

## Well-being, economics and perceptions

Max Planck, the Nobel Prize-winner for Physics in 1918 and seen as the founder of quantum theory, once said that «when you change the way you look at things, the things you look at change». His German compatriots will agree with him, or at least a curious experiment concerning the 2006 FIFA World Cup would suggest so. A study by Dohmen and others<sup>1</sup> showed that a victory by the German squad improved people's subjective rating of their economic situation to an extent equivalent to an annual increase in salary of around EUR 5,600. Although football fans might presumably express such a degree of satisfaction, it is surprising that the squad's results influenced, and to a large extent, a sample constructed to represent the whole working-age population of Germany. But this illustrates a fundamental aspect of human life and well-being: personal perceptions are crucial.

### Misperceptions of well-being

(% of rather or very happy people)

Country	Too low	% point difference	Too high	Avg. guess	Actual
Canada		-27		60	87
Netherlands		-27		57	84
Norway		-27.9		60	87.9
Australia		-28.7		53	81.7
Philippines		-31.4		58	89.4
Russia		-32.3		41	73.3
India		-33.8		47	80.8
Peru		-36		40	76
China		-36.5		48	84.5
Colombia		-37.5		54	91.5
South Africa		-38.4		38	76.4
Montenegro		-38.6		46	84.6
Germany		-39		45	84
US		-40.6		49	89.6
Chile		-41.5		43	84.5
Turkey		-41.8		42	83.8
Thailand		-42		51	93
France		-42		41	83
Serbia		-43		34	77
Japan		-44.5		42	86.5
UK		-45		47	92
Spain		-45.4		41	86.4
Argentina		-45.4		41	86.4
Sweden		-45.6		49	94.6
Singapore		-46		47	93
Hungary		-47.3		22	69.3
Poland		-50.6		42	92.6
Mexico		-51.3		43	94.3
Malaysia		-52		44	96
Brazil		-52		40	92
Hong Kong		-61.1		28	89.1
South Korea		-66		24	90

Source: CaixaBank Research, based on data from Ipsos MORI, «Perils of Perception 2016».

unemployment rate at 20% (the figure was actually 6%), the Americans at 32% (the real figure was 6%), the Japanese at 19% (real figure 4%), etc.<sup>2</sup> The same bias occurs with homicide indicators. As shown in the second chart, the US murder rate has fallen steadily, going from just over eight homicides per 100,000 people in 1995 to just under six homicides per 100,000 people in 2001. In 2013 it reached four homicides per 100,000 inhabitants. However, the percentage of Americans who believed that crime had increased went from 41% in 2001 to 64% in 2013.<sup>3</sup>

What lies behind these misperceptions? The dominant economic theory, at least its simplest version, treats individuals as strongly rational agents. However, in his best-seller «Thinking, Fast and Slow», the psychologist and winner of the Nobel Prize for Economic Science in 2002, Daniel Kahneman, explains how we systematically suffer from cognitive biases that influence both our perception of reality and the decisions we take. Three of the aspects proposed by Kahneman concerning how the brain works are particularly relevant for the perception of well-being. Firstly, Kahneman shows that, when faced with complex questions, we attempt to provide an answer by replacing them with similar but much simpler questions. Moreover, we do not evaluate situations abstractly but do so based on a point of reference or anchor, as Kahneman calls it, which is fresh in our memory. Let us look at an example. In an experiment,<sup>4</sup>

The importance of how we perceive things becomes particularly evident when studying and measuring happiness. Let us look at three examples, related to well-being, unemployment and crime. As noted by the article «Are you happy? Happiness and human beings» in this Dossier, indicators for personal well-being measure subjective evaluations that depend on each person's perception. Moreover, when we judge our personal well-being, we are also gauging the well-being of those around us. But, as can be seen in the first chart, we make significant errors in our perception that lead us to systematically underestimate the well-being of the society we live in. According to an Ipsos MORI survey in 2016, 86.4% of the population in Spain believed they were rather happy or very happy, whereas the average Spaniard thought that only 41% of Spanish people considered themselves to be so. The same thing happens with other factors that determine well-being, such as economic conditions and personal safety. For instance, in 2014 the average Spaniard believed that the unemployment rate was 46%, when in fact it was 25%. This is not coincidental nor are the Spanish particularly pessimistic, since this bias is shared by all the countries studied. The average German placed the

1. See Dohmen, T. et al. (2006), «Seemingly Irrelevant Events Affect Economic Perceptions and Expectations: the FIFA World Cup 2006 as a Natural Experiment», IZA Discussion Paper.

