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[Article 1.](#)

The Washington Post

How to deal with Russia without reigniting a full-fledged Cold War psychology

George P. Shultz and Sam Nunn

Russia has [taken over Crimea](#) and threatens further aggression. Now is the time to act but also to think strategically. What [basic strategic approach should the United States and its allies take](#), and how can that approach be implemented over time so that the tactical moves benefit our long-term interests? Is it possible to avoid the reemergence of a [full-fledged Cold War](#)

[psychology](#), which is encouraged by Russia developing an “I can get away with it” mentality?

Thankfully, nuclear weapons are not part of today’s conflict. Ukraine gave them up in 1994, partly in [exchange for reassurance of its territorial integrity by the United States, Britain and Russia](#). Now, one of those “reassurers” has taken Crimea. What are the implications for proliferation? These are difficult questions, but we must describe the situation in realistic terms.

Perceptions are important. Whatever his long-range intent, Vladimir Putin has Russia’s neighbors fearing and many Russians believing that he has, in effect, announced his objective to bring the former Soviet space once again under Russian influence, if not incorporated into the Russian state. He has [stationed troops and other military assets](#) in proximity and has indicated a willingness to use them. The resentment and fear his moves have created in Ukraine and other neighbors will, over time, set in motion countermoves and activities that will diminish Russia’s own security. Putin has demonstrated his willingness to cut off supplies of the large [quantity of oil and gas Russia ships to Ukraine and the countries of Western Europe](#) and to play games with prices. Russia has also developed important trading and financial dealings with Western countries, particularly Germany, Britain and France.

But these assets are also potential liabilities. The Russian economy depends on these trading and financial arrangements and on income from oil and gas sales that are now taking place at historically high prices. Moreover, Russia has a [demographic catastrophe looming](#) in its low fertility and astonishingly low longevity rates for men, including men of working age. Many young Russians are emigrating. There is an open rebellion in the Caucasus. Russia shares a long border with China, with hardly anyone and large resources on one side and a lot of people on the other. Putin also has a restive population, as shown in an odd way by the [arrest of members of the band Pussy Riot](#) who sang songs of dissent on street corners.

Meanwhile, the United States and its European allies have considerable strength, particularly if exerted over time in a determined way. So what should our agenda be? The United States and others with easy supply lines to Europe have increased capacity to generate oil and gas. The [United](#)

[States should speed up exports of oil and gas](#) and encourage the development of these resources in other countries. The attraction of more representative government and less corrupt and open markets has underlying strength and appeal; Ukraine must be helped to move firmly into that world, based on improving economic prospects and honest and credible governance so that Ukrainians can make their own choices about political and economic relations. Financial markets could be the source of tremendous leverage if access to Russia is denied and the ruble starts to lose value. Unlike Soviet interventions during the Cold War, the recent aggression will affect Russian markets, investments and the Russian people's standard of living. The United States and our European allies must ensure that our military capacity is strengthened and our [commitment to Article 5 of the NATO Treaty is unquestioned](#) and enhanced. It is essential that European allies [get serious about their defense capabilities](#).

The world works better when governments have a representative quality, when the corrupt brand of excessive bureaucracy is lessened, and when economies are open to imports and exports in competitive markets. Recent history has shown the damage done to global security and the economic commons by cross-border threats and the uncertainty that emanates from them. As far as Russia is concerned, the world is best served when Russia proceeds as a respected and important player on the world stage. Russia has huge resources, outstanding music, art, literature and science, among other attributes, and can be a positive force when it keeps its commitments and respects international law.

A key to ending the Cold War was the Reagan administration's rejection of the concept of linkage, which said that bad behavior by Moscow in one sphere had to lead to a freeze of cooperation in all spheres. Linkage had led to the United States being unable to advance its national interests in areas such as human rights and curbing the arms race.

Although current circumstances make it difficult, we should not lose sight of areas of common interest where cooperation remains crucial to the security of Russia, Europe and the United States. This includes securing nuclear materials — the subject of [this week's summit in the Netherlands](#) — and preventing catastrophic terrorism, as well as destroying Syrian chemical stockpiles and preventing nuclear proliferation by Iran and others. We should also focus on building a framework for mutual

transatlantic security by applying a cooperative and transparent approach to the region's security challenges and building trust over time.

We need to engage with Russia against the background of realism and development of our strengths and our agenda. We can use our strategic advantages, combined with a desire to see Russia as part of a prosperous world dominated by representative governments. But our willingness to use our assets with a steady hand and to vigorously pursue our strategy must also be clear. With all due respect to the importance of tactical moves, this is the time for strategic thinking and implementing a strategic design. It is also a time for maximizing cooperation at home and with our allies abroad. Our hand is strong if we play it wisely.

George P. Shultz, a distinguished fellow at Stanford University's Hoover Institution, was secretary of state from 1982 to 1989. Sam Nunn, a former U.S. senator from Georgia and chairman of the Armed Services Committee from 1987 to 1995, is co-chairman and CEO of the Nuclear Threat Initiative.

