

Macat



Library

A MACAT ANALYSIS

DANIEL KAHNEMAN'S  
**THINKING,  
FAST AND SLOW**





An Analysis of

**Daniel Kahneman's**

---

**Thinking,  
Fast and Slow**

Jacqueline Anne Allan



**Published by Macat International Ltd**

24:13 Coda Centre, 189 Munster Road, London SW6 6AW.

**Distributed exclusively by Routledge**

2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

711 Third Avenue, New York, NY 10017, USA

*Routledge is an imprint of the Taylor & Francis Group, an informa business*

Copyright © 2017 by Macat International Ltd

Macat International has asserted its right under the Copyright, Designs and Patents Act 1988 to be identified as the copyright holder of this work.

The print publication is protected by copyright. Prior to any prohibited reproduction, storage in a retrieval system, distribution or transmission in any form or by any means, electronic, mechanical, recording or otherwise, permission should be obtained from the publisher or where applicable a license permitting restricted copying in the United Kingdom should be obtained from the Copyright Licensing Agency Ltd, Barnard's Inn, 86 Fetter Lane, London EC4A 3DF, UK.

The ePublication is protected by copyright and must not be copied, reproduced, transferred, distributed, leased, licensed or publicly performed or used in any way except as specifically permitted in writing by the publishers, as allowed under the terms and conditions under which it was purchased, or as strictly permitted by applicable copyright law. Any unauthorised distribution or use of this text may be a direct infringement of the authors and the publishers' rights and those responsible may be liable in law accordingly.

[www.makat.com](http://www.makat.com)

[info@makat.com](mailto:info@makat.com)

*Cataloguing in Publication Data*

A catalogue record for this book is available from the British Library.

Library of Congress Cataloguing-in-Publication Data is available upon request.

Cover illustration: David Newton

ISBN 978-1-912453-99-3 (hardback)

ISBN 978-1-912453-05-4 (paperback)

ISBN 978-1-912453-20-7 (e-book)

#### **Notice**

The information in this book is designed to orientate readers of the work under analysis, to elucidate and contextualise its key ideas and themes, and to aid in the development of critical thinking skills. It is not meant to be used, nor should it be used, as a substitute for original thinking or in place of original writing or research. References and notes are provided for informational purposes and their presence does not constitute endorsement of the information or opinions therein. This book is presented solely for educational purposes. It is sold on the understanding that the publisher is not engaged to provide any scholarly advice. The publisher has made every effort to ensure that this book is accurate and up-to-date, but makes no warranties or representations with regard to the completeness or reliability of the information it contains. The information and the opinions provided herein are not guaranteed or warranted to produce particular results and may not be suitable for students of every ability. The publisher shall not be liable for any loss, damage or disruption arising from any errors or omissions, or from the use of this book, including, but not limited to, special, incidental, consequential or other damages caused, or alleged to have been caused, directly or indirectly, by the information contained within.

## CONTENTS

### WAYS IN TO THE TEXT

Who Is Daniel Kahneman?	9
What Does <i>Thinking, Fast and Slow</i> Say?	10
Why Does <i>Thinking, Fast and Slow</i> Matter?	11

### SECTION 1: INFLUENCES

Module 1: The Author and the Historical Context	14
Module 2: Academic Context	18
Module 3: The Problem	22
Module 4: The Author's Contribution	26

### SECTION 2: IDEAS

Module 5: Main Ideas	31
Module 6: Secondary Ideas	36
Module 7: Achievement	41
Module 8: Place in the Author's Work	46

### SECTION 3: IMPACT

Module 9: The First Responses	51
Module 10: The Evolving Debate	55
Module 11: Impact and Influence Today	60
Module 12: Where Next?	64
Glossary of Terms	76
People Mentioned in the Text	80
Works Cited	85

## THE MACAT LIBRARY

The Macat Library is a series of unique academic explorations of seminal works in the humanities and social sciences – books and papers that have had a significant and widely recognised impact on their disciplines. It has been created to serve as much more than just a summary of what lies between the covers of a great book. It illuminates and explores the influences on, ideas of, and impact of that book. Our goal is to offer a learning resource that encourages critical thinking and fosters a better, deeper understanding of important ideas.

Each publication is divided into three Sections: Influences, Ideas, and Impact. Each Section has four Modules. These explore every important facet of the work, and the responses to it.

