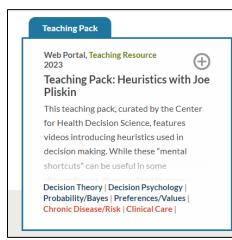


# **Teaching Pack:**

## Heuristics with Joe Pliskin

Citation: Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2023. https://repository.chds.hsph.harvard.edu/repository/collection/teaching-pack-heuristics-with-joe-pliskin

#### Overview



## **Teaching Pack**

This teaching pack, curated by the Center for Health Decision Science, features videos introducing heuristics used in decision making. While these "mental shortcuts" can be useful in some circumstances, they can lead to more errors than deliberate, rational thinking. Dr. Pliskin describes heuristics often applied to decision making. An awareness of these heuristics is useful to decision makers.

This teaching pack, curated by the Center for Health Decision Science, features videos introducing heuristics used in decision making. While these "mental shortcuts" can be useful in some circumstances, they can lead to more errors than deliberate, rational thinking. Dr. Pliskin describes heuristics often applied to decision making. An awareness of these heuristics is useful to decision makers.

#### Videos include:

- Heuristics with Joe Pliskin: Anchoring (~5 min)
- Heuristics with Joe Pliskin: Conformity (~3 min)
- Heuristics with Joe Pliskin: Sample Size (~9 min)
- Heuristics with Joe Pliskin: Ambiguity (~6 min)
- Heuristics with Joe Pliskin: Availability, Part 1 (~6 min)
- Heuristics with Joe Pliskin: Availability, Part 2 (~4 min)
- Heuristics with Joe Pliskin: Expectations (~2 min)
- Heuristics with Joe Pliskin: Framing (~5 min)
- Heuristics with Joe Pliskin: Prevalence (~10 min)



#### Selected Resources - At a Glance

#### Video. Heuristics with Joe Pliskin: Anchoring

Heuristics with Joe Pliskin: Anchoring. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864839

#### Video. Heuristics with Joe Pliskin: Ambiguity

Heuristics with Joe Pliskin: Ambiguity. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/252781273/c7677e38ea

#### Video. Heuristics with Joe Pliskin: Sample Size

Heuristics with Joe Pliskin: Sample Size. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864868

#### Video. Heuristics with Joe Pliskin: Availability

Heuristics with Joe Pliskin: Availability (Parts 1 & 2). Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864842, https://vimeo.com/250864835

#### Video. Heuristics with Joe Pliskin: Expectations

Heuristics with Joe Pliskin: Expectations. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864849

#### Video. Heuristics with Joe Pliskin: Prevalence

Heuristics with Joe Pliskin: *Prevalence*. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864859

#### Video. Heuristics with Joe Pliskin: Conformity

Heuristics with Joe Pliskin: Conformity. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864844

#### Video. Heuristics with Joe Pliskin: Framing

Heuristics with Joe Pliskin: Framing. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864854



### **Annotated Bibliography**

#### Video. Heuristics with Joe Pliskin: Anchoring

Heuristics with Joe Pliskin: Anchoring. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864839 CHDS repository link: http://repository.chds.hsph.harvard.edu/repository/2931

This video on the "anchoring" heuristic is part of a series of short videos introducing heuristics used in decision making. While these "mental shortcuts" are useful in some circumstances, they can also lead to more errors than deliberate, rational thinking. An awareness of these heuristics is of use to decision makers in all disciplines.

What do we mean by "anchoring" heuristic? When faced with uncertainty, we tend to latch on to one idea or piece of information and then adjust from there to obtain an answer. For example, if individuals are given the task of multiplying a string of sequential numbers, the order of the numbers influences the answers people give: if you start the string with the larger numbers, the answers are larger; if you start with the smaller numbers the answers are smaller. This tendency is explained by the heuristic of anchoring and adjustment, wherein people "anchor" on the starting numbers and fail to adequately adjust their answers.

