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FROM THE EDITORS

Dear subscribers,

Another bumper edition! It seems the journals may be trying to catch up with all the articles submitted to them at the start of 2008, and of course all news services are trying to keep up with the press releases issued.

Not all news articles, however, are of interest to any but the very specialised. As usual, PsychDigest presents you with the latest in the field of psychology, carefully selected so that subscribers can be up-to-date with the news, without being completely overwhelmed with information.

As before, we would like to urge you to let us know if we should adjust our information nets. Do you feel we are giving you too much information? Too little? Too biased in one or another direction? Please feel free to use the email address or fax number below to give us feedback; and of course, compliments are also welcome!

Thomas compiled some statistics from the first volume of PsychDigest. He notes that, since April 2007, Psych & Soma has brought subscribers 380 topics (averaging more than 30 per issue), clustered under 86 themes. These topics were synthesized from 309 journals; 53 organisations (such as leading universities and various psychology-related institutions; 48 news sites, and 9 blogs. More than 4 times the number of journals, news sites, websites, and blogs are monitored monthly, to bring you only the most relevant news from the field.

So what can we offer you this month? You may have heard that the night-club drug, ketamine (also known as Special K), has been found to be effective in relieving depression. Researchers have now discovered how it does that (p. 5). Scientist have also a new hypothesis on the role of serotonin in depression and anxiety.

Fear can literally curdle your blood (p. 6), and folding your arms can help you persevere (p. 13). Being ignorant can make you influential (p. 38), but being ignorant about yourself "wreaks havoc and cruelty on others" (p. 39). A low-power position can negatively impact on your productivity (p. 20), and being higher on the ladder of life may lead you to see vertically (p. 23).

A two-person team of psychologists believe that teaching couples to communicate as an early strategy in couples therapy often means that the pair go home to practice communicating hostility to each other. If you have ever found that, you may want to look at the alternative—which the teams calls Couple Power Therapy—on p. 25.

We simply cannot get away from power failures. Scientists have now discovered that people who are sleep-deprived suffer the brain’s equivalent of power failures during the times when they are awake. And finally, have you ever wondered about the roads not taken? Psychologists explain that these disappear more quickly than we may think (p. 9).

Martie (Chief Editor) & Thomas Groenewald

Feedback can be mailed to Psych and Soma Information and Resources, PO Box 252, Florida 1710 (South Africa), faxed to (011) 472 2524, or emailed to psychdigest@psychsoma.co.za
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IN THE NEWS

ANXIETY & STRESS

Genes, environment and stress

A study conducted on 346 19-month-old twins by an international team led by Université Laval professor of psychology Michel Boivin reveals that the genetic and environmental bases of hormonal response to stress depend on the context in which a child grows up. This is the first time such an effect has been reported in young humans.

The study shows that, for children growing up in a favourable family environment, genetics account for 40% of the individual differences in cortisol response to unfamiliar situations. Cortisol is a stress hormone produced in new, unpredictable or uncontrollable contexts.

In contrast, if children are raised in difficult family circumstances, the environment completely overrides the genetic effect as if it had established a programmed hormonal conditioning to stress.

The team studied 130 identical twins who share 100% of their genes and 216 fraternal twins who share close to 50% of their genetic makeup. Each child, accompanied by its mother, was brought into a room, and then successively exposed to a clown and a noisy robot. The researchers then measured cortisol levels in the children's saliva before and after this experience and analyzed this data as a function of each child's family environment. Specific risk factors—tobacco use during pregnancy, low family income, low education level, single parenthood, very early parenthood, low birth weight, maternal hostility toward the child—have known effects on cortisol levels in children.

Researchers do not yet know whether the conditioned cortisol response leads to permanent differences in cortisol production among children from families at risk. However, Boivin believes that this study confirms the importance of intervening early with families to reduce the risk of a disrupted conditioned stress response in young children.


How ketamine relieves depression

Scientists have discovered how a horse tranquilizer and hallucinogenic night club drug known as “Special K” can ease depression. Ketamine, which can also cause feelings of detachment, could pave the way for new treatments for people suffering from depression.

Scientists discovered that the drug restores to normal the orbi-frontal cortex, an area of the brain located above the eyes that is overactive in depressed people. The area is believed to be responsible for feelings of guilt, dread, apprehension and physical reactions such as a racing heart.
The results were surprising because the researchers had expected that the ketamine would instead affect the part of the brain that controls psychosis.


Fear can literally curdle your blood

“The blood froze in my veins” or “My blood curdled”—these common figures of speech can be taken literally, according to the latest studies. Intense fear and panic attacks can really make our blood clot and increase the risk of thrombosis or heart attack.

Earlier studies showed that stress and anxiety can influence coagulation. However, they were based almost entirely on questionnaire surveys of healthy subjects. In the first examination of coagulation in patients with anxiety disorders, researchers compared patients who suffer from a severe form of panic disorder or a social phobia with a healthy control group.

The subjects gave blood samples, and were asked to perform a number of tests on the computer. A second blood sample was then taken. The blood analysis, which measured various coagulation factors, produced a clear result: the group of anxiety patients showed a much more highly activated coagulation system than the healthy control group.

In the coagulation system two mechanisms operate that are indispensable to life and normally work in opposite directions, each counterbalancing the other. On the one hand, coagulation involves a thickening of the blood so that a plug can form and prevent excessive bleeding from damaged vessels. On the other hand, there is “fibrinolysis”, a process that keeps the blood fluid and breaks down clots.

In the case of the anxiety-disorder patients, however, the researchers observed through close analysis of the blood an activation of coagulation accompanied by an inhibition of fibrinolysis. Yet, apart from the prick for blood sampling, no real injury had occurred. For these types of patients, the coagulation system goes out of balance as the coagulation tendency rises—possibly with dangerous consequences. In extreme cases the imbalance can lead to blockage of a coronary artery.

The increased coagulation tendency could be the “missing link” that explains why anxiety patients have a statistically higher risk of dying from heart disease by a factor of 3 or 4, specifically when other risk factors, such as smoking and obesity, also come into the equation.