[Article 2.](#)

The Washington Post

Obama vs. Putin: The mismatch

[Charles Krauthammer](#)

"The United States does not view Europe as a battleground between East and West, nor do we see the situation in Ukraine as a zero-sum game.

That's the kind of thinking that should have ended with the Cold War."

— Barack Obama, March 24

Should. [Lovely sentiment](#). As lovely as what Obama said five years ago to the United Nations: "[No one nation can or should try to dominate another nation.](#)"

That's the kind of sentiment you expect from a Miss America contestant asked to name her fondest wish, not from the leader of the free world explaining his foreign policy.

The [East Europeans know](#) they inhabit the battleground between the West and a Russia that wants to return them to its sphere of influence.

Ukrainians see tens of thousands of [Russian troops across their border](#) and know they are looking down the barrel of quite a zero-sum game.

Obama thinks otherwise. He says that Vladimir Putin's kind of neo-imperialist thinking is a relic of the past — and [advises Putin to transcend the Cold War](#).

Good God. Putin hasn't transcended the Russian revolution. Did no one give Obama a copy of [Putin's speech last week upon the annexation of Crimea](#)? Putin railed not only at Russia's loss of empire in the 1990s. He went back to the 1920s: "After the revolution, the Bolsheviks . . . may God judge them, added large sections of the historical South of Russia to the Republic of Ukraine." Putin was referring not to Crimea (which came two sentences later) but to his next potential target: Kharkiv and Donetsk and the rest of southeastern Ukraine.

Putin's irredentist grievances go very deep. Obama seems unable to fathom them. Asked whether ██████ misjudged Russia, whether it really is our greatest geopolitical foe, he disdainfully replied that [Russia is nothing but "a regional power" acting "out of weakness."](#)

Where does one begin? Hitler's Germany and Tojo's Japan were also regional powers, yet managed to [leave behind at least 50 million dead](#). And yes, Russia should be no match for the American superpower. Yet under this president, Russia has run rings around America, from the [attempted ingratiating](#) of the "reset" to America's empty threats of "consequences" were Russia to annex Crimea.

Annex Crimea it did. For which [the "consequences" have been risible](#). Numberless 19th- and 20th-century European soldiers died for Crimea. Putin conquered it in a swift and [stealthy campaign that took three weeks](#) and cost his forces not a sprained ankle. That's "weakness"?

Indeed, Obama's dismissal of Russia as a regional power makes his own leadership of the one superpower all the more embarrassing. For seven decades since the Japanese surrender, our role under 11 presidents had been as offshore balancer protecting smaller allies from potential regional hegemony.

What are the allies thinking now? Japan, South Korea, Taiwan, the Philippines and other Pacific Rim friends are wondering where this

America will be as [China expands its reach and claims](#). The Gulf states are near panic as they see the United States [playacting nuclear negotiations with Iran](#) that, at best, will leave their mortal Shiite enemy just weeks away from the bomb.

America never sought the role that history gave it after World War II to bear unbidden burdens “[to assure the survival and the success of liberty](#),” as movingly described by John Kennedy. We have an appropriate aversion to the stark fact that the alternative to U.S. leadership is either global chaos or dominance by the likes of China, Russia and Iran.

But Obama doesn't even seem to recognize this truth. In his [major Brussels address Wednesday](#), the very day Russia seized the last Ukrainian naval vessel in Crimea, Obama made vague references to further measures should Russia march deeper into Ukraine, while still emphasizing the centrality of international law, international norms and international institutions such as the United Nations.

Such fanciful thinking will leave our allies with two choices: bend a knee — or arm to the teeth. Either acquiesce to the regional bully or gird your loins, i.e., go nuclear. As surely will the Gulf states. As will, in time, Japan and South Korea.

Even [Ukrainians are expressing regret](#) at having given up their nukes in return for paper guarantees of territorial integrity. The [1994 Budapest Memorandum](#) was ahead of its time — the perfect example of the kind of advanced 21st-century thinking so cherished by our president. Perhaps the captain of that last Ukrainian vessel should have waved the document at the Russian fleet that took his ship.

[Article 3.](#)

The Washington Post

Obama's 21st-century power politics

[Fareed Zakaria](#)

Russia's [invasion of Ukraine](#) has brought to the fore an important debate about what kind of world we live in. Many critics charge that the Obama administration has been blind to its harsh realities because it believes, as the Wall Street Journal opined, in “[a fantasy world of international rules](#).”

John McCain declared that “[this is the most naive president in history.](#)” The Post’s editorial board worried that President Obama misunderstands “[the nature of the century we’re living in.](#)”

Almost all of these critics have ridiculed Secretary of State John Kerry’s assertion that changing borders by force, as Russia did, is [19th-century behavior in the 21st century](#). Well, here are the facts. Scholar Mark Zacher has tallied up changes of borders by force, something that was once quite common. Since World War I, he notes, that practice has sharply declined, and in recent decades, that decline has accelerated. Before 1950, wars between nations resulted in border changes (annexations) [about 80 percent of the time](#). After 1950, that number dropped to 27 percent. In fact, since 1946, there have been only 12 examples of major changes in borders using force — and all of them before 1976. So Putin’s behavior, in fact, does belong to the 19th century.

