



Leveraging evolved instincts: a review of Dominic D. P. Johnson, *Strategic insights: The adaptive advantages of cognitive biases in international politics*

Princeton University Press, Princeton

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Accepted: 2 December 2020 / Published online: 6 January 2021
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I study decision making in a variety of non-human animals and, at times, consider the implications for human behavior (e.g., Blumstein 2020 and in a previous collaboration with Johnson and others to create a field of what we called Natural Security—Sagarin and Taylor 2008). The afternoon of the day I discovered the cognitive bias codex (Manoogian 2016) I stopped what I was doing and with glee read them and considered the implications of many of them for both humans and non-humans alike. After all, my working hypothesis is that our cognitive abilities are the product of evolution. And while we may have evolved some unique abilities and emotions (I don't think other species have the ability to have *schadenfreude* for instance), many of our cognitive abilities are likely to have evolved to solve particular problems that animals face. This, as I learned from Dominic Johnson's masterful book, is a position that is accepted by some, but certainly not by all disciplines, where biases are viewed as deviations from rational choices. In other words, biases cause errors.

For instance, many social scientists view cognitive biases as reflecting cognitive limitations, that drive errors or mistakes and are thus likely to cause failures. By contrast, evolutionary biologists view them as context-specific problem solving mechanisms that are useful, have evolved by natural selection, and drive the correct decisions under the environmental conditions they evolved in. Biases evolved to keep us alive. Evolutionary mismatch, where the context or situation has changed, as Johnson describes, may be responsible for incorrect decisions in novel circumstances, thus, we must be cautious to understand the conditions under which decision rules evolved if we want to apply them today.

Johnson starts by noting that a number of disciplines in the natural and social sciences are warming to adaptive thinking. For instance, error management theory

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shows how decision biases help us avoid costly mistakes—we set smoke detectors to go off when our toast burns so that we don't miss a fire that threatens our house. A short-term view might view this bias as a mistake, but from a longer-term perspective this bias as highly adaptive. Religions contain many false beliefs, but these erroneous facts can be adaptive if co-religionists solve collective action problems that benefits them all. And, as Johnson notes, strategic theory has realized that assuming the agent that you're interacting with is rational will be an inferior strategy; evidence seems to suggest that 'non-rational' strategies prevail for several reasons he discusses.

The book is broadly laid out to explore three adaptive biases (overconfidence, the fundamental attribution error (FAE), and in-group/out-group biases) that he argues have important implications for international relations. He argues, convincingly to me, that we should view these biases such as these as both adaptations that have helped solve strategic problems in the past and can be used to solve problems in the future.

In a previous book, *Overconfidence and War*, Johnson (2004) discussed why fortune favors those who overestimate their abilities, overestimate their control over events, and underestimate negative consequences of actions. Here he extends this by drilling down and discussing the psychological basis of overconfidence which quickly leads to a detailed discussion of error management theory. But the book does far more than make an evolutionary argument for adaptive biases. It applies these biases to evaluate past performance in the context of wars and international politics.

Battlefields are places where strategies can be easily evaluated and we expect good strategies to prevail. With respect to the battlefield, he quotes US General George S. Patton who noted that "The most vital quality a soldier can possess is SELF CONFIDENCE—utter, complete, and bumptious. You can have doubts about your good looks, about your intelligence, about your self control, but to win in war you must have NO doubts about your ability as a soldier." This idea, Johnson notes, was not original—Carl von Clausewitz noted the importance of boldness in war and Johnson notes how when Napoleon was on the battlefield, French troops' morale increased so much that the morale increase was estimated to be equivalent having 40,000 extra troops.

Johnson evaluates when and how overconfidence is advantageous: it increases ambition, resolve and deterrence. Of course unbridled overconfidence can be bad—particularly if it blinds us to rational assessments. Coalition forces were expected to beat the Iraqi army in the 2003 invasion, but the difficulties of establishing a lasting peace were vastly underestimated. Johnson's main case study to illustrate the value of overconfidence is General George Washington's perseverance in the face of tremendous adversity in the US Revolutionary War. He paints Washington as overconfident to the point of arrogance yet attributes the ultimate success of the insurgency to his leadership. He writes how others have noted that British overconfidence was associated with their ultimate failure. Johnson identifies a key difference—the British were dismissive of the Americans and did not press forward at key times when they could have annihilated the insurgency. Additionally, while the British leaders were overconfident, battlefield commanders lacked confidence.

