Bulletin of the American Academy of Arts & Sciences

INDUCTION

OPENING CELEBRATION

INDUCTION CEREMONY

WHY DO FOOLS THINK THEY ARE WISE? SHOULD THE WISE BELIEVE THEMSELVES TO BE THE FOOL?

AI and Mental Health Care

What We Know, What We Don't, and What Comes Next

WINTER 2026

SELECT

UPCOMING EVENTS

January

29 San Diego Natural History Museum, San Diego, CA

Why Does Science Matter?

Featuring: **Rommie Amaro** (University of California, San Diego), **Patricia Smith Churchland** (University of California, San Diego), **Peter Cowhey** (UC San Diego School of Global Policy and Strategy), and **J. Craig Venter** (J. Craig Venter Institute)

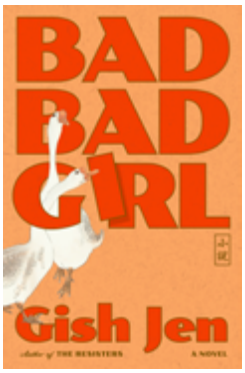
February

9 Washington Duke Inn, Durham, NC

Research Triangle Members' Breakfast

Featuring: **John Aldrich** (Duke University)

February



4 House of the Academy, Cambridge, MA

How Can Fiction Be Truth? Writing a Memoir-y Novel

Featuring: **Gish Jen** (Novelist)

March

9 Cosmos Club, Washington, D.C.

Washington, D.C., Members' Dinner

Visit amacad.org/events for more information about these and other upcoming events.

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From the President

As I reflect on my first year as president of the Academy, I am struck by how our members came together in so many different ways to address such a broad range of challenges, including unprecedented threats to academic freedom, the research enterprise, and the rule of law. And while it was a year of great challenges, there were also moments of great hope. For me, top among those moments was the Induction of our 2025 class of new members here in Cambridge in October.

This issue of the *Bulletin* details a number of the events of Induction weekend, and I hope you will get a sense of the spirit of inspiration, celebration, and service that animated the proceedings. In addition to these events, on the Saturday morning of Induction weekend we invited our new members to come to the House of the Academy for a series of conversations with Academy leaders. This provided an opportunity to share some thoughts about a critical question: How can we best fulfill the vision of our founders "to cultivate every art and science which may tend to advance the interest, honor, dignity, and happiness of a free, independent, and virtuous people"?

For me, there are two imperfect, partial, but critical answers to this question.

The first is to *reconnect the disciplines*, so that the insights of human creativity can be better and more deeply shared. As Academy members, each of you has had moments in your creative lives when you see patterns that connect one sphere of knowledge to another. Academy member and art historian Martin Kemp calls this "structural intuition," and he spent his life writing about the connections between the arts and the sciences – from Platonic solids, to Leonardo's drawings, to D'Arcy Thompson's models for growth in biology. He argues that structural intuitions are forms of curiosity that awaken when we recognize patterns of order and long to describe them and give them shape in the world. As Academy members, each of you understands the link between art and science because you have pursued that deep curiosity and taken knowledge to another level because of it. Your own "structural intuitions" have reconnected the disciplines already. You have taken your perceptions to other spheres so you can ask new questions.

The second way we can fulfill our founders' vision is to *continue to choose the pursuit of knowledge*. That pursuit, in itself, is a way to practice democracy. Just as our founders were asked to build, fund, and defend the pursuit of knowledge in a new nation, I believe today we are tasked to build, fund, and defend knowledge in a divided nation. Our times demand that we stand for the ideals of academic freedom and human creativity. They also demand that we remind others that such freedom to pursue knowledge is the foundation of citizenship and fundamental to our democratic ideals.

As we approach and prepare for the 250th anniversary of the Academy in 2030, I hope we will continue to embody those ideals together and sow new seeds of a common life. And I hope that you will join us in creating and participating in meetings that nourish the life of the mind, developing and using intellectual resources that will stimulate curiosity as well as propose solutions, and gather productively and energetically, as we have for almost 250 years, around the key questions of our time. To gather at all in the free pursuit of knowledge is the beginning of democracy, and to persevere in doing so is democracy's perseverance.

Yours cordially,
Laurie L. Patton

Recent *Dædalus* Issues

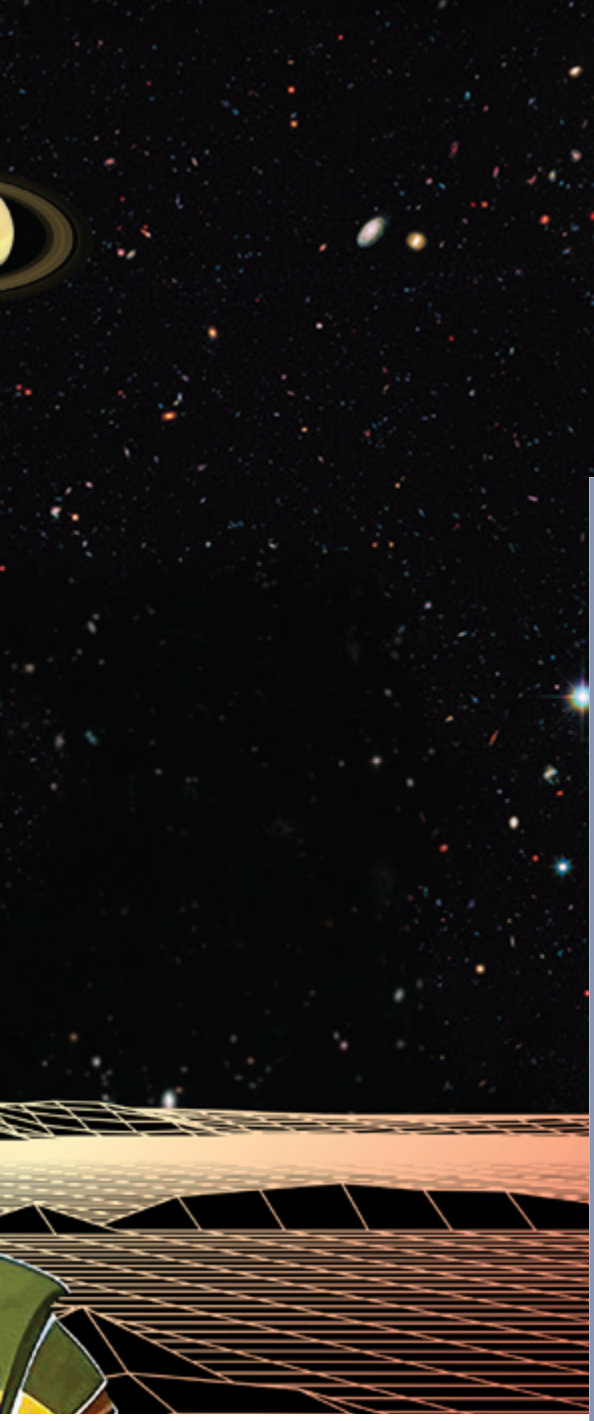
By ***Dædalus* Editorial**

HOW WILL WE THINK ABOUT THE PAST IN THE FUTURE?

"How will we think about the past in the future?" asks the Summer 2025 issue of *Dædalus*, edited by Ayanna Thompson. Scholars and artists answer with poetry, drama, short fiction, scientific and humanistic thought, and visual art. Together, they speculate about which aspects of our present historical moment will compel, attract, haunt, and plague thinkers years from now.

The issue confronts the harms we inflict on each other and our planet, while imagining a bridge toward a more equitable tomorrow. From escaping regressive tax models to de-commodifying the arts to rethinking human relations after first contact with intelligent alien life, the contributors envision what is needed to conjure this future.

A unifying theme in the issue is the recognition that people need time and encouragement to think about the future – that we must face the worst outcomes to avoid them, and that a better future must first be dreamed to be realized. Through speculative thinking and the power of the arts, this collection encourages us to see ourselves outside of the constraints that persist today.



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John Palfrey

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Joy Connolly

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Madeline Sayet

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Water Runs Dry
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Another Other: An Unlikely Path to a Future United World—and What That Future Would Think about Us
Lindy Elkins-Tanton

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&

The *Dædalus* volume on "How Will We Think about the Past in the Future?" is available on the Academy's website at www.amacad.org/daedalus/how-will-we-think-about-past-in-the-future.

HOW HAS WAR SHAPED AMERICAN DEMOCRACY?

In 1795, James Madison warned that "of all the enemies of true liberty, war is, perhaps, the most to be dreaded, because it comprises and develops the germ of every other." He cautioned that "No nation . . . can preserve its freedom in the midst of continual warfare."

The Fall 2025 issue of *Dædalus*, "How Has War Shaped American Democracy?" edited by Neta C. Crawford and Matthew Evangelista, tests Madison's argument in the context of near-permanent war waged by the United States following the 9/11 terrorist attacks.

From the loss of civil liberties to the expansion of executive powers to the hotly contested deployment of troops to U.S. cities, the authors – scholars of politics, history, law, economics, and the military – find that the war on terror has contributed to antidemocratic trends and eroded the United States' system of checks and balances.

At the same time, they consider potential positive effects of continuous mobilization: whether military service has provided significant economic benefits to Black service members, and whether the wars in Afghanistan and Iraq contributed to a more liberal vision of equality, including the removal of barriers to women in combat roles, the repeal of Don't Ask, Don't Tell, and the (temporary) lifting of the ban on transgender service members.

Together, the authors identify risks for continued democratic backsliding and offer strategies for democratic resilience and advancement.

A soldier prepares for the $30 million military parade in Washington, D.C., ordered by President Donald Trump to celebrate the U.S. Army's two hundred and fiftieth anniversary on June 14, 2025.

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The *Dædalus* volume on "How Has War Shaped American Democracy?" is available on the Academy's website at www.amacad.org/daedalus/how-has-war-shaped-american-democracy.

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AI and Mental Health Care: What We Know, What We Don't, and What Comes Next

By **Kate Carter**, *John E. Bryson Director of Science, Engineering, and Technology*

Artificial intelligence is becoming increasingly present in mental health care.

The Academy started its work on AI and mental health care in fall 2023 by discussing hypotheticals. During the lifespan of the project, chaired by **Paul Dagum** (Applied Cognition), **Sherry Glied** (New York University), and **Alan Leshner** (American Association for the Advancement of Science), the landscape has shifted rapidly. Clinicians began exploring AI to assist with screening, triage, and the work that happens between therapy sessions. Members of the public turned in growing numbers to general-purpose systems such as ChatGPT for support in moments when traditional care felt out of reach.

The accelerating pace of adoption has created a gap between practice and policy. The policy debate still asks whether AI should be part of mental health care, even as it is already woven into how people seek support. But the pace of adoption does not erase the sensitivities of this domain. Mental health care depends on trust, privacy, and careful judgment, and missteps can carry real consequences.

The Academy's new publication, *AI and Mental Health Care: Issues, Challenges, and Opportunities*, approaches this nuanced topic by mapping the terrain rather than offering a single conclusion, expounding on the core questions that must anchor any serious debate. How should effectiveness be measured when interventions may take different forms across different populations? When should a human clinician be involved, and what kinds of oversight are necessary? How might these systems affect privacy, trust, and the experience of care? What are the implications for children, for people with severe mental illness, and for communities that already face inequities in access and treatment?

The publication does not claim to resolve these questions. Instead, it offers a framework to identify what

AI's growing role in mental health care demands sharper definitions, clearer expectations, and a policy conversation that matches the reality clinicians and patients already inhabit.

is known, what remains uncertain, and what kinds of evidence are still needed. It reflects the belief that mental health care is a clinical, social, and economic system all at once, and that understanding how artificial intelligence fits within it requires expertise from many fields. That orientation shaped both the publication and the public launch event on December 9, 2025, that explored *What are the Challenges and Opportunities of AI in Mental Health Care?*

The program included opening remarks from cochair **Alan Leshner**, followed by a discussion moderated by **Sanjay Gupta** (Emory University School of Medicine; CNN) with three members of the project's steering committee: **Kacie Kelly**, Chief Innovation Officer at the Meadows Institute; **Paul Dagum**, founder and former CEO of Mindstrong; and **Arthur Kleinman**, psychiatrist and professor of anthropology at Harvard University. During the discussion, the panelists agreed on one central point: AI's growing role in mental health care demands sharper definitions, clearer expectations, and a policy conversation that matches the reality clinicians and patients already inhabit.

Dr. Dagum set the tone early when he said, "There's tremendous promise, but the concerns are real." Many people turning to chatbots do not realize they are engaging with systems never designed for therapy, and that gap between expectation and capability shapes much of the current confusion. Dagum argued that AI should be understood as a new therapeutic modality rather than an informal substitute for human care, and that its future depends on clear regulatory and economic structures. As he noted, "It's a mistake to equate a chatbot with a therapist. We should think of this from a new perspective."

Professor Kleinman pushed the conversation toward questions of care and responsibility. "Humans are essential," he said. His concern was not abstract. People are already using AI systems as companions or confidants, often in moments of acute vulnerability, and some models rely on constant validation to keep users engaged. "That is not how you approach human beings in psychotherapy," he warned. The risk is not only clinical but structural. Economic pressures may encourage replacing human therapists rather than augmenting their work, and that, Kleinman argued, is where harm becomes most likely. AI can support care, he said, but "sovereignty must be with a human, not with AI."

The distinction between purpose-built therapeutic systems and general-purpose chatbots ran throughout the conversation. Kacie Kelly stressed that these two families of tools operate differently and should not be governed as if they were interchangeable. "General-purpose AI chatbots are different from AI designed to deliver therapy," she said. Purpose-built tools are structured, testable, and measurable. General-purpose systems shift from interaction to interaction, which makes evaluation difficult and creates unpredictable edges. Dagum agreed, stressing a key difference: a medical device does not change week to week, but a large language model can.

Evidence, though nascent, was key to this discussion and to the panel's ideas for solutions. Much of today's AI is commercialized first and tested later, a reversal of the traditional path for mental health treatments. Dagum described two tracks emerging in real time. The consumer track, in which evidence

is still mixed, and a more regulated track modeled on drug development, with rigorous trials and safety standards. In the regulated space, he argued, AI could support adherence to psychotherapy, long a challenge in digital health. But without FDA pathways and appropriate reimbursement through CMS (Centers for Medicare & Medicaid Services), these systems will stall. "If CMS doesn't get behind these solutions, private insurers won't either," he said.

ways. Kelly noted that misuse often involves general-purpose systems never meant for clinical work. Kleinman was more candid: for people with chronic psychotic disorders, he argued, AI is contraindicated. "It can provoke psychosis," he said. AI might be useful in limited, supervised settings (for example, for intake, between-session support, or triage) but not as a substitute for care.

All three panelists saw opportunities for AI to support clinicians in more targeted ways. Kelly emphasized the value of data from the spaces between sessions. For people engaged in evidence-based therapy, progress often depends on what happens outside the room. Digital tools could help support that work. Kleinman indicated that supervised use could strengthen community health systems, especially in areas with limited providers. Dagum pointed to adherence again, arguing that regulated solutions could help people maintain momentum in therapy.

> AI should be understood as a new therapeutic modality rather than an informal substitute for human care.

Kelly agreed on the importance of regulation but warned that mental health is often left out. Federal efforts to modernize health infrastructure often focus on medical specialties with clearer diagnostic boundaries. "The more we can reinforce that we're talking about two different lanes of innovation," she said, "the better off we're going to be."

When discussion turned to safety, the panelists drew sharp lines around high-risk populations. Dr. Gupta cited documented cases in which chatbots missed suicidal ideation or responded in inappropriate

Bias, privacy, and inequity surfaced repeatedly. Dagum warned against assuming privacy in consumer systems. Kelly reminded the audience that bias in AI is unavoidable, but that it must be understood alongside the structural biases already embedded in mental health care today. Kleinman noted that AI, like human therapists, requires users to have language fluency, device access, and the capacity to interpret and act on recommendations. These are not small hurdles.

As the session closed, each panelist widened the lens. Kelly spoke about the need to move past fear of action and consider instead the risks of inaction. Dagum described an inflection point in the history of mental health treatment, with a new therapeutic modality emerging whether the field is ready or not. Kleinman argued for deeper interdisciplinary work. "We're entering a new world," he said. Understanding that world will require historians, ethnographers, economists, and philosophers as much as clinicians.

The Academy's publication sets out the contours of that work. The launch event underscored how urgent and shared the task has become.

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For more information about the AI and Mental Health Care project and the Academy's work on artificial intelligence, visit www.amacad.org/artificial-intelligence.

Opportunities and Challenges for **U.S.-China Nuclear Arms Control and Risk Reduction**

By **Kaitlin Peach**, *Raymond Frankel Nuclear Security Policy Fellow*

Across many dimensions, U.S.-China relations are under strain. Amid ongoing debates about tariffs, rare earth minerals, technology, and Taiwan, one challenge stands out: nuclear risk fueled by increasing nuclear competition and a lack of risk reduction mechanisms. China currently has an estimated six hundred nuclear warheads and that number is expected to reach one thousand by 2030.[1] At the same time, global nuclear risks are rising as the arms control regime weakens, with countries withdrawing from treaties and the last remaining U.S.-Russia treaty set to expire in February 2026.[2]

Adding to the tension, in October 2025, President Donald Trump ordered the resumption of nuclear weapons testing prior to a meeting with Chinese President Xi Jingping.[3] Without an arms control agreement or risk reduction measures between the United States and China, experts warn of a potential arms race and the risk that overreaction or crisis escalation could lead to nuclear conflict.[4]

1. Hans Kristensen, Matt Korda, Eliana Johns, and Mackenzie Knight-Boyle, *Chinese Nuclear Forces, 2024: A "Significant Expansion"* (Federation of American Scientists, 2024), https://fas.org/publication/chinese-nuclear-forces-2024-a-significant-expansion.

2. Arms control aims to place limits on the development, production, testing, deployment, or use of weapons, in this case nuclear weapons. These agreements can be based on numbers (such as the New Strategic Arms Reduction Treaty [START] between the United States and Russia), or characteristics of the weapons. Nonproliferation refers to preventing a country from obtaining a nuclear weapon. Examples of the weakening of arms control include New START, the last remaining treaty between the United States and Russia, which is set to expire without a replacement or extension. Russia and the United States have withdrawn or suspended participation in several treaties. Iran's parliament was considering a withdrawal from the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in June 2025.

3. "Trump Suggests the U.S. Will Resume Testing Nuclear Weapons," Associated Press, October 30, 2025, https://www.npr.org/2025/10/30/g-s1-95725/trump-testing-nuclear-weapons.

4. The United States is currently modernizing all three legs of its nuclear triad. However, it is facing cost and schedule challenges that call into question its ability to keep pace in an arms race.