A follow-up study has produced the first evidence that coagulation activation subsides in patients who have completed successful therapy for their condition.
AUTISM

Sensory integration therapy helpful for children with autistic spectrum disorders

Children with autistic spectrum disorders who underwent sensory integration therapy exhibited fewer autistic mannerisms compared to children who received standard treatments. Such mannerisms, including repetitive hand movements or actions, making noises, jumping or having highly restricted interests, often interfere with paying attention and learning.

The children assigned to the sensory integration intervention group also reached more goals specified by their parents and therapists. The children made progress toward goals in the areas of sensory processing/regulation, social-emotional and functional motor tasks.

Sensory integration is the ability of the brain to properly integrate and adapt to the onslaught of information coming in through the senses. Dysfunction in this area makes it difficult for people with autism to adapt to and function like others in their environment. They may be hypersensitive to sound or touch, or unable to screen out distracting noise or clothing textures. Their response might be impulsive motor acts, making noises or running away.

Children receiving sensory integration therapy typically participate in sensory-based activities to enable them to better regulate their behavioural responses to sensations and situations that they find disturbing or painful. A child who is oversensitive to light touch may enjoy rolling and playing in a giant foam pillow, after which he might be more able to calmly explore, touch and play with other textures. This in turn makes self-care such as dressing and washing and classroom activities that require touch more manageable.


______________________________


Facial recognition: it's in your eyes

Scientists might have gained insight into why people with autism have difficulty remembering faces and distinguishing facial emotion.

The researchers used functional magnetic resonance imaging (fMRI) to scan the brains of people with autism while they were watching a computer screen displaying different faces with various facial expressions. A star symbol was used as a visual cue to draw the participant's attention to either the eyes or mouth on each face. Facial recognition areas in the brain were recorded by the fMRI, and eye movements were tracked with a camera.

Early data in both healthy and autistic subjects show that only when a subject looked at the eyes, did the facial recognition area of the brain become active.

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DECISION-MAKING

Making choices is mentally exhausting

We usually regard having choices as a good thing. However, researchers have found that we are more fatigued and less productive when faced with a plethora of choices. Whether the choices are good or bad, people find it difficult to stay focused enough to complete projects, handle daily tasks or even take their medicine.

Researchers conducted seven experiments involving almost 400 participants, with locations as diverse as the laboratory, the classroom, and the shopping mall.

In the laboratory experiments, some participants were asked to make choices about consumer products, college courses or class materials. Other participants did not have to make decisions but simply had to consider the options in front of them.

The scientists then asked each group to participate in one of two unpleasant tasks. Some were told to finish a healthy but ill-tasting drink (akin to taking one's medicine). Other participants were told to put their hands in ice water. The tasks were designed to test how the previous act of choosing, or not choosing, affected people's ability to stay on task and maintain behaviours aimed at reaching a goal.

Those participants who had earlier made choices had more trouble staying focused and finishing the disagreeable but goal-focused tasks, compared to the participants who initially did not have to make choices.

In other experiments, participants were given math problems to practice for an upcoming test. The participants who had to make important choices involving coursework spent less time solving the math problems and more time engaging in other distractions such as playing video games or reading magazines, compared to participants who were not asked to make choices prior to that point. The participants who had made choices also made more mistakes in the math problems than participants not faced with decisions.

To further buttress their laboratory findings, the researchers conducted a field test at a shopping mall. The shoppers reported how much decision-making they had done while shopping that day and were then asked to solve simple arithmetic problems. The researchers found that the more choices the shoppers had made earlier in the day, the worse they performed on the math problems. The researchers had controlled for how long the participants had been shopping, and for several demographic categories such as age, race, ethnicity and gender.

But what about making fun choices? How does that affect our mental acuity? In their last experiment, researchers determined that making enjoyable decisions, such as spending four minutes selecting items for a gift registry, was less mentally draining than considering less pleasant options (e.g. planning your route home); however, when participants had spent 12 minutes doing the same task, whether enjoyable or not, they showed signs of cognitive depletion. In other words, even if people are having fun making decisions, their cognitive functions are still being depleted with every choice they make.

According to one of the authors, Kathleen Vohs, these experiments provide evidence that making choices, as opposed to just thinking about options, is what is especially taxing. "There is a significant shift in the mental programming that is made at the time of choosing, whether the person acts on it at that time
or sometime in the future. Therefore, simply the act of choosing can cause mental fatigue,” says Vohs. "Making choices can be difficult and taxing, and there is a personal price to choosing."

The roads not taken

Researchers have identified a key reason why people make mistakes when they try to predict what they will like. When predicting how much we will enjoy a future experience, we tend to compare it to its alternatives—that is, to the experiences we had before, might have later, or could have been having now. But when we actually have the experience, we tend not to think about these alternatives and our experience is relatively unaffected by them.

These conclusions come from the results of four experiments, all involving predicted versus actual enjoyment of a very simple experience—eating potato chips. In three of the experiments, participants predicted how much they would like eating potato chips before, after, or instead of eating a more desirable food (chocolate) or a much less desirable food (sardines). They then ate the chips and reported how much they had liked them.

The chocolate and the sardines had a large impact on participants' predictions, but no impact whatsoever on their actual experiences. Those participants who had compared the chips to sardines overestimated how much they would enjoy eating the chips, and those who had compared the chips to chocolate underestimated how much they would enjoy eating the chips.

Why does this happen? “Experience typically demands our attention,” says one of the researchers, “leaving us little time to think about the alternatives to it.”

To demonstrate this, participants in a fourth experiment were asked to eat the potato chips to the beat of a metronome. Those participants who ate the chips at a normal pace made the same mistake as did participants in the previous experiments; participants who ate the chips at an unusually slow pace did not. Specifically, participants who ate slowly actually did enjoy the chips more when the alternative was sardines than when the alternative was chocolate—just as they had predicted.

The researchers argue that slowing down the experience of eating gave participants the opportunity to think about the chocolates or the sardines. They suggest that one of the key reasons why we mis-predict our enjoyment of future events is that we mistakenly think we will be making comparisons when the event actually happens.

