

Unreliable memories: How people remember Covid-19 will differ

The decisions we make today are often based on how we remember similar events. So, for some, memories of Covid-19 and the lockdowns will prove to be a minor inconvenience, but for others, memories will be dominated by the loss of loved ones or financial difficulty leaving scars that may impact their attitude towards money and risk for the rest of their lives



Source: Shutterstock

Memories can be unreliable. They may not reflect our feelings when actually experiencing an event. This disjoint between what we remember and what we experience can have implications for the choices we make, ranging from our finances to how we may manage life after lockdown.

Understanding the process behind how we remember helps explain why our memories can be so imprecise and provide clues to making better decisions.

The remembering and the experiencing self

Daniel Kahneman, the psychologist who won the 2002 Nobel prize in economics, coined the terms 'the remembering self' and 'the experiencing self'. In his 2011 book, "Thinking Fast and Slow", he defined the experiencing self as the one that answers the question "Does it hurt now?" and the remembering self as the one that answers the question "How was it, on the whole?"

Kahneman demonstrated the concept using various scenarios. [In 1993](#), Kahneman and colleagues designed what he called 'the cold hand situation'. Volunteers were told they would undergo three tests. The first involved submerging one hand in 14 degrees Celsius cold water, which is moderately painful, for 60 seconds before being offered a warm towel. Their pain was recorded continuously during the immersion by using their free hand to control arrows on a keyboard. Seven minutes later, the other hand was placed into the same uncomfortably cold water for the same 60 seconds. However, instead of ending there, for an additional 30 seconds water only one degree warmer was syphoned in, making it less painful for the volunteer, but lasting 90 seconds overall.

Understanding the process behind how we remember helps explain why our memories can be so imprecise and provide clues to making better decisions

A further seven minutes passed before the volunteers were told the third test would be their choice: repeat the longer or shorter test.

The outcome saw 80% of trialists who said the pain eased towards the end of the 90 second experiment opting to repeat this longer option, thus exposing themselves to 30 seconds of unnecessary pain. One explanation for this was that the remembering self dominated the experiencing self.

Another experiment into the nature of memory by Kahneman and others was conducted in [1996](#) using colonoscopy outpatients as subjects. The real-time pain intensity of 154 colonoscopy patients was measured. These days, anaesthetics and amnesia drugs are administered, but back then, the discomfort wasn't generally eased.

Patients were asked to judge the level of pain being endured over 60 second intervals – zero being no pain whatsoever; ten equaling intolerable pain. A crucial element of the tests was that the painful procedure was ended quickly for some while for others, the end of the procedure was extended as with the equipment withdrawn slowly to ease discomfort. Asked to rate the total amount of pain experienced during the procedure, those that had the procedure extended did not necessarily judge it to be the most painful. Instead, those who suffered an unpleasant ending to the examination were more likely on average to remember the overall experience as painful even though they suffered for a shorter period.

The peak-end rule and duration neglect

These tests formed the basis for Kahneman and others to argue that our recollection of events are

dominated by two aspects.

First, our memories are dominated by the most intense periods of the experience and how the experience ended. This process is referred to as the peak-end rule.

Second, because the peak and the end dominate memory, the length of time the experience lasted – be it pleasant or unpleasant lasted – is largely forgotten. The researchers called this duration neglect.

That our memories may not reflect the experience can be important because we tend to act on them. “The experiencing self does not have a voice” writes Kahneman. “The remembering self is sometimes wrong, but it is the one that keeps score and governs what we learn from living, and it is the one that makes decisions.”

Questioning memory

The aim of this research was originally designed to question whether people behaved in the way that many economic models of the time suggested. The models often assumed that people took decisions that maximised their pleasure (technically called utility). Yet the experiments pointed to duration neglect, which negated utility maximisation.

Experiments seeking to replicate the peak-end effect and duration neglect give varying levels of support, as seen [here](#) back in 2016 and [here](#) from 2019. It is probably fair to say that it is still a reasonable way to think about how memories are formed.

This discussion may seem far removed from daily life. Nothing could be further from the truth.

One lesson to learn from unreliable memories is that it can pay to consider advice from others carefully.

Imagine you’re considering a change of career. You have a passion for baking and your friend, a somewhat successful owner of several local patisseries, recounts how excited they felt opening their first shop. Adding how the business developed into a success that now provides a handsome income, maybe enough to persuade you to follow a similar career path.

Investment professionals try to avoid the possible cognitive bias of remembering only the final performance of the two funds through calculations combining risks and uncertainty

This friend, however, may neglect to mention the occasions the business almost went bankrupt. Or how long they spent before they achieved success. Your friend may not be misleading. You are speaking to the remembering friend. The experiencing friend, as Kahneman wrote, has no voice. However, digging deeper and asking your friend for more details may provide a more accurate picture as to whether you are really cut out to be a baker.