The transformation of international relations goes well beyond border changes. Harvard’s Steven Pinker has collected war data in his superb book “[The Better Angels of Our Nature](#).” In [a more recent essay](#), he points out that “after a 600-year stretch in which Western European countries started two new wars a year, they have not started one since 1945. Nor have the 40 or so richest nations anywhere in the world engaged each other in armed conflict.” Colonial wars, a routine feature of international life for thousands of years, are extinct. Wars between countries — not just major powers, not just in Europe — have also dropped dramatically, by more than 50 percent over the past three decades. Scholars at the University of Maryland have found that the past decade has seen the lowest number of new conflicts since World War II.

Many aspects of international life remain nasty and brutish, and it is easy to sound tough and suggest that you understand the hard realities of power politics. But the most astonishing, remarkable reality about the world is how much things have changed, especially since 1945.

It is ironic that the Wall Street Journal does not recognize this new world because it was created in substantial part through capitalism and free trade. Twenty years ago, Singapore’s Lee Kuan Yew, as hardheaded a statesman as I have ever met, told me that Asian countries had seen the costs of war and the fruits of economic interdependence and development — and that they would not choose the former over the latter.

This is not an academic debate. The best way to deal with Russia's aggression in Crimea is not to present it as routine and national interest-based foreign policy that will be countered by Washington in a contest between two great powers. It is to point out, as Obama did eloquently this week in Brussels, that [Russia is grossly endangering a global order](#) that has benefited the entire world.

Compare what the Obama administration has managed to organize in the wake of this latest Russian aggression to the Bush administration's response to [Putin's actions in Georgia in 2008](#). That was a blatant invasion. Moscow sent in tanks and heavy artillery; hundreds were killed, nearly 200,000 displaced. Yet the response was essentially nothing. This time, it has been much more serious. Some of this difference is in the nature of the stakes, but it might also have to do with the fact that the Obama administration has taken pains to present Russia's actions in a broader context and get other countries to see them as such.

You can see a similar pattern with Iran. The Bush administration largely pressured that country bilaterally. The Obama administration was able to get much more effective pressure because it presented Iran's nuclear program as a threat to global norms of nonproliferation, persuaded the other major powers to support sanctions, enacted them through the United Nations and thus ensured that they were comprehensive and tight. This is what leadership looks like in the 21st century.

There is an evolving international order with new global norms making war and conquest increasingly rare. We should strengthen, not ridicule, it. Yes, some places stand in opposition to this trend — North Korea, Syria, Russia. The people running these countries believe that they are charting a path to greatness and glory. But they are the ones living in a fantasy world.

[Article 4.](#)

Al Jazeera

Kuwait summit: Arab unity or disunity?

Joseph A Kechichian

27 Mar 2014 -- At the League of Arab States' (LAS) 25th summit, leaders gathered in Kuwait to address perennial concerns, ranging from the lingering Palestinian-Israeli dispute, to the more recent Arab uprisings and

the devastating civil war in Syria. Inasmuch as significant differences remained, wire reporters hinted that delegates had considered not issuing a final communique, although cooler heads prevailed and one was duly read out in the end.

Many shook their heads at the gamut of issues addressed by participants and their advisers in the 17-page long "Kuwait Declaration", which covered dozens of issues that the delegates had discussed. The document once again supported the United Arab Emirates' (UAE) quest to regain full sovereignty over the Abu Musa and the two Tunb islands occupied by Iran since 1971. It also called on France to return Mayotte Island to the Comoros, and expressed approval of the April 2013 reconciliation in South Sudan, among other matters.

Delegates dotted the i's and crossed as many t's as possible, although three persistent disputes preoccupied them most.

The question of Palestine

As in the past, the League's heads stood by the hapless Palestinians and backed their refusal to recognise Israel as a Jewish state, which was the core obstruction to the ongoing US-led peace talks.

"We express our total rejection of the call to consider Israel as a Jewish state," declared the final statement, which also echoed the 2002 summit's consensus. At the time, the League's leaders gathered in Beirut, agreed to recognise Israel in exchange for a full and complete withdrawal from the territories occupied in the 1967 war. However Prime Minister Benjamin Netanyahu later threw a fresh spanner in the works when he insisted that Arabs in general and Palestinians in particular acknowledge Israel as the national homeland of the Jewish people.

Although attractive to Israel and its Western backers, such an acceptance would eliminate the "right of return" for the overwhelming number of Palestinian refugees.

It was interesting to note that Palestinian President Mahmud Abbas spoke eloquently on the subject, and reiterated that he would never recognise Israel as a Jewish state, which was probably the only subject that LAS delegates agreed upon in toto.

Syria's civil war

Sharp differences emerged over the League's goal to usher in a political solution to the civil war in Syria, now in its fourth year. The Syrian

National Coalition (SNC) chief Ahmed Jarba was barred from filling President Bashar al-Assad's vacant seat. As Syria's membership in the League was suspended in November 2011, Jarba's calls for "sophisticated" arms to tip the balance of power did not fall on deaf ears, even if substantial disparities emerged.