_We think we will be thinking about the roads not taken, but the fact is that whatever road we choose in life requires that we navigate it, and doing so limits our ability to compare that road to its alternatives. Life’s untaken roads come to mind much less often than we expect them to._—Daniel Gilbert

The research was presented by Daniel Gilbert, from the Harvard University in Cambridge, Massachusetts, at the annual meeting of the American Association for the Advancement of Science (AAAS).
DOMESTIC VIOLENCE

Men's mental health affected by domestic violence

A recent US survey confirms that men can also experience domestic violence. The study results confirm some common beliefs, but also debunk five myths about abuse in men:

Myth 1: Few men experience domestic violence. Many do. In-depth phone interviews with over 400 randomly sampled adult men showed that 5% had experienced domestic violence in the past year, 10% in the past five years, and 29% over their lifetimes. The researchers defined domestic violence to include non-physical abuse—threats, chronic disparaging remarks, or controlling behaviour—as well as physical abuse: slapping, hitting, kicking, or forced sex.

Myth 2: Abuse of men has no serious effects. The researchers found that domestic violence is associated with serious, long-term effects on men's mental health. Women are more likely than men to experience more severe physical abuse, but even non-physical abuse can do lasting damage. Depressive symptoms were nearly three times as common in older men who had experienced abuse than in those who had not, with much more severe depression in the men who had been abused physically.

Myth 3: Abused men don’t stay, because they are free to leave. In fact, men may stay for years with their abusive partners.

Myth 4: Domestic violence affects only poor people. The study actually showed it to be an equal-opportunity scourge.

Myth 5: Ignoring it will make it go away. Not so. “We doctors hardly ever ask our male patients about being abused—and they seldom tell us,” said one of the researchers. “Many abused men feel ashamed because of societal expectations for men to be tough and in control.” Younger men were twice as likely as men age 55 or older to report recent abuse. “That may be because older men are even more reluctant to talk about it,” he added.

EATING DISORDERS

Night-eating disorder deserves wider recognition


According to the journal, 1.1% to 1.5% of the general population suffer from the disorder, which is viewed as a delay in the circadian rhythm of food intake. Studies have shown significantly higher levels of
serotonin transporters in the midbrain of night eaters. These lead to decreased post-synaptic serotonin transmission, and could impair circadian rhythms and satiety. Stunkard et al. (2008) suggest that selective serotonin reuptake inhibitors (SSRIs) may alleviate the disorder by improving serotonin function, and point to studies that suggest sertraline (Zoloft) might bring relief to sufferers of the disorder.

EatingDisordersOnline.com states that night eating disorder is a stress-related eating, sleeping and mood disorder that is associated with disordered neuroendocrine function, and lists the symptoms of the disorder as:

- excessive eating during night hours
- binging during night hours
- skipping of breakfast meal or snack at least four times per week
- consuming more than half of one’s daily calories after 7 pm
- irritability during night time hours
- insomnia
- hormone changes and
- mood swings (during night and morning hours, in particular)

Night eating may lead to obesity; it preceded the onset of obesity in three studies and predicted major weight gain among female night eaters who were already obese.


Body image programme reduces onset of obesity and eating disorders

Oregon Research Institute scientist Eric Stice, Ph.D., and his colleagues have found that their obesity prevention programme reduced the risk for onset of eating disorders by 61% and obesity by 55% in young women. These effects continued for as long as 3 years after the programme had ended. In their research on eating disorders, Oregon Research Institute (ORI) scientists help young women reduce the influence of the “thin ideal,” which is described as associating success and happiness with being thin.

These results are noteworthy because, to date, the idea that we can reduce the risk for future onset of eating disorders and obesity has been an unrealized goal: more than 80 prevention programmes have been evaluated, but no previous programme had been found to significantly reduce risk for onset of these serious health problems.

One reason these programs might be more effective is that they require youth to take a more healthy perspective, which leads them to internalize the more healthy attitudes. In addition, these programs have simple take-home messages, which may be easier to remember in the future than messages from more complex prevention programs.

The obesity prevention programme, called Healthy Weight, helps adolescents adopt a healthier lifestyle, wherein they gradually reduce intake of the least healthy portion of their diet and increase physical activity. This programme simply teaches youth to balance their energy intake with their energy needs, and to do so on a permanent basis, rather than on the transient basis which is more typical of diets.
The eating disorder prevention program, called the Body Project, consists of four one-hour weekly sessions in which participants critique the thin ideal espoused for women in our culture and learn how to challenge current and future pressures to be thin. The programme has also produced reductions in other important outcomes such as body dissatisfaction and eating disorder symptoms.


LEARNING DIFFICULTIES

Separation from parents can cause learning difficulties in children

In the wake of divorce, illness, violence and other problems that can unsettle homes, countless young children are liable to experience temporary separations from one or both parents. A new study has found that such children are at increased risk for learning difficulties, and that these separations are good predictors of which children may require special educational interventions to succeed.

The researchers believe that homes in which children are separated from their parents may be less nurturing environments. Parents are less apt to be reading to their children or taking time to teach them new skills, such as tying shoes, practicing their letters or writing their names.

The study enrolled 1619 children between ages 4 and 6. Parents or caregivers were asked if their child had ever been away from a parent for more than a month, and if so, if the separation occurred once, twice, or more than three times. These adults also completed the Parent's Appraisal of Children's Experiences (PACE) survey to measure their children's developmental skills by various observable behaviours (e.g. if the child can cut with scissors; if he or she can tie their shoes).

The results were then analyzed to produce four 4-point scales, each measuring different dimensions of healthy development, including: how well a child learns new tasks; how well he or she uses language to express ideas; how literate he or she is (e.g. can he or she read his own written name); and the quality of his or her speech (e.g. do other people often have difficulty understanding the child).

Children who have been separated at any point scored significantly worse both on the 4-point scales measuring their ability to learn new tasks and their pre-literacy skills. Of note, their expressive language and speech scores fared better—they were comparable to those of their non-separated peers.


SCHIZOPHRENIA

Award for schizophrenia research

Studies of how brain cell communication may be altered in schizophrenia have earned Dr. Lin Mei, chief of developmental neurobiology at the Medical College of Georgia, a 2008 Distinguished Investigator Award from the US mental health charity NARSAD (previously known as the National Alliance for Research on Schizophrenia and Depression).

