



Blue Heron Bio GeneMaker

Call now for promotional pricing. The Gene Synthesis Specialists. www.blueheronbio.com/

Ads by Goo

News

Articles

Videos

Images

Books

Health & Medicine

Mind & Brain

Plants & Animals

Earth & Climate

Space & Time

Matter & Energy

Computers & Math

Fossils & Ruins

Search

Science News

Share Blog Cite

Print Email Bookmarks

Simple Reasoning Strategies Can Be As Precise As Complex Ones

ScienceDaily (Jan. 26, 2009) — We go into a restaurant with the aim of eating healthily. The menu does not tell us much about fats, salt or additives contained in the dishes. So how do we make the best decision? Psychologists Rocío García-Retamero and Jörg Rieskamp have analysed the influence that inferences about missing information can have on the accuracy of our decisions.

See also:

Mind & Brain

- Consumer Behavior
- Epilepsy
- Memory
- Caregiving
- Gender Difference
- Psychology

Reference

- Illusion of control
- Confirmation bias
- Problem solving
- Cognition

Rocío García-Retamero, a teacher at the Faculty of Psychology from the University of Granada (Universidad de Granada -UGR), and Jörg Rieskamp, a researcher from the Max Planck Institute for Human Development in Germany, have examined the hit rate of the two types of strategy we usually use to make inferences, depending on the mechanism that is used to treat information that is not available to us.

The strategies are known as the take-the-best (TTB) and weighted additive (WADD) strategies, "two

prototype strategies that represent very well how we as human beings usually behave", García-Retamero explains to SINC.

The first strategy, namely TTB, consists of selecting a route, the one we consider most significant for our objectives. In the restaurant, for example, the cooking method can be useful to enable us to differentiate between a healthy meal and an unhealthy one. Even if this facility does not allow us to discriminate, then we select a second route.

On the other hand, by using the WADD strategy, we consider many more routes and value the importance of each of them more. So, the cooking method together with other properties of the food, such as source and nutrient content, are added to the inference with reasoning.

Ways of inferring

The researchers explain that in the last twenty years studies dealing with the way in which individuals deal with incomplete information have shown that we function very differently, depending on the type of inference problem we are confronting.

The distribution of information that is missing can help us. Returning to the example of the restaurant, we can consider, for example, that that information is the same for all the dishes (uniform distribution) or that, on the other hand, for the less healthy dishes that "hidden" information is greater (conditioned distribution).

Using these criteria, the researchers have designed ten inference problems, that differ in respect to the number of objects considered (between 24 and 181), the quantity of missing information (from 0 to 100%) and the distribution of that information (uniform or conditioned), and they have calculated the hit rate percentage in each case.

The study reveals that the different options of dealing with what we do not know and also the ways in which the "hidden" information is distributed have the same impact upon the two inference strategies. The authors call this a "surprising" result, because a priori we could think that using a compensated strategy such as the weighted additive strategy increases the probability of being right about our inferences.

However, as the psychologist points out, the result "is in line with previous studies about the take-the-best strategy, that show that simple strategies based on a small amount of information can be as precise as those made up of a high number of clues in our environment".



Meal at a fine restaurant. We go into a restaurant with the aim of eating healthily. The menu does not tell us much about fats, salt or additives contained in the dishes. So how do we make the best decision? (Credit: iStockphoto/Zlatko Kostic)

Ads by Google

Advertise here

Buy Safe Media

Your boss wants to talk to you. Get ready for the conversation.

www.buysafemedia.com

75 Hotels in Granada

Book your hotel in Granada online. Find your hotel on a city map!

www.booking.com/Granada-Hotels

Hoteles Baratos Granada

Alojamientos económicos todo el año en todo el centro de Granada. Entra

Ofertas-Hotel-Granada.Excite.es

RNA Silencing

Topical reviews on RNA Silencing Read the supplement free online

www.nature.com/nature

Hoteles Baratos Granada

Todas las categorías de hotel con ofertas todo el año. ¡Entre aquí!

