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### **Activities to Introduce Kahneman's *Thinking, Fast and Slow***

Have students complete the following activities in writing or via a digital device, then discuss. The activities may also be viewed online at the following link.

<https://www.haikudeck.com/kahneman-thinking-fast-and-slow-education-presentation-Fa31r4BK40#slide-10>

#### **Activity 1**

For each bullet point, please circle which is more deadly (statistically speaking):

- Strokes, accidental death
- Tornado, Asthma
- Lightning, Botulism
- Disease, Accidental deaths
- Accidental deaths, Diabetes
- In Israel: Terrorism or Traffic deaths

#### **Activity 2**

- Tom W. is a *shy, nerdy, male graduate student*. Is Tom W. more likely to be a  
Please choose one major - "Computer Science" or "Business Administration"?

Please choose one major.

#### **Activity 3**

The following represents the gender of six babies born in a sequence at a hospital. The sequence of boys and girls is obviously random; the events are independent of each other and the number of boys and girls who were born in the hospital in the last few hours has no effect whatsoever on the gender of the next baby.

BBBGGG  
GGGGGG  
BGBBGB

Is one pattern more likely to occur than the others? Explain why.

#### **Activity 4:** Focused on research methods

In a German study by Strack and colleagues (1988), the control group was asked:

1. Rate your life satisfaction.
2. How many dates have you had in the last 3 years?

The experimental group was asked the same questions, but in reverse:

1. How many dates have you had in the last 3 years?
2. Rate your life satisfaction.

The control group had a correlation of  $.012$  while the experimental group had a correlation of  $0.66$ .

Explain the correlation for each group and sketch a scatterplot for each.

Books for Psychology Class

<http://booksforpsychologyclass.weebly.com>

	Control Group	Experimental Group
Correlation		
Scatterplot		

**Discuss:** Kahneman argues that researchers have failed to accurately capture “lifetime satisfaction.” Subjects will use mood heuristics or salient events as a gauge. How does the German research above undermine the correlation that suggests married individuals have greater lifetime satisfaction than singles?

### Teacher Answers

#### Activity 1

In 1973, Daniel Kahneman and Amos Tversky published work to describe the **availability heuristic**. When an idea comes to mind easily, we are likely to believe that idea or event is more likely to occur. The “media hype” or “availability cascade” influences which events come to our mind first. This often makes us more worried about issues that are not necessarily as statistically risky as others.

The underlined terms are those, which are more likely to occur in each set of illness.

- Strokes, Accidental deaths
- Tornado, Asthma
- Lightning, Botulism
- Disease, Accidental deaths
- Accidental deaths, Diabetes
- In Israel: Terrorism or Traffic deaths

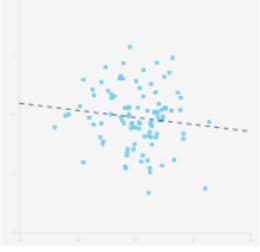
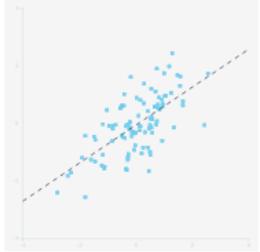
#### Activity 2 (Taken from Kahneman’s Chapter 14)

Most people would inaccurately guess that Tom W. is a "computer science" major because a shy, nerd fits the stereotype of a computer geek. When our stereotypes are activated this is called **representativeness heuristic**. We are likely to make assumptions about a person or event based on the extent to which they match our stereotypes and/or prototypes (ideal images). Statistically, however, Tom W. is more likely to be a graduate student of business because there are many more business students in graduate school than computer science students.