This Section-Module structure makes a Macat Library book easy to use, but it has another important feature. Because each Macat book is written to the same format, it is possible (and encouraged!) to cross-reference multiple Macat books along the same lines of inquiry or research. This allows the reader to open up interesting interdisciplinary pathways.

To further aid your reading, lists of glossary terms and people mentioned are included at the end of this book (these are indicated by an asterisk [\*] throughout) – as well as a list of works cited.

Macat has worked with the University of Cambridge to identify the elements of critical thinking and understand the ways in which six different skills combine to enable effective thinking.

Three allow us to fully understand a problem; three more give us the tools to solve it. Together, these six skills make up the

**PACIER** model of critical thinking. They are:

**ANALYSIS** – understanding how an argument is built

**EVALUATION** – exploring the strengths and weaknesses of an argument

**INTERPRETATION** – understanding issues of meaning

**CREATIVE THINKING** – coming up with new ideas and fresh connections

**PROBLEM-SOLVING** – producing strong solutions

**REASONING** – creating strong arguments

To find out more, visit **WWW.MACAT.COM**.

## CRITICAL THINKING AND *THINKING, FAST AND SLOW*

**Primary critical thinking skill: CREATIVE THINKING**

**Secondary critical thinking skill: INTERPRETATION**

While it may seem antithetical to identify creative thinking as a scientist's main skill, Daniel Kahneman is not your everyday psychologist. Synthesizing ideas from a wide variety of disciplines, his unique way of looking at the world has found its way into the wider canon through *Thinking, Fast and Slow*. Kahneman puts forward the theory of a dual process model of thought, in which one process is fast and reliant on short cuts, and one is slow, deliberate, and easily fatigued. He applies this model to almost every facet of life, giving examples of the effects of faulty thinking that range from the legal system to the education system, from politics to advertising, and beyond. Although he has achieved vast insight into human error, he remains humble, explaining that he is not infallible and often makes the same mistakes. Some of his best-known theories have arisen from his own errors. It takes a truly creative mind to react to errors with curiosity rather than criticism.

Also unique to Kahneman is his interpretation of the world around him. While most are interested in emulating success, he is more interested in why we make errors. Perhaps more importantly, Kahneman has interpreted *how* we make mistakes; he gives us a framework on which to re-evaluate decisions and judgments that we have encountered and offers us insight as to why these choices were made. His creative experimental approach invites his readers to become part of his theories, to make up their own minds and to watch psychology in action within themselves. By reinterpreting human behavior, Kahneman has redefined how thought works.

*Thinking, Fast and Slow* is therefore a landmark work. It not only gives us an overview of Kahneman's career, during which he has received many accolades, it also gives us a bird's eye view of the whole field of psychology, and the birth of a new one – behavioral economics. In this book, Kahneman delivers his decades of knowledge to a wider general audience in the hope that we will adopt his vocabulary and think more carefully and accurately about our own thinking.

## **ABOUT THE AUTHOR OF THE ORIGINAL WORK**

**Daniel Kahneman** is an Israeli psychologist born in 1934, who was educated both in Jerusalem and in the United States. He started his career in the Israeli Defense Forces, where he was tasked with assessing the suitability of candidates for officer training. His errors in these judgments and the difficulty in predicting behavior led to a life-long interest in judgment and decision-making. In 1968 he met his long-time collaborator and ‘academic soul mate’ Amos Tversky. Together, they would revolutionize their field, creating the foundations for an entirely new school of thought – behavioral economics. In 2002 Kahneman received the Nobel Prize for Economics for the work he did with Tversky, who sadly passed away in 1996. *Thinking, Fast and Slow* provides an overview of Kahneman’s career, which has spanned multiple disciplines, from cognitive pupillometry to hedonic psychology. He was awarded the Presidential Medal of Freedom, the highest civil honor in the US, by Barack Obama in 2013.

## **ABOUT THE AUTHOR OF THE ANALYSIS**

**Jacqueline Allan** is a lecturer and researcher at Birkbeck College, University of London. She holds undergraduate degrees from Kings College London and Birkbeck College.

## **ABOUT MACAT**

### **GREAT WORKS FOR CRITICAL THINKING**

Macat is focused on making the ideas of the world’s great thinkers accessible and comprehensible to everybody, everywhere, in ways that promote the development of enhanced critical thinking skills.