Dr. Mei is one of 11 scientists to receive the award, which includes a $100,000 one-year grant from the world's leading charity dedicated to mental health research.

He has found that two genes, important for human development and implicated in other disorders including cancer and seizures, normally enable a healthy balance of brain cell excitation and inhibition. In 2007, Dr. Mei's lab showed neuregulin-1 and its receptor, ErbB4, promote inhibition at the site of inhibitory synapses in the brain by increasing release of GABA, a major inhibitory neurotransmitter. Seven years earlier, he led a team that showed that the gene pair suppresses synapses between neurons where the neurotransmitter glutamate excites cells to action. “According to our model, it inhibits,” Dr. Mei says of neuregulin-1.

Schizophrenia has been labelled a degenerative disease where neurons die, and a developmental disease where the wiring is laid wrong. Dr. Mei's research shows that problems in neuron communication could also be to blame. “It's a complex disease,” says Dr. Mei in which neuregulin-1 expression is off balance, possibly the result of mutations in the neuregulin-1 gene.

He believes that even a subtle imbalance in brain cell excitation and inhibition helps explain the cognitive problems in schizophrenia and possibly other disease hallmarks of hallucinations and social disconnection. He also believes that correcting the imbalance is doable. “Say neurotransmission is high: you could try to suppress it. If low, you could try to stimulate it.”


BODY LANGUAGE: TALKING TO YOURSELF

Folding your arms can help you persevere

Facing a challenging task? Try folding your arms: new research shows people persevere for longer when their arms are crossed.

Researchers who gave students an impossible anagram to solve found that those who were instructed to put their hands on their thighs persevered for about 30 seconds, while those who had their arms folded struggled on for an average of nearly 55 seconds.

Working with anagrams with multiple solutions, students who folded their arms persevered longer and came up with more solutions than those with their hands on their thighs.
The study also established that the benefits of arm folding were not related to mood or comfort.

The researchers believe that we have come to associate the act of crossing arms with perseverance, so that not only does it signal perseverance to an onlooker, but also subconsciously to our brain, activating an unconscious desire to succeed.

However, they caution that not all cultures might associate arm folding with perseverance.

The article points to other studies that have shown how facial expression and body language can influence our own mood and behaviour, in addition to being an expression of our state of mind.

When participants were asked to hold a pencil between their teeth (to simulate smiling), they found cartoons funnier than participants in control groups.

When you frown, your work can feel like more of an effort than when you smile slightly.

If you nod your head while listening to a statement, you are more likely to agree with the contents; looking at a product while shaking your head may make you find the product less attractive.

Arm movements influence approach and avoidance: pressing upwards against a table is associated with approach, while pressing downward is associated with avoidance; bringing your arms towards your body is associated with acquisition, while moving your arms away from your body is associated with rejection.

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DEPRESSION

How serotonin can cause depression and anxiety

Mood disorders could be caused by a loss of our inherent, reflexive avoidance of aversive events, according to a new study. Researchers used computational modelling techniques to integrate what appeared to be blatant contradictions between serotonin's roles in different states of health.

Serotonin is believed to play a major role in mood and a variety of other mental disorders. But exactly how it affects our mental state remains an open question.
Imagine walking past a dark alleyway in a dangerous part of some city; although it might be a shortcut, most people wouldn't consider taking it. In healthy subjects, serotonin appears important for this automatic avoidance.

It has long been suggested that over-activity of the serotonin system may relate to mood disorders such as depression and anxiety, as these seem characterized by too much withdrawal and avoidance. It is known that serotonin has a role to play in predicting aversive events, as well as in behavioural inhibition—preventing or curtailing ongoing actions in the light of predictions of aversive outcomes. A collection of psychopharmacological data implicate serotonin in animal models of depression and anxiety. Depleting serotonin (by dietary depletion of its precursor, tryptophan) in human subjects who have recovered from depression, can reinstate an acute re-experience of the subjective symptoms of the disease. While SSRIs are used in the treatment of depression, genetically induced, constitutive decreases in the efficiency of 5-HT reuptake are a risk factor for depression.

These findings are hard to reconcile: If serotonin really is involved in predicting aversive outcomes, then depleting it should surely have positive rather than negative affective consequences?

The new modelling study suggests that we think about what happens when these reflexes fail—suddenly you have to think hard to avoid things that used to be avoided reflexively. You might for example consider walking down the dangerous alley, be robbed and thus be reminded and taught by additional experience that dark alleys are to be avoided.

In this study researchers built a reinforcement learning model of reflexive choices (a “train-of-thoughts”). Agents take actions and as a result of these move through a set of internal belief states, some of which are rewarded or punished. As agents progress through this space, they learn the value of each state—how much punishment or reward is to be expected from this state onwards.

Adding to the agent’s behavioural repertoire a simple reflex, which guides the agent away from an action with potential for poor consequences, does two things: it increases the rewards reaped overall but, because aversive states are now not explored any more, it also prevents them from learning exactly how bad these bad states are. When serotonin drops—in depression or anxiety, for example—agents have no more recourse to the reflexive avoidance and have to rely on what they have learned. Because they have not learned how bad the bad states are, they start exploring states that do not look too bad to them, but in reality are much worse. Serotonin-enhancing drugs, such as Prozac, are then suggested to reinstate the reflexive avoidance, and thus to redress the balance.

This study gives insight into some puzzling findings—for example, it argues that the association of depression with aggression may have to do with a lack of reflexive avoidance of aggression. In addition, stress not only causes depression, but people with depression experience more stressors. Again, this may be related to a dysfunctional reflexive avoidance system.

The authors note, however, that the paper vastly oversimplifies a number of issues, such as the flexibility of reflexive actions, and the effect of non-reflexive action choice. These provide interesting avenues for further research, and may in fact give some insight into the co-morbidity of different mood disorders.


Can low energy production be responsible for the physical symptoms in depression?

Scientists have revealed a new hypothesis on the mechanisms of physical symptoms in depression: energy production rates toward the lower end of the spectrum may predispose the individuals to develop depression and physical symptoms.