Access the video. Heuristics with Joe Pliskin: Anchoring (~5 min)

This series of videos on heuristics was developed by Professor Joe Pliskin at the Center for Health Decision Science. They reflect low-stakes prototypes in the multimedia lab to use "storytelling" and "personalization" to connect with learners. Joe Pliskin is an Adjunct Professor of Health Decision Science at the Harvard T.H. Chan School of Public Health and Professor Emeritus at Ben-Gurion University of the Negev, Israel.

#### Video. Heuristics with Joe Pliskin: Ambiguity

Heuristics with Joe Pliskin: Ambiguity. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/252781273/c7677e38ea CHDS repository link: http://repository.chds.hsph.harvard.edu/repository/2932

This video on "ambiguity" is part of a series of short videos introducing heuristics used in decision making. While these "mental shortcuts" are useful in some circumstances, they can also lead to more errors than deliberate, rational thinking. An awareness of these heuristics is of use to decision makers in all disciplines.

What do we mean by "ambiguity?" When a decision must be made between a certain and uncertain alternative, individuals tend to choose the more certain option even when the expected outcome is the same for both. This preference can be explained by aversion to ambiguity. In this short video, Dr. Pliskin acknowledges it can be perfectly legitimate to be risk-averse, but explains the inconsistencies of this preference.

Access the video. Heuristics with Joe Pliskin: Ambiguity (~6 min)



#### Video. Heuristics with Joe Pliskin: Sample Size

Heuristics with Joe Pliskin: Sample Size. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864868 CHDS repository link: http://repository.chds.hsph.harvard.edu/repository/2966

This video on the "sample size" heuristic is part of a series of short videos introducing heuristics used in decision making. While these "mental shortcuts" are useful in some circumstances, they can also lead to more errors than deliberate, rational thinking. An awareness of these heuristics is of use to decision makers in all disciplines.

What do we mean by the "sample size" heuristic? People tend to believe that patterns typically seen in large samples should be seen in small ones as well, despite conflicting knowledge. Dr. Pliskin demonstrates this heuristic with a coin flipping example in this video.

Access the video. Heuristics with Joe Pliskin: Sample Size (~9 min)

This series of videos on heuristics was developed by Professor Joe Pliskin at the Center for Health Decision Science. They reflect low-stakes prototypes in the multimedia lab to use "storytelling" and "personalization" to connect with learners. Joe Pliskin is an Adjunct Professor of Health Decision Science at the Harvard T.H. Chan School of Public Health and Professor Emeritus at Ben-Gurion University of the Negev, Israel.

#### Video. Heuristics with Joe Pliskin: Availability

Heuristics with Joe Pliskin: Availability (Parts 1 & 2). Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864842, https://vimeo.com/250864835

CHDS repository link: http://repository.chds.hsph.harvard.edu/repository/2967

These two videos on the "availability" heuristic are part of a series of short videos introducing heuristics used in decision making. While these "mental shortcuts" are useful in some circumstances, they can also lead to more errors than deliberate, rational thinking. An awareness of these heuristics is of use to decision makers in all disciplines.

What do we mean by the "availability" heuristic? People tend to believe that more familiar events have a higher likelihood of occurring than events for which examples are less accessible in their minds. In these short videos, Dr. Pliskin demonstrates this heuristic through examples of lottery ticket choices and language - both of which will convince viewers that this heuristic is at work in most all of us.

#### Access the videos:

- Heuristics with Joe Pliskin: Availability, Pt. 1 (~6 min)
- Heuristics with Joe Pliskin: Availability, Pt. 2 (~4 min)



#### Video. Heuristics with Joe Pliskin: Expectations

Heuristics with Joe Pliskin: Expectations. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864849 CHDS repository link: http://repository.chds.hsph.harvard.edu/repository/2968

This video on "expectations" is part of a series of short videos introducing heuristics used in decision making. While these "mental shortcuts" are useful in some circumstances, they can also lead to more errors than deliberate, rational thinking. An awareness of these heuristics is of use to decision makers in all disciplines.