2. Ipsos MORI, (2014 and 2016), «Perils of Perception».

3. See Gallup (2014), «Most Americans Still See Crime Up Over the Last Year».

4. See Strack et al. (1988), «Priming and communication: Social determinants of information use in judgments of life satisfaction», European Journal of Social Psychology.

university students were asked how happy they were. Some students, immediately beforehand, had been asked about the number of dates they had been on in the past month. Instead, others were asked about the number of dates after they had answered the happiness question. Can you imagine what happened? Although no relation was observed in the second group between their dates and happiness, among the first group there was a clear positive relation: the people who had been on more dates also claimed to be happier. According to Kahneman, this is because it is much more complicated to answer a question about happiness than to quantify the number of dates we have been on. Having the number of dates in their minds induced them to associate dates, both an easy question and an anchor, with happiness. The same thing happened when, instead of dates, they were asked about their matrimonial or employment status.<sup>5</sup>

The second notable bias concerns how we remember emotions. What do you think you would rate more highly:

three days of holiday on the beach or the same three days with two additional days of bad weather when you cannot enjoy the sun? The second option does not appear to be worse than the first, right? The answer is not so easy. Kahneman has shown that our memories depend on the intensity of the emotions at their peak and at the last time we experienced them, but not their duration. Another famous experiment illustrates this clearly.<sup>6</sup> Someone puts their hand in very cold water (14°C, enough to be painful) for 60 seconds. Then they put their hand in very cold water (14°C) for 60 seconds followed by 30 seconds in water that is only slightly warmer (15°C). The person is asked to choose which experience they would rather repeat. The results showed that 80% of those who perceived an increase in the temperature in the second exercise (60 + 30 seconds) preferred to repeat this option, although this might seem *a priori* the least desirable choice.

Finally, another characteristic of our minds highlighted by Kahneman is how quickly we adapt to new circumstances. This is why pay rises or moving to a region with a milder climate only have a temporary effect on well-being. In a survey carried out on students in California, Ohio and Michigan, no significant differences were observed in the subjective well-being of the different geographical areas.<sup>7</sup> However, the survey also revealed that all the students believed people were happier in California. The reason, once again, is that the question «How happy are you?» is neutral, while the question «Do you think people are happier in California?» evokes the idea of a region with a pleasant climate, biasing the response.

Whereas Kahneman's work has provided great insights into individual behaviour, individual perceptions can also have an effect at an aggregate level. As explained by Robert Shiller, winner of the Noble Prize for Economic Science, we look for stories that help us interpret the world around us.<sup>8</sup> These narratives are human constructs, influenced by our personal perceptions and a combination of the facts, emotions and interests. These make an impression on us and help to stimulate our concerns and the emotions of our peers. When these narratives spread, they can create a new point of view, a frame of reference that will influence decisions and even have an economic impact *per se*. For instance, Shiller himself, together with Goetzmann and other co-authors,<sup>9</sup> has identified how the perceived likelihood of a financial crash by professional investors is affected by pessimistic news in the press, related to the financial markets or even to apparently irrelevant events like small earthquakes at a local level. Ultimately, a recession is a period in which people decide to spend less, to continue using old goods instead of replacing them with new ones and to postpone the start of new businesses or hire new workers. These are all personal decisions, determined not only by the state of the economy but also by its assessment according to the prevalent narrative and as it is perceived by individuals.

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5. See Schwarz, N. *et al.* (1991), «Assimilation and contrast effects in part-whole question sequences: a conversational logic analysis», *Public Opinion Quarterly*.

6. See Kahneman, D. *et al.* (1993), «When More Pain is Preferred to Less: Adding a Better End», *Psychological Science*.

7. See Schkade, D. and Kahneman, D. (1998), «Does living in California make people happy? A focusing illusion in judgments of life satisfaction», *Psychological Science*.

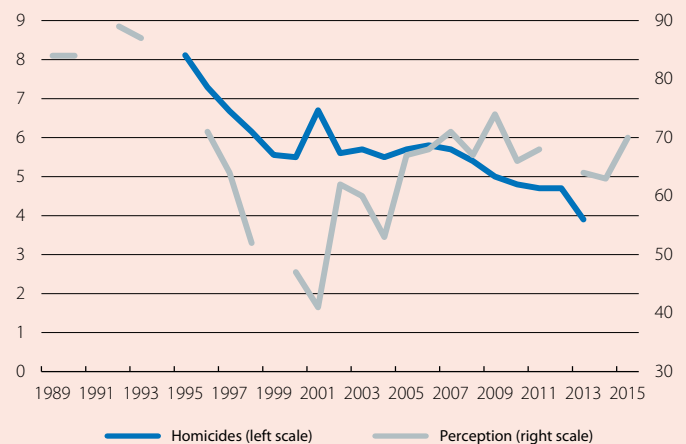
8. See Shiller, R. (2017), «Narrative Economics», NBER Working Paper, based on the presidential talk given by Shiller at the American Economic Association congress on 7 January 2017.

9. See Goetzmann, N. *et al.* (2016), «Crash Beliefs from Investor Surveys», NBER Working Paper.

### Crime and perception

(Homicides per 100,000 people)

People who believe there is more crime (%)



Source: CaixaBank Research, based on data from Gallup and the FBI.