It works with leading academics from the world’s top universities to produce new analyses that focus on the ideas and the impact of the most influential works ever written across a wide variety of academic disciplines. Each of the works that sit at the heart of its growing library is an enduring example of great thinking. But by setting them in context – and looking at the influences that shaped their authors, as well as the responses they provoked – Macat encourages readers to look at these classics and game-changers with fresh eyes. Readers learn to think, engage and challenge their ideas, rather than simply accepting them.

‘Macat offers an amazing first-of-its-kind tool for interdisciplinary learning and research. Its focus on works that transformed their disciplines and its rigorous approach, drawing on the world’s leading experts and educational institutions, opens up a world-class education to anyone.’

**Andreas Schleicher**  
**Director for Education and Skills, Organisation for Economic**  
**Co-operation and Development**

‘Macat is taking on some of the major challenges in university education ... They have drawn together a strong team of active academics who are producing teaching materials that are novel in the breadth of their approach.’

**Prof Lord Broers,**  
**former Vice-Chancellor of the University of Cambridge**

‘The Macat vision is exceptionally exciting. It focuses upon new modes of learning which analyse and explain seminal texts which have profoundly influenced world thinking and so social and economic development. It promotes the kind of critical thinking which is essential for any society and economy.

This is the learning of the future.’

**Rt Hon Charles Clarke, former UK Secretary of State for Education**

‘The Macat analyses provide immediate access to the critical conversation surrounding the books that have shaped their respective discipline, which will make them an invaluable resource to all of those, students and teachers, working in the field.’

**Professor William Tronzo, University of California at San Diego**





# Taylor & Francis

Taylor & Francis Group

<http://taylorandfrancis.com>

# WAYS IN TO THE TEXT

---

## KEY POINTS

- Daniel Kahneman is an Israeli psychologist who was awarded the Nobel Prize\* for Economics in 2002.
- *Thinking, Fast and Slow* is primarily focused on explaining models of human judgment and decision-making.
- The book represents the culmination of a lifetime of work undertaken by the author and his collaborators. It argues that humans have two types of thought process: one fast, easy, and prone to error, and one slow, difficult and more accurate and analytical.

## Who Is Daniel Kahneman?

Daniel Kahneman is an Israeli-born psychologist who researches human judgment and decision-making. He was a child in Paris at the start of World War II\* and lived through the Holocaust.\* His career spans over six decades, and started in the Israeli Defense Forces.\*

Kahneman has worked at many prestigious universities, and is currently Professor Emeritus\* at Princeton and a fellow of the Center for Rationality at the Hebrew University in Jerusalem. *Thinking, Fast and Slow* was released in 2011 for a popular audience, but Kahneman is perhaps most recognized for his 2002 Nobel Prize win. He was awarded the Memorial Prize in Economic Sciences for the work which he undertook with his long-time collaborator Amos Tversky,\*

who passed away in 1996. This work was also the foundation on which was built the new discipline of behavioral economics\*, the study of how psychology affects economic decision-making.

Kahneman and Tversky challenged the prevailing theory of the time, that people are “rational actors” and always make decisions logically. More recently he turned his hand to hedonic psychology,\* or the psychology of happiness, where he has also had a large impact. Aside from the 2002 Nobel, Kahneman has won many awards, including the Lifetime Contribution Award of the American Psychological Association,\* and the Presidential Medal of Freedom.\* He has been called the world’s most influential living psychologist.<sup>1</sup>

### **What Does *Thinking, Fast and Slow* Say?**

*Thinking, Fast and Slow* tells us that there are two routes people use to think. The idea of two systems of cognition\* is known as a dual processing theory.\* These two types of cognition are known as System 1, or the intuitive system, and System 2, or the deliberate system. These two routes, while conceptual, represent very different ways of processing information from the world around us. System 1 is always active and waiting to jump into operation. This is the system that tells us to run from danger, or gets an intuitive sense of someone’s personality within seconds of meeting them. System 1 is reliant on mental operations, such as heuristics\* (mental shortcuts) and biases\* (leanings towards or against something based on associative memory\*). This is the fast thinking of the book’s title. System 2 is slow thinking. This system needs deliberate activation. It requires attention and effort and as such is not sustainable for long periods of time; it is susceptible to burnout. We use System 2 to calculate a complex equation or to answer an exam question.

It seems we should make decisions with our rational, logical System 2 all of the time, but System 2 tires easily and so we are far more reliant on System 1 than we would like to believe. Often this is

no bad thing. System 1 learns from experience and can make correct intuitive judgments in situations where we lack information. In certain careers, such as law enforcement or the military, System 1 decisions can make the difference between life and death. However, System 1 is limited as it is reliant on shortcuts and is therefore prone to error.