"We call for a political solution to the crisis in Syria based on the Geneva I communique," declared the statement. That said, Saudi heir apparent Salman bin Abdul Aziz, was highly critical of those who "betrayed" opposition forces fighting for the overthrow of Syrian President Bashar al-Assad. He further called on delegates to "change the balance of forces" (sic) on the ground in Syria. And the Qatari ruler, Sheikh Tamim bin Hamad al-Thani was highly critical of the Syrian government, for not heeding repeated calls to negotiate with opposition forces.

Despite being at odds over their views on the Muslim Brotherhood, both Riyadh and Doha were indirectly targeted by the joint UN-LAS peace envoy for Syria, Lakhdar Brahimi, who appealed for an end to the flow of arms to combatants in the war. But the UN diplomat was coy, as he read Secretary-General Ban Ki-moon's speech, which underscored how the "whole region [was] in danger" of being dragged into the conflict, which led him to plead with LAS members to work "with the Russian Federation, the United States and the United Nations, to take clear steps to re-energise Geneva II".

But Brahimi made no references to Russian arms delivered to Damascus. Nor did he call on Iran, or Lebanon's Hezbollah, to withdraw their fighters from Syria and terminate any military assistance that they extended to the Assad regime.

Brahimi listened carefully as the SNC's Jarba challenged the League's leaders, as he urged Arab leaders to pressure world powers to fulfill previous pledges to supply arms, and declared: "I do not ask you for a declaration of war", just effective weapons. Brahimi was probably not satisfied with the overall tone that would effectively freeze the next Geneva gathering, and observers noted his facial expression, as he scanned the room for any reaction from chief delegates.

Refugees in Lebanon

Whether Brahimi discussed with LAS leaders the appalling conditions that Syrian refugees were subjected to in neighbouring countries was

impossible to know. Suffice it to say that Arab leaders took note of Lebanese President Michel Suleiman's warnings that the presence of 1.5 million Syrians threatened the stability of the Levantine state.

Arab League summit fails to reach consensus on pressing issues
Suleiman was pleased that the LAS backed the role of the Lebanese Armed Forces, and thanked the summit delegates for offering their full support to Lebanon. In what appeared to be a carefully planned step, Suleiman urged League members to encourage their allies to not involve Lebanon in Syria's conflict – a proposal easier said than done.

LAS impasse

Although Arab consensus proved elusive when the LAS was created in 1945, many worked hard to narrow differences. From Gamal Abdul Nasser's quest for unity in the 1950s to the Iraqi invasion and occupation of Kuwait in 1990, and from failed associations with foreign powers - especially the Baghdad Pact - to the establishment of the Gulf Cooperation Council (GCC) in 1981, Arab leaders struggled to define their roles within the League.

Regrettably, most of these initiatives failed, some due to foreign interference, others because of intra-Arab disputes. The only hopeful alliance was the GCC though even it came under duress in the aftermath of the post-2010 Arab Uprisings.

In fact, this year's summit followed an unusual dispute within the GCC over alleged Qatari support for Egypt's Muslim Brotherhood. To his credit, the summit host, Kuwaiti Emir Sheikh Sabah al-Ahmad al-Sabah, urged his guests to overcome rifts, as he said enormous dangers existed all around them. Whether he was now ready to follow up on his warnings and try to defuse the worsening dispute between Saudi Arabia, Bahrain and the UAE on one side and Qatar on the other, remained to be determined.

In general, both LAS members and GCC states disagreed sharply over the political role of Islamists in the region. In particular, Saudi Arabia was adamant in its total rejection of any interference in Arab affairs by Shia Muslim Iran, so it was difficult to see how the two sides could see eye-to-eye. Ever the eternal optimist, Sheikh Sabah walked hand-in-hand with Prince Salman and Sheikh Tamim, as all three walked into the hall where Arab leaders gathered which hinted that an eventual thawing was possible.

For now, key Arab Gulf countries hedged their bets, as the UAE turned the LAS leadership for the coming year over to Egypt - a clear and unequivocal sign of support to Cairo - as it confronted, in the words of Egyptian President Adly Mansour: "any attempt to stir problems between our people and countries". The vote of confidence angered Doha and, according to diplomats present at the Summit, "clear divisions [emerged] over what Saudis and Qataris thought" the next steps should be. According to an unnamed diplomat quoted by the Reuters news agency: "There were heated remarks about Egypt behind closed doors..." Others apparently voiced equally harsh criticisms, and while Sheikh Tamim and his advisors sought to reduce tensions and find a mutually acceptable way out, the Qatari leader called on Cairo to respect and accept the Egyptian people's choices. Sheikh Tamim will now face difficult diplomatic challenges as he tries to prevent further divisions within the League and GCC members.

Dr Joseph A Kechichian is Senior Fellow at the King Faisal Center for Research & Islamic Studies in Riyadh, Saudi Arabia, and an author specialising in the Arabian/Persian Gulf region. His latest book is Legal and Political Reforms in Saudi Arabia, published by Routledge (2013).