Researchers speculate that decreased adenosine-5'-triphosphate (ATP) (a multifunctional nucleotide involved in intracellular energy transfer) production rates in mitochondria underlie depressive disorder with very high levels of somatization. They assessed muscle mitochondria in depressed patients as well as somatic symptomatology with three self reported scales (Somatic Anxiety, Muscular and Psychasthenia) from the Karolinska Scales of Personality. At the end of the study, on each of the three Karolinska Scales of Personality, virtually every patient with very high levels of somatic symptomatology demonstrated muscle ATP production rates below the control range.

These results demonstrate that mitochondrial function correlates very strongly with self-reported data related to somatic symptoms in depressed patients, and introduces the possibility that substances such as creatine, coenzyme Q10 and riboflavin may be of help in depression.

The conflict of reward in depression

The paradoxical merging of pleasure and suffering can be a feature of depression.

In a new study of regional brain activity using functional magnetic resonance imaging (fMRI), both depressed and non-depressed volunteers underwent brain scans while they participated in an activity where they won and lost money.

When they anticipated winning money, both depressed and non-depressed individuals showed neural activation in the nucleus accumbens, a region implicated in the anticipation of reward. The depressed participants, however, additionally showed increased activation in the anterior cingulate, a region of the brain that has been implicated in conflict.

This complex mixture of findings suggests that depression is not simply the absence of reward, but rather a contamination of neural processing of rewards with features of neural processing of punishments. These findings are consistent with speculation that depression involves difficulties in the processing of positive information, and suggest more specifically that depressed people actually experience conflict when they are faced with the likelihood of receiving a reward.

One intriguing potential implication of this work is that some forms of depression may be experienced, not as the absence of pleasure, but as the ubiquitous presence of emotional pain, disappointment, or frustration. The researchers currently examining whether this increased experience of conflict when anticipating reward hinders recovery from depression.
GROUP DYNAMICS

Good ideas can prevent groups from generating great ideas

Good ideas can have drawbacks. When information is freely shared, good ideas can stunt innovation by distracting others from pursuing even better ideas, according to Indiana University cognitive scientist Robert Goldstone.

“How do you structure your community so you get the best solution out of the group?” Goldstone said. “It turns out not to be effective if different inventors and labs see exactly what everyone else is doing because of the human tendency to glom onto the current ‘best’ solution.”

Goldstone’s research examines and charts group behaviour and the patterns in which people unknowingly participate—much like ants creating colony structures about which they are clueless. The study used a virtual environment in which study participants worked in specifically designed groups to solve a problem. Participants guessed numbers between 1 and 100, with each number having a hidden value. The goal was for individuals to accumulate the highest score through several rounds of guessing. Across different conditions, the relationship between guesses and scores could either be simple or complex. The participants saw the results of their own guesses and some or all of the guesses of the others in their group.

In the “fully connected” group, everyone’s work was completely accessible to everyone else—much like a tight-knit family or small town. In the “locally connected” group, participants were primarily aware of what their neighbours, or the people on either side, were doing. In the “small world” group, participants were also primarily aware of what their neighbours were doing, but they also had a few distant connections that let them send or retrieve good ideas from outside their neighbourhood.

Goldstone found that the fully connected groups performed the best when solving simple problems. Small world groups, however, performed better on more difficult problems. For these problems, the truism “The more information, the better” is not valid.

“The small world network preserves diversity.” Goldstone said. “One clique could be coming up with one answer, another clique could be coming up with another. As a result, the group as a whole is searching the problem space more effectively.” For hard problems, connecting people by small world networks offers a good compromise between having members explore a variety of innovations, while still quickly disseminating promising innovations throughout the group.


Working alone is better for productivity

People in your work environment could be slowing you down. Regardless of their intentions, having someone working on a different task within your field of vision could slow down your performance.

“Imagine a situation like a complex assembly line,” said Dr. Tim Welsh, from the Faculty of Kinesiology at the University of Calgary. “If you are doing a particular task and the person across from you is doing a different task, you’ll be slowed down regardless of their performance.”

The reason for this is a built-in response-interpretation mechanism that is hard-wired into our central nervous systems. If we see someone performing a task, we automatically imagine ourselves performing that task. This behaviour is part of our mirror neuron system.

Dr Welsh’s set-up involved a participant performing a simple computer task alone, then with a partner performing a different but related task, and alone again after being told that the partner was going to continue to perform the task in another room.

“When an individual could see their partner actually performing the task, the partner's performance interfered with their own performance, causing them to perform more slowly,” Welsh explained. “When the partner left the room and the individual could only see the results of the partner’s action—not the action itself—the interference effect was no longer observed and performance improved. We believe it’s because the individual no longer represented—or modelled—their partners' actions, even though they could see the results of these actions.”

Welsh says his research could have implications for some industrial work settings.

“In a situation where speed and accuracy in performing a certain task are important, I think an argument could be made for a work setting in which people work in isolation—or at least with people who are doing very similar tasks,” he said. “That will remove the involuntary modelling of another’s behaviour, potentially improving speed and likely accuracy.”


Not such a selfish species after all

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 found evidence that this assumption is not necessarily true. In fact the research, funded by the Economic and Social Research Council, shows that most of us will act in the best interest of our team—often at our own expense.

Psychologists carried out the first systematic tests of team reasoning theories by assessing two well known views of how people behave. Orthodox or classical game predicts that people will act for selfish reasons. Team reasoning theory suggests individual self-interest is not always foremost in the way people act as they will act in the best interest of their “team.”

Theories of team reasoning were developed to explain why, in some circumstances, people seem to act not in their individual self-interest but in the interest of their families, companies, departments, or the religious, ethnic, or national groups with which they identify themselves. The study findings show for the first time that team reasoning predicts decision making more powerfully than orthodox game theory in some games.
Participants were each presented with brief sketches of a situation, and then were asked to choose from a list of five options for assigning substantial monetary payoffs to self and an unidentified co-player. They also had to indicate which options they expected their co-player to choose. The five options invariably represented altruism (maximizing co-player's payoff), equality-seeking (minimizing absolute difference between own and co-player's payoff), collective rationality (maximizing joint payoff), individual rationality (maximizing own payoff), and competition (maximizing own minus co-player's payoff).