Granada.MejoresOfertas-Hoteles.com

Related Stories

Filling In The Blanks: Consumers Want Complete Information To Make Choices (Oct. 15, 2008) — A new study in the Journal of Consumer Research examines the way consumers behave when information about a purchase is incomplete. The study suggests that there are ways for marketers to reduce the ... [> read more](#)

Decision Making: Is It All 'Me, Me, Me'? (Apr. 29, 2008) — Psychologists find evidence that it's not. People act in their own best interests, according to traditional views of how and why we make the decisions that we do. However, psychologists have recently ... [> read more](#)

Could Your Initials Influence Where You Choose To Work? (Oct. 26, 2008) — The "name-letter effect," is a phenomenon which shows that we have a preference for things that begin with the same letter as our first name. Belgian psychologists wanted to know if this effect is ... [> read more](#)



Pictures Of Hot Fudge Sundaes Arouse: Understanding Emotions Improves Our Food Choices (Sep. 19, 2008) — Menus and advertising

affect our emotions, and if we understand those emotions, we make better food choices, according to a new ... [> read more](#)

Just In:

Bacteria That Increase Plant Growth Identified

Science Video News



Are Your Dishes Clean?

Food scientists at The Ohio State University wanted to see if cooler water could kill bacteria on dirty dishes like E. coli and salmonella.

The. ... [> full story](#)

Biophysicists Grow Pretty Bacteria In Petri Dish To Find Antibiotics

Electrical, Computer Engineers Make Laptops Locate Themselves with Motion Sensors

Ergonomists Measure Benefits of Keyboard for Smaller Hands

[more science videos](#)

Descubrir meetic GRATIS

Soy Busco

Región

¡INSCRIPCIÓN GRATUITA!

Breaking News

... from NewsDaily.cc

Octuplets stun doctors at California hospital

Surrounded by friends? It's all in your genes

New "test tube" technique offers pregnancy hopes

"Star Trek" creator and wife's ashes space-bound

FDA allows first test of human stem cell therapy

[more science news](#)

In Other News ...

Global trust in business plummeted in 2008: survey

Obama: Mideast peace envoy to engage "vigorously"

Geithner wins OK for Treasury, vows quick action

NY financier arrested in purported \$400 million scam

Obama to push for stimulus package on Capitol Hill

Dudley to be named

REUTERS

PARSHIP.ee
Encuentra a alguien justo para ti

Test de Personalidad GRATIS

1.- ¿El amor es...
cuestión de compatibilidad

De acuerdo

10

9

8

7

6

5

4

3

2

1

0

En desacuerdo

Regístrate

Need to cite this story in your essay, paper, or report? Use one of the following formats:

- ☒ APA Plataforma SINC (2009, January 26). Simple Reasoning Strategies Can Be As Precise As Complex Ones. *ScienceDaily*. Retrieved January 27, 2009, from <http://www.sciencedaily.com/releases/2009/01/090126153959.htm>
- ☐ MLA

once thought to be a seriously flawed decision maker -- is actually hard-wired to allow us to make the best decisions possible with the information we ... > [read more](#)

Search ScienceDaily

Number of stories in archives: 44,032

[Octuplets stun doctors at California hospital](#)
[more top news](#)

Copyright Reuters 2008. See [Restrictions](#).

Free Subscriptions ... from ScienceDa

Get the latest science news with our free email newsletters, updated daily and weekly. Or view hourly updated newsfeeds in your RSS reader:

[Email Newsletters](#)
[RSS Newsfeeds](#)

Feedback ... we want to hear from yc

Tell us what you think of the new ScienceDaily -- welcome both positive and negative comments. Have any problems using the site? Questions?

Your Name:

Your Email:

Comments:

Click button to submit feedback:

Find with keyword(s):

Search

Enter a keyword or phrase to search ScienceDaily's archives for related news topics, the latest news stories, reference articles, science videos, images, and books.

Ads by Google

[Advertise here](#)

Vuelos a Granada, 28€
Ofertas Vuelos regulares y Low Cost ¡Ahorra tiempo y dinero con logi!
www.logitravel.com

All year location Granada
3 cottages sleep 2–16 birds walks BBQ in sun all year Granada 30 mins
www.CasaAntonio.es

Property Granada
Find English Speaking Estate Agents to Buy Property in Spain
www.Primelocation.com/Estate-Agents

[About This Site](#) | [Editorial Staff](#) | [Awards & Reviews](#) | [Contribute News](#) | [Advertise With Us](#) | [Privacy Policy](#) | [Terms of Use](#)
Copyright © 1995-2009 ScienceDaily LLC — All rights reserved — Contact: editor@sciencedaily.com