One way to reduce these risks is through continued high-level strategic dialogue, such as "Track II" dialogues that allow nonstate actors – academics, former officials, and NGO leaders – to explore complex topics and discuss potential solutions outside of formal government channels.

The U.S.-China relationship faces numerous challenges, and nonnuclear issues often hinder progress on nuclear negotiations.

From July 7–11, 2025, in partnership with Harvard University's Project on Managing the Atom, the Academy and the Shanghai Academy of Social Sciences organized a Track II dialogue to explore U.S.-China relations and strategic stability. Following the dialogue, the Academy delegation, led by Academy member **Steven Miller** (Harvard University), participated in meetings in Beijing with several organizations and two universities. The delegation also met with staff at the U.S. Embassy while in Beijing and briefed officials from the Office of Strategic Stability and Extended Deterrence Affairs and the Office of China Coordination in the State Department upon return to the United States. The meetings explored the potential for a U.S.-China nuclear agreement and broader strategic stability issues, including economic relations and the implications for overall U.S.-China relations.

Participants agreed that U.S.-China relations are facing numerous challenges, both nuclear and nonnuclear, and that there is room for cooperation. They emphasized that although U.S.-China relations are tense right now, the relationship has historically had its highs and lows and both countries can work together to improve these relations. At the time of the dialogues, there was speculation that President Donald Trump and President Xi Jingping would hold a summit by the end of 2025. While participants acknowledged that any such meeting would likely focus on multiple dimensions of U.S.-China relations, they were hopeful that the two leaders would discuss nuclear issues. The two leaders did not hold a summit; instead, they met during the Asia-Pacific Economic Cooperation Summit in October 2025 where discussions focused on economic issues. A summit or additional meetings between the two leaders is likely in 2026.

CHALLENGES TO COOPERATION

The U.S.-China relationship faces numerous challenges, and nonnuclear issues often hinder progress on nuclear negotiations. For instance, economic tensions can erode communication and deepen mistrust between the two countries. Without a foundation of trust and open dialogue, it becomes difficult to negotiate on nuclear issues, increasing the risk of misperception and overreaction.

At the Track II dialogues, delegates from the United States and China focused on the uncertainty and lack of clarity about the direction of both states' nuclear strategies. This includes:

1. China's minimum deterrence strategy, no first use policy, and nuclear modernization program.[5]
2. The United States' modernization program, in particular, the proposed Golden Dome missile defense system, which aims to protect against all missile attacks.[6] While Golden Dome is described as a defensive system, China is concerned about its offensive capabilities in space.[7]
3. The United States' and Israel's strikes on Iran in response to proliferation concerns.

Participants agreed that uncertainty and mistrust could cause states to overreact to each other's actions. Although the

5. Minimum deterrence strategy is when a state possesses the minimum number of nuclear weapons necessary to deter another country from attacking it. China's no first use policy refers to China committing not to use a nuclear weapon first in a conflict. Nuclear modernization involves updating and replacing elements of the nuclear arsenal, including delivery systems (like intercontinental ballistic missiles, submarines, and bombers), warheads, nuclear command, control, and communications (NC3), and infrastructure. Modernization ensures the arsenal is safe, secure, and reliable, while maintaining credible deterrence. In China's case, it includes expanding its nuclear forces.

6. Golden Dome includes proposals for space-, sea-, and land-based missile interceptors. It is often compared to the Reagan administration's Strategic Defense Initiative, also called "Star Wars."

7. There is not always a clear distinction between offensive and defensive systems. In this case, China is concerned that the space-based interceptors could be used as anti-satellite weapons.

circumstances differ from the past, such overreactions could escalate into a Cold War–style arms race, conventional conflict, or even nuclear weapons use.

Since the start of its nuclear program, China has adhered to a strategy of minimum deterrence and a no first use policy. Minimum deterrence refers to maintaining only enough nuclear weapons to deter a first strike, though what constitutes "enough" is subjective. A no first use policy commits a state to use nuclear weapons only in retaliation for a nuclear attack. U.S. participants expressed concern about the uncertainty surrounding China's modernization efforts and whether it would maintain its current policy and strategy. Chinese participants explained that the current perception is that their existing arsenal is insufficient for minimum deterrence, given security and proliferation concerns in the region.

At the same time, many Chinese participants expressed concern about U.S. modernization efforts, particularly Golden Dome and its impact on strategic stability. Golden Dome would utilize space-based interceptors, raising fears that these systems could also serve as antisatellite weapons. U.S. participants acknowledged that Golden Dome could have destabilizing effects, but they emphasized that the program would be expensive, require significant time, and is unlikely to become operational before the end of President Trump's term.[8]

Lastly, participants discussed proliferation concerns, particularly regarding Iran. U.S. participants expressed concern that the June 2025 Israeli and U.S. strikes might motivate Iran to build a nuclear weapon and seek assistance from North Korea. While the strikes were intended to eliminate Iran's nuclear capabilities, they may have instead reinforced Iran's perception that it needs a nuclear deterrent – thereby accelerating future nuclear weapons development. Chinese participants noted that the strikes took place amid ongoing negotiations and they voiced some concern that nuclear facilities used for peaceful uses, such as for energy production, could be targeted. They emphasized that attacks on nuclear energy facilities violate the Geneva Conventions and the Additional Protocols because such actions endanger civilians.[9] Participants also debated whether the targeted sites were intended for military or peaceful purposes.

POSSIBILITIES FOR COOPERATION

Despite these ongoing challenges, participants agreed that cooperation between the United States and China is both necessary and possible. Their past collaboration on nonproliferation, such as through the Joint Comprehensive Plan of Action and Six Party Talks, offers a foundation for future efforts.[10] Although a bilateral arms control agreement may not be imminent, there are opportunities for risk reduction measures. In 2024, Presidents Biden and Xi reached a nonbinding agreement that nuclear weapons use should remain under human control.[11] While nonbinding agreements lack the legal weight of treaties, they can still advance risk reduction, foster dialogue, and build mutual trust.

Participants agreed that advancing nonproliferation serves the interests of both the United States and China, even if they do not agree on specific mechanisms for doing so. Both sides reaffirmed the importance of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and ensuring its long-term

8. Center for Arms Control and Non-Proliferation, "Fact Sheet: Golden Dome," https://armscontrolcenter.org/fact-sheet-golden-dome.

9. Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law applicable in Armed Conflicts, Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol 1), adopted June 8, 1977, entry into force December 7, 1979, United Nations Human Rights Office of the High Commissioner, https://www.ohchr.org/en/instruments-mechanisms/instruments/protocol-additional-geneva-conventions-12-august-1949-and.

10. The Joint Comprehensive Plan of Action (JCPOA) is also known as the Iran nuclear deal. The P5, or the five nuclear weapons states defined by the NPT, and the European Union came to an agreement with Iran to put limits on its nuclear activities and prevent proliferation. The United States withdrew from the JCPOA in 2018. The Six Party Talks were discussions held between the United States, China, North Korea, South Korea, Japan, and Russia after North Korea withdrew from the NPT in an effort to resolve security concerns in the region. The talks took place between 2003 and 2007.

11. Jarret Renshaw and Trevor Hunnicutt, "Biden, Xi Agree that Humans, not AI, Should Control Nuclear Arms," Reuters, November 16, 2024, https://www.reuters.com/world/biden-xi-agreed-that-humans-not-ai-should-control-nuclear-weapons-white-house-2024-11-16.

A U.S.-China arms control agreement remains a long-term goal that will require sustained effort. In the meantime, both countries can make meaningful progress on risk reduction that can decrease the likelihood of a nuclear incident and build the foundation for future agreements.

resilience.[12] There was extensive discussion about encouraging Iran to put their nuclear materials back under International Atomic Energy Agency (IAEA) safeguards. Earlier in 2025, the IAEA reported some difficulties in monitoring Iran's program, and following the U.S.-Israeli strikes, Iran ceased cooperating with the IAEA.

A U.S.-China arms control agreement remains a long-term goal that will require sustained effort. In the meantime, both countries can make meaningful progress on risk reduction that can decrease the likelihood of a nuclear incident and build the foundation for future agreements. Participants emphasized that increased communication on nuclear issues, including military-to-military dialogue, is essential. Suggestions included 1) discussions on managing sea and space incidents to reduce the risk of conventional conflicts or crises escalating to nuclear use; 2) missile launch notifications to improve transparency and prevent misunderstandings; 3) continued Track II dialogues to allow experts to develop and share recommendations; and 4) engagement on the responsible use of emerging technologies relevant to strategic stability.

CONCLUSION

The dialogue underscored the importance of continued and increased communication between the United States and China at this critical moment for nuclear issues, both through official diplomatic channels and unofficial, nongovernmental exchanges. Such dialogues can generate the innovative ideas needed to address both immediate and long-term nuclear challenges, while building a foundation of trust that supports future cooperation and helps prevent crises or conventional conflicts from escalating to nuclear use.

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For more information about the Promoting Dialogue on Arms Control and Disarmament project, please visit www.amacad.org/project/promoting-dialogue-arms-control-disarmament.

12. The NPT aims to "prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving nuclear disarmament and general and complete disarmament." The treaty also defines states as nuclear or nonnuclear by those who built and tested a nuclear weapon before 1967. See United Nations Office for Disarmament Affairs, Treaty on the Non-Proliferation of Nuclear Weapons, https://disarmament.unoda.org/en/our-work/weapons-mass-destruction/nuclear-weapons/treaty-non-proliferation-nuclear-weapons.

An installation from the *Rave into the Future: Art in Motion* exhibition at the Asian Art Museum of San Francisco.

What's Next for Cultural Organizations?

Academy Roundtables Discuss Current Challenges and Future Needs

By **Sara Mohr**, *Pforzheimer Foundation Fellow*

Cultural institutions across the United States – regardless of type or size – are facing unprecedented uncertainty, which is challenging long-standing models for communicating the value of arts and culture, for supporting these institutions, and for collaborating across the sector. To help address this uncertainty, the Academy held three virtual roundtable discussions in the fall of 2025 that brought together leaders from the arts and culture sector to reflect on these challenges and begin to outline strategies to move forward. To encourage open and candid dialogue, the discussions were held under the Chatham House Rule, so neither participants nor their comments can be identified in any materials related to the roundtables.

Drawing on themes developed in an exploratory meeting on *Cultural Spaces and Their Communities* convened by the Academy in Chicago in March 2025, the roundtables focused on how the Academy can best leverage its strengths and resources to support cultural spaces as anchor institutions in upholding American democracy. From these conversations, several key themes emerged. Participants agreed that cultural institutions play an important role in fostering shared forms

of engagement that can translate into civic participation. One participant noted that cultural institutions provide vital opportunities for socialization and help people from different cultures and perspectives develop shared cultural norms.

Each group reflected on what it means for a cultural institution to identify as a democratic institution, highlighting the importance of creating spaces that welcome everyone and encourage individuals to engage in dialogue with other groups. To further emphasize the participatory nature of democracy, one participant underscored the need to promote co-creation in arts and culture, inviting people to be active participants in their cultural institutions rather than passive consumers. Many participants emphasized the power of the arts and the humanities to build community by helping us understand our differences, bridge those differences, and recognize our shared humanity.

Storytelling emerged as a central theme in all three conversations. As one participant noted, interacting with any art form is essentially listening to someone's story – so limiting artistic creativity is, in effect, silencing someone's voice. Another participant connected this idea to the way that the public humanities have shifted their messaging in recent years to place more of an emphasis on storytelling as a primary means of engagement. All three of the discussions explored how to create and sustain viable platforms for sharing these stories, especially given their role in recognizing our shared humanity in the face of rapid dehumanization from artificial intelligence, social media, and the current political climate. Several participants agreed that much of the civic value of culture is its ability to bring people together around shared stories despite their differences.

By creating spaces where people can gather and have their material needs met, cultural institutions foster mutual presence, which can encourage, in turn, mutual participation.

In each of the conversations, participants expressed concern about how the public perceives the value of cultural institutions. One participant stated that the current moment compels us to confront basic questions about why cultural institutions exist and why they are worth supporting. Another participant noted that cultural spaces should offer places for people to gather and find inspiration. Participants agreed about the importance of providing these opportunities and pointed to public libraries as a particularly successful example and model. One participant commented on the responsibility cultural institutions have to their communities, often by responding to needs at the neighborhood level. By creating spaces where people can gather and have their material needs met, cultural institutions foster mutual presence, which can encourage, in turn, mutual participation.

Despite broad agreement that arts and culture have intrinsic value in public life, the general consensus is that cultural institutions need to rethink how they articulate and communicate that value. One challenge is the continued reliance on metrics such as the economic impact of funding arts and culture. Several participants suggested that it was time to reconsider this approach, noting that focusing on economic outcomes can obscure the full range of contributions cultural institutions make to their communities. One participant added that these metrics tend to drive competition, pitting institutions against each other when they should be collaborating. That participant encouraged the development of new measures as well as having cultural institutions invite artists and community members into the conversation, asking what they value most in their cultural institutions and using that information to assess and compare programs.

All participants agreed that clearly communicating the value of cultural institutions is essential to securing the funding that they need to thrive. In today's political climate where cultural institutions struggle for support, the roundtable discussions focused on how we should rethink what we choose to support. Several participants urged an increased focus on supporting a new generation of leaders. Funders tend to trust people more than institutions and often value a willingness to take risks and learn through innovation. One institutional leader shared that they are seeing a growing interest in leaders who make difficult decisions through consensus-building and strong moral principles. Another participant added that building support for this kind of human infrastructure often starts by bringing more funders into institutions so they can see these leaders in action firsthand.

Ensuring that cultural institutions are supported depends on their ability to remain relevant to the communities they serve. Several participants noted the importance of not only welcoming people into their institutions, but also integrating their institutions more fully into their communities. They highlighted public libraries as examples of institutions that consistently ask what they can do to serve community needs, use community feedback to inform future programming and services, and serve as a "third space" (after home and work) where people can have their needs met. One participant stated that truly meeting community needs requires institutions to intentionally seek out what those needs are, instead of just acting on the institution's own assumptions about what the community needs. Cultural institutions should move away from transactional relationships and consistently ask themselves, "what does it mean to be an authentically good neighbor?"

Throughout these conversations, participants repeatedly emphasized that cultural institutions can only be good neighbors and partners in their communities when they learn from past collaborations, challenge traditional narratives of power, and create more opportunities for shared space. Many of the participants noted that our largest cultural institutions are often less connected to their local governments and communities than they should be. While they have partnered with smaller institutions, they have rarely evaluated those partnerships to understand what worked and what did not.

To make these partnerships more effective, one participant pointed out that large institutions must be willing to relinquish some of their power, recognize that artists can create independently of these institutions, and allow the community to lead in forming truly democratic cultural spaces. For example, one participant suggested that cultural institutions should be more present at important community events, even those unrelated to their own work, to build trust and connections that transcend generations and institutional silos. Other participants noted that the built environment can hinder effective community partnerships. They emphasized the importance of creating open architectural spaces that encourage conversation and multiple uses, as well as intentional urban design that brings together people from different backgrounds and co-locates arts and culture spaces with housing and other community resources. When institutions share space with the communities around them, they build stronger and more meaningful connections.

Cultural institutions should move away from transactional relationships and consistently ask themselves, "what does it mean to be an authentically good neighbor?"

While all the roundtable participants were eager to explore creative ways to reengage communities, share resources, and reaffirm the value of arts and culture in public life, the challenges of today's political climate remained a constant concern. Several participants noted the importance of naming and addressing these specific challenges so that institutions can respond to them. One participant emphasized the need for cultural institutions to work together so that conversations like these can continue, but also to ensure that no individual or group faces a challenge to their mission alone.

The discussions were also practical, examining the pros and cons of various funding sources, considering legal defense options, and speculating about the implications of potentially losing an institution's nonprofit status. One participant stressed the importance of explaining to funders the basic infrastructure needs of cultural organizations. Overall, the participants agreed that collaboration is the best way to remain strong when not everyone sees the value of supporting cultural spaces.

These roundtable discussions and other conversations with leaders of cultural organizations have highlighted the vital civic role that cultural spaces play as places for gathering, participation, and community pride. These roundtables are informing a new Academy initiative on *Democracy, Arts, and Cultural Spaces* that will explore how cultural spaces can serve as anchor institutions in their communities, uphold democracy by encouraging civic engagement, and develop strategies to help these spaces remain resilient in the face of current challenges. Over the next five years, the project will draw on expertise from a diverse group of organizations – including museums, performing arts centers, government agencies, advocacy organizations, and libraries – to chart a path forward for the sector.

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For more information about the Academy's work on the arts and humanities, please visit www.amacad.org/topic/arts-humanities.

Induction 2025: Opening Celebration

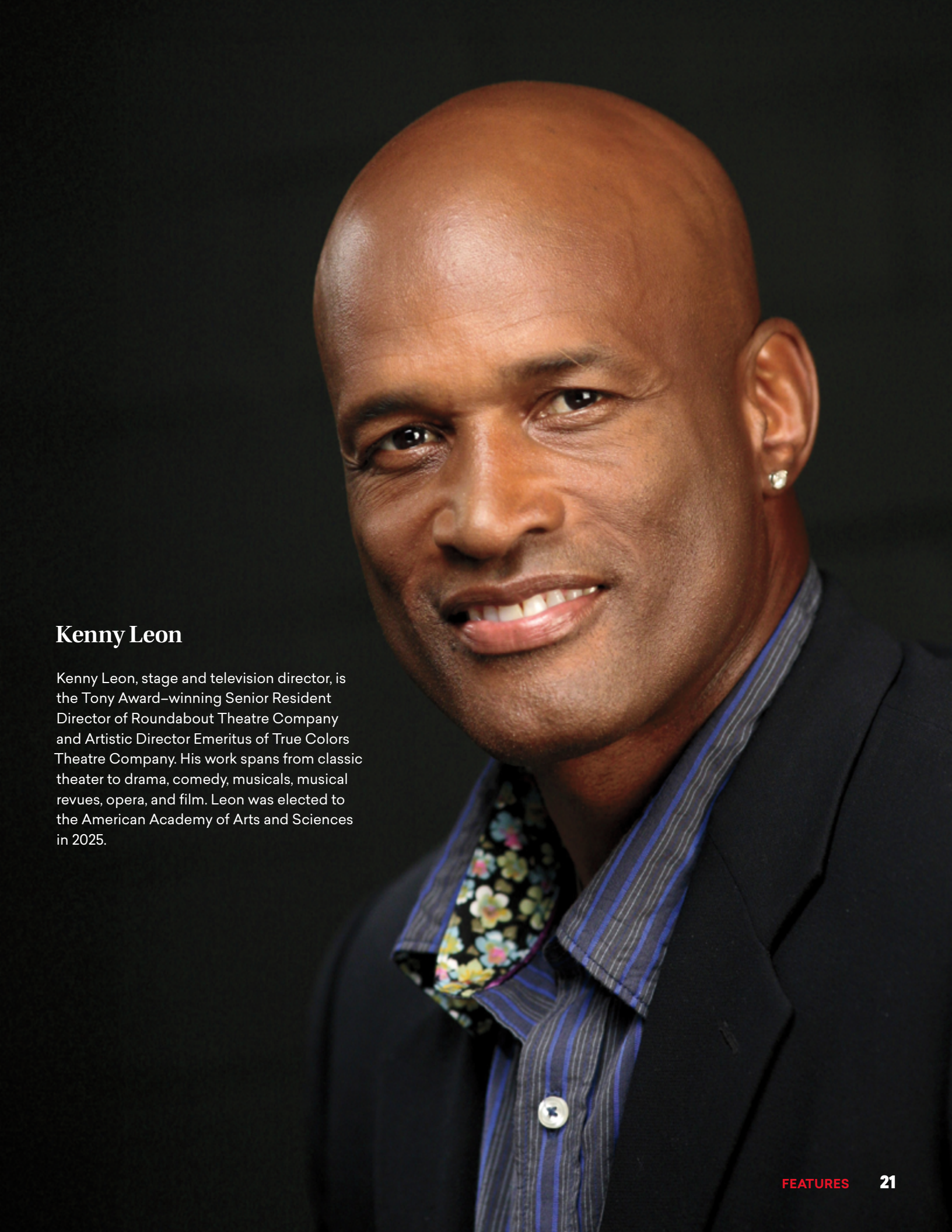
Annual David M. Rubenstein Conversation

2137th Stated Meeting | October 10, 2025 | Cambridge, MA

Induction Weekend 2025 began with an Opening Celebration that featured the announcement of the new Legacy Recognition Honorees with a special message from **John Legend**, followed by a conversation between **David M. Rubenstein**, Co-Founder and Co-Chairman of The Carlyle Group, and **Kenny Leon**, Tony Award–winning stage and television director and new member of the Academy. An edited version of their conversation follows.

