



## News in Brief

### Confusion Helps Us Learn

When we're confused by something—say with a movie plot or calculus—we tend to feel uncomfortable, frustrated. But maybe we should embrace the confusion. Because a new study finds that confusion can lead to better learning.

Scientists set up a situation where they purposely confused subjects during a pretend learning session, scientific American reported.

The subjects watched an animated tutor and student discuss possible flaws in a scientific study. The researchers had the animated tutor and student disagree with each other on specific flaws. But to set up a really confusing situation for one group of subjects they also had the pretend tutor and student make incorrect or contradictory statements about the study. Then the subjects had to decide which of the two opinions had more scientific merit.

Subjects who were forced to deal with the incorrect and contradictory statements did significantly better on later tests where they had to spot flaws in studies, as opposed to those subjects who only faced the disagreements between the animated tutor and student. The study will be published in the journal *Learning and Instruction*.

Researchers note that confusion motivates us to work harder to understand, and so we gain a deeper and more comprehensive knowledge of a subject.



### Some Skill Sleep Learning May Work

Remember those educational cassettes that you'd supposedly learn from overnight? Well, scientific evidence says they're bunk—unless you listen to them while you're up during the night, that is.

But if you're actually sleeping and you play something that you've already learned, like a piano melody you've been practicing, you may indeed master it more quickly. So says a study in the journal *Nature Neuroscience*.

Researchers asked volunteers—with and without musical experience—to learn a few random melodies on a computer keyboard. Then the subjects took a 90-minute nap.

When they slipped into slow wave sleep—a stage previously shown to be associated with memory processing—the researchers softly played back one of the two melodies, *Medical Web Times* wrote.

After the subjects woke up, they were able to both melodies more accurately—the helpful effects of a little shuteye, the researchers say. But the volunteers did even better on the ditty they'd heard while snoozing, suggesting sensor motor skills can be fine-tuned by exposure during sleep.

The scientists stress that the procedure is no shortcut to becoming Scott Joplin—you still have to put in effort while awake. But a little sleep-time study may help you change your tune for the better.



### Small Telescope, Big Discovery

Small telescope, no bigger nor more powerful than a high-end digital camera, has helped researchers discover two new planets, both similar in makeup to the gas giant Jupiter, *Winer.org* reported.

One, named KELT-2Ab, is unique because it is near a very bright star. The bright light from the star will help researchers understand the atmosphere of the planet, said Thomas G. Beatty, an astronomer at Ohio State University who was involved in the research.

"It's the only way to really understand a planet's interiors and exteriors," he said. "We can get enough of a signal from the light that goes through or reflects off the planet."

The second planet, called KELT-1b, is about 30 times the mass of Jupiter. It is so massive that it is being designated a brown dwarf, a category reserved for bodies "too heavy to be planets but not heavy enough to be stars," Beatty said.

KELT-1b is so close to its star that a year for the planet is just 29 hours, Beatty said. KELT-1b is about 825 light-years from Earth, KELT-2Ab about 360 light-years away.



### How to Floss

Flossing every night before brushing your teeth helps protect the gums and remove debris, *HealthDay News* wrote.

The American Dental Association offers these guidelines on how to floss:

- Using a piece of dental floss about 18 inches long, wrap each end around a finger on each hand and hold the floss between the thumbs and index fingers.

- Gently rub the floss between teeth with a back-and-forth motion.

- Curving the floss into a C-shape once it touches the gum line, gently slide it between the teeth.

- With the floss held firmly against the side of the tooth, carefully slide it up and down away from the gum.

- Do this for every tooth, taking care to floss the back side of each tooth.

## Birds Can Recognize People's Faces and Voices

New research suggests that some birds may know who their human friends are, as they are able to recognize people's faces and differentiate between human voices.

Being able to identify a friend or potential foe could be key to the bird's ability to survive, *ScienceDaily* wrote.

Animal behavior experts from the University of Lincoln in the UK and the University of Vienna worked with pigeons and crows in two separate studies.