The FAE is when we assume that the actions of others are a function of their motives, while our own behavior is viewed as a result of the current situation or constraints. This is related to the ‘sinister attribution error’ where we perceive others’ minor actions or inactions towards us are deliberate and negative as illustrated by our response to not getting a call from someone we expected one from (do they hate me?...).

Johnson’s second case study focuses on how by not following the adaptively biased FAE there was the disastrous appeasement of Hitler (mostly by Chamberlain, but certainly not by Churchill) in the late 1930s in the run-up to World War II. He reviews why the FAE can be a cause for mistakes and failure in international relations (he cites the Cuban Missile Crisis and the Mayaguez incident as examples). Yet, he argues that the FAE is an evolved and adaptive bias, that ensures a cautious approach. It keeps us safe by allowing us to conservatively identify threats, help us prepare for war, and recruit strategic alliances to help defeat threats. An example that stood out to me was that when neighboring states share a border, the smaller nation overestimates the length of the shared border. This illustrates an exaggerated concern of aggression from the larger state. “Erring on the side of caution”, Johnson writes, “leaves little to chance.”

Group biases are the third adaptive bias Johnson examines through an adaptive and functional lens. He notes we now widely view the rather ubiquitous in-group/out-group bias as a malicious force that “...causes or exacerbates intergroup prejudice, conflict, violence and war.” Yet, it facilitates cooperation within a group, may motivate competition and action against competitors or rivals, and may be a mechanism by which we ensure safety (error management underlies many of these biases). In the right conditions, Johnson argues, this bias may enhance collective action, increase unit cohesion and combat effectiveness, and motivate soldiers to fight harder when engaged in offensive actions. When countries must mobilize citizens to work collectively, a policy which capitalizes on this bias will likely be effective.

Another quote from Patton succinctly describes in-group/out-group biases—“The object of war is not to die for your country but to make the other bastard die for his.” Johnson’s case study here is the US military’s fighting in the Pacific theatre during World War II which was the source of one third of the US casualties and some of its worst fighting that included numerous atrocities not seen in the European theatre. Creating animosity against the Japanese was used extensively to prepare both the US citizens for what looked to be an extended and bloody fight, as well as to prepare the soldiers. Americans interned Japanese American citizens in the US, strategically targeted Japanese merchant ships, and engaged in widespread firebombing of Japanese cities that targeted civilians. Indeed, as Johnson notes, “...atomic weapons merely replicated what a night’s B-29 raid did already.” American’s were successful in the Pacific, he argues, because they worked together against a despised enemy.

While these biases can aid successes, they can also be causes of failure. For instance, overconfidence prolonged World War I, and the aforementioned British debacle with Hitler. Biases can drive excessive brutality and failure. For instance, from the Japanese perspective, in-group biases among citizens, the military and leaders prolonged the war and out-group biases set the stage for horrific atrocities against both citizens of other countries and enemy combatants.

Throughout the book, Johnson provides advice for how biases can be leveraged in international relations and contemporary politics. He ends by applying insights to China's rise, nuclear weapons in Iran, and Europe's self-governance challenges. I found the book remarkable in its scope and fascinating to read. I hope it's widely read by politicians, military experts, and diplomats because it offers a variety of consequential actionable insights.

References

- Blumstein, D. T. (2020). *The nature of fear: Survival lessons from the wild*. Cambridge: Harvard University Press.
- Johnson, D. D. P. (2004). *Overconfidence and war: The havoc and glory of positive illusions*. Cambridge: Harvard University Press.
- Manoogian, J. III. (2016). The cognitive bias codex—180+ biases. https://commons.wikimedia.org/wiki/File:Cognitive_bias_codex_en.svg. Accessed 11 November 2020.
- Sagarin, R., & Taylor, T. (Eds.). (2008). *Natural security: A Darwinian approach to a dangerous world*. Berkeley: University of California Press.