David M. Rubenstein

David M. Rubenstein, an investor, philanthropist, interviewer, author, and historian, is Co-Founder and Co-Chairman of The Carlyle Group. He was elected to the American Academy of Arts and Sciences in 2013 and is a member of the Academy's Board of Directors and Academy Trust.



Kenny Leon

Kenny Leon, stage and television director, is the Tony Award–winning Senior Resident Director of Roundabout Theatre Company and Artistic Director Emeritus of True Colors Theatre Company. His work spans from classic theater to drama, comedy, musicals, musical revues, opera, and film. Leon was elected to the American Academy of Arts and Sciences in 2025.

DAVID M. RUBENSTEIN: Thank you very much for interrupting your day today to come here. I understand that earlier today you were working with Tom Hanks.

KENNY LEON: Yes, I was. Before we go any further, I would like to say how wonderful and amazing it is to be in this room with this group of human beings. I see Anna Deavere Smith, the queen of theater, and Bernard Harris, the first Black person to walk in space. Being here this evening has me thinking about August Wilson's play *Gem of the Ocean*, when he talks about the City of Bones – about all the Black people that are at the bottom of the ocean, all the kings and queens that are down there. I am excited today because we get to live lives that honor those people at the bottom of the ocean.

RUBENSTEIN: I'm glad you're happy to be here. Can you tell us a little bit about what you were doing earlier today?

LEON: Sure. Earlier today I was in rehearsal for a new show I'm working on at the Shed in New York. It's called *This World of Tomorrow*, and it stars Tom Hanks and Kelli O'Hara. It is a beautiful story about love and time travel.

RUBENSTEIN: When is the show opening?

LEON: It previews on October 30, and runs through December 15. It's about a guy who lives in 2089, and he goes back to the 1939 World's Fair and falls in love. The play is focused on the fact that not everything we need is in the future. There are important values in the past. The story asks a question: would you take fourteen years of true love or one hundred fifty years of life without love?

RUBENSTEIN: What's the answer?

LEON: Man, give me love. Love can change your DNA, and that's what the play is about. It's very humorous. Tom Hanks is one of the most fascinating actors I've ever worked with, and when I left him today, he said, "Enjoy your train ride!"

RUBENSTEIN: Did he write the play?

LEON: He cowrote the play with Jim Glossman. Earlier someone asked me, Who needs a director? I believe all actors need directors. Actors need somebody who will look at you and tell you what truth is. Most actors do not stand in truth. They stand beside truth, next to truth, around truth, but never in truth. Truth is a scary place. You have to stand in front of an audience and make them disappear. Most actors learn behavior. If I say this line, "Ba-da ba-da ba-da ba-bop-ba-bop bah," they'll laugh. If I say, "Ba-da ba-bah ba-bah ba-bah," they'll act like they're crying. But the audience will go home and say, "What the hell was that? I hated that performance." So we have to go for truth. We're studying human behavior, and you can't study human behavior if you're in your devices. You can't look at human behavior if you're on your laptop or your phone. I have a new watch because I wanted to pull myself away from my devices. The only thing I need my watch to do is keep the time.

"I believe all actors need directors. Actors need somebody who will look at you and tell you what truth is.

RUBENSTEIN: Does Tom Hanks need a lot of directing?

LEON: All actors need a lot of directing. I've worked with Denzel Washington, Sam Jackson, Phylicia Rashad, and Anna Deavere Smith. Actors give up something to become who they are. If you want my check, you have to take my bills. And a lot of people are not willing to do that. I remember I did *Fences* on Broadway with Denzel Washington, Viola Davis, and Stephen McKinley Henderson, a great group of people. It was the first day of rehearsal, and we worked for about four hours, and then I said, "Okay, let's go to lunch." We're on 42nd Street in New York, and I get halfway down the stairs, and say, "Where's Denzel?" Someone shouted back at me, "We're on 42nd Street. He can't leave the hall to grab lunch." So I went back upstairs, and I said, "I'm going to have lunch right here with you." By the end of that week, every actor in that company was having lunch in the rehearsal hall. We presented *Fences* on Broadway as a family who broke bread together. It was an amazing opportunity.

RUBENSTEIN: When you're an actor, what do you most want from a director?

LEON: As an actor, I want a director that I can trust, and I have not always had that. I have a t-shirt that says, "Film is art. Theater is life. Television is furniture." It's a joke, but what it means is that in film, you have a camera. You can zoom in on the actors or pull back. You can add music. When you're onstage in the theater, you're breathing the same air as the audience. When you're on television, you can change a lot of things. Film, theater, and television need the director, the actor, and the writer, but the person who gets the last word is different for each. For television, the writer gets the last word. Think of some of the great shows on television: *Cheers*, *West Wing*. If the writing isn't good, it's not going to work. For stage, it's the actor who gets the last word. As I mentioned, I'm working with Tom Hanks and Kelli O'Hara. They're in front of a live audience every night, and if they don't trust what I say, then they're going to make subtle adjustments – like I'll slow this down, or I'll make this funny. And if the audience is laughing, I'm going to make it funnier to make them laugh more. They start thinking that the audience is the barometer of truth. But that's not true. The audience is the barometer of what they think they should do right now. For film, the director gets the last word, because you're in the editing room and if you don't like something in one scene, you can fix it by taking something from another scene. I can add fake teardrops and put some music under it. Now if I had a choice between which one I'd give my life to, it would be the theater.

> In theater, surprising moments create great evenings. You have to stay ahead of the audience so they can continue to be surprised.

RUBENSTEIN: Why do you like theater more than television and film?

LEON: When you're on a raised stage, in front of the whole community, and you're breathing that same air, it's hard to manipulate the truth. Let me give you an example. If you hate profanity and you're watching a movie and the actor is cursing, you can say, "I didn't like the movie." If you hate profanity and you're seeing a play in the theater, you can say, "My God, why are they cursing? I'm leaving, and we're canceling our subscription."

Here's another example. When you go to the theater and you see blood, it's "Oh my God!" We tend to run away from that real truth in the theater, and what I try to do as a director is to stay ahead of it. I tell my actors that it's like a dog following a car. Don't let the dog catch up with the car. If the audiences catch up with you, and you stop the car, open the door, let the audience in, and then close the door, now the audience is dictating where you go. You're not surprising them. In theater, surprising moments create great evenings. You have to stay ahead of the audience so they can continue to be surprised.

RUBENSTEIN: When you were notified that you had been elected to the American Academy of Arts and Sciences, did you say, "What is the Academy?" or "Why did they take so long to elect me?"

LEON: To be honest, I didn't know which Academy had elected me. Is it *the* Academy or another Academy? Jennifer said, "You have to go to the Induction. People have worked hard on your behalf, and it's a great honor." But I hate missing rehearsal. And it's a big deal for me not to be in rehearsal today.

RUBENSTEIN: We are grateful that you are here with us this evening. Let me ask you a few questions. Where were you born?

LEON: Oh, wow. You're starting at the beginning! I was born in Tallahassee, Florida.

RUBENSTEIN: Did you grow up there?

LEON: Yes. I was the first. My sister was the second, and then came my brother. We had no running water in our house and we had an outhouse. That's what I grew up with. We had a small farm, and I loved everything about it. My mother left me there when she was a young woman because she had to get away. She didn't want that life. She left me with my grandmother, which was a great gift for me. I stayed with my grandmother, who raised me. We would sit on the porch in the country and entertain ourselves by waiting for cars to pass by. I would say, "That's my car. And that's your car, Grandma. You got that old, raggedy car." It was a beautiful life. We went to church once a month, because the minister had to go to all the other counties. I grew up in a Southern

Christian church. We got baptized in the river behind the church.

RUBENSTEIN: Was it a segregated church?

LEON: We didn't call it segregated because it had all the people we knew! We did know some white folks because my grandmother took care of a family called the Whites. Growing up, we thought that they were part of our family. We also saw white folks when we went into town.

Let me tell you a story about my grandmother. I found out at the end of my grandmother's life that she never had Social Security. My grandmother used to send us a dollar for Christmas. A dollar! She had thirteen children and all of them had kids, some of them five, six, seven, eight kids. She sent everybody a dollar. At her funeral, I said, "Grandma, you sent everybody a dollar and you didn't have Social Security." Then the preacher said, "I'll tell you something else about your Grandma. She wanted a cemetery fund, and in the church everybody voted it out, but Mamie put money in the envelope every church service for the cemetery fund." I got those kinds of lessons from Grandma.

RUBENSTEIN: Where did you go to high school?

LEON: Let's see, high school. I went to Northeast High School.

RUBENSTEIN: In Atlanta?

LEON: No, in St. Petersburg, Florida. The white folks lived on one side; the Black folks lived on the other side. But when it was time for me to go to high school, the school was integrated. Before then, all the Black students went to Gibbs High School, and we had the best sports team and the best bands. And then they split the Black kids up. By the way, Angela Bassett and I grew up in the same town. We later did a Broadway show together, *The Mountaintop*. The joy in all that is I got bused to Northeast High School. It was the richest school in the state of Florida. They had modular scheduling, which meant that you go to class for 20-minute mods and then you have free time. But we were away from our homes. So we were like, free time? What are we going to do? The white kids could go home. We could go to the 7-Eleven and shoplift.

The beautiful thing is I made some great white friends, who are friends of mine today. And then I became student council president. I couldn't be in the plays at the high school. The theater program there would not allow it. They couldn't see how Black people could be in plays unless you were the butler or the maid. So I led this big protest, and all my white friends joined it. It was a great experience. I learned and grew. When I graduated high school, the last thing I wanted to do was go to a white university, so I went to Clark Atlanta University in Atlanta, one of these beautiful, historically Black colleges. On my first day there, I met Maynard Jackson, who was the first Black mayor. Then I met John Lewis. Then I met Reverend Joseph Lowery. Then I met C. T. Vivian. Then I met Dr. King's oldest daughter. These people became my friends and my family. I represent that everywhere I go. I grew up on Miccosukee Road, and I ended up on Broadway. I cannot explain that unless there is a God.

> "I grew up on Miccosukee Road, and I ended up on Broadway. I cannot explain that unless there is a God.

RUBENSTEIN: You graduated from college and then went to law school. What were you thinking?

LEON: Growing up in the South, and with a Black community of support, you have to do what you know. If you're a first generation college student, you're going to be a minister, a teacher, or maybe a lawyer.

RUBENSTEIN: How long did you last in law school?

LEON: Before I answer let me say a little bit more about when I was in college. I met people like Spike Lee and Samuel L. Jackson. Sam became my best friend, and he's my best friend today. If you hate Sam Jackson now, you would've hated him then. He is exactly the same person. It is not an act. He's the most consistent person that I know. Sam and I both grew up in the South, and we learned that when you're eighteen, you either get a job or go into the military. To this day, I love to work. I'm sixty-nine, and I love to work. I had three Broadway plays last

year. Sam Jackson probably works more than anybody in film, but that's what you do. That's what you give back. And you honor everybody that came before you. In no way could I do this if we didn't have Lorraine Hansberry and Zora Neale Hurston. David, a quick story?

RUBENSTEIN: Sure.

LEON: Some of the story is partly true.

RUBENSTEIN: Which part?

LEON: The part I say out loud is true. In 1959, what Black story was on Broadway? It was *A Raisin in the Sun*. That play did not come back to Broadway until 2004, forty-five years later.

> My job as a director is to see how the entire cast processes information. We're trying to get the best from them and uplift them.

RUBENSTEIN: You were the director of the production in 2004, correct?

LEON: I was. Jewell Nemiroff, married to Robert Nemiroff, said that no one can do this play again commercially unless the director is a person of color. So for all those years, there was not an acceptable person of color to direct that play commercially. It's hard to believe, but that's what happened. And then in 2004, I directed the play that starred Phylicia Rashad, Audra McDonald, Sanaa Lathan, and Sean Combs.

RUBENSTEIN: What was Sean Combs like then?

LEON: I'm getting there.

RUBENSTEIN: All right, go ahead.

LEON: I contacted all the people who worked on the play in 1959, including the great director Lloyd Richards. As an aside, I love what this Academy is doing with its Legacy Recognition Program. I said, "Lloyd, what I want to do is not the same thing that you did, but I want to honor what you did." And so we sat and talked. The great Ruby Dee was in the 1959 production. I told Ruby to come by rehearsal and give me notes. Ruby came and most of her notes were about the character of Beneatha. When Lloyd hired her to play Sidney's wife, she thought she was getting the offer to do Beneatha. Years later, she still liked the role of Beneatha and had a lot of notes.

RUBENSTEIN: You directed *A Raisin in the Sun* on Broadway twice.

LEON: Yes. Let me say something about Sean Combs. And this is what I say when I talk to graduate students. None of us are going to get out of here alive. So it's how we treat each other that is important. All we have is our time and talent, and you need to look at life in its entirety. Sean Combs in 2004 was a hard-working person. He built a replica of the set in his Park Avenue apartment so that he could go home and sleep like this poor man. I don't know what happened later on, but I know when he was working with me, he was working hard.

RUBENSTEIN: Years later, you did the play again.

LEON: Yes. God allowed me another blessing to do that play ten years later, and I did it with Denzel Washington and LaTanya Jackson.

RUBENSTEIN: And you won the Tony.

LEON: Yes, I won the Tony for direction. But the hardest work, and this is why you should not chase awards, was the first time I directed the play. We had an actor, Sean Combs, who never acted before. We had a four-time Tony Award – winning actress. We had Phylicia Rashad coming off *The Cosby Show*. My job as a director is to see how the entire cast processes information. So from day one I'm saying, I might have to take her to dinner, and I'm not going to say anything to him for a week. We're trying to get the best from them and uplift them. And I think that's why actors like working with me because I leave room for them.

RUBENSTEIN: Back to law school for a moment. You dropped out before the end of the first year. So then how did you get into acting?

LEON: I stayed in law school for about six months. And then my brother and my best friend at the time, who passed away last year, were in a serious car accident. I thought they were not going to make it. I was in LA at the time and not liking the city. So I used that moment to leave, to make sure that my buddies were okay. I went back to Atlanta. My mother said I either needed to work or I had to go

back to law school. In the newspaper there was a notice for auditions for the Academy of Music and Theater. They would do plays at night, like *Richard III* and *Death of a Salesman*, but in the daytime you worked in the prisons, teaching acting to the prisoners. I recruited a group of homeless people to teach the prisoners acting skills, and I put it onstage. I did that in the daytime and then I acted at night, and at the end of the year, I had to decide what I wanted to do. Do I go back to law school, or continue with the acting? At that time, my mother was working as a dietician in a nursing home. She was in a patient's room and they were watching TV. I had done a commercial where a lady hits me in the stomach. I didn't have any words but the commercial was funny. My mom says to the patient, "That's my boy." And the patient replies, "That's your son? He can make lots of money." After that, my mom said acting was okay. So that's when I made the decision, and that's how my acting career started.

RUBENSTEIN: You said earlier that you're sixty-nine years old.

LEON: Yes.

RUBENSTEIN: Too young to be President of the United States.

LEON: I'm thinking about it, though.

RUBENSTEIN: Some people who are turning seventy say that they're going to slow down. Are you slowing down?

LEON: Not at all.

RUBENSTEIN: In fact, you seem to be speeding up.

LEON: I love what I do. I love telling stories. I love inspiring actors. I love teaching actors. I still have something to give. So for me, working in the arts is life. Thank God my wife allows me to be married to the profession, and I thank her for that.

RUBENSTEIN: You have two children and four grandchildren?

LEON: Yes.

RUBENSTEIN: What do the grandchildren call you?

LEON: Well there's a story behind that.

RUBENSTEIN: Go ahead.

LEON: There are three girls and one boy, Gabriel. A few years ago I did a play called *Soldier's Play*. We won the Tony Award for best revival, and Maria let the kids watch the award show the next day. They are watching the show and my great friend Todd Haimes calls me onstage and says, "This Tony really belongs to Kenny Leon." The audience leapt to their feet and applauded. Gabriel said, "Those people were standing for you, and he called you Kenny Leon. Can we call you Kenny Leon?" I said, "Absolutely." So sometimes they call me Kenny Leon and sometimes they call me Opa.

"I love what I do. I love telling stories. I love inspiring actors. I love teaching actors. I still have something to give. So for me, working in the arts is life.

RUBENSTEIN: Would you want any of them to go into acting?

LEON: No. I want them to find their own passion. I think life is finding your passion and figuring out a way to get paid for it. Gabriel is a contrarian. Whatever you say, he's going to do the opposite. If you say, "You'll never be an actor," he's like, "But I want to be an actor." He has every instinct of a director, though. He has good visual sensibility.

> If I engage with these incredibly smart and talented members of the American Academy, I could learn so much. I want to learn and I want to grow because life is for the living.

RUBENSTEIN: What is the key skill to be a good director?

