	10% of final
Peer Feedback on Research Proposal and Initial Submission	Within one week of submission	Collaborate to synthesize knowledge, create new insight, and improve writing skills	S/U (0/1 points)	10% of final
Research Paper Revision with Cover Letter	December 8	Generate original research	Graded (0-100 points)	40%

Class Activities

Discussion Board: Let us know what you think! We'll be covering some big ideas and surely won't get to everything in class. Use these posts to discuss readings, raise questions, explore topics,

or respond to specific prompts that I may provide. I will be reading (and occasionally commenting) to help tailor our in-class discussions to your needs and interests. You should post a minimum two substantive, on-topic comments each week...but I really hope

you will do more! Posts can reply to others or start new threads. Regarding length: the key is quality not quantity. Between 100-200 words should usually be plenty.

Class Participation (general): This is the lifeblood of our class, so please come ready to engage! General participation just means speaking up in class with relevant points, questions, reactions, etc. You get one point each week for satisfactory participation and that average (e.g., 15/16 = 94%) counts for 10% of your final grade. Unexcused absences will hurt your participation grade so please talk to me if you need to miss class!



Class Participation (intro): Many of our class discussions will be based on readings and so it is helpful to have someone do a brief introduction. For each assigned reading, please come prepared to 1) provide a brief summary for the class, and 2) raise an interesting question for discussion. During class, I will pseudo-randomly call on people to provide introductions.

Research Topic Proposal: The cornerstone of your coursework will be a writing an original research paper on a topic of your choice that is related to the

broader themes of the course. For most students, this will be a literature-based review, but empirical papers are welcome and encouraged where possible. The first step is to develop a topic proposal in the form of a short (~500 word) thesis statement/abstract along with a list of 5-10 key references. I encourage you to consult with me early in this process, and you will receive feedback from me and two of your classmates on the proposal you submit.



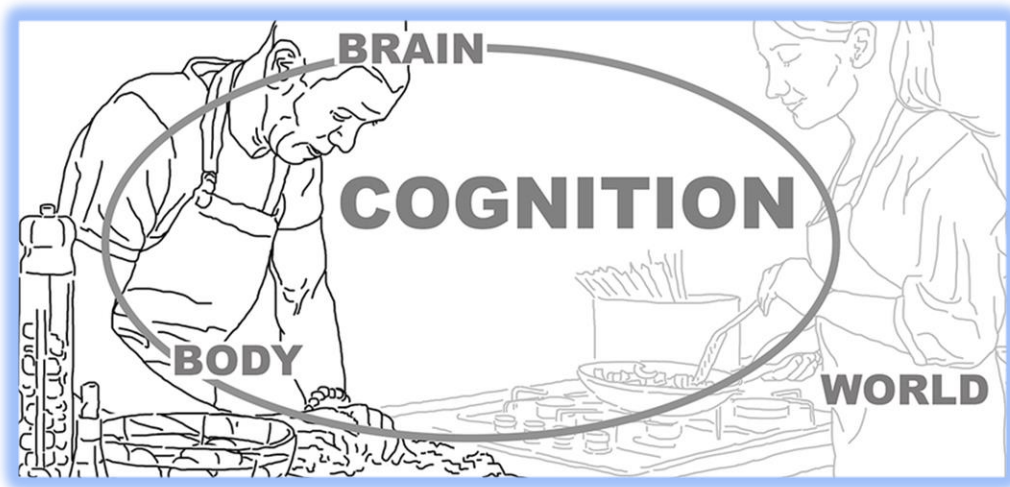
Research Paper: The next step following proposal feedback will be to produce the actual paper. This should be a substantial, original contribution. Appropriate length will vary depending on content, but a typical literature review might be on the order of 8,000-10,000 words of body text and >20 references. Submission will be modeled after the process of submitting to a peer-reviewed journal. You will submit a complete, polished version on which you will receive feedback from both me and two of your classmates. You will then have the opportunity to revise (if needed) before submitting the final version for a grade. The final submission should include a detailed cover letter describing your response to reviewer

comments and itemizing any major changes.

Peer Feedback: Providing peer review and feedback on student papers are key professional skills best developed through practice. In this class you will provide anonymous feedback on your classmate's essays. The focus here is to provide focused, constructive, and affirming comments related to essay clarity, content, composition, and organization. There is a handout with additional guidance, and we will discuss in class. For each set of assignment, you will provide feedback for two randomly assigned classmates. You get a point for each assignment you provide feedback

on, with average score counting as 10% of your grade.