**Activity 3:** Taken from Kahneman's Chapter 10 (p. 115)

Are the sequences equally likely? The intuitive answer is “of course not!” But this is false! Having a boy or a girl is (approximately) equally likely, so ANY possible sequence of six births is as likely as any other. That's right: ALL the combinations are equally likely! Even knowing this conclusion, the chance of six girls – GGGGGG, still seems counterintuitive. Humans misunderstand randomness. We believe that randomness does not have pattern or regularity (such as a sequence of six girls GGGGGG). But randomness can include sequences: this can occur by chance. We falsely perceive illusory connections or causation when events occur by chance. Teachers can reinforce this by flipping a coin: The chance of HHHHHT is as likely as HTHHHTT. Sometimes our **first impressions or intuitions** are faulty.

**Activity 4:** Explain the correlation for each group and sketch a scatterplot for each.

	Control Group	Experimental Group
Correlation	A correlation of $-.012$ suggests that there is NO association between life satisfaction and the number of dates one has. (This is of course, when # of dates is asked <i>after</i> lifetime satisfaction rating.)	A correlation of $0.66$ suggests that there IS a direct association between life satisfaction and the number of dates one has. The more dates, the more life satisfaction. (This is of course when # of dates is asked <i>before</i> lifetime satisfaction rating.)
Scatterplot		

Images from <http://rpsychologist.com/d3/correlation/>

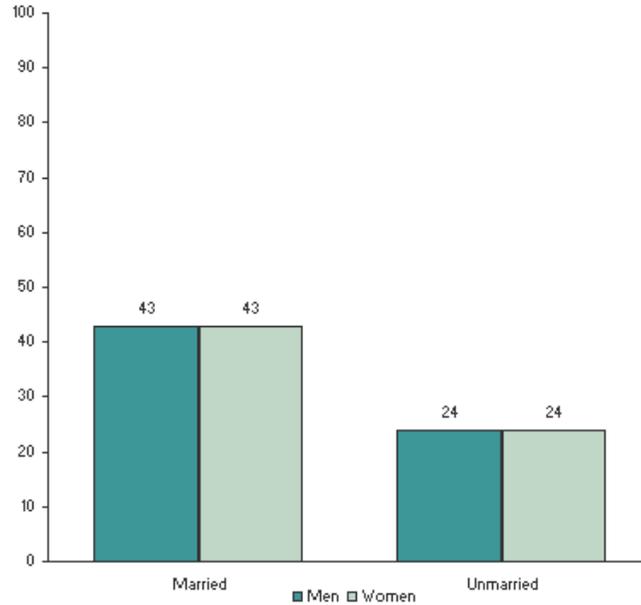
**Discuss:** Kahneman argues that researchers have failed to accurately capture “lifetime satisfaction.” Subjects will use mood heuristics or salient events as a gauge. How does the German research above undermine the correlation that suggests married individuals have greater lifetime satisfaction than singles?

Although multiple sources point to a higher lifetime satisfaction among married couples, Kahneman would argue that people are susceptible to the mood that comes to mind when asked about marriage, health, and/or income. So yes, subjects do associate higher levels of happiness with marriage:

See <http://www.pewsocialtrends.org/2006/02/13/are-we-happy-yet/18-7/>

## Marriage Works for Both Genders

Being married is associated with happiness for both men and women.



But this may be an exaggeration, because when subjects first considered their dating life, the resulting mood influenced their reported life satisfaction. Those who had fewer dates used this as an "affect heuristic" to judge their level of happiness (Kahneman, 2011, p. 103). Reminded of the "rejection" and "loneliness" they faced in the last month, subjects with fewer dates rated their life satisfaction lower (p. 102). It is difficult for subjects to objectively report on lifetime satisfaction without letting an event or mood impact results. Kahneman (2011) also noted the personal "salience" of marriage and its relationship to life satisfaction (p. 400). Even the perception of good luck can influence a person's evaluation of life satisfaction. In a second study by the German team, a dime was left for experimental subjects to discover: Their lifetime satisfaction was higher than those control subjects who were not provided the small token of luck (Strack, Martin, and Schwarz, 2006, as cited in Kahneman, 2011, p. 399). Thus, lifetime satisfaction could not be accurately measured in one response. Happiness could be primed. Subjects' apparent lifetime satisfaction varied with unconscious influences or with the first circumstances that came to mind.