LEON: You have to leave room for everybody else, and you have to have vision. People will ask, why should we follow this person up a hill? I try to give them a reason every day. It's about trust.

RUBENSTEIN: When you started, it wasn't easy being an African American actor and director. Is it any easier today?

LEON: It is easier, but we're in a tricky place now. When I started, I was the only Black director running a major theater in the country. I was running the Alliance Theatre, a $20 million theater in Atlanta. Before me, Lloyd Richards was at Yale Repertory. Now there are five or six people at Arena Stage. And there's Harlem Stage. So there are more opportunities now. But race is still an issue. We're still running from race. This generation of actors is disappointed in some things that they think we're responsible for. And I understand that. It's like I tell our daughter, "You're smarter than I am, but I have forty years on you. I've got wisdom." If you get them to appreciate that wisdom, if we open ourselves up as adults to say we don't know everything, and if we try to look at it through their eyes, there's a way to bring those things together.

RUBENSTEIN: Who is the greatest actor you've ever directed?

LEON: I can name a lot of great actors that I've worked with. But let me go back to my last point. *Hairspray Live!* was one of the best things I've ever done, because in that musical there was a ten-year-old, a twenty-year-old, a thirty-year-old, a forty-year-old, a fifty-year-old, a sixty-year-old, and a seventy-year-old in it. If they're ten, then let them be ten. If she's twenty, then let her be twenty. There's something that every decade of life can offer to the whole group. There is nothing better than an eighty-year-old man telling you about life. At the same time, there's nothing greater than a thirty-year-old who has energy and thinks the world can't stop them. If we leave room for all of us, that's a beautiful thing. It's true in theater and in life. The young folks have always had the fire. In our rehearsal room, it's a joy and a beauty to be there, because we build truth in the stories that we tell and put onstage. Why would I ever want to retire from that?

RUBENSTEIN: Let me ask you a final question. When you told your children and the people you're working with that you had been elected to the American Academy of Arts and Sciences, what did they say?

LEON: Everybody in my family was touched, perhaps more than I was. And then I started thinking that if I engage with these incredibly smart and talented members of the American Academy, I could learn so much. Yes, I'm sixty-nine, but there's so much more for me to learn, and so much more for me to give, and so many more stories to tell. I want to learn and I want to grow, because life is for the living.

RUBENSTEIN: Thank you for being with us this evening, and congratulations again on your election to the Academy.

LEON: Thank you.

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To view or listen to the presentation, visit www.amacad.org/events/kenny-leon-david-rubenstein-2025.

As part of the ceremony, the new members signed the Academy's Book of Members, a tradition that dates to 1785.

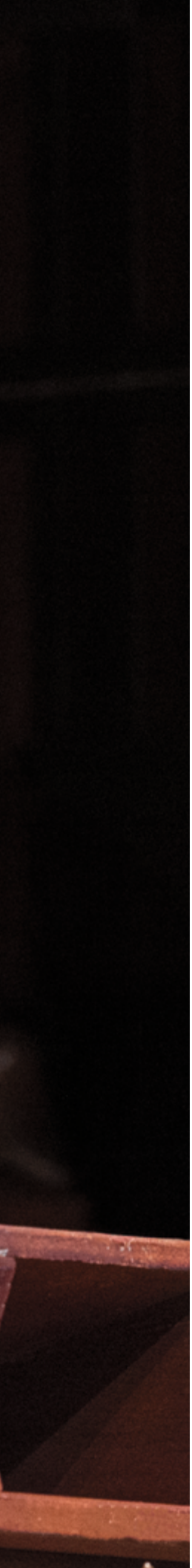
2025 Induction Ceremony

2138th Stated Meeting | October 11, 2025 | Sanders Theatre, Harvard University

On October 11, 2025, the Academy inducted more than two hundred newly elected members during its annual Induction Ceremony. The program included brief remarks from five new members, each representing one of the Academy's membership classes. Their talks addressed topics such as the transformative power of science, building trust in expertise in the age of biology, leading for breakthroughs, creating books that act as mirrors rather than windows, and the evolving impact of Title IX. The class speakers were **Gregory H. Robinson** (Class I: Mathematical and Physical Sciences), **Ashish K. Jha** (Class II: Biological Sciences), **Brian Uzzi** (Class III: Social and Behavioral Sciences), **Jacqueline Woodson** (Class IV: Humanities and Arts), and **Christine Brennan** (Class V: Leadership, Policy, and Communications). Edited versions of their remarks follow.

Gregory H. Robinson

Gregory H. Robinson is the UGA Foundation Distinguished Professor of Chemistry at the University of Georgia. He was elected to the American Academy of Arts and Sciences in 2025.



In our world today, each new wonder drug, each new advanced material, each new antiviral medication is deeply rooted in chemistry.

Let me begin by extending my heartfelt congratulations to the 2025 class of the American Academy of Arts and Sciences.

When I was asked to give some remarks, my first thought was to prepare a chemistry lecture, but then I realized maybe that was not the best move at this juncture! Two themes dominated my thoughts for these remarks: One was the extraordinary promise of America, and the second was the transformative power of science.

Centuries ago, the Egyptians, Romans, and Phoenicians used chemistry to isolate organic dyes from plants. The conversion of animal fat into soap by treatment with lye – sodium hydroxide – has also been known since ancient times. In our world today, each new wonder drug, each new advanced material, each new antiviral medication is deeply rooted in chemistry.

Notably, chemistry remains omnipresent in our daily lives. From the corner barista performing "aqueous extractions," which we know as brewing coffee, to the neighborhood baker utilizing baking powder – sodium bicarbonate – which releases carbon dioxide in the baking of breads, cakes, and cookies are but two examples of everyday chemistry. Indeed, we remain hopeful that the worldwide fermentation industry, whose singular task concerns the chemical conversion of sugars to ethyl alcohol, may one day become a profitable enterprise. Perhaps Nobel Laureate Roald Hoffmann said it best: "A chemistry degree has never been required for one to practice chemistry."

I was born in Alabama in 1958. At that time, the American South remained in the corrosive embrace of racial segregation and Jim Crow. I started school in 1964 and was excited to join my three older sisters as we caught the bus to go to school each morning. Each school day began in the same way: We all stood at attention; we faced the flag; we placed our hands over our hearts; and we recited the Pledge of Allegiance. I remember the last line of the Pledge: "With liberty and justice for all." And then we began our school day.

Our school had four classrooms and four teachers for grades 1 – 9. Obviously, this racially segregated school was as woefully underfunded as it was overcrowded.

I first heard the word *molecule* when I was in the fourth grade. It was at recess, and a boy in the fifth grade asked me if I had ever heard about molecules. I said, "No, what are molecules?" He assured me that he couldn't get into it right then but that I would learn about molecules in the fifth grade.

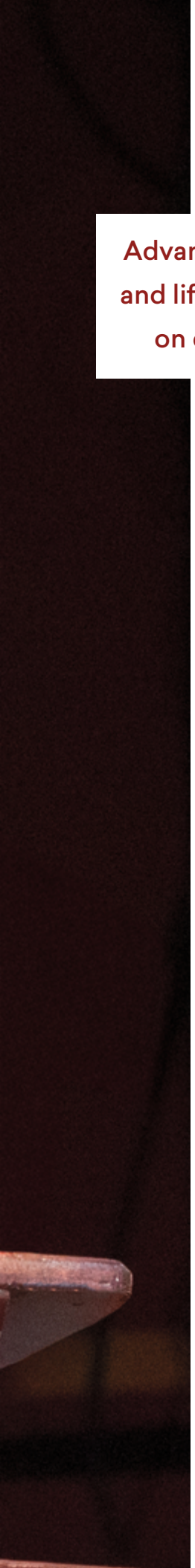
In the fifth grade, I recall interrupting the teacher one day in class to ask, "When are we going to learn about molecules?" She replied, "Who told you about molecules?"

Amazingly, we continued to attend this racially segregated school until 1970, almost sixteen years after the *Brown v. Board of Education* decision.

What attracted me to chemistry? With all of the electrons, atoms, protons, neutrons, isotopes, allotropes, and molecules, chemistry seemed to be a world unto itself. And, indeed, even at that young age, it seemed to me that the laws of science held much more logic than the laws of society. In my life, I've picked cotton, and I began my education attending a racially segregated school. In high school, I was the quarterback of our football team, but in college I was moved to defense, ostensibly because I was not smart enough to play quarterback. Perhaps like some of you, I've been fortunate to encounter some fantastic individuals who provided critical assistance to me along my journey. And working with a talented group of students and colleagues, I earnestly believe that my research team and I have advanced synthetic inorganic chemistry. And so I stand before you as a direct consequence of the extraordinary promise of America and the transformative power of science.

Ashish K. Jha

Ashish K. Jha served as Dean of the School of Public Health at Brown University from 2020 to 2025. He previously served as a professor at the Harvard T. H. Chan School of Public Health and at Harvard Medical School. He was elected to the American Academy of Arts and Sciences in 2025.



Advances in genetics, AI, and synthetic biology hold the power to transform health and life itself. But just as in the last century, realizing that promise depends not only on discovery. It also depends on whether we can foster trust: trust in institutions; trust in science; trust in each other.

Thank you to the Academy, and congratulations to the new inductees.

A century ago, the world stood at the dawn of the age of physics. Discoveries in quantum mechanics and nuclear science promised boundless energy and a deeper understanding of the universe. But along with that promise came peril. The same knowledge that gave us nuclear power also created nuclear weapons. Humanity found itself on a knife's edge.

In the years that followed, what made the difference between progress and catastrophe? It wasn't science alone. It was trust: trust between scientists and the public; between governments and their citizens; and, yes, even between nations themselves.

Today, we are at a similar inflection point because we are at the dawn of the age of biology. Advances in genetics, AI, and synthetic biology hold the power to transform health and life itself. But just as in the last century, realizing that promise depends not only on discovery. It also depends on whether we can foster trust: trust in institutions; trust in science; trust in each other. History teaches us that the perils are real. In the early twentieth century, because of scientists like Nobel laureate Fritz Haber, we learned how to engineer chemistry. And with all its wondrous gains came the chemical weapons of World War I. In the decades that followed, great scientists – such as Bohr, Planck, Einstein, and Fermi – gave us the ability to engineer physics, and that gave us nuclear energy, but soon thereafter the nuclear weapons of World War II.

Over the last decade or so, extraordinary scientists like Jennifer Doudna and Katalin Karikó have taught us how to engineer biology. We are no longer mere readers of the genetic code of life. We are, for the first time in human history, its editors and writers. CRISPR, synthetic biology, and artificial intelligence are already transforming medicine. We can now cure sickle cell disease. We're reshaping autoimmune disorders and tackling cancers that ten years ago felt unsurmountable. But it would be a historical anomaly if those same tools were not used for biological weapons. In fact, we know that they are.

So, yes, in this moment we must do science well. And looking out across this room I have no doubt we will. But that will not be enough, because if people don't trust science, then the fruits of that science will not be widely used, and when the inevitable misuse of biology comes, our ability to counter it will be limited.

Trust is in a very difficult place because we are living through a profound fragmentation of our information ecosystem. Many of our fellow citizens no longer know what's true and what's fake, or whom to trust. The examples of this crisis are all around us. Childhood vaccine rates are falling, making 2025 the worst year for measles in more than a quarter century. One in four Americans say they have little or no confidence that scientists act in the public's interest. Trust in physicians and hospitals has dropped by more than 30 percentage points in just the last five years. These may not be uniquely American problems, but they're plenty bad here.

So what do we do? First, I would argue that we need to understand that trust is much like energy: it is neither created nor destroyed; it is transformed. When people lose trust in one institution, they place that trust elsewhere: in their families, in their faith communities, and, yes, even in online personalities who often peddle questionable information.

Now, it's very easy to blame others for this predicament, but I think our work must begin at home. We have been too walled off, too comfortable in our own narratives, too complacent about engaging the

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broader public. Let me explain. Good information often sits behind paywalls or buried in technical jargon. Bad information, on the other hand, flows freely. It's easily shareable. It's emotional. It's memeable. We've honed our narratives for each other, but rarely connected them to what matters most in people's lives. We talk about climate change in degrees Celsius and sea levels, not in the number of kids who will have asthma or failing crops that will lead to hunger. We too often assume that if we simply declare the consensus, people will listen. They won't because information is ubiquitous; it is trust that is scarce.

So how do we do better? First, we have to make science more transparent and more accessible. We have to share data, ideas, our uncertainties, and even our errors openly. I believe we should invite the public into the scientific process so they can see what we do, and why we do it. I know people say the scientific process is messy, and it is. It's nonlinear and at times, maddening. Yet it is also beautiful, because within that chaos lies the power to transform the world.

Second, we must engage the public with humility and curiosity. Not to give them the right answer but to better understand their questions and show how our work matters to them. Third, we have to embrace diversity: intellectual, political, and cultural. Our scientific community too often thinks and acts in ways that are quite different from large parts of our society, and that gap limits our empathy and our ability to connect. Finally, we should commit to building trust through relationships. That means partnering with those who already hold trust: clergy, local leaders, and, yes, even some online influencers. We should be committed to work *with* them, not *around* them.

As we look at this age of biology, we are again on a knife's edge. The age of biology could be an era of unprecedented human flourishing, or an era that is far, far darker. Science alone will not decide which. I believe trust will, and we in this room have a central role to play. Now, of course, we must continue to do the science; that is essential. But we must partner with each other – with both those inside and outside this room – to build the trust that allows science to matter. Our job is not only to discover, but to connect; not only to explain, but to listen.

So here is the real bottom line: if we can pair discovery with trust, as the scientists did seventy years ago after the advent of the atom bomb, then this age of biology will be remembered not for what we feared we might do to each other, but for what we had the courage to build together. And looking across the room today, I am more than hopeful that we will pick that latter path.

Brian Uzzi

Brian Uzzi is Richard L. Thomas Professor of Leadership and Organizational Change at the Kellogg School of Management at Northwestern University. He is also Co-Director of the Northwestern University Institute on Complex Systems and The Ryan Institute on Complexity, Professor of Industrial Engineering and Management Sciences at the McCormick School of Engineering, and Professor of Sociology at the Weinberg College of Arts and Sciences at Northwestern University. He was elected to the American Academy of Arts and Sciences in 2025.

Thank you. It is an honor and a deeply heartwarming surprise to be inducted into this distinguished institution. I am equally honored to speak on behalf of my fellow inductees: scholars and innovators I hold in the highest regard. I want to give a special shout-out to another inductee who's here today, Woody Powell. He was not my advisor, but he became a mentor after I graduated, and helped me in my career in so many different ways. I don't think I'd be here today without you, Woody. So, thank you.

I am reminded that innovation and creativity in science and the arts are not solo pursuits of discovery, but a network of collaborators, tutors, and mentors that removes our blind spots and inspires our creativity. For me, today's celebration is about honoring that lineage of ideas and people – the shoulders we have all stood upon on our way to making our individual achievements, which we are being honored for today.

My own scientific efforts have focused on understanding the dynamics of collaboration and creativity in science, the arts, and many things in between. I've studied what stimulates creativity, how you show others the merits of your good ideas, and how breakthroughs can turn into breakdowns in the same way that social media turned individually smart people into collectively dumb crowds.

It's tempting, looking back, to imagine one's work as a logical unfolding of ideas, a puzzle that slowly but inevitably comes together. But, for me, my journey has been one of fits and starts. I began in a two-year community college. My first experience in graduate school was a disaster. I loved science, but I was academically ill-prepared, and I felt quite misplaced. So after about two years, I decided to start exploring other things.

One evening, while wandering through the stacks in the library, I stumbled upon a book titled *Getting a Job*. How lucky was that? It was exactly what I was looking for. And, quite frankly, I really liked the book because it had only seventy-five pages and I could read it in an evening. But when I opened it, I realized it wasn't about résumés and interviews at all; it was about how people achieve extraordinary things through their social networks. The next day, I applied to the PhD program at Stony Brook to work under the book's author, the remarkable Mark Granovetter, and there my intellectual pursuits took root.

I found that human creativity rarely followed a straight line. Like my life experiences, it moves in fits and starts, down blind alleys, around detours, and through moments of serendipity. Yet beneath all of that apparent chaos, which many of us in this room have experienced, whether I studied it ethnographically or in tremendous databases of tens of millions of observations, certain principles emerged. I would like to share three, in particular, with you today.

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The first is this: many people enter a collaboration, a team, or a partnership determined to prove how smart they are. And that impulse makes a lot of sense – we all want to establish credibility and show our value. But what I observed was almost the opposite. The most consistently creative and productive collaborations weren't driven by people trying to demonstrate their own intelligence; they were built by people who helped others discover their potential.

In other words, the principle is don't show others how smart *you* are; show others how smart *they* can be. When you do that, you unlock something extraordinary. You remove fear of judgment. You replace defensiveness with playfulness. You create a sense of shared jubilation that pours sunlight on creativity. In other words, when you make others feel smarter about themselves, you create the foundation on which every great collaboration stands.

The second principle challenges one of the great myths about creativity. We often think of

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breakthroughs as “Eureka!” moments – flashes of genius when an idea swings into our mind like Tarzan on a vine. But in truth, creativity is far less about lightning strikes and far more about what I would call the import-export business of ideas.

What do I mean by that? Creativity rarely involves inventing something new. More often, it’s about transporting an idea, invention, or insight from one domain where it’s already accepted – where it’s practically invisible because it’s so well understood – and bringing it into a new domain where it looks like an invention. That shift in context is what turns an ordinary idea into an extraordinary one. And this realization is quite liberating, because it means creativity isn’t just the gift of birth, or something you run out of in life; it’s a product of your connections. To have a good idea, you just need to know many people who have different ideas. Diversity of thought is the raw material for the import-export business of innovation.

The third principle is about how you show others the merits of your good ideas once you’ve created them. It’s tempting to think that great ideas win on logic alone, that their power lies in their math, clarity, or precision of arguments. My research suggests something much more subtle: the acceptance of an idea in a collaboration depends on the story it tells – the way it’s framed, described, and grounded in a context that others can see and feel.

Adam Smith, for example, explicated the economic blueprint for capitalism not in the study of industrial empires, but in the constrained context of a lowly pin factory. Jane Goodall unlocked the secrets of primate behavior not by studying chimpanzees from the outside looking in, but from the inside looking out. Universal truths can often be communicated in a narrow lens that helps others see and grasp new concepts, and when they have a stake in those new concepts, that’s when they make a difference. If you want to improve your chances of a great collaboration and a breakthrough, my advice is to find your pin factory.