Although Kahneman won the Nobel Prize for applying these theories to economics, thus creating the entirely new discipline of behavioral economics, he is interested in far more than just financial decision-making. He talks about System 1 errors in relation to many aspects of human experience, including happiness, politics, education, marketing, and the legal system. For instance, he asked participants in one experiment to rate whether they think that people are happier in California than in other places, and the majority said yes. Kahneman explains that when thinking about California, participants focused on one aspect that differentiates it from most other places, its hot weather, and made an assumption that the weather must make people happier without taking anything else into consideration. He calls this “the focusing illusion.” *Thinking, Fast and Slow* is full of examples that demonstrate how reliance on System 1 shortcuts leads to faulty thinking.

### **Why Does *Thinking, Fast and Slow* Matter?**

The ideas in *Thinking, Fast and Slow* are applicable to a whole spectrum of human thought, action, and behavior. It contains lessons whether the reader is looking at buying a house or examining potential biases they may have towards people. Kahneman gives us the terminology to describe the errors that we commonly make. He also gives us wider insights into society and the catastrophic effects that such errors can have, such as the tendency for judges to hand out stiffer sentences before lunch than after. Kahneman puts this particular pattern down to System 2 giving up under the strain of hunger, and the decision-

making involved in passing judgment being carried out by System 1, which is reliant on shortcuts and therefore more liable to be harsh. *Thinking, Fast and Slow* highlights that even professions we associate with high levels of System 2 functioning, such as academia or law, are vulnerable to System 1 errors.

It is important to note that Kahneman also disseminates the work of others in *Thinking, Fast and Slow*, giving the reader an opportunity to learn about the evolution of its main themes. In this sense it is more than just a digestible overview of Kahneman's work; it is also a compendium of relevant thought. After publication some of the studies that were used as examples in the book came under closer scrutiny and it was found that the results could not be replicated (replication is a hallmark of sound research). This forced many in the field to take another look at the validity of established claims. Kahneman was one of the leaders of this movement for more rigorous research practices.

## NOTES

- 1 "Daniel Kahneman Changed the Way We Think About Thinking. But What Do Other Thinkers Think of Him," *Guardian*, February 16, 2014, accessed September 14, 2017, <https://www.theguardian.com/science/2014/feb/16/daniel-kahneman-thinking-fast-and-slow-tributes>.