Class Topic Proposal: This class is a learning community, and your input is critical. I have set aside the last 2.5 weeks of the semester to cover student-selected topics. To make this possible, I'll ask each of you to submit a short (~500 word) topic proposal. This could be an extension of something we are already covering in the class or an entirely new topic. Your proposal should clearly delineate the topic, select relevant readings (usually 4-6 per week, depending on length), and explain why this particular topic is interesting and important for the class to cover.



Values and Expectations

Discussion Expectations

Our online discussions are intended to extend and deepen conversations we would have in class. I won't comment on every post, but you can expect to

see me chiming in on emerging themes. I will also return to topics/posts from the board during our class meetings. Exactly how we use discussions will vary across different weeks, but here is some general advice:

Tips for Online Success

- Always use proper “[netiquette](#).” If you wouldn't do or say something in real life, don't do it online either!
- Make an original contribution, not just “I agree”
- Get to the point and keep it brief (less than 200 words)
- Draft offline, edit, then post.
- Share topic-related images, resources, news stories, etc.
- Respect your classmates and be open to different ideas!

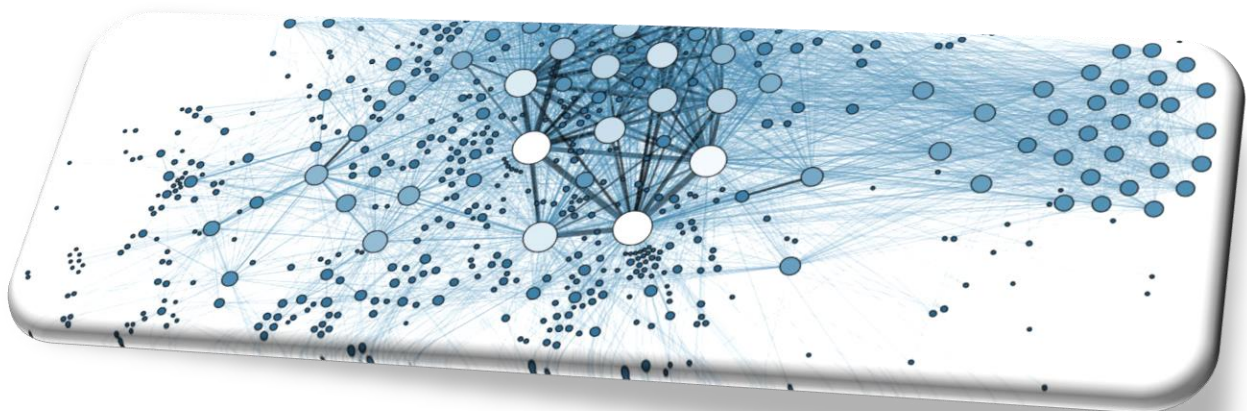
Inclusive Learning

Your success in this class is important to me. If there are aspects of this course that prevent you from learning or exclude you, please let me know as

soon as possible. Together we'll develop strategies to meet both your needs and the requirements of the course. I encourage you to visit the Office of Disability Services to determine how you could improve your learning as well. If you need official accommodations, you have a right to have these met. If you determine that disability related accommodations are necessary, you may register with Accessibility Services at (404)727-9877 or via e-mail at accessibility@emory.edu. To register with OAS, students must self-identify and initiate contact with the OAS office

Honor Code

The Honor Code applies to all work submitted for courses in Emory College. Students who violate the Honor Code may be subject to probation, failure of the course, suspension, permanent exclusion, or a combination of these and other sanctions, which may be part of their reportable record. The Honor Code may be reviewed online [here](#).



Schedule (Subject to Change)

Details of weekly readings and activities are subject to change and improvement.