Recently, AI extended collaboration from human-to-human to human-and-machine partnerships. Many predict, myself included, that soon the most important contact in our network, in our team, and in our lab will no longer be another human being; it will be a bot. Machines are improving rapidly, suggesting they would be potent creative partners. Yet research shows the opposite: bots often dampen our creativity. Why? Because humans tend to defer to bots, and bots give commodity-like responses. These bot-given answers miss the novelty that makes creativity profound.

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How do we create the best mind + machine collaborations? It’s not when humans ask machines for an answer. The best collaborations occur when humans ask machines *how to think better*, not *what to think*. When you ask a machine how to think better and not what to think, that’s when innovators get process guidance from machines for enhancing their own creativity. And the bot, in turn, offers a scaffolding for the innovator to fill in with their original ideas, colors, and secret sauce. This is what creates the profound, unique solution.

In this way, bots remind us that human creativity is a team effort embedded in a network of connections. Today’s celebration here in this room honors that truth about human creativity, and indeed confirms it.

In conclusion, I would like to express my thanks again to the Academy for helping others feel smarter about themselves.

Jacqueline Woodson

Jacqueline Woodson is an American writer of books for adults, children, and adolescents. After serving as the Young People's Poet Laureate from 2015 to 2017, she was named the National Ambassador for Young People's Literature by the Library of Congress for 2018 to 2019. In 2020, she received a MacArthur Fellowship. She was elected to the American Academy of Arts and Sciences in 2025.

Young people need both mirrors and windows in their literature: Mirrors so that they can see themselves in the narrative, and by extension, in the bigger world; windows so that they can see into the lives of folks not like themselves.

I am so grateful to be here with all of you. Until the late 1990s, the biggest award that I had received was for a poem I wrote in fifth grade as part of a borough-wide tribute to Black History Month. It was Brooklyn. It was the 1970s. The prize was a Scrabble game and the poem began with the lines: "Black brothers, Black sisters, all of them were great / No fear, no fright, but the willingness to fight." On *Sesame Street*, Jesse Jackson was telling us to raise our fist in the air and repeat after him, "I am somebody." There was *The Electric Company* on PBS, where Morgan Freeman, Rita Moreno, and the beautiful Lee Chamberlin – who, like my childhood self, had a gap-toothed smile – were teaching us phonics and spelling through comedy, song, and African American vernacular. In *Ebony* magazine and on *Soul Train*, models and dancers sported Afros so high and weightless, gravity felt like a choice only some of us had mistakenly made.

In this world, I began writing about the people I loved, about the people who were around me and sometimes, thanks to my parents' curation of our television consumption, on our TV screen. And yet, too often the people who looked like me were not on the pages of the books I was reading. The hole in my literature became a hole in my life. Dr. Rudine Sims Bishop, Godmother to the Multicultural Children's Literature Movement, said that young people need both mirrors and windows in their literature: Mirrors so that they can see themselves in the narrative, and by extension, in the bigger world; windows so that they can see into the lives of folks not like themselves. Through books, we learned, readers gain empathy and understanding for people that they might never meet. As a child, I had very few mirrors in my books and too many windows into the white world.

Six years after Dr. Bishop's 1990 article, "Mirrors, Windows, and Sliding Glass Doors," was published, with Dr. Bishop on the committee, I received a Coretta Scott King Honor Award for my fifth novel, *From the Notebooks of Melanin Sun*. Like the ones I had written before, this book was a response to the hole in my life. I'm sure many in the room know this hole. We felt it in our bodies and spent years attempting to fill it: with literature, poetry, film, information, human-made technologies. We filled it with what we thought we knew, and what we learned to be true.

The year I won the CSK Award, I invited my mother and grandmother to the ceremony – a lavish breakfast at the American Library Association conference in Chicago. At the time, the Coretta Scott King breakfast ceremony required the purchase of a $75 ticket. My publisher paid for my family's tickets, and I proudly whispered to my grandmother that they had done so. As she sat through the ceremony replete in a Sunday hat and dress, picking at her food, I watched the displeasure move across her face, then fade again. Later, when I asked her what she thought of the ceremony, one that included a gospel choir singing the Black National Anthem, "Lift Every Voice and Sing," and the librarian presenting me with an oversized framed award honoring the book, my grandmother leaned close to me and whispered, "That food was all right, Jackie, but it wasn't worth no seventy-five dollars." Although I was raised in Brooklyn, I come from a very Southern, very particular, very honest kind of people.

While we are standing here on the shoulders of men who once walked through this country with the teeth of our enslaved ancestors in their mouths – I see you, George Washington – we are also standing on the shoulders of those who loved us, fought for our freedoms, and reminded us that if you're paying seventy-five dollars for a breakfast in the early 1990s, the food better be amazing. They reminded us that we are amazing. But while they did so, they also let us know about the danger of exceptionalism; that making the circle small and particular leaves out so many voices of people who

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have a wider field of knowledge about life in the spaces where they're living it. The elders reminded us again and again that it is our shared humanity, our sense of community, and our ability to see the beauty and brilliance in folks across the lines of what we think we know beauty and brilliance to be that keeps us on a forward path.

Throw stones into the streets of Chicago or Compton, the decimated roads of Gaza, the dark, child-filled mines of Sudan, and you'll hit all the young Kens and Avas and Majors and Josés and Katoris and Camilles. Across the country and across the world, wherever there are young people, there is brilliance waiting to be seen, heard, and nurtured. And if we are to go down as good ancestors, that nurturing is *our* work.

Many of you might have followed this story last year from Toronto. While working to restore coastal wetlands, clumps of soil were extracted from the grounds near a waterfront. Scientists wanted to examine this soil for trace elements of the plants that once grew in the area, but when they re-exposed the soil to water and air, a Lazarus of water fleas, worms, zooplankton, and larva that had lain dormant since the 1800s sprung back to life.

Whose bones had rested beside them all those years? What stories have returned with these creatures?

I think of the creative force of art and science. As we move through this era of AI, of great destruction, of the silencing of voices and the elimination of people, and of the banning of books, what part of art and science and *us* will remain evergreen? How does the work we are doing now serve those coming up behind us, and the ones coming behind them, and them, and them? Will they remember us as the equivalent of someone who walked through this country with their ancestors' teeth in our mouths? Back then, an innovation, but now, not so much. All of us in this room have proven that we have the ability to think outside of what we've been told and shown to be true. So how do we not only widen this circle but extend its life?

Long after we are bones and dust and ash, who will pull from the dormant earth a long-ago memory of us? And what will that memory be?

Christine Brennan

Christine Brennan is an award-winning national sports columnist for *USA Today*, a Professor of Practice at Northwestern's Medill School, a commentator for CNN, ABC News, PBS News Hour, and National Public Radio, and a best-selling author. She was elected to the American Academy of Arts and Sciences in 2025.

Before I begin, I would like to say how important it is to have role models, to have someone to look up to who looks like you. It's a common theme here, the diversity and inclusion of this Academy.

Growing up in Toledo, Ohio, we were an NBC News family. We would watch John Chancellor every night, and my hope was that maybe there would be a place for me in journalism, potentially sports journalism or covering politics. I didn't know then which one. There was a young reporter on the campaign trail with a certain governor from Georgia named Jimmy Carter, and then that reporter was often on the White House lawn, covering Carter's administration. That reporter was the great Judy Woodruff. Billie Jean King says you have to see it to be it, and that was so true for me. As an eighteen-year-old, about to head off to Northwestern for journalism school, I learned that if I could see it, I might be able to become it.

Judy, I am honored to be here on this stage with you and to be part of this new class of Academy inductees. I wonder what eighteen-year-old me would think of this? And Al Hunt, wherever you are, are you checking the sports scores right now?

A few minutes ago, my watch told me that it was time to stand up, and I think probably all of your watches are screaming at you as well. As the last speaker, I'm going to keep my remarks short. "So in conclusion . . . ." Okay, not quite that short.

There is something that hasn't received enough coverage in the media – either in the sports media or in the cultural news media – over the last fifty-three years, and it is something that is changing America. It's happening right under our feet – in our kitchens, on our playing fields – and it is this incredible revolution in women's sports. Title IX, the law that opened the floodgates for girls and women to play sports, was signed fifty-three years ago, on June 23, 1972.

For generations in this country, we told our daughters, granddaughters, nieces, the girls next door that no, you cannot play sports. You cannot do what your brothers are doing. You cannot learn the life lessons that your brother or the boy across the street is learning. You cannot learn how to win at a young age. Even more important, you cannot learn how to lose at a young age. You cannot learn about teamwork, sportsmanship, physical fitness, and leadership. What were we thinking at the time?

As you can see, I'm quite tall. My mom joked I was born size 6X and kept right on growing. When I was a Girl Scout, she would let the hem out of my Girl Scout dress until it was time to leave Girl Scouts. I wanted to play sports with the boys, and my mom and especially my dad, who had been a football player in high school and college, said, "Yes, honey, sure. Go ahead and play with the boys." Most women my age were being told no, you cannot play sports. How lucky was I that my mom and dad said yes, that I had the opportunity to have these experiences.

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We went to dozens of football games. We grew up as Michigan fans and had season tickets for those games as well as University of Toledo and Toledo Mud Hens games, and we would go to see the Detroit Tigers and the Chicago White Sox play as well. Obviously, sports were a huge part of my life, and I was so lucky to have that. But other than me being out on the field with the boys, there were no other girls. I meet a lot of women my age at book signings, and they all say, "Oh, if only I could have played sports. My life would've been different. But I never had the opportunity."

As I mentioned, Title IX was signed in June 1972, but the law was ignored for about fifteen years. There are some schools, including some that have been honored here today, that may not be following the law even now. But the good news is that there are three prongs to this law, and one of them is that if you're showing that you are working toward compliance with Title IX, then you are in compliance with Title IX. Unfortunately, we all know that the battles for equality in America continue, and we are facing many new challenges in the Trump administration.

A year and a half after Title IX was signed by Richard Nixon, Billie Jean King beat Bobby Riggs

Though we've won the Title IX battle in the suburbs, we have not reached so many of the young women and girls who deserve the opportunity to play. I'm speaking about the Black and Hispanic communities. We need to do a much better job in the next fifty years of Title IX to reach those who have so far been unreachable.

in the Battle of the Sexes. He was a self-described male chauvinist pig. When he was quite ill and close to death, one of the last phone calls he received was from Billie Jean King. They became quite good friends, and Billie was there for him to the end.

Let's move ahead to the 1996 Atlanta Olympics. At a press conference, swimmer Amy Van Dyken said the following words: "These days it's cool for a woman to be able to bench press her husband."

Some of you may remember where you were on July 10, 1999. The Rose Bowl, the football stadium built for men to play football, was filled to capacity, over ninety thousand spectators, to watch the U.S. women's soccer team play China in the World Cup. We saw the great save by Briana Scurry, a dear friend of mine to this day. She was the first Black superstar on the most famous women's sports team on the planet. And then, Brandi Chastain makes the famous penalty kick, takes off her shirt, whips it over her head, and reveals the most famous sports bra in history. That started an entirely new era in women's sports.

These women were wearing baggy shorts, baggy shirts, and tall socks, not sequined figure skating dresses, tennis dresses, gymnastic leotards, or swimsuits. They were dressed like men, and the nation fell in love with them.

Two and a half years after that, a little girl was born in Des Moines, Iowa. Her name is Caitlin Clark. Three years ago, I had barely heard of Caitlin Clark, showing how quickly we are now moving in terms of the opportunities for girls' and women's sports. But we're not there yet, by any means. We have failed miserably in our urban and rural underserved areas. Though we've won the Title IX battle in the suburbs, we have not reached so many of the young women and girls who deserve the opportunity to play. I'm speaking about the Black and Hispanic communities. We need to do a much better job in the next fifty years of Title IX to reach those who have so far been unreachable.

And we also have to do a much better job of having women coaching women. While we see men coaching women, we want our daughters, our nieces, our granddaughters to think that they can have a career in sports long after their playing career is over. And how better to do that than to have a female coach who is showing them exactly what leadership looks like. Unfortunately, because women's sports are now so popular, many of these athletic directors are white men, and they are hiring people to coach women who look just like them. We have to do a much better job in this area.

Let me leave you with one final thought. The girl you see in the kitchen every morning; the girl you wave at as she's loading the car with her gear for volleyball, softball, or lacrosse; your niece, your granddaughter, your daughter: whatever she becomes – a lawyer, a doctor, a businessperson, a member of this Academy, a teacher, a wife, a mother, a coach, or some combination thereof – she will be better at it because she played sports and learned so many important life lessons.

Despite what's happening right now, I'm optimistic about the future of this country. I believe we will see women become president of this nation, lead more Fortune 500 companies, serve as university presidents, and hold positions of real power. How do I know this? Because we see them as we drive by the fields every day. Those young women and young girls who are playing sports because of Title IX are learning important life lessons, and they are the ones who are going to lead this country. Thank you.

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To view or listen to the presentations, visit www.amacad.org/events/2025-induction-class-speakers.

Why Do Fools Think They Are Wise?

Should the Wise Believe Themselves to Be the Fool?

2139th Stated Meeting | October 12, 2025 | House of the Academy

The closing program of the Academy's 2025 Induction weekend featured a presentation by new member **David Dunning** on the psychology of overconfidence and its influence on decision-making, followed by a conversation with Academy President **Laurie L. Patton**. An edited transcript of the presentation and conversation follows.

Laurie L. Patton

Laurie L. Patton is President of the American Academy of Arts and Sciences, a position she started in January 2025. Prior to the Academy, she served as the 17th President of Middlebury College. President Patton was elected to the American Academy of Arts and Sciences in 2018.

It's my pleasure to welcome you to the final program of our Induction weekend. It is wonderful to have one more opportunity to spend time with friends, new and old, and to learn about the work of a new member.

Our presenter today is David Dunning, the Mary Ann and Charles R. Walgreen Jr., Professor of the Study of Human Understanding and Professor of Psychology at the University of Michigan. I asked him what it was like to be a Walgreen Professor, and he admitted that his prescriptions were at CVS, so that's the kind of humor we can expect this morning!

David's research focuses on the psychology underlying human misbelief and social misunderstandings. In his most widely cited work, he showed that people commonly hold flattering opinions of their competence, character, and prospects that cannot be justified from objective evidence – a phenomenon that carries implications for health, education, the workplace, and economic exchange. David's other research examines decision-making more directly. He explores how people actively distort their reasoning to favor preferred conclusions and avoid threatening ones, even down to the level of what they literally see. Please join me in welcoming David Dunning.

David Dunning

David Dunning is the Mary Ann and Charles R. Walgreen Jr., Professor of the Study of Human Understanding, Professor of Psychology, and Associate Chair for Faculty Development at the University of Michigan. He was elected to the American Academy of Arts and Sciences in 2025.

Good morning. I want to thank President Laurie Patton and Chair of the Board Goodwin Liu for inviting me to provide some remarks this morning.

I'll begin with a celebration of the human brain and the genius of its neural structure. A Salk Institute study claimed that the average human brain can store 1 petabyte of information, which is roughly the amount of information found in four Libraries of Congress. That amount of information allows us to approach novel situations and to be able to problem-solve. We are an adaptable species. There's only one other species that is as resilient as we are, and it's the tartigrades.

Let's start with a quiz. I'm going to show you some instances of daily experiences, and I want you to surmise the theme that unites them. Here are the instances:

Struggling with a can opener

Bumping elbows at the dinner table

Hard to find a friendly school desk

Using ill-fitting scissors

Uncomfortable using a spiral notebook

Ink-smudged hand while writing

What theme unites all these instances?

AUDIENCE MEMBER: Left-handedness.

DUNNING: Correct. These are some daily occurrences for a left-handed person in a right-handed world. Roughly 11 percent of you have an advantage in knowing what this theme is because you live it. Many of you may have come to some other reasonable theme, but not the one we inserted. It's not a theme you experience. What's interesting is that we have valid lived experiences, but we don't necessarily know the lived experiences of others.

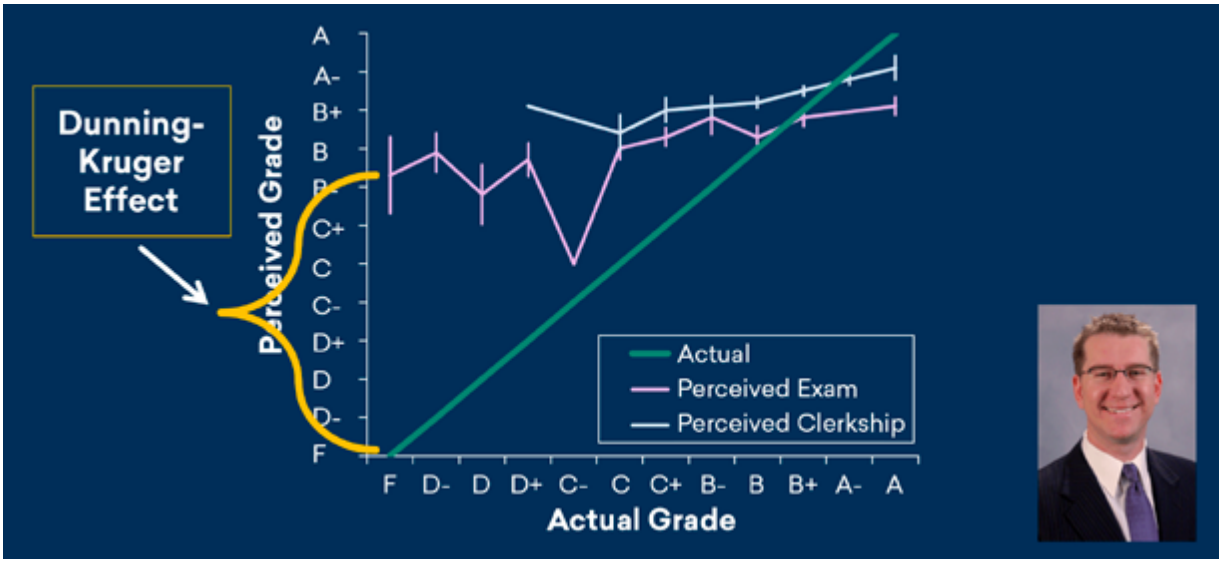
We've done a study of left-handedness versus right-handedness. Almost two-thirds of left-handers know what we're talking about after seeing this list. Only one-third of right-handers do. We've also done a study with Black respondents versus white respondents, in which we presented instances of daily discrimination that Black respondents are more prone to experience. We found that 50 percent of Black respondents recognized the theme within two instances. For white respondents, it took five instances before 50 percent of them recognized it. If we describe things that women do on a daily basis to protect themselves physically, women recognize the theme far more successfully and far earlier than men. I assume the rich don't know the lives of the poor. The poor don't know the stresses of being rich.