Another way to consider this is to think about the performance of two investments over a 12-month period. Let’s say both end the year with the same 5% return. But then compare how they

performed over the year. Fund one may have been a rollercoaster coming good at the end. Fund two was more stable and delivered the same 5% return.

Investment professionals try to avoid the possible cognitive bias of remembering only the final performance of the two funds through calculations combining risks and uncertainty. By doing this, the professionals hope to make better decisions. Non-professionals may have to dig deeper to find the appropriate data and understand the maths.

Remembering Covid

No one knows how or when Covid-19 and the lockdown will end.

For some, it may prove a minor inconvenience that will end once a vaccine is found. For others, their memories may be dominated by the loss of a loved one or of the financial difficulty they find themselves when activity returns to normal.

One person's memory of the pandemic is likely to differ from another's. It is more than likely that many people are experiencing significant changes to their lives at the moment. For some, it may leave [scars](#) that affect their attitudes to money and risk for the rest of their lives.

Author

Alissa Lefebre

Economist

alissa.lefebvre@ing.com

Deepali Bhargava

Regional Head of Research, Asia-Pacific

Deepali.Bhargava@ing.com

Ruben Dewitte

Economist

+32495364780

ruben.dewitte@ing.com

Kinga Havasi

Economic research trainee

kinga.havasi@ing.com

Marten van Garderen

Consumer Economist, Netherlands

marten.van.garderen@ing.com

David Havrlant

Chief Economist, Czech Republic

420 770 321 486

david.havrlant@ing.com

Sander Burgers

Senior Economist, Dutch Housing

sander.burgers@ing.com

Lynn Song

Chief Economist, Greater China

lynn.song@asia.ing.com

Michiel Tukker

Senior European Rates Strategist

michiel.tukker@ing.com

Michal Rubaszek

Senior Economist, Poland

michal.rubaszek@ing.pl

This is a test author

Stefan Posea

Economist, Romania

tiberiu-stefan.posea@ing.com

Marine Leleux

Sector Strategist, Financials

marine.leleux2@ing.com

Jesse Norcross

Senior Sector Strategist, Real Estate

jesse.norcross@ing.com

Teise Stellema

Research Assistant, Energy Transition

teise.stellema@ing.com

Diederik Stadig

Sector Economist, TMT & Healthcare

diederik.stadig@ing.com

Diogo Gouveia

Sector Economist

diogo.duarte.vieira.de.gouveia@ing.com

Marine Leleux

Sector Strategist, Financials

marine.leleux2@ing.com

Ewa Manthey

Commodities Strategist

ewa.manthey@ing.com

ING Analysts

James Wilson

EM Sovereign Strategist

James.wilson@ing.com

Sophie Smith

Digital Editor

sophie.smith@ing.com

Frantisek Taborsky

EMEA FX & FI Strategist

frantisek.taborsky@ing.com

Adam Antoniak

Senior Economist, Poland

adam.antoniak@ing.pl

Min Joo Kang

Senior Economist, South Korea and Japan

min.joo.kang@asia.ing.com

Coco Zhang

ESG Research

coco.zhang@ing.com

Jan Frederik Slijkerman

Senior Sector Strategist, TMT

jan.frederik.slijkerman@ing.com

Katinka Jongkind

Senior Economist, Services and Leisure

Katinka.Jongkind@ing.com

Marina Le Blanc

Sector Strategist, Financials

Marina.Le.Blanc@ing.com

Samuel Abettan

Junior Economist

samuel.abettan@ing.com

Franziska Biehl

Economist, Germany
Franziska.Marie.Biehl@ing.de

Rebecca Byrne
Senior Editor and Supervisory Analyst
rebecca.byrne@ing.com

Mirjam Bani
Sector Economist, Commercial Real Estate & Public Sector (Netherlands)
mirjam.bani@ing.com

Timothy Rahill
Credit Strategist
timothy.rahill@ing.com

Leszek Kasek
Senior Economist, Poland
leszek.kasek@ing.pl

Oleksiy Soroka, CFA
Senior High Yield Credit Strategist
oleksiy.soroka@ing.com

Antoine Bouvet
Head of European Rates Strategy
antoine.bouvet@ing.com

Jeroen van den Broek
Global Head of Sector Research
jeroen.van.den.broek@ing.com

Edse Dantuma
Senior Sector Economist, Industry and Healthcare
edse.dantuma@ing.com