Research published in *Avian Biology Research* shows that pigeons can reliably discriminate between familiar and unfamiliar humans, and that they use facial features to tell people apart.

The team trained a group of pigeons to recognize the difference between photographs of familiar and unfamiliar objects. These pigeons, along with a control group, were then shown photographs of pairs of human faces. One face was of a person familiar to the birds whilst the other was of someone they had not seen before.

The experimental group birds were able to recognize and classify the familiar people using only their faces, whereas the birds without prior training failed. The results show that pigeons can discriminate between the familiar and unfamiliar people and can do this on solely using facial characteristics.

Lincoln's lead researcher on the project, Dr Anna Wilkinson, from the School of Life Sciences, said: "Such advanced cognitive processes have rarely been observed in pigeons and suggest that they not only recognize individual humans but also know who they know – something which could be very important for survival."

## One-of-a-Kind Skateboard Can Descend Stairs

Skateboards are definitely a part of the urban landscape, but you know what else is? Stairs.

Generally, the two don't go together—when skateboarders reach a set of stairs, they typically have to pick up their board and carry it.

London-based product designer Po-Chih Lai would like to see boarders be able to roll right on down those stairs, however, so he created a one-off skateboard that lets them do just that. It's called the STAIR ROVER. Gizmag reported.

"The piece creates a groundbreaking form of sport which previously never existed and utilizes the hidden energy of our cities—stairs," he states on his blog. "STAIR ROVER—the Stairboard is a product that relies on the other product—stairs, which are found easily within the human habitat, especially in cities."

The current board is the eighth model that he has created. It has eight wheels, mounted two-per-side on a pair of trucks that pivot to follow the contours of the stairs. The flexible deck is made from maple and bamboo, the trucks and associated hardware are aluminum, while the wheels are rubber.

He explored other approaches in some of his earlier models, including trucks equipped with spinning sets of three wheels on each side, a traditional two-wheeled front truck combined with one big three-wheeler in the back, and a deck equipped with four sets of two-wheeled trucks, instead of the usual two.



# Iran Will Hold Farabi Int'l Festival

The Iranian Ministry of Science, Research and Technology is planning to hold the 6th Farabi International Award Festival in domestic and foreign sections.

The 2012 Farabi International Award Festival, including 12 scientific committees, will focus on the genuine, applicable researches corresponding to scientific criteria on humanities and Islamic studies, *PressTV* reported.

The Domestic section reviews the submitted works under two main categories of the adults and the younger generation (under 35). The Foreign section, which is specially designated for non-Iranian researchers, is slated to evaluate the submitted works relevant to the Iranian and Islamic culture

and civilization.

The festival welcomes any remarkable published or unpublished research, dissertation or article on the humanities and Islamic studies.

Arts and aesthetics, economics, management and accounting, educational sciences, psychology, behavioral sciences, fiqh, usul al-fiqh, Qur'anic sciences and hadith are some of the other scientific groups in this event.

In collaboration with national and international scientific organizations and institutes, the festival is held to identify and introduce top works and talented scholars in humanities.

The 6th Farabi International Award Festival is scheduled to be held in Tehran in November, 2012.



## Pre-Workout Foods You Should Be Having

When you suddenly start off with a workout routine, your body goes through a lot of damage control. *Shine.yahoo* reported.

The excess fat in your body starts breaking down as a result of the new regime. Your eating habits need to change as your body needs more protein, calcium and water than what you normally would have consumed. What you eat before your workout is crucial as it will help you enhance your performance during the workout and boost your energy levels too. So what is it that you can eat before you work out? Read on to find out what are the pre-workout foods you should be having.

**Banana**  
Banana contains carbohydrates that can be easily digested. Banana also contains potassium which improves the nerve functions. Potassium also helps you during your workout by keeping your muscles strong during your weight trainings. You can also eat any other fruit that contains natural sug-

ar and will not add calories but at the same time provide you with enough energy to keep you going through your workout.