We all live with tremendous amounts of knowledge, given the 1 petabyte of information that we store in our brain. By the time we are sixty years old, if we're an English speaker, we will know 48,000 words and their meanings. That's astonishing, but there are over 600,000 entries in the *Oxford English Dictionary*, and that's before you get to words that are not in English and don't have an English translation, like the Japanese concept of *amae*, which is to depend and presume upon another's love or bask in another's indulgence. Or the French word *ilinx*, which is the sudden urge to perform minor and unnecessary acts of destruction. Or the Germanesque neologism *sonder*, which is the realization that each passerby in the street has an inner life that's as vivid and complex as your own.

It was Karl Popper who said that the main principle about our ignorance is the fact that our knowledge is finite, while our ignorance must necessarily be infinite.

In our research, we've looked at particular areas of skill in which you can have expertise, illustrated, for example, by medical students in an OB/GYN rotation or clerkship. At the University of Florida in Jacksonville and at Shands Hospital in Gainesville, 1,100 third-year residents were asked after they finished their final exam, "How well did you do on the exam? And how well did you do on the clerkship?" Figure 1 shows their actual grade on the exam and on the clerkship compared to their perceived grade.

Figure 1: Medical Residents in Obstetrics/Gynecology Clerkship



R. K. Edwards, et al., "Medical Student Self-Assessment of Performance on an Obstetrics and Gynecology Clerkship," *American Journal of Obstetrics and Gynecology* 188 (4) (2003): 1078–1082.

> Those who don't know don't seem to know that they don't know, and they don't have the expertise that they thought they had. There's a gap at the bottom, and that gap has come to be known as the Dunning-Kruger effect.

What we see is that the top people underestimate themselves a little bit, while the people at the bottom are getting F's and D's on the exam, but they think they're getting a B or a B minus. On the clerkship itself, they think they're getting a B plus when they're actually at the bottom of their class. Those who don't know don't seem to know that they don't know, and they don't have the expertise that they thought they had. There's a gap at the bottom.

That gap has come to be known as the Dunning-Kruger effect. By the way, the photo in the figure is of Justin Kruger, a professor at New York University. The problem that we described is that ignorance is not only infinite; it is often invisible. You just don't know that you don't know. The way I would describe it is that those who lack expertise lack the expertise that is necessary to realize just how much expertise they lack. This has been demonstrated in a number of areas and with different groups of people, such as with poker and bridge players, debate teams, computer programmers, surgical trainees, public health emergency responders, the general public's ability to tell fake news from real news, health literacy, financial literacy, aviation students, gun owners, and even wine tasters. Those who don't know don't know that they don't know. And we can actually go further than that. We should not expect them to know, and if they knew, they would work harder to correct their lack of knowledge.

A couple of weeks ago, this was demonstrated in chess. The study just went online, and it is a comparison between an actual chess ELO rating and a perceived ELO rating. What the study found is that people tend to believe that their rating underestimates their true ability by up to 180 points on average.

What does that mean? ELO ratings allow you to forecast the likelihood that the player with a higher number will beat the player with a lower number based on the degree of separation.

One quick side note. For those of you who know about the Dunning-Kruger effect, there are some people who say it's just statistical noise that is producing it; that it is simply an artifact. What the critics tend not to realize is that there is an established literature on how you correct for that problem, and others have examined the effect referring to that literature.

Back to the chess study. What we get is a hefty overestimation of self. Those who lack expertise don't necessarily know they lack expertise. They simply don't have the expertise to recognize it.

Now let's go back to the genius aspect of being a human being. As a human being you can approach a novel situation and not know the answer, but you can arrive at an answer quickly. We did a study in which we asked two questions about geography: 1) In which season (in the United States) is the earth closest to the sun: spring, summer, fall, or winter? and 2) Which of the following best describes Africa's location: entirely in the Southern Hemisphere; mostly in the Southern Hemisphere; mostly in the Northern Hemisphere; or entirely in the Northern Hemisphere? In samples we collected and in American samples in general, respondents are about 80 percent sure that they've answered correctly the question about the season in which the earth is closest to the sun, but only 15 percent of them gave the correct answer. The earth is closest to the sun in winter. Most people think it's summer. On the question about Africa's location, they are about 65 percent sure they've answered the question correctly, but only 24 percent gave the correct answer. Though Africa is in the Global South, it's actually mostly in the Northern Hemisphere.

Part of the problem of not knowing that you don't know is our genius. We have enough in our brains to conjure up a reasonable answer – the psychological term is to confabulate – and it may be the correct answer. Our genius allows us to approach new situations correctly, but sometimes it creates an answer that is a fiction. And that's a tremendously fraught thing because it can lead us into a cul-de-sac and make us think we understand that we don't understand.

But that is how our brains operate. That is part of our cognition. In preparing for this talk, I went to the University of Michigan's version of ChatGPT and asked it, "What do people mean when they use

the phrase, 'You should try to eat the taco upside down?'" U-M GPT answered, "It's a humorous or playful suggestion. It can sometimes pop up in social media memes, online discussions, or as part of friendly banter." I was impressed with the answer because I had just made the phrase up. Then U-M GPT continued: "The phrase can be a metaphor for looking at familiar things in a new and unconventional way, encouraging creativity or the willingness to break from tradition." Hmm, okay, that's what I must have meant. U-M GPT continued: "The phrase can also be used as a parody of overly life-hacky or silly food advice, poking fun at the flood of strange suggestions found on the internet." Yes, there are indeed strange suggestions found on the internet!

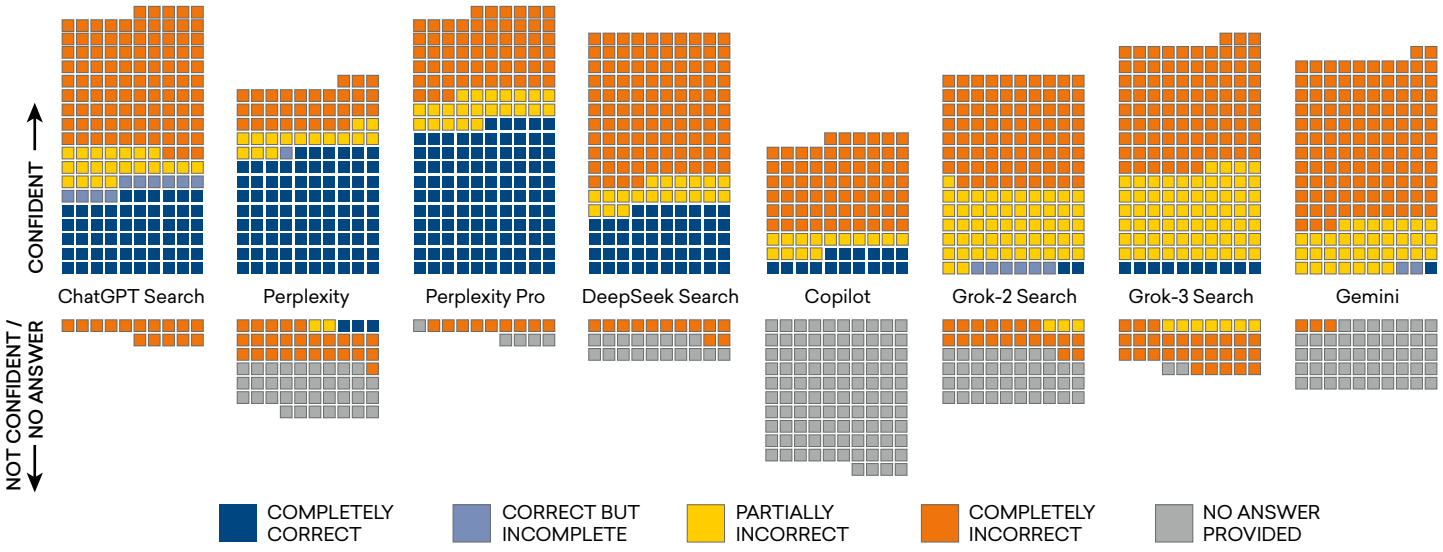
We all know about AI hallucinations. The psychological term is confabulation. Earlier this year, there was a study from the Columbia School of Journalism in which chatbots were given excerpts of news articles and asked to come back with the article's headline, publisher, and the URL where the quote came from. If we look at the results in Figure 2, the dark blue means completely accurate; light blue is mostly accurate; yellow is mostly wrong; orange is completely wrong; and gray is no answer provided. We know that AI will return an answer. That's what it's meant to do, but it doesn't necessarily come up with the right answer. Above the bar are the returns in which the chatbots don't hedge at all about the information they are giving. They are perfectly confident. All of us should be concerned about that.

My other favorite example is Humanity's Last Exam, which has 2,500 questions that are esoteric, technical, and specialized. As of April 2025, the best chatbots get 25 percent of the questions correct. The worst get only 3 percent correct, but they'll report that they're getting over 80 percent correct. And like these AI agents, that's what our brain does as well. It gives answers, even when it shouldn't, with confidence. And, importantly, it's the cognitive and informational part of our brain, not the emotional part, that supplies the confidence. It's not self-deception, rationalization, or ego. It's just the way that we think.

Now, ego does matter eventually. We did a study about ten years ago in which we tested business students on their emotional intelligence. After we gave them feedback, we offered to sell them a self-improvement book, *The Emotionally Intelligent Manager*, for half price. What we found is that 64 percent of the students at the top quartile of performance wanted the book. For the students in the

Figure 2: Generative search tools were often confidently wrong in our study

The Tow Center asked eight generative search tools to identify the source article, the publication, and URL for 200 excerpts extracted from news articles by 20 publishers. Each square represents the citation behavior of a response.



K. Jaźwińska and A. Chandrasekar, "AI Search Has a Citation Problem," *Columbia Journalism Review* (March 6, 2025), https://www.cjr.org/tow_center/we-compared-eight-ai-search-engines-theyre-all-bad-at-citing-news.php.

Figure 3

Set A

- Pure alcohol contains more calories than fat!
- Most food in the United States is genetically modified
- Why antibiotics don't cure the flu
- Jupiter's temperature varies from extremely cold at its cloud tops to extremely hot at its core
- Why water boils at a higher temperature in high-altitude areas than low-altitude areas

Set B

- Fat contains more calories than pure alcohol!
- Most food in the United States is not genetically modified
- Why antibiotics cure the flu
- Jupiter's temperature varies from extremely hot at its cloud tops to extremely cold at its core
- Why water boils at a higher temperature in low-altitude areas than higher-altitude areas

bottom quartile, only 20 percent wanted the book. We attribute those results to ego.

In terms of dealing with information in the world, more responsibility is being put on each of us. We have to figure out our retirement funds. We're responsible for our own health care. We're told to do our own research. But how do you do that when you aren't an expert yourself?

These data may not be exact, but about 80 percent of people say they consult Dr. Google for medical information, diagnosis, and treatment. For those who go to a doctor, they are told that the diagnosis from the internet is wrong about 30 percent of the time. We don't have data for those who don't go to the doctor. This leads me to my next point about expertise and the lack of it.

We're currently doing research in which we present some scientific headlines and ask if the statements are true. In Figure 3, we have some scientific headlines under Set A and then the reverse of those statements is under Set B. For example, one statement in Set A says, "Pure alcohol contains more calories than fat." Under Set B, the statement is, "Fat contains more calories than pure alcohol." One group gets Set A, the other group gets Set B, and we ask each group if the statement is true or false. We then take the percentage who said Set A was true and the percentage that said Set B was true and use the average.

Now, the average should be 50 percent because if 70 percent think Set A is true, then 30 percent should think Set B is true. For each item, when we take the average and compare it to 50 percent, what we tend to see is that most people see the statements as true well over half the time. People have a bias toward seeing things as true.

In another experiment, we had people answer a science quiz so we could determine how knowledgeable they are about science and how good they are at spotting the true statements. They do somewhat better at it the more knowledgeable they are about science in general, but the real superpower associated with science knowledge is being able to deny false facts. That's what you get with expertise: the ability to spot falsity.

Let's talk for a moment about education. What does it do? Well, first, it makes you more knowledgeable. But philosopher and writer Anatole France said that an education isn't how much you have committed to memory, or even how much you know. It's being able to differentiate between what you do know and what you don't. To study that, we went to two college classes. One class is the comparison group and the other class is the treatment group. At the beginning of the semester in both classes, the students are asked, "Are you familiar with these psycho-legal concepts?" Now the treatment group was a psychology and law class. At the end of the semester, the students in that class were asked, "Do you know these particular psycho-legal concepts?" What's special about these psycho-legal concepts is that they don't exist. They were never presented in class, and we know this because we made them up in our office.

What we found was that 83 percent of the students expressed some knowledge of these nonexistent concepts, much more than in the comparison class. And some of that residue remained two years later, when we contacted as many people as we could from both classes. It seems education can make it harder to understand where your circle of competence ends.

But the question on tap for this morning is why do fools think they are wise? I hope I've given some answers for that, but it's important to note that the fool is each and every one of us. A person is wise when they realize they will have their moments when they are the fool. It will happen at unexpected times. And the key is to be prepared to know how to recover from that.

That's the concept of resilience, which a good business management school will teach you. Be resilient against unexpected error and be resilient against overconfidence. A wise person will realize that they need to surround themselves with other people who will make them smarter, and they recognize that they should return the favor because it is in working with other people that we avoid everything that I've been talking about today.

People often ask me two questions about this work. The first question is, what are your Dunning-Kruger spots? Where do you experience Dunning-Kruger? I tell them that if Justin and I are correct in our theory, then I am the last person you should ask about where I experience Dunning-Kruger. Ask my friends, who will be very willing to tell you but they kindly won't tell me.

The second question that I'm asked is, how does this influence how I approach life? I have several answers, but the key answer is this. Philosopher Robin Collingwood said that a person ceases to be a beginner in any given science and becomes a master in that science when they have learned that they are going to be a beginner all their life. Now, I am old and tired, but I realize I can never be at rest. The world is changing, and there are going to be new challenges. I embrace that because it means there are going to be new inspirations and fascinating things to do. And I can't wait to get started.

What we know is that what is true for the individual is also true for the community, the group, and the nation. If I find that I'm always closer to the starting gate than I am to the finish line, then that has to be true of any group and of the nation as well.

In 1780, a group of sixty-two men, mostly in or near Boston, chartered an institution to cultivate every art and science which may tend to advance the interest, honor, dignity, and happiness of a free, independent, and virtuous people. In time, they would be joined by such people as Maria Mitchell, Ralph Bunche, and Scott Momaday. If I squint my eyes enough, I can see the souls of the people who have come before us, who have made the discoveries and addressed the challenges of their day, as we have done in our own generation. I know that the generations to come will be making discoveries and meeting challenges that we can't even conceive today. But they'll probably also be dealing with challenges that have attended this country since the beginning, bringing them closer to the starting gate than to the finish line. I'm okay with that because if that's where the struggle and the challenge are, then that's where the discovery, the triumph, and the joy will be.

Thank you again for the invitation to present some of my work to you this morning and for the indulgence of your time.

> A wise person will realize that they need to surround themselves with other people who will make them smarter, and they recognize that they should return the favor.

Conversation

LAURIE L. PATTON: Thank you. That was an incredible presentation, and thank you for mentioning the Academy at the end. I must be wise because I have surrounded myself with 5,200 members who are smarter than I am. We are in a room full of people who are the top leaders in their fields.

Let's start our conversation by talking about your history. Your first love was screenwriting but you also loved Steely Dan. Could you tell us how screenwriting and music were formative for you?

DUNNING: I grew up in a small town in Central Michigan, in Midland, the world headquarters of Dow Chemical. There wasn't much to do, but

The world contains so many more multitudes. There is chance, there is luck, and there's also no way for us to know. You prepare for what you can prepare for.

I realize that was very important for all of us who were growing up there. We formed our own soccer teams. We formed our own football teams. I was in a mime troupe and did a lot of theater. Other people were playing music and painting. We were just doing, mostly out of sheer boredom. I also watched a lot of television, and I was drawn to it as an art form of storytelling. I began to do screenwriting in my spare time in the evening, essentially to figure out how to do this art form. And I still work at that, studying what's going on now. Those were my formative years, and they have informed how I do science.

Briefly about Steely Dan. The only radio we had was Top 40, except after midnight, when the local station would switch over to jazz, which was a godsend. Steely Dan is a gateway drug into jazz. I am of the opinion that there are people who despise Steely Dan because their preferences go to punk, and I absolutely appreciate that, but to be honest, Steely Dan doesn't care what you think. I appreciate that attitude as well.

PATTON: Last year during our Induction weekend, I interviewed scientist André Fenton, a new member, and he talked about his early interests in literature and English. I think there's something that makes you a creative and energetic scientist that is connected to the love of telling stories.

DUNNING: Yes, I believe that's true.

PATTON: Here's a question I've been waiting to ask ever since reading your work: What is the difference between saying, "I was subject to the Dunning-Kruger effect," and saying, "I was arrogant"? There's seems to be a double curse of the Dunning-Kruger effect.

DUNNING: Well, there is a distinction between vincible ignorance and invincible ignorance. It doesn't map onto Catholic terms, but it comes close. Often people walk into error that could have been prevented because they failed to do due diligence, and that could be attributed to ignorance. Or it's a situation in which Dunning-Kruger could occur, such as when you're doing something that you haven't done before that contains the unknown unknowns, the situations or risks that you just don't know about. And that's when you should seek mentors and talk to other people. That's vincible ignorance. Now, there is invincible ignorance as well, where no one can know. The world contains so many more multitudes. There is chance, there is luck, and there's also no way for us to know. You prepare for what you can prepare for. You don't become obsessive about it. There's the invincible side of ignorance, and for that, you just prepare for life's little surprises.

PATTON: It's interesting because I was thinking about invincible ignorance in the opposite way, which is that you're happy being ignorant, and it doesn't matter what corrections you get. What is wonderful about your work is that it's about the process of knowing. I'll ask you about expertise and experience in a moment, because there's a lot of literature about your work that is trying to get at that question. But, before I do that, there is the excitement about getting the first pool shot in even though you're nervous, or doing the math problem well even though you thought you were really bad at math. I'm thinking about this as an educator.

DUNNING: I teach an undergraduate course on the self, and begin by examining how difficult it is to follow the Oracle of Delphi's maxim "Know thyself." I've come to learn that the first two weeks of class really depress the students. And so, I do some therapy with them. I tell them the world is the same world that you had before. Everybody faces challenges and survives. We are going to learn more about how to conduct yourself in life, and how to think about things. And when you have that first severe disappointment, and it's going to happen, it is okay to be disappointed. But it's important to talk to people. This is how I start preparing them for the future.

PATTON: That's powerful and it is connected to my next question. How can you maintain the joy in knowing, in learning, and even in making mistakes if you might have overestimated your abilities? I'm thinking about Claude Steele's work and the idea of internal stereotyping. I'm sure there are

> When people overestimate or underestimate themselves they think that what they're doing isn't based on their experience on this quiz or on this task. They think it's based on these preconceived theories they have about themselves.

gender, racial, and class aspects to this question of confidence and overconfidence. Have you done research on this?