[Article 5.](#)

The Edge

On Kahneman

A selection from "A Reality Club Discussion on the Work of [Daniel Kahneman](#)"

{[DANIEL KAHNEMAN](#) is the recipient of the Nobel Prize in Economics, 2002 and the Presidential Medal of Freedom, 2013. He is Eugene Higgins Professor of Psychology Emeritus, Princeton, and author of Thinking Fast and Slow.}

- How Has Kahneman's Work Influenced Your Own?
- What Step Did It Make Possible?

3.27.14 --

Gary Marcus

Cognitive Scientist; Author, Guitar Zero: The New Musician and the Science of Learning

More than a hundred years into the modern history of psychology, I think it's fair to say that we are still a long way from fully understanding how the mind works. But it's also fair to say that nobody will come up with a compelling account of human cognition unless they wrestle seriously with Daniel Kahneman's pioneering work with Amos Tversky on heuristics and cognitive biases.

You would think that point would be obvious, but in my view, none of the currently fashionable theories of mind take Kahneman and Tversky's work seriously enough. Take, for instance, the popular notion that the mind might be a Bayesian engine of probabilistic cognition. According to one leading theorist, "over the past decade, many aspects of higher-level cognition have been illuminated by the mathematics of Bayesian statistics." Demonstration after demonstration purports to show that in certain narrowly-defined tasks, human psychology follows directly from the laws of probability. In this domain or that, people are said to make "optimal" or "near-optimal" decisions. People, for example, are very good at extrapolating how long someone might remain in the Senate, given that Senator X has already been there for a decade. But Bayesian zealots seem to forget just how lousy human beings are in other cases of extrapolation, as Kahneman and Tversky showed long ago, with their framing effect. (Take a dollar bill from your pocket, read the last three digits of the serial number, and then guess when Attila the Hun was born; most people will erroneously extrapolate from this bit of wholly irrelevant information.) In a recent review, I suggested that every alleged Bayesian success could be juxtaposed with an equally compelling cognitive error, most of which were first documented by Kahneman and Tversky. Every time I read the Bayesian literature, I wince, and think of a different cognitive error: confirmation bias. It's easy to find evidence for any old theory; good science requires considering evidence that might potentially go against one's theory. In my humble opinion, anyone who tries to understand the mind without taking seriously Kahneman's oeuvre is doomed to failure.

In my own work, I have thought deeply about what Kahneman's work might mean for evolutionary psychology. The default assumption of evolutionary psychology is one of optimality: give evolution enough time, and eventually it will alight on a beautiful, elegant solution, like the retina, sensitive to a single photon of light. The reality of evolution is that it is a blind process, with no guarantee of alighting on optimality. Too much of evolutionary psychology, in my view, dwells on systems in which the mind is apparently optimal; the real challenge ought to be in understanding how those apparently-optimal systems live alongside other systems that sometimes confoundingly seem to do the wrong thing; until evolutionary psychology can explain anchoring, availability, and future discounting, as well as it can explain mate selection and reciprocal altruism; it will be only half a science. The ultimate goal of human psychology must be to characterize both what we do well, and what we do poorly, and how we balance the two. Kahneman and Tversky's work is, without question, the best place to start.

Christopher Chabris

Associate Professor of Psychology, Union College; Co-author, [The Invisible Gorilla](#), and [Other Ways Our Intuitions Deceive Us](#).

There's an overarching lesson I have learned from the work of Danny Kahneman, Amos Tversky, and their colleagues who collectively pioneered the modern study of judgment and decision-making: Don't trust your intuition. It's such an important lesson that it wound up in the subtitle of my book. So I am wary of consulting my intuition to try to discern a pattern of influence that may only be visible through the distorting lens of hindsight. Instead, I'll describe what I think the main lesson of Kahneman's approach to behavioral research has been for me.

As I see it, the Kahneman formula for high-impact behavioral science combines three elements:

1. Systematic human error: Kahneman and Tversky are known for discovering situations where many or most people give answers that are inconsistent with some normative theory of what is correct. Usually this theory is based on logic or basic probability or arithmetic. But those errors

aren't random—they are systematic errors, also known as biases. It's easy to forget how revolutionary this approach once was. Much research in cognitive psychology compares the rate of error in different conditions, but it doesn't look at the content of those errors. Looking at the frequency of mistakes across different conditions is a perfectly valid and useful research strategy, but looking at systematic error is more powerful. For one thing, when a normative theory makes a strong prediction—that a certain answer is simply wrong and should never occur—then it is easier to find large effects. (The t-test against a theoretical value is a high-power analytical procedure.)

2. Large effects: There's nothing wrong with looking for small effects, and small effects can have great theoretical meaning. But they are simply harder to find, and they are generally less likely to be important. As much as possible we should work on large effects that can be easily replicated, since those will provide a firm empirical foundation for future work. If some researchers can find effects and some can't, progress will be difficult. Kahneman's work shows us that there are many large effects out there to be found and understood.