Week	Topic	Lesson Plan	
Week 1 8/24	Introduction	Tu	<ul style="list-style-type: none"> Kitayama 2021 (https://www.psychologicalscience.org/observer/kitayama-inclusive-perspectives)
Week 2 8/29 & 8/31	Cognitive Science	Tu	<ul style="list-style-type: none"> Crowther-Heyck (1999) Ellis (2018) Chapter 1 Carney (2020)
		Thr	<ul style="list-style-type: none"> Henrich et al. (2010) Barrett (2020) Clancy and Davis (2019)
Week 3 9/5 & 9/7	Human Variation	Tu	<ul style="list-style-type: none"> Kaiser Trujillo et al. (2022) Saguy et al. (2021) Manalili et al. (2023)
		Thr	<ul style="list-style-type: none"> Talhelm et al. (2014) Schulz et al. (2019) Fuentes (2022)
Week 4 9/12 & 9/14	Evolutionary Thinking	Tu	<ul style="list-style-type: none"> Laland et al. (2015) Byrge et al. (2014) Cisek and Hayden (2022)
		Thr	<ul style="list-style-type: none"> Pinker (2010) Boyd et al. (2011) Heyes (2019)
Week 5 9/19 & 9/21	Brains	Tu	<ul style="list-style-type: none"> Deacon (1997) chapter 7 Buckner and Krienen (2013)
		Thr	<ul style="list-style-type: none"> Constant et al. (2021) Koelsch et al. (2019)
Week 6 9/26 & 9/28	Sociality	Tu	<ul style="list-style-type: none"> Tomasello et al. (2005) Shamay-Tsoory et al. (2019)
		Thr	<ul style="list-style-type: none"> Legare and Nielsen (2015) Shea et al. (2014) Muthukrishna and Henrich (2016)
Week 7 10/3 & 10/5	Context & Practice	Tu	<ul style="list-style-type: none"> Cole (1996) chapter 5 Hodder (2011)
		Thr	<ul style="list-style-type: none"> Ingold (2001) Gowlland (2019) Cox (2005)
Week 10/12	Religion	Thr	<ul style="list-style-type: none"> Whitehouse et al. (2023) Boyer (2021)

October 13: Class Topic Proposal Due			
Week 9 10/17 & 10/19	Language	Tu	<ul style="list-style-type: none"> Christiansen and Chater (2017) Berwick et al. (2013) Chater and Christiansen (2018)
		Thr	<ul style="list-style-type: none"> Deacon (1997) Chapter 3 Dove (2023) Brand et al. (2021)
Week 10 10/24 & 10/26	Stout out of town	Tu	<ul style="list-style-type: none"> <u>No Class</u>
		Thr	<ul style="list-style-type: none"> Attend CMBC Lunch discussion at 11:30
October 20: Research Topic Proposal Due			
Week 11 10/31 & 11/2	Language and Meaning	Tu	<ul style="list-style-type: none"> Lindquist et al. (2022) Lupyan (2012) Majid (2021)
		Thr	<ul style="list-style-type: none"> Holler and Levinson (2019) Pritzker (2020) McCarty et al. (2018)
Week 12 11/7 & 11/9	Cultural Evolution & Technology	Tu	<ul style="list-style-type: none"> Mesoudi and Thornton (2018) Sinclair et al. (2022) Derex (2022)
		Thr	<ul style="list-style-type: none"> Marx (2010) Atkinson and Matthews (2023) Inikori (2020)
Week 13 11/14 & 11/16	Open topic	Tu	TBD
		Thr	TBD
November 20: Research Paper Initial Submission Due			
Week 14 11/21	Open topic	Tu	TBD
Week 15 11/28 & 11/30	Open Topic	Tu	TBD
		Thr	TBD