DUNNING: That is a central question, because when people overestimate or underestimate themselves they think that what they're doing isn't based on their experience on this quiz or on this task. They think it's based on these preconceived theories they have about themselves. A lot of the evaluation is top-down. It's based on what I think about myself. Do I think I'm good at this, or not? It's not based on the experience.

There are instances in which we see divergences in how people think based on gender or cultural differences, and we've done some work on that. When you have a divergence in these preconceived notions of self, then there will be a divergence in how well people have done, even though they're exactly equal in their skill and the dexterity in what they're doing.

At Cornell, we did a study in which we gave a pop quiz on science. We know that female students think less of their scientific talent compared to male students. The female and male students did equally well on the quiz. We said to the students, "We are working with the chemistry department on a science *Jeopardy* quiz show at the end of the semester. Do you want to participate?" The men were 20 percent more likely to say yes, not based on their actual quiz score, but on their preconceived notion of how they thought they had done on the quiz. It was the preconceived notion that influenced their evaluation of how well they had done, which in turn influenced whether or not they volunteered to be on the science show. So, there's an impact not only on perception, but on choices that follow from that perception.

We did a later set of studies and discovered that these preconceived notions of self were actually interfering with people's experience of the task. "Did you think it was taking you long to do this task?" "Did you think the terms were esoteric?" "Were you conflicted between the choices?" And their responses were connected to how they thought about themselves.

PATTON: Are you and your team going to do more with that? There seems to be much more to discover and understand.

DUNNING: We were hoping other people would continue these studies, but they haven't yet. So we may go back and do some more work on this.

PATTON: It seems that a lot of this could be connected in interesting ways to using AI as a coach. As an educator, I've seen many students shut down after being told they were overconfident or less skilled than they believed. That criticism devastated them and erased their confidence. There's a fragility there that is part of being young.

DUNNING: I resonate with the coach model. In fact, I'm doing that right now with my graduate class.

PATTON: Say more.

DUNNING: UMich allows you to bring in an AI tailored to your class, and then you can do with it whatever you want. There's a researcher at USC who works with the Army, and I'm using his model to create an AI that is, in effect, an assistant coach to what I am doing. I use the AI not to give the students ideas, but to encourage the students to come up with their own ideas. I've found in previous experiences that some students will ask the AI, "What should I think? Tell me the answer." Other students will use the AI creatively to explore possibilities. I want everybody to be that last type of student.

Students diverge greatly in the education that they're getting, so you have to give students feedback in a way that allows them to understand that it is a process and they are going to improve. The next step is to ask them how they are going to address this weakness in their knowledge. What's their plan?

In Utah, a few chemistry professors incorporated a weekly feedback quiz into their classes so students could find out what material they weren't strong in. And then they were asked to come up with a plan to deal with that weakness. It was an incremental

process, and it really lowered the percentage of students who failed the class. That's how you do it.

PATTON: That's very interesting. As an educator I've noticed that if you give students an idea and the tools that they can turn to, even if they're not using them now, those two things can make a real difference.

DUNNING: I agree.

PATTON: A few more questions before we turn to our Q&A with the audience. What has it been like to live with the Dunning-Kruger effect? In doing some research on your work I found that the Dunning-Kruger effect is itself subject to the Dunning-Kruger effect. In fact, there's a website in which people think they know what the Dunning-Kruger effect is. What has it been like to live with that and to carry that for twenty-five years?

> Confidence is not something to avoid. Confidence is something to manage.

DUNNING: I truly don't understand why this thing has stayed viral for twenty-five years. After we did the research, I sat down and said, okay, I have no idea how to follow this up. But now I do. My field has caught up, too. Unfortunately, people misunderstand what the Dunning-Kruger effect is. In an acceptance speech for an award that I received, I said, "Here are four ways in which people misunderstand what the Dunning-Kruger effect is." I invite you to look for images of the Dunning-Kruger effect on Google, and you'll be amazed if within the first twenty images, you find one that looks anything like a graph I showed you earlier. I'm intrigued by the idea that public discussions about concepts really involve mistaken and shallow ideas of what the concept really is. But that's future work.

PATTON: It seems there are all sorts of interesting implications of this for people in leadership positions, when you sometimes have to be a generalist. You're always a beginner, but in a different way, and you can become overconfident because people treat you as if you know more than you actually do.

DUNNING: That's right. But I don't want to dismiss confidence or even overconfidence, because confidence is not something to avoid. Confidence is something to manage. There are times when you want to be confident. If you're a doctor, and you think you have the right treatment plan for a patient but aren't 100 percent sure, then your confidence is appropriate because odds are the patient will be better off if they follow what you suggest. Confidence can persuade, but you need to monitor what's going on. If you're a doctor, you order blood tests. You do your due diligence, study the problem, and prepare for it.

PATTON: Something that I am very much occupied with and think about for the Academy is the social divide that we feel in America right now, between expertise and experience. In your work, you've explained the difference between expertise and experience, where expertise is the capacity to spot falsity. I'm thinking about the study you described when you gave completely made-up concepts to the students in the psychology and law class. I wonder if some of the students were thinking, "I should know this concept because of this class so I'm going to say that I'm familiar with the concept." For me, I know many Sanskrit words, but there are many more Sanskrit words that I don't know. So, if someone says, "This Sanskrit word exists," even if it doesn't, there's almost a legitimately scientific and even appropriately hesitant approach to saying, "Yes, it could be a word, even if I don't happen to recognize it right now." In those cases, I think there are some really interesting ways in which expertise and the capacity to spot falsity, even at the highest level, are subject to these confidence questions.

DUNNING: Yes, I agree with that.

PATTON: But there is also something powerful about experience. Can experience, too, even if it is not sanctioned expertise, help us spot falsity? I worry about saying that expertise can spot falsity more than experience can, because I feel the social divide between experts and non-experts so keenly in America right now.

DUNNING: What we need to understand is that there is no one thing that is expertise. Experience is expertise. And I would not dismiss that. Whether it's experience or whether it's knowledge, true expertise reestablishes the ability to spot falsity and the truth. If you go to experts like doctors, they don't falsely recognize fake diseases or fake conditions, but undergraduate pre-med students do, for example. It gets complicated because we also have research that shows that it's good to be the expert,

to know when you're correct about something, but also to be aware of your mistakes. And this is something that we just kept seeing in the data again and again. We actually saw it in other people's data, but they had missed it because they didn't look at their graphs. Expertise helps, but it doesn't lead you to perfection in this task that we refer to as metacognition, which is knowing when you know and knowing when you don't know. In terms of contrasting expertise and experience, I would argue that there are many different forms of expertise.

PATTON: And what about shame? I think it's also part of the learning process. Let's turn now to questions from our audience.

AUDIENCE MEMBER: You touched on this briefly, but I'm curious about ignorance. Stuart Firestein wrote a book on the pursuit of ignorance in science, about the humility of scientists in acknowledging what they do and do not know. But there's also ignorance at a community level. I wonder about the interplay of personal ignorance and community ignorance.

DUNNING: I've been trying to encourage students to study this because one way to alleviate ignorance is to have people interact with one another. We are currently doing experiments in which participants answer questions, and we've found that they're confident both in their right answers and in their wrong answers. Another person will look at the responses, and they'll spot the mistakes. But that fails at the community level if there's a sense of conventional wisdom. For example, in the sciences, there's a certain way to define terms and to accept evidence. I might teach a class in psychology and law about how behavioral scientists operate in terms of what is evidence and what is a legitimate conclusion. But how the law defines evidence and what's a legitimate conclusion are different. There's a chasm. Does that lead to communities of knowledge that also suffer from ignorance? It's a big topic that is absolutely worthy of study.

AUDIENCE MEMBER: When I was a kid, I read *The Adventures of Tom Sawyer*, and I loved it. It was a terrific book, but I think I missed the point. When I got older, I saw something else in the book that I think is very relevant. The book analyzes what happens if you firmly believe in something and you're

> **"Whether it's experience or whether it's knowledge, true expertise reestablishes the ability to spot falsity and the truth.**

confronted with evidence that shows that what you believe in is in fact completely wrong. The question is, what do you do, and how do you address that? What the book shows is that you do not give up on what you believe in, but, rather, you complicate your belief system in order to admit a possible explanation that's contradicting your belief system. The book is full of examples of that, and I think it should be required reading for anybody who is a scientist and talks to the public.

DUNNING: I think it should be required reading for social psychologists as well. What you're describing is called cognitive dissonance, and it's one of the most powerful engines of belief permanence. It was at play in the experiment in which people who received negative feedback about their emotional intelligence said they didn't need the book that was being offered to them at half price. There is this layer in which you don't need motivation. It's just the way that we think. But the dissonance level does exist and it sounds like it's powerfully illustrated by Mark Twain.

AUDIENCE MEMBER: You humorously noted that people shouldn't ask you about where your gaps are. They should ask your friends, who are unlikely to tell you, but they might tell them. You also said that one of the ways to deal with the topic is to surround yourself with other people who have other ideas, but those two things seem to conflict. If your friends aren't likely to tell you, but you're the one who needs to know, then how are you and others being measured? What have you measured about leaders and the types of interactions or the types of people that they should surround themselves with?

DUNNING: I'll use the terms honesty and bluntness. Other cultures are very good at being honest and blunt, but we aren't so good at that in the United States. And it's evident in personal relationships, in families, among friends, and even in business. We're not very good at giving feedback effectively

and receiving that feedback effectively. I wish there was more instruction on this. There was a classic review of feedback programs in business that showed that about 40 percent of feedback programs actually demotivated employees. So I wish we were more effective in giving and in receiving feedback.

AUDIENCE MEMBER: In interviews, when you're looking for people who are adaptable and resilient, what interview question would you ask to discover if the candidate has those qualities?

DUNNING: I'm going to suggest something that you're probably already asking: "Can you describe a mistake you made in which you learned something?" You'll know the worth of the answer once you start hearing their responses.

AUDIENCE MEMBER: What do we do when people overestimate their knowledge and end up being hostile to expertise? I'm thinking about COVID-19 and vaccines.

DUNNING: The issue isn't information or knowledge. It's a matter of trust. Experts have to establish who they are and that they are humans like you. We need to show the humanity of science. I think the technical details and the information are actually secondary, but I realize that everyone may not agree with me.

PATTON: Thank you, David, for your presentation and for this interesting and lively conversation. I would like to extend my congratulations again to all of our new inductees. We are glad to have you as members of this Academy and we look forward to working with you. We have discovered in the last eight months, as we struggle with the challenges in our country, that people are turning to the Academy to lead. Our independence matters. Our longevity gives people confidence. Our practice of convening gives people resilience. And our commitment to nonpartisanship gives people hope. This really is a moment for the Academy to lead.

To view or listen to the presentation, visit www.amacad.org/events/presentation-conversation-david-dunning.

BELOW: **Richard Kogan** performing one of George Gershwin's compositions for members and guests at the House of the Academy.

RIGHT: **Yo-Yo Ma**, **Richard Kogan**, and **Lynn Chang**.

Where Does Creativity Come From?

By **Patrick Meade**, *Membership Engagement Manager*

Where does creativity come from? That is the question that animated a December 2025 concert lecture delivered by clinical psychiatrist **Richard Kogan** (Weill Cornell Medical College) at the House of the Academy in Cambridge.

At this favorite annual event, members and guests were treated to a hybrid lecture and piano concert from Kogan, whose used the life and career of twentieth-century composer George Gershwin to illustrate the sources of creative impulse and true original thought. Kogan's insights into the biography, relationships, medical history, and ultimately the psychology of Gershwin were punctuated by extended medleys of his most iconic compositions, including *Rhapsody in Blue* and the opera *Porgy and Bess*.

Kogan's conclusion that creativity can be the product of a balance between rebellion and discipline as well as a reaction to "the worst that life has to throw at us" was reinforced by the contrast of the many tragedies and challenges of Gershwin's short life with the transporting nature of his piano compositions.

As both a clinical professor of psychiatry and a concert pianist, Kogan embodies the fusion of arts and sciences – a blend that felt especially resonant for an Academy audience. In her opening remarks, President Laurie Patton underscored the Academy's deeply held commitment to connecting across areas of expertise.

In addition to interdisciplinarity, the evening also served as a celebration of collaboration and camaraderie. Though he performed as a soloist, Kogan's former musical partners and longtime friends Lynn Chang (Boston Conservatory at Berklee) and cellist Yo-Yo Ma were in attendance, with Chang providing a delightful introduction of his dear friend "Ricky." The warmth of this lifelong bond, which began when the three played in a trio as undergraduate students at Harvard, lent a festive air to this member event.

In Memoriam: John E. Bryson (1943–2025)

John E. Bryson (elected to the American Academy of Arts and Sciences in 2011) passed away peacefully at his home in San Marino, California, on May 13, 2025. He left behind his wife Louise (elected to the American Academy in 2010), four daughters, eight grandchildren, two sisters, and a consequential life of civic, governmental, business, and philanthropic leadership.

John's life started in New York. Shortly thereafter his family moved to the Pacific Northwest, where John matured and advocated for anything Portland related. He received his undergraduate education at Stanford University and his law degree at Yale.

When John graduated from Yale in 1969, the admonition of President Kennedy still echoed: "My fellow Americans: ask not what your country can do for you – ask what you can do for your country."

He and three classmates responded by going to Washington, D.C., renting a basement apartment, and founding the National Resources Defense Council (NRDC). The NRDC brings together scientists, lawyers, and academics to protect nature and address the challenges of climate change. To this day, it remains critical for the protection of our environment.

Several years later, John began his dedication to public service at the invitation of then California Governor Jerry Brown. He first led the California State Water Resources Control Board and then chaired the California Public Utilities Commission.

John believed in building bridges and working to reform systems from within. He pursued that vision by serving for almost twenty years as Chairman and CEO of Edison International, which was the parent to the largest investor-owned utility in Southern California and to several other energy-related businesses with a worldwide footprint. Under his leadership, Edison experienced a period of growth, innovation, and the challenge of accommodating a competitive and, at times, distorted California market for electricity. He did so with a strong emphasis on sustainability.

To cap his unique career, he accepted an invitation from President Barack Obama to be the United States Secretary of Commerce. He was later confirmed by the Senate as the 37th United States Secretary of Commerce. In that capacity, he initiated change among the diverse activities of the Commerce Department, including a fundamental broadening of the federal government's role from promoting U.S. exports to attracting foreign direct investment. This work included the establishment of an annual presidential and cabinet-led summit with international business leaders to facilitate further investment in the United States. That program, SelectUSA, continues to this day.

Along the way, John served on numerous boards across public and private sectors, including the Council on Foreign Relations, Stanford University, California Institute of Technology, Pacific Council on International Policy, Polytechnic School (attended by his children), The Walt Disney Company, Boeing, and more. His philanthropy, carried out with his wife Louise, was as broad and consequential as the rest of his life, including his support to the American Academy of Arts and Sciences.

Despite the demands of his career, John always made time for what mattered most to him, his family. He was known for scheduling business meetings near his daughters' sporting events and timing them to accommodate school performances, never wanting to miss a chance to support them. As a devoted husband, he embraced Louise and their family life with the same dedication that he brought to every part of his life.

John had a lifelong love of sports, both as a passionate fan and as an enthusiastic participant. He often gathered with friends for rigorous tennis, basketball, skiing, and mountain climbing. These activities were often followed by relaxing with family, friends, and the music of his youth.

Ron Olson
Name Partner, Munger, Tolles & Olson LLP

Select Prizes and Awards to Members

Philippe Aghion (Collège de France) was awarded the 2025 Nobel Prize in Economics. Professor Aghion shares the Nobel Prize with **Joel Mokyr** (Northwestern University) and Peter Howitt (Brown University).

Emanuel Ax (New York, NY) was named Musical America's 2026 Artist of the Year.

James A. Banks (University of Washington) was selected by the American Educational Research Association to present the 2025 *Brown* Lecture in Education Research.

Deanna M. Barch (Washington University in St. Louis) received a 2026 William James Fellow Award from the Association for Psychological Science.

Jamelle Bouie (*The New York Times*) received the 2025 Carey McWilliams Award from the American Political Science Association.

Adriana Briscoe (University of California, Irvine) was elected to the U.S. National Academy of Sciences.

John M. Carethers (University of California, San Diego) was awarded the 2025 Distinguished Lectureship on the Science of Cancer Health Disparities by the American Association for Cancer Research.

Jennifer Tour Chayes (University of California, Berkeley) received the 2025 Richard A. Tapia Achievement Award for Scientific Scholarship, Civic Science, and Diversifying Computing.

John Clarke (University of California, Berkeley) was awarded the 2025 Nobel Prize in Physics. Professor Clarke shares the Nobel Prize with Michel Devoret (Yale University) and John Martinis (University of California, Santa Barbara).

James Dahlberg (University of Wisconsin–Madison) received a 2025 Bayh-Dole Coalition American Innovator Award.

Roger J. Davis (University of Massachusetts Chan Medical School) received the Bert and Natalie Vallee Award in Biomedical Science from the American Society for Biochemistry and Molecular Biology.

Jennifer Doudna (University of California, Berkeley) was awarded the 2026 Joseph Priestley Medal from the American Chemical Society.

Joseph Ecker (Salk Institute for Biological Studies) was awarded the 2026 Barbara McClintock Prize for Plant Genetics and Genome Studies.

Percival Everett (University of Southern California) received the Baldacci Award for Literary Activism from the Authors Guild Foundation.

Joseph S. Francisco (University of Pennsylvania) received the 2025 Pauling Medal from the American Chemical Society.

Wendy Freedman (University of Chicago) was awarded the 2026 Benjamin Franklin Medal in Physics from the Franklin Institute.

Dedre Gentner (Northwestern University) received the 2026 Benjamin Franklin Medal in Computer and Cognitive Science from the Franklin Institute.

Hahrie Han (Johns Hopkins University) was awarded a 2025 MacArthur Fellowship.

Maureen Hanson (Cornell University) received the 2025 SUNY Chancellor's Award for Research and Creative Activities.

Carla Hayden (Mellon Foundation) received the Authors Guild Foundation's Champion of Writers Award.

Joseph Heitman (Duke University) received a 2025 Distinguished Faculty Award from the Duke Medical Alumni Association.

Steven Henikoff (Fred Hutchinson Cancer Center) is the recipient of the 55th Lewis S. Rosenstiel Award for Distinguished Work in Basic Medical Research, given by Brandeis University.

Gary Horowitz (University of California, Santa Barbara) was awarded the 2025 Dirac Medal by the International Center for Theoretical Physics.

Evelyn Hu (Harvard University) was awarded the 2026 Mildred Dresselhaus Prize from the American Physical Society.