3. Simple experiments: The simpler an experiment is to conduct, the more likely it is that multiple independent researchers will be able to replicate it, extend it, and exchange information about it. Kahneman's most influential studies consisted of asking research subjects just one easily-understood question, and the methodology was the simple randomized experiment. Combining these three elements isn't the only way to do good behavioral research, by any means. And of course it doesn't automatically work. It can be dangerously seductive if it leads us to pursue what is surprising or newsworthy over what is important and true. But it has the potential to point toward deeply nonobvious facts that have large consequences. Kahneman and his colleagues discovered lots of those, from the conjunction fallacy, the neglect of base rates, the excessive pain of losses as compared to the pleasure of gains, the difference in how we value things we own and things we don't, and the surprising happiness of people who have suffered greatly. We can and should discuss whether these are all really errors (as opposed to behaviors that have or had adaptive value) and we should work on discovering the mechanisms that lie beneath them.

Those pursuits are likely to bear fruit precisely because they are starting from the firm foundation Kahneman's approach established.

Nicholas Epley

Professor of Behavioral Science, University of Chicago, Booth School of Business

Kahneman's influence was to provide the essential ingredients for all of my work: a problem, and possible solutions. The problem was that people's beliefs, judgments, and choices are routinely "wrong." They may be wrong because they disagree with a statistical principle, a rational principle, reality, or some combination of all three. The solution is that people's beliefs, judgments, and choices are not guided simply by statistics, rationality, or reality, but instead are guided by generally intelligent, but imperfect, psychological processes that take hard problems and convert them to easy problems that normal human beings can solve. If you understand these processes that guide intuitive judgment, then you can understand why perception and reality diverge.

By extending Kahneman's problem as well as his ideas about its solution, I have built a career trying to understand how otherwise brilliant human beings can be so routinely "wrong" in their beliefs and judgments about each other. Why do people overestimate how often others agree with them? Why are people sometimes less accurate predicting their own future behavior than predicting others' behavior? Why do people overestimate how harshly they will be judged for an embarrassing blunder? Why do liberals think conservatives have more extreme views than conservatives actually do? The list of such cases where our social thinking goes wrong is long, but it is Kahneman's influence that runs through its entire length. Asking how Kahneman's work has influenced my own is a bit like asking a doctor how oxygen influences life. My work wouldn't exist without him.

Cass R. Sunstein

Legal Scholar; Robert Walmsley University Professor, Harvard; Fmr, Administrator of White House Office of Information and Regulatory Affairs; Author, Why Nudge?

Danny Kahneman is responsible for so many ideas that one needs a heuristic to select among them. I am choosing the Coauthorship Heuristic. From about 1996 until about 2007, I was privileged to work with Kahneman (and David Schkade) on a series of papers on punitive damage awards. Here are four ideas for which Kahneman is above all responsible. These ideas are hardly Kahneman's most well-known, but they are full of implications, and we have only started to understand them.

1. The outrage heuristic. People's judgments about punishment are a product of outrage, which operates as a shorthand for more complex inquiries that judges and lawyers often think relevant. When people decide about appropriate punishment, they tend to ask a simple question: How outrageous was the underlying conduct? It follows that people are intuitive retributivists, and also that utilitarian thinking will often seem uncongenial and even outrageous.
2. Scaling without a modulus. Remarkably, it turns out that people often agree on how outrageous certain misconduct is (on a scale of 1 to 8), but also remarkably, their monetary judgments are all over the map. The reason is that people do not have a good sense of how to translate their judgments of outrage onto the monetary scale. As Kahneman shows, some work in psychophysics explains the problem: People are asked to "scale without a modulus," and that is an exceedingly challenging task. The result is uncertainty and unpredictability. These claims have implications for numerous questions in law and policy, including the award of damages for pain and suffering, administrative penalties, and criminal sentences.
3. Rhetorical asymmetry. In our work on jury awards, we found that deliberating juries typically produce monetary awards against corporate defendants that are higher, and indeed much higher, than the median award of the individual jurors before deliberation began. Kahneman's hypothesis is that in at least a certain category of cases, those who argue for higher awards have a rhetoric advantage over those who argue for lower awards, leading to a rhetorical asymmetry. The basic idea is that in light of social norms, one side, in certain debates, has an inherent advantage – and group judgments will shift accordingly. A similar rhetorical asymmetry can be found in groups of many kinds, in both private and public sectors, and it helps to explain why groups move.

4. Predictably incoherent judgments. We found that when people make moral or legal judgments in isolation, they produce a pattern of outcomes that they would themselves reject, if only they could see that pattern as a whole. A major reason is that human thinking is category-bound. When people see a case in isolation, they spontaneously compare it to other cases that are mainly drawn from the same category of harms. When people are required to compare cases that involve different kinds of harms, judgments that appear sensible when the problems are considered separately often appear incoherent and arbitrary in the broader context. In my view, Kahneman's idea of predictable coherence has yet to be adequately appreciated; it bears on both fiscal policy and on regulation.