What do we mean by "expectations?" People often see what they expect to see rather than what is actually there. In this short video, Dr. Pliskin shows us that we tend to focus on the most obvious stimulus and fill in the rest of what we see based on what comes most easily to mind.

Access the video. Heuristics with Joe Pliskin: Expectations (~2 min)

This series of videos on heuristics was developed by Professor Joe Pliskin at the Center for Health Decision Science. They reflect low-stakes prototypes in the multimedia lab to use "storytelling" and "personalization" to connect with learners. Joe Pliskin is an Adjunct Professor of Health Decision Science at the Harvard T.H. Chan School of Public Health and Professor Emeritus at Ben-Gurion University of the Negev, Israel.

#### Video. Heuristics with Joe Pliskin: Prevalence

Heuristics with Joe Pliskin: *Prevalence*. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017.

http://repository.chds.hsph.harvard.edu/repository/2969

CHDS repository link: http://repository.chds.hsph.harvard.edu/repository/2969

This video on the "prevalence" heuristic is part of a series of short videos introducing heuristics used in decision making. While these "mental shortcuts" are useful in some circumstances, they can also lead to more errors than deliberate, rational thinking. An awareness of these heuristics is of use to decision makers in all disciplines.

What do we mean by the "prevalence" heuristic? While sensitivity and specificity are "test characteristics" and do not change based on disease prevalence, positive and negative predictive values are heavily dependent on prevalence. This is often poorly understood by health professionals, as explained by Dr. Pliskin as he walks us through a proof in this video.

Access the video. Heuristics with Joe Pliskin: Prevalence (~10 min)



#### Video. Heuristics with Joe Pliskin: Conformity

Heuristics with Joe Pliskin: Conformity. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864844 CHDS repository link: http://repository.chds.hsph.harvard.edu/repository/2970

This video on "conformity" is part of a series of short videos introducing heuristics used in decision making. While these "mental shortcuts" are useful in some circumstances, they can also lead to more errors than deliberate, rational thinking. An awareness of these heuristics is of use to decision makers in all disciplines.

What do we mean by "conformity?" Individuals tend to adjust to the behavior of a group. The Asch Paradigm describes this tendency to follow group behavior regardless of one's own opinion, and is demonstrated in a series of studies conducted by Solomon Asch and presented in this short video.

Access the video. Heuristics with Joe Pliskin: Conformity (~3 min)

This series of videos on heuristics was developed by Professor Joe Pliskin at the Center for Health Decision Science. They reflect low-stakes prototypes in the multimedia lab to use "storytelling" and "personalization" to connect with learners. Joe Pliskin is an Adjunct Professor of Health Decision Science at the Harvard T.H. Chan School of Public Health and Professor Emeritus at Ben-Gurion University of the Negev, Israel.

#### Video. Heuristics with Joe Pliskin: Framing

Heuristics with Joe Pliskin: Framing. Teaching Pack: Heuristics with Joe Pliskin. Center for Health Decision Science, Harvard T.H. Chan School of Public Health 2017. https://vimeo.com/250864854 CHDS repository link: http://repository.chds.hsph.harvard.edu/repository/2971

This video on "framing" is part of a series of short videos introducing heuristics used in decision making. While these "mental shortcuts" are useful in some circumstances, they can also lead to more errors than deliberate, rational thinking. An awareness of these heuristics is of use to decision makers in all disciplines.

What do we mean by "framing?" When faced with a decision between alternatives, the way the alternatives are described (i.e., "framed") can affect the choice made. In this short video, Dr. Pliskin presents a classic experiment in which a choice between alternatives is described as either a loss or a gain, and the same people choose opposite alternatives depending on the "framing" of the options.

Access the video. Heuristics with Joe Pliskin: Framing (~5 min)