<table>
<thead>
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<th>Option</th>
<th>You win</th>
<th>Neighbour wins</th>
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<td>B</td>
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<td>E</td>
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Option A maximizes altruism, B equality-seeking, C collective rationality, D individual rationality, and E competition (Colman, Pulford & Rose, 2008)

They were told that at the end of the experiment, one of the scenarios will be chosen at random, and that both they and their partner would be paid according to the options that both preferred for that scenario.

Significantly more participants chose the options that would maximise payoffs to both team players than the option that would maximise payoff to themselves only.


Cooperate or compete—which would we choose?

Phrases such as “survival of the fittest” and “every man for himself” seem to emphasis our competitive spirit, something that has been observed in inter- and intra-group conflict across almost all known organisms. But are there instances in which a group would choose to cooperate, rather than compete?

Researchers explored this question recently in a study exploring individual preferences for inter-group conflict or intra-group cohesiveness in humans.

Participants were divided into two groups and presented with a set of 10 tokens, each worth two money units (MU), and a scenario: each individual can contribute any number of tokens into two pools, the within-group pool (pool W) or the between-group pool (pool B). Contributing a token to pool W increases everyone’s stash, including that of the contributor, by one MU without affecting the other group, whereas contributing to pool B adds one MU to everyone’s collection in the in-group and subtracts one MU from the out-group’s supplies.
The participants therefore had a clear choice to either contribute to the in-group without harming anyone, or actively choosing to damage the out-group.

Previous studies on the topic indicated that individuals would often choose to compete with any opposing group; however, the game used to measure those studies failed to give participants the option of leaving the other group alone. Specifically, the only choices were to keep all of the tokens or to give tokens to the in-group while subtracting tokens from the out-group. By adding the new option of keeping all money within the in-group, the psychologists allowed participants to strengthen their own group without damaging the other.

Surprisingly, the participants preferred contributing to pool W, choosing cooperation over competition, when given the option to do so. Furthermore, those individuals who had been allowed to consult with one another before the game showed an increase in their preference to cooperate.

It appears, therefore, that participants much preferred avoiding conflict when given the option to strengthen their own group instead. But this still leaves behind yet another question of group dynamics: why, if humans prefer cooperation when given that option, are there so many instances of competition shown in everyday life?

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**Low-power positions can hinder people from getting ahead**

Being put in a low-power role may impair a person’s basic cognitive functioning and thus, their ability to get ahead. Researchers found that lacking power impaired people’s ability to keep track of ever-changing information, to parse out irrelevant information, and to successfully plan ahead to achieve their goals.

In one experiment, the participants completed a Stroop task, a test designed to exercise executive functions. Participants who had earlier been randomly assigned to a low-power group made more errors in the Stroop task than those who had been assigned to a high-power group. The researchers established that these results were not due to low-power people being less motivated or putting in less effort. Instead, those lacking in power had difficulty maintaining a focus on their current goal.

In another experiment, participants were asked to move an arrangement of disks from a start position to a final position in as few moves as possible (the Tower-of-Hanoi task). This task tests the more complex ability of planning. In some trials there was a catch: participants had to move the first disk in a direction that was opposite to its final position. Low power participants made more errors and required more moves on these trials, demonstrating poor planning.

These results have direct implications for management and organizations. In high-risk industries such as health care, a single employee error can have fatal consequences. Empowering these employees could reduce the likelihood of such errors.

Additionally, the study illustrates how hierarchies perpetuate themselves. By randomly assigning individuals to high and low-power conditions, the study demonstrates that simply lacking power can automatically lead to performance that reinforces one’s low standing, sending the powerless towards a destiny of dispossession.

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First peek at the human brainstem

A team of scientists from Princeton University has devised a new experimental technique that produces some of the best functional images ever taken of the human brainstem, the most primitive area of the brain.

The scientists believe they may be opening the door to inquiries into a region that acts as the staging area for the brain chemicals whose overabundance or absence in other parts of the brain are at the root of many neuropsychiatric disorders, like addiction, schizophrenia and Parkinson’s disease. They used functional magnetic resonance imaging (fMRI) to study brainstem activity in dehydrated humans. The scanning technique allows researchers to watch the brain in action.

The subjects were participating in classical conditioning experiments in which they were presented with a visual clue, then, at varying intervals, given a drink. The researchers were able to track changes in blood flow in areas of the brainstem associated with enhanced activity of the brain chemical dopamine—as the person experienced either pleasure or disappointment at receiving or not receiving the reward.

The team’s experiments confirmed results already seen in animal studies. Blood flow increased in the dopamine centres of the brainstem when test subjects were happily surprised with a reward. However, there was no activity when participants received less than what they expected, a finding that is different from the results of previous studies looking farther downstream.

The study findings provide a critical link between studies in non-human animals that have looked directly at the activity of dopamine cells in the brainstem, and studies in humans of behaviours thought to be related to dopamine.

Because this area of the brain is so small, attempts to view the brainstem have so far been unsuccessful. Until now, scientists wanting to use brain scans to study brain chemicals such as dopamine were relegated to watching its effects in other more accessible parts of the brain, such as the prefrontal cortex and ventral striatum. However, this is downstream of the source of the chemicals, and therefore possibly much less accurate.

The brain stem, a tiny, root-shaped structure, is the lower part of the brain, at the top of the spinal cord. The area controls brain functions necessary for survival, such as breathing, digestion, heart rate, blood pressure and arousal. The brain structure also serves as the home base for neuromodulators such as dopamine, serotonin and norepinephrine.
New receptor complex identified in the brain

Researchers have identified a new receptor complex in the brain that responds to several types of antipsychotic drugs used to treat schizophrenia, and also reacts to hallucinogenic drugs such as LSD.

The psychosis associated with schizophrenia is characterized by alterations in sensory processing and perception. The discovery of this receptor complex could provide a new target for developing drugs to treat schizophrenia.