We should be able to see the close connection between these findings and many themes in Kahneman's work, and indeed the distinction between System 1 and System 2 helps to illuminate all of them. That distinction, and Kahneman's findings about how risk-related intuitions can go wrong, very much influenced my work in the Obama Administration, where I was privileged to serve as the Administrator of the White House Office of Information and Regulatory Affairs. It is clear that in an increasing number of nations, public policy is a lot better than it would be because of Kahneman's research. Both System 1 and System 2 concur: The influence of that research will grow significantly in the future.

Phil Rosenzweig

Professor of Strategy and International Business at IMD, Lausanne, Switzerland.

For those of who studied economics at university, as I did in the 1970s, the work of Danny Kahneman and Amos Tversky came as a most welcome corrective. My first encounter with their work on heuristics and biases, while a doctoral student in the 1980s, was a transformational experience, a moment when the pieces of a larger puzzle are re-arranged and the world never looks quite the same again. The elegance of their experiments, honed and sharpened to capture precisely the phenomenon of interest, was such that even the field they challenged—economics—had to acknowledge the power of their findings. It's a rare duo that can so fundamentally call into

question the received wisdom of a field and manage to get the results published in one of its leading journals, as was the case with their 1979 classic published in *Econometrica*, "Prospect Theory: An Analysis of Decision under Risk."

Even so, the application of many insights about judgment and choice, so neatly distilled in laboratory settings, has been neither a smooth nor straight road. The reason has less to do with shortcoming of the cognitive psychologists and decision theorists who conducted the studies, and more to do with the way others sought to generalize the findings without careful regard to the nature of real world decisions, which often involve circumstances that can be very different. Much of my research has been about precisely this: understanding the messy world of managerial decision making. For that, the research of Danny Kahneman has been an essential and firm foundation.

For years, there were (as the old saying has it) two kinds of people: those relatively few of us who were aware of the work of Danny Kahneman and Amos Tversky, and the much more numerous who were not. Happily, the balance is now shifting, and more of the general public has been able to hear directly a voice that is in equal measures wise and modest.

Richard Nisbett

Professor of Psychology, University of Michigan; Author, Intelligence and How We Get It.

Only people of a certain age will recall that when Danny and Amos began their work on heuristics, every social and behavioral scientist knew that their job was strictly empirical: you report only what people do and think. It was absolutely forbidden to be prescriptive—to say what people ought to do or think.

In light of this training, many people were outraged that Danny and Amos were making normative assertions about the way people should reason. It's hard for most behavioral scientists to believe today that anyone, let alone a philosopher at a prominent institution, could have written in response to Danny's work that

"Ordinary human reasoning—by which I mean the reasoning of adults who have not been systematically educated in any branch of logic or probability theory—cannot be held to be faultily programmed: it sets its own standards."

This same philosopher—and many other philosophers and behavioral scientists as well—went on to try to show how Danny's reasoning about the problems he gave his subjects was wrong, and the reasoning of ordinary people was correct.

There are two main problems with this position.

1) There is no such thing as ordinary untutored human reasoning: there is an enormous range of approaches to problems like the ones Danny presented to people. And that's just among people in developed countries who have had no special training. When you look at people in other cultures the range gets broader still.

2) When you teach "ordinary" people rules like regression, the law of large numbers, and avoidance of the conjunction fallacy—either in classrooms or in laboratory settings—they don't give you static. They accept correction and try to reason in line with those rules. Danny's critics were placed in the position of a lawyer defending a client who had already thrown himself on the mercy of the court!

Early on in the debate, an article in Behavioral and Brain Science critiquing Danny's work was sent out to people who might reply to it. Surprisingly, almost no behavioral scientists took the side of the critics. And that was largely the end of it, except for a very few psychologists who continued the critique, often with a moralistic tone, and some psychologists who were ignorant of the details of the debate. Astonishingly, I've been told by a prominent philosopher that most philosophers still believe that "ordinary human reasoning" is without blemish and can't be criticized. By far the greatest influence on my work was that of Amos and Danny. The research continues to guide my research and thinking.

I once saw a letter Danny wrote to an institution that was considering hiring one of the psychologists critical of his work. He wrote something to the effect that he expected to end up in the ashcan of intellectual history, but not at the hands of that particular psychologist. Danny was right about the latter, but not about the former. Intellectual history has been permanently deflected by his work.

Nassim Nicholas Taleb

Distinguished Professor of Risk Engineering, New York University School of Engineering ; Author, Incerto (Antifragile, The Black Swan...).

The Problem of Multiple Counterfactuals

Here is an insight Danny K. triggered and changed the course of my work. I figured out a nontrivial problem in randomness and its underestimation a decade ago while reading the following sentence in a paper by Kahneman and Miller of 1986:

A spectator at a weight lifting event, for example, will find it easier to imagine the same athlete lifting a different weight than to keep the achievement constant and vary the athlete's physique.

This idea of varying one side, not the other also applies to mental simulations of future (random) events, when people engage in projections of different counterfactuals. Authors and managers have a tendency to take one variable for fixed, sort-of a numeraire, and perturbate the other, as a default in mental simulations. One side is going to be random, not the other.