December 8: Research Paper Revision Due

Readings

- Atkinson, Q. D., & Matthews, L. J. (2023). Cultural Evolution and the Economic Wealth of Nations. In J. J. Tehrani, J. Kendal, & R. Kendal (Eds.), *The Oxford Handbook of Cultural Evolution* (pp. 0). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780198869252.013.54>
- Barrett, H. C. (2020). Towards a cognitive science of the human: cross-cultural approaches and their urgency. *Trends in Cognitive Sciences*, 24(8), 620-638.
- Berwick, R. C., Friederici, A. D., Chomsky, N., & Bolhuis, J. J. (2013). Evolution, brain, and the nature of language. *Trends in Cognitive Sciences*, 17(2), 89-98.
- Boyd, R., Richerson, P. J., & Henrich, J. (2011). The cultural niche: Why social learning is essential for human adaptation. *Proceedings of the National Academy of Sciences*, 108(Supplement 2), 10918-10925. <https://doi.org/10.1073/pnas.1100290108>
- Boyer, P. (2021). Deriving Features of Religions in the Wild. *Human Nature : An Interdisciplinary Biosocial Perspective*, 32(3), 557-581. <https://doi.org/https://doi.org/10.1007/s12110-021-09410-y>
- Brand, C., Mesoudi, A., & Smaldino, P. (2021). Analogy as a Catalyst for Cumulative Cultural Evolution. *Trends in Cognitive Sciences*.
- Buckner, R. L., & Krienen, F. M. (2013). The evolution of distributed association networks in the human brain. *Trends in Cognitive Sciences*, 17(12), 648-665.
- Byrge, L., Sporns, O., & Smith, L. B. (2014). Developmental process emerges from extended brain–body–behavior networks. *Trends in Cognitive Sciences*, 18(8), 395-403. <https://doi.org/http://dx.doi.org/10.1016/j.tics.2014.04.010>
- Carney, J. (2020). Thinking avant la lettre: A Review of 4E Cognition. *Evolutionary Studies in Imaginative Culture*, 4(1), 77-90. <https://doi.org/doi:10.26613/esic.4.1.172>
- Chater, N., & Christiansen, M. H. (2018). Language acquisition as skill learning. *Current Opinion in Behavioral Sciences*, 21, 205-208. <https://doi.org/https://doi.org/10.1016/j.cobeha.2018.04.001>
- Christiansen, M. H., & Chater, N. (2017). Towards an integrated science of language. *Nature Human Behaviour*, 1(8), 1-3.
- Cisek, P., & Hayden, B. Y. (2022). Neuroscience needs evolution. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 377(1844), 20200518. <https://doi.org/doi:10.1098/rstb.2020.0518>
- Clancy, K. B. H., & Davis, J. L. (2019). Soylent Is People, and WEIRD Is White: Biological Anthropology, Whiteness, and the Limits of the WEIRD. *annual review of anthropology*, 48(1), 169-186. <https://doi.org/10.1146/annurev-anthro-102218-011133>
- Cole, M. (1996). *Cultural psychology: a once and future discipline*. Belknap Press of Harvard University Press.
- Constant, A., Clark, A., & Friston, K. J. (2021). Representation Wars: Enacting an Armistice Through Active Inference [Hypothesis and Theory]. *Frontiers in psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.598733>
- Cox, A. (2005). What are communities of practice? A comparative review of four seminal works. *Journal of Information Science*, 31(6), 527-540. <https://doi.org/10.1177/0165551505057016>
- Crowther-Heyck, H. (1999). George A. Miller, language, and the computer metaphor and mind. *History of Psychology*, 2(1), 37-64. <https://doi.org/10.1037/1093-4510.2.1.37>
- Deacon, T. W. (1997). *The symbolic species: The co-evolution of language and the brain*. W.W. Norton.

- Derex, M. (2022). Human cumulative culture and the exploitation of natural phenomena. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 377(1843), 20200311. <https://doi.org/doi:10.1098/rstb.2020.0311>
- Dove, G. O. (2023). Rethinking the role of language in embodied cognition. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 378(1870), 20210375. <https://doi.org/doi:10.1098/rstb.2021.0375>
- Ellis, R. (2018). *Bodies and other objects: The sensorimotor foundations of cognition*. Cambridge University Press.
- Fuentes, A. (2022). WEIRD Indeed, but there is more to the story: anthropological reflections on Henrich's "The Weirdest people in the world". *Religion, Brain & Behavior*, 1-58. <https://doi.org/10.1080/2153599X.2021.1991458>
- Gowlland, G. (2019). The Sociality of Enskilment. *Ethnos*, 84(3), 508-524. <https://doi.org/10.1080/00141844.2018.1455726>
- Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Most people are not WEIRD. *Nature*, 466(7302), 29-29.
- Heyes, C. (2019). Précis of cognitive gadgets: The cultural evolution of thinking. *Behavioral and Brain Sciences*, 42.
- Hodder, I. (2011). Human-thing entanglement: towards an integrated archaeological perspective [Article]. *Imbrication entre humains et choses : vers une perspective archéologique intégrée.*, 17(1), 154-177. <https://doi.org/10.1111/j.1467-9655.2010.01674.x>
- Holler, J., & Levinson, S. C. (2019). Multimodal language processing in human communication. *Trends in Cognitive Sciences*, 23(8), 639-652.
- Ingold, T. (2001). Beyond art and technology: the anthropology of skill. *Anthropological perspectives on technology*, 17-31.
- Inikori, J. E. (2020). Atlantic slavery and the rise of the capitalist global economy. *Current Anthropology*, 61(S22), S159-S171.
- Kaiser Trujillo, A., Kessé, E. N., Rollins, O., Della Sala, S., & Cubelli, R. (2022). A discussion on the notion of race in cognitive neuroscience research. *Cortex*, 150, 153-164. <https://doi.org/https://doi.org/10.1016/j.cortex.2021.11.007>
- Koelsch, S., Vuust, P., & Friston, K. (2019). Predictive Processes and the Peculiar Case of Music. *Trends in Cognitive Sciences*, 23(1), 63-77. <https://doi.org/https://doi.org/10.1016/j.tics.2018.10.006>
- Laland, K. N., Uller, T., Feldman, M. W., Sterelny, K., Müller, G. B., Moczek, A., Jablonka, E., & Odling-Smee, J. (2015). The extended evolutionary synthesis: its structure, assumptions and predictions. *Proceedings of the Royal Society of London B: Biological Sciences*, 282(1813), 2015.1019. <https://doi.org/10.1098/rspb.2015.1019>
- Legare, C. H., & Nielsen, M. (2015). Imitation and Innovation: The Dual Engines of Cultural Learning. *Trends in Cognitive Sciences*, 19(11), 688-699. <https://doi.org/http://dx.doi.org/10.1016/j.tics.2015.08.005>
- Lindquist, K. A., Jackson, J. C., Leshin, J., Satpute, A. B., & Gendron, M. (2022). The cultural evolution of emotion. *Nature Reviews Psychology*, 1(11), 669-681. <https://doi.org/10.1038/s44159-022-00105-4>
- Lupyan, G. (2012). Linguistically Modulated Perception and Cognition: The Label-Feedback Hypothesis [Hypothesis and Theory]. *Frontiers in psychology*, 3. <https://doi.org/10.3389/fpsyg.2012.00054>
- Majid, A. (2021). Human Olfaction at the Intersection of Language, Culture, and Biology. *Trends in Cognitive Sciences*, 25(2), 111-123. <https://doi.org/https://doi.org/10.1016/j.tics.2020.11.005>
- Manalili, M. A., Pearson, A., Sulik, J., Creechan, L., Elsherif, M., Murkumbi, I., Azevedo, F., Bonnen, K. L., Kim, J. S., & Kording, K. (2023). From puzzle to progress: how engaging with neurodiversity can improve cognitive science. *Cognitive Science*, 47(2), e13255.