Yonggang Huang (Northwestern University) was elected a fellow of the Royal Academy of Engineering.

Maria Jasin (Memorial Sloan Kettering Cancer Center) is the 2025 recipient of the Pearl Meister Greengard Prize, awarded by Rockefeller University.

Paula Johnson (Wellesley College) received the 2025 Cato T. Laurencin Lifetime Research Award from the National Medical Association.

Charles Kane (University of Pennsylvania) received the 2025 Lorentz Medal from the Royal Netherlands Academy of Arts and Sciences.

Lydia Kavraki (Rice University) was elected to the European Academy of Sciences.

Dacher Keltner (University of California, Berkeley) received a 2026 William James Fellow Award from the Association for Psychological Science.

Donald Kinder (University of Michigan) received the 2025 Ithiel de Sola Pool Award from the American Political Science Association.

Patrick V. Kirch (University of Hawai'i at Mānoa) was awarded the Fellows Medal from the California Academy of Sciences.

Bryna Kra (Northwestern University) received the 2025 Martin E. and Gertrude G. Walder Award for Research Excellence, given by Northwestern University.

David A. Lake (University of California, San Diego) was awarded a 2025 Revelle Medal, given by the University of California, San Diego.

Cato T. Laurencin (University of Connecticut) was elected to the Chinese Society for Biomaterials.

Brenda N. Major (University of California, Santa Barbara) received a 2026 William James Fellow Award from the Association for Psychological Science.

Ann Masten (University of Minnesota) received the 2025 Gold Medal for Impact in Psychology from the American Psychological Foundation. Professor Masten also received the 2025 Distinguished Scientific Contributions to Child Development Award from the Society for Research in Child Development.

Steven McKnight (University of Texas Southwestern Medical Center) received the 2025 Albert Lasker Basic Medical Research Award. Dr. McKnight shares the award with Dirk Görlich (Max Planck Institute for Multidisciplinary Sciences).

Martha Minow (Harvard University) received the 2025 Burton Award–The Hon. Robert A. Katzmann Award for Academic Excellence.

Joel Mokyr (Northwestern University) was awarded the 2025 Nobel Prize in Economics. Professor Mokyr shares the Nobel Prize with **Philippe Aghion** (Collège de France) and Peter Howitt (Brown University).

Ngozi Okonjo-Iweala (World Trade Organization) received the 2025 Cressey Award, given by the Association of Certified Fraud Examiners.

Eric Olson (University of Texas Southwestern Medical Center) was awarded the 2025 Louisa Gross Horwitz Prize.

Ann Philbin (Hammer Museum) is the recipient of the 2025 Getty Prize, given by the J. Paul Getty Trust.

W. Kimryn Rathmell (The Ohio State University) received the 2025 Women Who Conquer Cancer Mentorship Award.

John Reppy (Cornell University) was awarded the 2026 Oliver E. Buckley Condensed Matter Physics Prize from the American Physical Society.

Dorothy Roberts (University of Pennsylvania) received a 2025 Bioethics Founders' Award, given by The Hastings Center for Bioethics.

Salman Rushdie (New York University) is the recipient of the 2025 Ambassador Richard C. Holbrooke Distinguished Achievement Award, given by the Dayton Literary Peace Prize Foundation.

Michael Sandel (Harvard University) was awarded the 2025 Berggruen Prize for Philosophy and Culture.

George Saunders (Syracuse University) received the 2025 Medal for Distinguished Contribution to American Letters from the National Book Foundation.

Henry Smith (Massachusetts Institute of Technology) received the 2025 SPIE Frits Zernike Award for Microlithography.

Patricia Smith (Princeton University) received the 2025 National Book Award for Poetry for her collection *The Intentions of Thunder: New and Selected Poems*.

Davor Solter (Max Planck Institute of Immunobiology) was awarded the 2026 Paul Ehrlich and Ludwig Darmstaedter Prize, given by the Paul Ehrlich Foundation. Professor Solter shares the award with Azim Surani (University of Cambridge).

Nicholas C. Spitzer (University of California, San Diego) was awarded a 2025 Revelle Medal, given by the University of California, San Diego.

Lawrence H. Summers (Harvard University) is the recipient of the 2025 Philip Merrill Award for Outstanding Contributions to Liberal Arts Education, given by the American Council of Trustees and Alumni.

Wesley Sundquist (University of Utah) received the American Association for the Advancement of Science Mani L. Bhaumik Breakthrough of the Year Award.

Amy Tan (San Francisco, CA) received the Preston Award for Distinguished Service to the Literary Community from the Authors Guild Foundation.

Twyla Tharp (Twyla Tharp Dance) received the Golden Lion for Lifetime Achievement from La Biennale di Venezia.

Paul S. Weiss (University of California, Los Angeles) was elected to the European Academy of Sciences.

Uri Wilensky (Northwestern University) was awarded the 2025 Yidan Prize for Education Research by the Yidan Prize Foundation.

Laura K. Williams (Harvard University) was awarded a 2025 MacArthur Fellowship.

David K. Wilson (Morgan State University) received the Dr. Frederick S. Humphries Sr. Leadership Award, presented by the HBCU Executive Leadership Institute at Clark Atlanta University.

Paul H. Wise (Stanford University) received the 2025 Clifford G. Grulee Award from the American Academy of Pediatrics.

Omar Yaghi (University of California, Berkeley) was awarded the 2025 Nobel Prize in Chemistry. Professor Yaghi shares the Nobel Prize with Susumu Kitagawa (Kyoto University) and Richard Robson (University of Melbourne).

New Appointments

Alfredo Artiles (Stanford University) was named President of the National Academy of Education.

Megan Bang (Northwestern University) was elected to the John D. and Catherine T. MacArthur Foundation Board of Directors.

Bradley Cairns (University of Utah) was named CEO of Huntsman Cancer Institute at the University of Utah.

Raymond Deshaies (California Institute of Technology) was appointed to the Board of Directors of Xencor, Inc. Dr. Deshaies was also appointed to the Scientific Advisory Board of Iambic Therapeutics.

Vivian Gadsden (University of Pennsylvania Graduate School of Education) was named Vice President of the National Academy of Education.

Heather Gerken (Yale Law School) was named President of the Ford Foundation.

Christopher K. Glass (University of California, San Diego) was appointed Director of the Center for Epigenomics at the University of California, San Diego.

Eric J. Nestler (Icahn School of Medicine at Mount Sinai) was named the Anne and Joel Ehrenkranz Dean of the Icahn School of Medicine at Mount Sinai.

Ardem Patapoutian (Scripps Research Institute) was appointed to the Scientific Advisory Board of Stratus Therapeutics.

Enrico Ramirez-Ruiz (University of California, Santa Cruz) was named President of the Board of Directors of the Astronomical Society of the Pacific.

W. Kimryn Rathmell (The Ohio State University) was appointed to the Life Sciences Council of the CEO Roundtable on Cancer.

Cristina Rodríguez (Yale Law School) was named Dean of Yale Law School.

James Rothman (Yale University) was appointed to the Board of Directors of Alveo Technologies.

Deborah F. Rutter (formerly, John F. Kennedy Center for the Performing Arts) was appointed Vice Provost for the Arts at Duke University.

Kim Sajet (formerly, Smithsonian National Portrait Gallery) was named Director of the Milwaukee Art Museum.

Brenda Schulman (Max Planck Institute of Biochemistry) was named Nonresident Fellow at the Salk Institute for Biological Studies.

Edward Scolnick (Broad Institute of MIT and Harvard) was appointed Senior Scientific Advisor of 4M Therapeutics.

Mariko Silver (Lincoln Center for the Performing Arts) was elected to the John D. and Catherine T. MacArthur Foundation Board of Directors.

Beth Simmons (University of Pennsylvania) was elected President of the American Political Science Association.

Robert F. Sproull (University of Massachusetts Amherst) was elected to the Board of Directors of New England Public Media.

Arthur Sze (Institute of American Indian Arts) was appointed U.S. Poet Laureate by the Library of Congress.

A. Eugene Washington (Duke University) was elected to the Board of Trustees of Howard University.

Daniel H. Weiss (Johns Hopkins University) was named Director and Chief Executive Officer of the Philadelphia Art Museum.

Paul S. Weiss (University of California, Los Angeles) was appointed to the Editorial Advisory Board of *RSC Applied Interfaces*.

Select Publications

POETRY

Henri Cole (Boston, MA). *The Other Love: Poems*. Farrar, Straus and Giroux, August 2025

Susan Howe (Guilford, CT). *Penitential Cries*. New Directions, September 2025

Yusef Komunyakaa (New York University) and Laren McClung (New York University). *Trading Riffs to Slay Monsters*. Farrar, Straus and Giroux, February 2026

Paul Muldoon (Princeton University). *Scanty Plot of Ground: A Book of Sonnets*. Faber & Faber, November 2025

Patricia Smith (Princeton University). *The Intentions of Thunder*. Simon & Schuster, September 2025

FICTION

Julian Barnes (London, United Kingdom). *Departure(s)*. Knopf, January 2026

Wendell Berry (Henry County, KY). *Marce Catlett: The Force of a Story*. Counterpoint, October 2025

Louise Erdrich (Minneapolis, MN). *Python's Kiss*. Harper, March 2026

John Irving (Toronto, Canada). *Queen Esther*. Simon & Schuster, November 2025

Gish Jen (Cambridge, MA). *Bad Bad Girl*. Knopf, October 2025

Ha Jin (Boston University). *Looking for Tank Man*. Other Press, October 2025

Walter Mosley (Brooklyn, NY). *Gray Dawn*. Mulholland Books, September 2025

Anna Quindlen (New York, NY). *More Than Enough*. Random House, February 2026

Salman Rushdie (New York University). *The Eleventh Hour: A Quintet of Stories*. Random House, November 2025

George Saunders (Syracuse University). *Vigil: A Novel*. Random House, January 2026

NONFICTION

Peter Ackroyd (London, United Kingdom). *Forgotten London: Exploring the Hidden Life of the City*. Frances Lincoln, October 2025

Akhil Reed Amar (Yale University). *Born Equal: Remaking America's Constitution, 1840–1920*. Basic Books, September 2025

Sven Beckert (Harvard University). *Capitalism: A Global History*. Penguin Press, November 2025

Tim Berners-Lee (World Wide Web Consortium). *This Is for Everyone: The Unfinished Story of the World Wide Web*. Farrar, Straus and Giroux, September 2025

Ken Burns (Florentine Films) and Geoffrey C. Ward (New York, NY). *The American Revolution: An Intimate History*. Knopf, November 2025

Partha Dasgupta (University of Cambridge). *On Natural Capital: The Value of the World Around Us*. Mariner Books, January 2026

Justin Driver (Yale Law School). *The Fall of Affirmative Action: Race, the Supreme Court, and the Future of Higher Education*. Columbia Global Reports, September 2025

Johanna Drucker (University of California, Los Angeles). *Affluvia: The Toxic Off-Gassing of Affluent Culture*. Bridge Art NFP, May 2025

Catherine Z. Elgin (Harvard University). *Epistemic Ecology*. MIT Press, May 2025

Anne Fadiman (Yale University). *Frog: And Other Essays*. Farrar, Straus and Giroux, February 2026

Eric Foner (Columbia University). *Our Fragile Freedoms*. W. W. Norton & Company, September 2025

Howard W. French (Columbia University). *The Second Emancipation: Nkrumah, Pan-Africanism, and Global Blackness at High Tide*. Liveright, August 2025

Henry Louis Gates, Jr. (Harvard University) and Martha H. Patterson (McKendree University). *The New Negro: A History in Documents, 1887–1937*. Princeton University Press, August 2025

Rebecca Newberger Goldstein (Harvard University). *The Mattering Instinct: How Our Deepest Longing Drives Us and Divides Us*. Liveright, January 2026

Stephen Greenblatt (Harvard University). *Dark Renaissance: The Dangerous Times and Fatal Genius of Shakespeare's Greatest Rival*. W. W. Norton & Company, September 2025

Jonathan Haidt (New York University) and Catherine Price (Philadelphia, PA). *The Amazing Generation: Your Guide to Fun and Freedom in a Screen-Filled World*. Rocky Pond Books, December 2025

Joy Harjo (Tulsa, OK). *Girl Warrior: On Coming of Age*. W. W. Norton & Company, October 2025

Peter J. Hotez (Baylor College of Medicine) and Michael E. Mann (University of Pennsylvania). *Science Under Siege: How to Fight the Five Most Powerful Forces that Threaten Our World*. PublicAffairs, September 2025

Walter Isaacson (Tulane University). *The Greatest Sentence Ever Written*. Simon & Schuster, November 2025

Jill Lepore (Harvard University). *We the People: A History of the U.S. Constitution*. Liveright, September 2025

Thomas Evan Levy (University of California, San Diego). *The Boomer Archaeologist: A Graphic Memoir of Tribes, Identity, and the Holy Land*. Equinox, June 2025

Alan Lightman (Massachusetts Institute of Technology) and **Martin Rees** (University of Cambridge). *The Shape of Wonder: How Scientists Think, Work, and Live*. Pantheon, September 2025

Glenn C. Loury (Brown University). *Self-Censorship*. Polity, July 2025

Thomas Mallon (Washington, D.C.). *The Very Heart of It: New York Diaries, 1983–1994*. Knopf, June 2025

Ann S. Masten (University of Minnesota). *Ordinary Magic: Resilience in Development*. Guilford Press, May 2025

Steven Pinker (Harvard University). *When Everyone Knows That Everyone Knows . . . : Common Knowledge and the Mysteries of Money, Power, and Everyday Life*. Scribner, September 2025

Martin Rees (University of Cambridge) and **Alan Lightman** (Massachusetts Institute of Technology). *The Shape of Wonder: How Scientists Think, Work, and Live*. Pantheon, September 2025

Robert B. Reich (University of California, Berkeley). *Coming Up Short: A Memoir of My America*. Knopf, August 2025

Dorothy Roberts (University of Pennsylvania). *The Mixed Marriage Project: A Memoir of Love, Race, and Family*. One Signal, February 2026

Zadie Smith (London, United Kingdom). *Dead and Alive: Essays*. Penguin Press, October 2025

John Fabian Witt (Yale University). *The Radical Fund: How a Band of Visionaries and a Million Dollars Upended America*. Simon & Schuster, October 2025

Tim Wu (Columbia University). *The Age of Extraction: How Tech Platforms Conquered the Economy and Threaten Our Future Prosperity*. Knopf, November 2025

Pauline Yu (American Council of Learned Societies). *Chinese Songs in a French Key*. Columbia University Press, August 2025

We invite all Fellows and International Honorary Members to send notices about their recent and forthcoming publications, new appointments, exhibitions and performances, films and documentaries, and honors and prizes to bulletin@amacad.org.

MEMBER EVENTS

Attendees gather at the University of California, Berkeley for "Generative AI Is Terrific, But Is It Really Legal?" a Morton L. Mandel Conversation organized by the Berkeley Committee for the greater Berkeley community on November 10, 2025.

Teresa Woodruff (Michigan State University) and **John Rogers Jr.** (Ariel Investments) connect before their opening remarks on Americans' collective responsibility to democracy at the October 27, 2025, Chicago Members' Dinner.

Members gather and view exhibits at the University of Michigan's William L. Clements Library during the Michigan Members' Reception on October 23, 2025.

Goodwin Liu (Supreme Court of California) at the reception following the Morton L. Mandel Conversation on "Generative AI Is Terrific, But Is It Really Legal?" held at the University of California, Berkeley on November 10, 2025.

Members and guests enjoy a reception at the Minneapolis Club on October 29, 2025.

Kerwin Charles (Yale School of Management) and members enjoy a reception hosted by Charles for New Haven members on December 3, 2025.

Chicago Committee cochair **Richard Morimoto** (Northwestern University) and members enjoy a reception at the University of Chicago Booth School of Business as part of the Chicago Members' Dinner on October 27, 2025.

Daniel Spielman (Yale University) and **Emily Bazelon** (*The New York Times*) at the New Haven Members' Reception hosted by the New Haven Committee on December 3, 2025.

Abhishek Nagaraj (Berkeley Haas School of Business), **Pamela Samuelson** (UC Berkeley School of Law), and **Jennifer Tour Chayes** (University of California, Berkeley) before their discussion on "Generative AI Is Terrific, But Is It Really Legal?" a Morton L. Mandel Conversation organized by the Academy's Berkeley Committee on November 10, 2025.

An Archival Mystery – Who Was This Man?

By **Michele Lavoie**,
Director of Archives

In March 1945, Mrs. Laura M. Agassiz sent the Academy three portraits of members of the Agassiz family: her late husband, Maximilian (1866–1941); his father, Alexander (1835–1910; elected to the Academy in 1862); and his grandfather, Louis (1807–1873; elected a Foreign Honorary Member in 1846). Both elder Agassizes were active members of the Academy; Alexander served as president from 1894–1903. The Academy accessioned the portraits into its collections and put them on display in the Newbury Street headquarters, which the Agassiz family helped to build.

The portraits include little provenance information, such as artist or date of completion. As sometimes happens (more than stewards of such collections care to admit), the most basic information – the portrait subject – can become ambiguous with time and loss of context. For example, the gentleman in the painting shown here was originally identified as Louis Agassiz. However, the description in the curatorial record did not match the painting, nor did the subject resemble actual photographs of Louis Agassiz. Yet the record remained unchanged, and inaccurate, for several decades.

At some point, the record was changed and John Quincy Adams was identified as the subject. This too was a case of mistaken identity, as the likeness bears no resemblance to any known portrait of Adams. Nevertheless, the painting is labeled as "Portrait of John Quincy Adams" in an art appraisal from 2001. Later still, the conclusion was reached that this painting must be *Maximilian* Agassiz, but this too seems to be inaccurate: the date is estimated to be approximately mid-nineteenth century, judging by the style of painting and the subject's attire, which would pre-date Maximilian's lifespan.

So, if the subject isn't Louis Agassiz, Maximilian Agassiz, or John Quincy Adams, then who was he? Unfortunately, the painting itself offers little clue as to his true identity, nor even that of the artist who painted him. There is no signature or any significant detail that would help to identify the sitter or the artist. No correspondence has been discovered to clarify the details.

For now, the identities of both sitter and artist remain a mystery. The catalog record for the piece has been updated to remove references to Louis Agassiz and John Quincy Adams. The Archives staff continue to search for answers, and welcome any assistance in that endeavor.

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ONLINE

The publication on AI and Mental Health Care (featured in this issue) launched with an online conversation with experts from various disciplines and perspectives. Academy member **Sanjay Gupta** (Emory University School of Medicine; CNN) led the discussion, which is now available for viewing.

Videos are shared on the Academy's website and the Academy's YouTube channel: **www.youtube.com/americanacad**

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