It hit me that the mathematical consequence is vastly more severe than it appears. Kahneman and colleagues focused on the bias that variable of choice is not random. But the paper set off in my mind the following realization: now what if we were to go one step beyond and perturbate both? The response would be nonlinear. I had never considered the effect of such nonlinearity earlier nor seen it explicitly made in the literature on risk and counterfactuals. And you never encounter one single random variable in real life; there are many things moving together.

Increasing the number of random variables compounds the number of counterfactuals and causes more extremes—particularly in fat-tailed environments (i.e., Extremistan): imagine perturbing by producing a lot of scenarios and, in one of the scenarios, increasing the weights of the barbell and decreasing the bodyweight of the weightlifter. This compounding would produce an extreme event of sorts. Extreme, or tail events (Black Swans) are therefore more likely to be produced when both variables are random, that is real life. Simple.

Now, in the real world we never face one variable without something else with it. In academic experiments, we do. This sets the serious difference between laboratory (or the casino's "ludic" setup), and the difference between academia and real life. And such difference is, sort of, tractable. I rushed to change a section for the 2003 printing of one of my books. Say you are the manager of a fertilizer plant. You try to issue various projections of the sales of your product—like the weights in the weightlifter's story. But you also need to keep in mind that there is a second variable to perturbate: what happens to the competition—you do not want them to be lucky, invent better products, or cheaper technologies. So not only you need to predict your fate (with errors) but also that of the competition (also with errors). And the variance from these errors add arithmetically when one focuses on differences. There was a serious error made by financial analysts. When comparing strategy A and strategy B, people in finance compare the Sharpe ratio (that is, the mean divided by the standard deviation of a stream of returns) of A to the Sharpe ratio of B and look at the difference between the two. It is very different than the correct method of looking at the Sharpe ratio of the difference, A-B, which requires a full distribution.

Now, the bad news: the misunderstanding of the problem is general. Because scientists (not just financial analysts) use statistical methods blindly and mechanistically, like cooking recipes, they tend to make the mistake when consciously comparing two variables. About a decade after I exposed the Sharpe ratio problem, Nieuwenhuis et al. in 2011 found that 50% of neuroscience papers (peer-reviewed in "prestigious journals") that compared variables got it wrong, using the single variable methodology. In theory, a comparison of two experimental effects requires a statistical test on their difference. In practice, this comparison is often based on an incorrect procedure involving two separate tests in which researchers conclude that effects differ when one effect is significant ($P < 0.05$) but the other is not ($P > 0.05$). We reviewed 513 behavioral, systems and cognitive neuroscience articles in five top-ranking journals (Science, Nature, Nature Neuroscience, Neuron and The Journal of Neuroscience) and found that 78 used the correct procedure and 79 used the incorrect procedure. An additional analysis suggests that incorrect analyses of interactions are even more common in cellular and molecular neuroscience.

Sadly, ten years after I reported the problem to investment professionals; the mistake is still being made. Ten years from now, they will still be making the same mistake.

Now that was the mild problem. There is worse. We were discussing two variables. Now assume the entire environment is random, and you will see that standard analyses of future events are doomed to underestimate tails. In risk studies, a severe blindness to multivariate tails prevails. The discussions on the systemic risks of genetically modified organisms (GMOs) by "experts" falls for such butchering of risk management, invoking some biological mechanism and missing on the properties of the joint distribution of tails.

Steven Pinker

Johnstone Family Professor, Department of Psychology; Harvard University; Author, The Better Angels of Our Nature.

As many Edge readers know, my recent work has involved presenting copious data indicating that rates of violence have fallen over the years, decades, and centuries, including the number of annual deaths in war, terrorism, and homicide. Most people find this claim incredible on the face of it. Why the discrepancy between data and belief? The answer comes right out of Danny's work with Amos Tversky on the Availability Heuristic. People estimate the probability of an event by the ease of recovering vivid examples from memory. As I explained, "Scenes of carnage are more likely to be beamed into our homes and burned into our memories than footage of people dying of old age. No matter how small the percentage of violent deaths may be, in absolute numbers there will always be enough of them to fill the evening news, so people's impressions of violence will be disconnected from the actual proportions."

The availability heuristic also explains a paradox in people's perception of the risks of terrorism. The world was turned upside-down in response to the terrorist attacks on 9/11. But putting aside the entirely hypothetical scenario of nuclear terrorism, even the worst terrorist attacks kill a trifling number of people compared to other causes of violent death such as war, genocide, and homicide, to say nothing of other risks of death. Terrorists

know this, and draw disproportionate attention to their grievances by killing a relatively small number of innocent people in the most attention-getting ways they can think of.

Even the perceived probability of nuclear terrorism is almost certainly exaggerated by the imaginability of the scenario (predicted at various times to be near-certain by 1990, 2000, 2005, and 2010, and notoriously justifying the 2003 invasion of Iraq). I did an internet survey which showed that people judge it more probable that "a nuclear bomb would be set off in the United States or Israel by a terrorist group that obtained it from Iran" than that "a nuclear bomb would be set off." It's an excellent example of Kahneman and Tversky's Conjunction Fallacy, which they famously illustrated with the articulate activist Linda, who was judged more likely to be feminist bank teller than a bank teller.