Francesco Pesole
FX Strategist
francesco.pesole@ing.com

Rico Luman
Senior Sector Economist, Transport and Logistics
Rico.Luman@ing.com

Jurjen Witteveen
Sector Economist
jurjen.witteveen@ing.com

Dmitry Dolgin

Chief Economist, CIS
dmitry.dolgin@ing.de

Nicholas Mapa
Senior Economist, Philippines
nicholas.antonio.mapa@asia.ing.com

Egor Fedorov
Senior Credit Analyst
egor.fedorov@ing.com

Sebastian Franke
Consumer Economist
sebastian.franke@ing.de

Gerben Hieminga
Senior Sector Economist, Energy
gerben.hieminga@ing.com

Nadège Tillier
Head of Corporates Sector Strategy
nadege.tillier@ing.com

Charlotte de Montpellier
Senior Economist, France and Switzerland
charlotte.de.montpellier@ing.com

Laura Straeter
Behavioural Scientist
+31(0)611172684
laura.Straeter@ing.com

Valentin Tataru
Chief Economist, Romania
valentin.tataru@ing.com

James Smith
Developed Markets Economist, UK
james.smith@ing.com

Suvi Platerink Kosonen
Senior Sector Strategist, Financials
suvi.platerink-kosonen@ing.com

Thijs Geijer
Senior Sector Economist, Food & Agri
thijs.geijer@ing.com

Maurice van Sante

Senior Economist Construction & Team Lead Sectors

maurice.van.sante@ing.com

Marcel Klok

Senior Economist, Netherlands

marcel.klok@ing.com

Piotr Poplawski

Senior Economist, Poland

piotr.poplawski@ing.pl

Paolo Pizzoli

Senior Economist, Italy, Greece

paolo.pizzoli@ing.com

Marieke Blom

Chief Economist and Global Head of Research

marieke.blom@ing.com

Raoul Leering

Senior Macro Economist

raoul.leering@ing.com

Maarten Leen

Head of Global IFRS9 ME Scenarios

maarten.leen@ing.com

Maureen Schuller

Head of Financials Sector Strategy

Maureen.Schuller@ing.com

Warren Patterson

Head of Commodities Strategy

Warren.Patterson@asia.ing.com

Rafal Benecki

Chief Economist, Poland

rafal.benecki@ing.pl

Philippe Ledent

Senior Economist, Belgium, Luxembourg

philippe.ledent@ing.com

Peter Virovacz

Senior Economist, Hungary

peter.virovacz@ing.com

Inga Fechner

Senior Economist, Germany, Global Trade

inga.fechner@ing.de

Dimitry Fleming

Senior Data Analyst, Netherlands

Dimitry.Fleming@ing.com

Ciprian Dascalu

Chief Economist, Romania

+40 31 406 8990

ciprian.dascalu@ing.com

Muhammet Mercan

Chief Economist, Turkey

muhammet.mercan@ingbank.com.tr

Iris Pang

Chief Economist, Greater China

iris.pang@asia.ing.com

Sophie Freeman

Writer, Group Research

+44 20 7767 6209

Sophie.Freeman@uk.ing.com

Padhraic Garvey, CFA

Regional Head of Research, Americas

padhraic.garvey@ing.com

James Knightley

Chief International Economist, US

james.knightley@ing.com

Tim Condon

Asia Chief Economist

+65 6232-6020

Martin van Vliet

Senior Interest Rate Strategist

+31 20 563 8801

martin.van.vliet@ing.com

Robert Carnell

Regional Head of Research, Asia-Pacific

robert.carnell@asia.ing.com

Karol Pogorzelski

Senior Economist, Poland
Karol.Pogorzelski@ing.pl

Carsten Brzeski
Global Head of Macro
carsten.brzeski@ing.de

Viraj Patel
Foreign Exchange Strategist
+44 20 7767 6405
viraj.patel@ing.com

Owen Thomas
Global Head of Editorial Content
+44 (0) 207 767 5331
owen.thomas@ing.com

Bert Colijn
Chief Economist, Netherlands
bert.colijn@ing.com

Peter Vanden Houte
Chief Economist, Belgium, Luxembourg, Eurozone
peter.vandenhoute@ing.com

Benjamin Schroeder
Senior Rates Strategist
benjamin.schroeder@ing.com

Chris Turner
Global Head of Markets and Regional Head of Research for UK & CEE
chris.turner@ing.com

Gustavo Rangel
Chief Economist, LATAM
+1 646 424 6464
gustavo.rangel@ing.com

Carlo Cocuzzo
Economist, Digital Finance
+44 20 7767 5306
carlo.cocuzzo@ing.com