## References

- Adams, Tim "Nudge Economics: Has push come to shove for a fashionable theory?" The Guardian June 1, 2014. Accessed October 19, 2017 . <https://www.theguardian.com/science/2014/jun/01/nudge-economics-freakonomics-daniel-kahneman-debunked>
- Ariely, Dan . Predictably Irrational. New York: HarperCollins, 2008.
- Ariely, Dan and Simon Jones . The (Honest) Truth about Dishonesty: How We Lie to Everyone, Especially Ourselves. New York: HarperCollins, 2012.
- The Upside of Irrationality. New York: HarperCollins, 2010.
- Asch, Solomon E. and H. Guetzkow . "Effects of group pressure upon the modification and distortion of judgments." Groups, Leadership, and Men (1951): 222–236.
- Bargh, John. A. "Priming Effects Replicate Just Fine, Thanks" Psychology Today, May 11, 2012. Retrieved October 20, 2017. <https://www.psychologytoday.com/blog/the-natural-unconscious/201205/priming-effects-replicate-just-fine-thanks>.
- Becker, Gary . The Economic Approach to Human Behavior. Chicago: University of Chicago Press, 2013.
- The Charlie Rose Show : <https://www.charlierose.com/videos/15620>. Accessed September 12, 2017
- Debiec, Jacek . "Neuroscience: Capturing free will." Nature 478, no. 7369 (2011): 322–323.
- Doyen, Stephanie , Olivier Klein , Cora-Lise Pichon , and Axel Cleeremans . "Behavioral priming: it's all in the mind, but whose mind?." Plosone 7:1 (2012).
- Easterly, William . "Thinking, Fast and Slow." The Financial Times November 5, 2011. Retrieved September 13, 2017. <https://www.ft.com/content/15bb6522-04ac-11e1-91d9-00144feabdc0>.
- The Economist. "Not so Smart Now" October 9, 2011. Retrieved September 12, 2017. <http://www.economist.com/node/21534752>.
- Freakonomics Radio : <http://www.freakonomics.com/2011/11/28/daniel-kahneman-answers-your-questions/>. Accessed September 12, 2017 .
- Gladwell, Malcolm . Blink: The Power of Thinking without Thinking. Boston: Back Bay Books, 2007.
- The Guardian, "Daniel Kahneman Changed the Way We Think About Thinking. But What Do Other Thinkers Think of Him," February 16, 2014. Accessed September 14, 2017 . <https://www.theguardian.com/science/2014/feb/16/daniel-kahneman-thinking-fast-and-slow-tributes>.
- Jones, Malcolm , and Lucas Wittman . "Fall Books Preview: From Murakami to Joan Didion." The Daily Beast February 9, 2011. Accessed August 21, 2017 . <http://www.thedailybeast.com/fall-books-preview-from-murakami-to-joan-didion>.
- Kahneman, Daniel . Attention and Effort. Englewood Cliffs, NJ: Prentice-Hall, 1973.
- "Biographical," Nobelprize.org. Accessed August 21, 2016 , [https://www.nobelprize.org/nobel\\_prizes/economic-sciences/laureates/2002/kahneman-bio.html](https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2002/kahneman-bio.html).
- Kahneman, Daniel , and Gary Klein . "Conditions for intuitive expertise: a failure to disagree." American Psychologist 64:6 (2009): 515–526.
- Kahneman, Daniel , and Amos Tversky . "Prospect theory: An analysis of decision under risk." Econometrica: Journal of the Econometric Society (1979): 263–291.
- Levine, David K. Is Behavioral Economics Doomed? The Ordinary Versus the Extraordinary. Cambridge, UK: Open Book Publishers, 2012.
- Levitt, Steven D. , and Stephen J. Dubner . Freakonomics: a rogue economist explores the hidden side of everything. New York: William Morrow, 2005.
- Lewis, Michael . The Big Short: Inside the Doomsday Machine. London, Penguin 2011.

The Undoing Project: A Friendship that Changed the World. London: Penguin, 2016.

Lewis, Michael , interviewed by Stephen Dubner . "The Men who Started a Thinking Revolution." <http://www.freakonomics.com/podcast/men-started-thinking-revolution/>. Accessed August 21, 2017

Lowenstein, Roger . "Book Review: Thinking, Fast and Slow by Daniel Kahneman." Bloomberg October 28, 2011. Accessed August 22, 2017 .  
<https://www.bloomberg.com/news/articles/2011-10-27/book-review-thinking-fast-and-slow-by-daniel-kahneman>.

Meehl, Paul E. Clinical Versus Statistical Prediction: A Theoretical Analysis and a Review of the Evidence. Minneapolis: University of Minnesota Press, 1954.

Milgram, Stanley . "Behavioral Study of obedience." The Journal of Abnormal and Social Psychology 67, no. 4 (1963): 371–378.

Obedience to Authority: An Experimental View. NY: Harper Collins, 1974.

Pinker, Steven . The Better Angels of Our Nature: The Decline of Violence in History and its Causes. London: Penguin, 2011.

Popova, Maria . "The Anti-Gladwell: Kahneman's New Way to Think About Thinking." The Atlantic November 1, 2011. Accessed September 6, 2017 .  
<https://www.theatlantic.com/health/archive/2011/11/the-anti-gladwell-kahnemans-new-way-to-think-about-thinking/247407/>.

Shariatmadari, David . "Daniel Kahneman: 'What would I eliminate if I had a magic wand? Overconfidence'" The Guardian July 18, 2015.

Simon, Herbert . "A Behavioral Model of Rational Choice", in Models of Man, Social and Rational: Mathematical Essays on Rational Human Behavior in a Social Setting. New York: Wiley, 1957.

Taleb, Nassim Nicholas The Black Swan: The Impact of the Highly Improbable. NY: Random House, 2007.

Thaler, Richard , and Cass Sunstein . Nudge: The Gentle Power of Choice Architecture. New Haven: Yale, 2008.

Tversky, Amos , and Daniel Kahneman . "Belief in the law of small numbers." Psychological Bulletin 76:2 (1971): 105.

Tversky, Amos , and Daniel Kahneman . "Judgment under uncertainty: Heuristics and biases." In Utility, probability, and human decision-making, eds. Dirk Wendt and C.A. Vlek . Netherlands: Springer, 1975.