- Marx, L. (2010). Technology: The emergence of a hazardous concept. *Technology and Culture*, 51(3), 561-577.
- McCarty, T. L., Nicholas, S. E., Chew, K. A., Diaz, N. G., Leonard, W. Y., & White, L. (2018). Hear our languages, hear our voices: Storywork as theory and Praxis in Indigenous-language reclamation. *Daedalus*, 147(2), 160-172.
- Mesoudi, A., & Thornton, A. (2018). What is cumulative cultural evolution? *Proceedings of the Royal Society B: Biological Sciences*, 285(1880), 20180712.
- Muthukrishna, M., & Henrich, J. (2016). Innovation in the collective brain. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 371(1690), 20150192.
<https://doi.org/doi:10.1098/rstb.2015.0192>
- Pinker, S. (2010). The cognitive niche: Coevolution of intelligence, sociality, and language. *Proceedings of the National Academy of Sciences*, 107(Supplement 2), 8993-8999.
- Pritzker, S. E. (2020). Language, Emotion, and the Politics of Vulnerability. *annual review of anthropology*, 49(1), 241-256. <https://doi.org/10.1146/annurev-anthro-010220-074429>
- Saguy, T., Reifen-Tagar, M., & Joel, D. (2021). The gender-binary cycle: the perpetual relations between a biological-essentialist view of gender, gender ideology, and gender-labelling and sorting. *Philosophical Transactions of the Royal Society B*, 376(1822), 20200141.
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<https://doi.org/doi:10.1126/science.aau5141>
- Shamay-Tsoory, S. G., Saporta, N., Marton-Alper, I. Z., & Gvirts, H. Z. (2019). Herding brains: a core neural mechanism for social alignment. *Trends in Cognitive Sciences*, 23(3), 174-186.
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<https://doi.org/https://doi.org/10.1016/j.tics.2014.01.006>
- Sinclair, N. C., Ursell, J., South, A., & Rendell, L. (2022). From Beethoven to Beyoncé: Do Changing Aesthetic Cultures Amount to “Cumulative Cultural Evolution?” [Conceptual Analysis]. *Frontiers in psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.663397>
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- Tomasello, M., Carpenter, M., Call, J., Behne, T., & Moll, H. (2005). Understanding and sharing intentions: The origins of cultural cognition. *Behavioral and Brain Sciences*, 28(05), 675-691.
<https://doi.org/doi:10.1017/S0140525X05000129>
- Whitehouse, H., François, P., Savage, P. E., Hoyer, D., Feeney, K. C., Cioni, E., Purcell, R., Larson, J., Baines, J., Haar, B. t., Covey, A., & Turchin, P. (2023). Testing the Big Gods hypothesis with global historical data: a review and “retake”. *Religion, Brain & Behavior*, 13(2), 124-166.
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