The study done with mice discovered that the two receptors, neurotransmitters glutamate and serotonin, interact and work as a hybrid complex. Hallucinogenic drugs, such as LSD and psilocybin, act at serotonin receptors to cause responses similar to some of the core symptoms of schizophrenia. The researchers showed that the glutamate receptor interacts with the serotonin receptor to form functional complexes in the brain cortex. This receptor complex triggers unique cellular responses when targeted by hallucinogenic drugs.

Activation of the glutamate receptor blocks hallucogen-specific signalling and changes behavioural responses in mice.

In untreated schizophrenics, the serotonin receptor is up-regulated and the glutamate receptor is down-regulated, a pattern that could predispose to psychosis. These findings suggest that the newly identified serotonin/glutamate complex may be involved in the altered cortical processes of schizophrenia.


Brain network linked to contemplation

A brain network associated with introspective tasks—such as forming the self-image or understanding the motivations of others—is less intricate and well-connected in children. The network, called the default network, establishes firmer connections between various brain regions as an individual matures.

Researchers have linked this network to many inward-looking activities, including the creation of the “autobiographical self,” a person’s internal narrative of their life story; and “mentalizing,” the ability to analyze the mental states of others and use those insights to adjust the self’s behaviour appropriately.

In comparing the functional connectivity in 13 brain regions associated with the default network in children ages seven to nine, and adults ages 21 to 31, the scientists found that the difference between children and adults is profound.

PERSONALITY & EMOTIONS

Dominance represented in vertical terms

A person’s level of dominance can be measured based on their biases favouring vertical representations of power. Research has shown that people who are more dominant are quicker at processing information that appears in the vertical dimension of space.

In the study, a computer program prompted participants to press the ‘p’ or ‘q’ key on the keyboard when the corresponding letter appeared on the screen. The participants were asked to be as fast and accurate as possible. The letters were displayed randomly on the right, left, top or bottom part of the screen. The test was repeated hundreds of times, with the participants’ attention always brought back to the centre of the screen after each letter presentation.

Those individuals who responded faster when the letters were on the top or bottom of the screen also had high scores in dominance on a personality inventory. The other participants did not show a significant preference for the vertically-arranged letters.

A second experiment replicated the finding with more student participants, a different measure of personality dominance, and with the letters’ positioning following a predictable rather than a random pattern.

Previous research has shown that dominant individuals frequently think in terms of dominance hierarchies, which typically invoke vertical metaphor (e.g., “upper” vs. “lower” class). The results of this study specifically suggest that thinking dominantly predisposes one to see vertically.


Happiness: having what you want, or wanting what you have?

Some argue that happiness is not having what you want, but wanting what you have. This maxim sounds reasonable enough, but can it be tested, and if so, is it true?

Students were asked to indicate whether they possessed 52 different material items, such as a car, a stereo or a bed. If the students owned a car, the researchers asked them to rate how much they wanted the car they had. If they did not have a car, they were asked to rate how much they wanted one. The researchers then calculated the extent to which people want what they have and have what they want.

The findings show that wanting what you have is not the same as having what you want. While people who have what they want tend to desire those items, the correlation between the two was far from perfect. People who want more of what they have tend to be happier than those who want less of what they have. However, people who have more of what they want tend to be happier than those who have less of what they want.

These results suggest that people can grow accustomed to their possessions and thereby derive less happiness from them. They also suggest, however, that people can continue to want the things they have and that those who do so can achieve greater happiness.
Subliminal emotions

Psychologists have uncovered the first empirical evidence to suggest humans do not need to be aware of the event that caused their mood or feelings in order to be affected by it.

Most people agree that emotions can be caused by a specific event and that the person experiencing it is aware of the cause, such as a child's excitement at the sound of an ice cream truck. But recent research suggests emotions also can be unconsciously evoked and manipulated.

The scientists hypothesized that, since humans have evolved to respond quickly and unconsciously to stimuli, they should be able to react to an emotional event without full awareness: “You are likely to live longer if you immediately stop moving at the sight of a growling grizzly bear and do not need full awareness for such a response to be instigated.”

They measured people’s thoughts, feelings and behaviour to determine whether specific emotions were induced without awareness of their cause. Participants were separated into three groups and were told that very short flashes would appear on a computer screen. They were then instructed to press the ‘R’ key if it appeared on the right side of the screen or the ‘L’ key if it appeared on the left.

In actuality, the ‘flashes’ were subliminal images selected to elicit fear, disgust or no emotion at all. The images flashed at varying speeds making it impossible for the participants to be fully conscious of their presence. In other words, the participants were unaware that they were viewing images of growling dogs and dirty toilets or even neutral images, such as horses or chairs.

The participants then underwent three tests to measure the effect of the images on their cognition, feelings and behaviour. For the cognitive measure, they completed word fragments with a variety of words, including those that expressed disgust, fear, anger, generally negative, generally positive, and neutral feelings. Next, participants rated the overall positivity or negativity of their mood and the extent to which they felt fearful, disgusted, satisfied, relieved, proud, angry, shameful and joyful on 7-point scales.

During the behavioural measure, participants were asked to take part in either a ‘strange food test’ or a ‘scary movie test,’ assuming that, for example, those who had been exposed to the disgusting images would want to avoid the possibility of eating something unpleasant. At the end of the study, the researchers asked gradually more specific questions about the subliminal images to gauge the participants’ awareness of the study’s purpose and intent.

The intriguing results strongly support the psychologists’ theory. Those participants who had viewed only the disgust-inducing subliminal images were more likely to use disgust words in the word-completion task, to describe their feelings with the disgust words and to choose to take the ‘scary movie test.’ The same held true for those who viewed only the fear-inducing images: they were also more likely to use words related to fear and to take the ‘strange food test.’

The psychologists also found that after quick (120 ms) speed exposures to emotional stimuli, a general, negative mood developed accompanied by a specific emotion, such as fear after seeing fearful pictures. After the super-quick (40 ms) speed exposure, only a general negative mood was induced without a specific emotion involved. These empirical findings are the first to demonstrate that specific emotions can be evoked without awareness of the cause and that a person’s global mood can develop into a specific emotion.
While the study did not investigate how an individual eventually becomes conscious of their emotions, the scientists did pose an additional hypothesis: “When emotions are full-blown, people become aware of their emotions by perceiving their own actions and bodily reactions; likewise, when emotions are weak, people fail to notice their weakly-related actions and bodily reactions.”