**Yogurt**  
A bowl of low fat yogurt can be a perfect snack for you before you hit the gym. Yogurt contains magnesium which enhances your energy by releasing enzymes that break down the proteins and carbohydrates.

Apart from this, it also gives you energy to lift weights by increasing your strength and stamina.

**Oatmeal**  
Oats are fibrous and thus, easy to digest. The carbohydrates in it get released in the blood and thus boosts your energy. Vitamin B in oatmeal lowers stress and helps convert the carbohydrates into usable energy. Fix yourself a cup of oatmeal before your workout. It can be a good breakfast option for those of you who prefer working out in the morning.

**Almonds**  
Don't misjudge them as fattening because the fats that almonds contain are monounsaturated fats. The kind of fats you should completely avoid before workout would include butter or cheese products as they will make you lazy and tired. Almonds also contain omega 3s that instantly energize your mind.

**Lentils**  
Lentils contain Vitamin B, Fiber, Carbs, Magnesium, zinc, potassium and calcium. Lentils contain all the contents that we told you individually in the above ingredients. Apart from this, it is very low on calories. Eat a small bowl of sprouted lentils and add a pinch of rock salt for taste. But don't overdo it as you might end up getting an upset stomach.

**Chocolate**  
When you need an instant energy boost, chocolates can come in really handy. Chocolates contain compounds that help you gain energy. But watch it and eat only a lit-



tle, as a bar of chocolate abounds in sugar, fat and calories. Opt for dark chocolate as it contains lesser calories than all the other chocolates.

Eating right before you work out is a complete no. Eat at least half an hour to forty-five minutes before you hit the gym. If your routine includes swimming, then do not eat anything for an hour before you take a dip. These foods in small proportions will help you work out for a longer time and you won't be forced to quit your workout midway to satisfy your hunger pangs.

## Could Fertility Drugs Make Kids Shorter?

For those who need help getting pregnant, the thought of having a child who's a little shorter than other kids probably won't be much of a worry. But the question of whether infertility treatment causes unanticipated consequences remains fertile ground for researchers, *Newsday* reported.

In a study scheduled for presentation at the Endocrine Society annual meeting in Houston, researchers found full-term children conceived with fertility drugs were about one inch shorter than their peers.

The researchers wanted to find out whether there was a difference in height among children whose mothers used only ovarian stimulation by fertility drugs such

as Clomid (clomiphene) without in-vitro fertilization (IVF).

Children conceived with the help of ovarian stimulation alone account for about 5 percent of all births in the developed world, according to the researchers.

Previous studies have suggested that children conceived by IVF may be taller than naturally conceived kids. The researchers wanted to know if something in the process of IVF, which includes fertilization and culture of embryos in a laboratory dish, could affect stature. So they studied children conceived without IVF, but with the assistance of fertility drugs that cause ovulation.

"The challenge in doing research like this is that in general the people who

come to infertility clinics have been trying to get pregnant for multiple years," said Dr. Valerie Baker, medical director at the Stanford Fertility and Reproductive Medical Center, in Palo Alto, Calif.

"These people often have serious medical problems. So it's possible that the issue is not the fertility treatment, but something going on with people who have been trying to get pregnant for more than a year without success," she said. Baker was not involved in the study.

The researchers, led by Dr. Tim Savage, a pediatrician and research fellow at the Liggins Institute, University of Auckland, in New Zealand, studied 84 children conceived with the help of fertility drugs and 258 who were conceived naturally.

All were between 3 and 10 years old and from a single-fetus, full-term pregnancy. None had low birth weight, a factor that can be associated with health problems.

The children conceived with the help of fertility drugs were nearly an inch shorter than the others, although still within the normal range, even with differences in their parents' height taken into account. Parental height is considered the key factor in determining a child's height.

The height difference was greater in boys, who were more than an inch shorter on average than naturally conceived boys.

There was no significant difference in general physical health between the two groups of children.