PSYCHOTHERAPY

Couple Power Therapy: commit first, communicate later

Teaching communication techniques to couples is a common way for therapists to begin treatment. In many cases, couples then use these newly acquired skills to express negative or even hostile information to each other, sometimes doing more harm than good to the relationship.

Teaching the couple to see themselves as an entity first, not as two individuals, may be necessary before clear communication can be maximally therapeutic.

A recent article outlines the Couple Power model of treatment (CPT), suggesting that four basic tasks—commitment, cooperation, communication and community—need to be accomplished in that order, postponing the teaching of communication skills until later in therapy.

The couple must commit themselves not just to their partner, but to the entity called the relationship. Creating a commitment to the entity of couple involves shifting the focus from individual needs and problems to what works for the couple as a whole.

A firm commitment creates the foundation for cooperation to take place. In CPT, cooperation is that which allows the partnership to put their trust into action, and to work as a team to create behaviours consistent with their stated commitment.

Once cooperation is undertaken, couples come to see the need for clear communication as crucial to their success. Good communication now becomes the vehicle to reaping the fruits of “being couple” together. It is not used merely to empty out pent up feelings or resentments, but to help in the process of cooperating.

When couples begin to function within the new paradigm of couplism, terminating treatment may thrust them back into a world where the individualistic notion of getting one’s needs met is ever present. This may cause them to feel isolated or even alienated from those around them. For that reason, CPT includes the last important step of the Four C’s of Couple Power, community, which is to create a supportive outside environment for the “new” couple. Community here means a “powerful sense of connection with another couple or group of couples with whom the couple is close friends”. In these
communities of friends, neighbours or relatives, couples can see models for success as well as receive advice and support for dealing with problems or concerns as they arise.


**Transference more pronounced when we are tired**

Sigmund Freud hailed the phenomenon of transference as fundamental to the process of dynamic psychotherapy. He depicted transference as a false connection between a patient's memories of a past relationship and the therapeutic context, and noted it as an integral part in the psychoanalytic cure.

New theories present a very different interpretation of transference. In that, it transcends the therapeutic context and constitutes part and parcel of everyday social perception. Much like stereotypes, mental representations of significant others may be activated from memory and applied to new people that you meet who resemble someone you know.

Psychodynamic theories argue that transference is an intense, resource-demanding process, but psychologists Arie Kruglanski, University of Maryland, and Antonio Pierro, University of Rome “La Sapienza”, suggest that transference is more likely to occur when an individual's energy resources are low, rather than abundant.

Extending the logic from existing research showing that individuals exhibit more stereotypic biases at a non-optimal time of day (i.e. in the morning for evening types and in the evening for morning types), Kruglanski and Pierro examined the occurrence of transference in participants as related to their circadian rhythm.

First, the participants completed a scale to assess “morningness” and were then asked to name, visualize, and describe a current or past significant other. They returned two weeks later either to a randomly assigned morning or evening session. Those categorized as morning people were at a circadian mismatch when they were assigned to the evening session, as were evening people at the morning session.

At this second session, the participants were informed that they would be partnered with another participant; in preparation, they had to memorize information characterizing that person. One group received descriptions of their “partner” that actually consisted of descriptors they themselves had used to describe their significant other in the first session. The other group received descriptions of their “partner” unrelated to the descriptions of their own significant other.

Next, they were shown 15 descriptor sentences, and were asked to indicated which of these had appeared in the description of their “partner”. Of these, four sentences had been included in the description of their “partner”, while eight had been taken from their own description of their significant other. These eight descriptors were used to determine whether transference had taken place, and whether the participant had gone beyond the information actually given about the target.

The results show that morning people in the evening, and evening people in the morning exhibited the transference effect to a greater extent than participants at their circadian best. These people may not be at their most alert state, so they tend to rely on an automatically activated image and fail to notice the differences between the new individual and their significant other.

Kruglanski and Pierro suggest that their results cast doubt on the theory that paints transference as an energy-intensive phenomenon. They suggest that future research focus on integrating the psychoanalytic and the social cognitive approaches to understanding transference.
Structured writing therapy a promising alternative treatment for stress disorders

Writing assignments have shown promising results in treating traumatic symptomatology.

A recent study evaluated the efficacy of structured writing therapy (SWT) and cognitive behavioural therapy (CBT), compared to a waitlist control condition, in treating acute stress disorder (ASD) and posttraumatic stress disorder (PTSD).

Treatment consisted of five 1.5-hour sessions of CBT or SWT for participants with ASD or acute PTSD, and 10 1.5-hour sessions for participants with chronic PTSD. Outcome measures included the Structured Clinical Interview for DSM-IV, Impact of Event Scale, Beck Depression Inventory, State-Trait Anxiety Inventory and the Dissociative Experiences Scale.

The treatment was associated with improved diagnostic status and lower levels of intrusive symptoms, depression and state anxiety. Participants also showed a decreased tendency to display avoidance symptoms. Treatment did not result in lower levels of trait anxiety or dissociation. No differences in efficacy were detected between CBT and SWT.

The researchers believe that this study confirms the efficacy of CBT for ASD and PTSD, and identifies SWT as a promising alternative treatment.


Family-based CBT can help young children with OCD

Children between the ages of 5 and 8 who suffer from obsessive-compulsive disorder (OCD), may benefit from a form of psychotherapy known as family-based cognitive behavioural therapy (CBT), uniquely tailored to the child’s developmental needs and family context.

Although children as young as five can be diagnosed with OCD, few research studies have looked at treatments specifically geared toward young children with this disorder. A study from the Bradley Hasbro Children's Research Center provides some of the first evidence-based data on a successful intervention for early childhood OCD.

The overall focus of family-based CBT is to provide both child and parents with a set of tools to help them understand, manage and reduce OCD symptoms.
Researchers worked with 42 young children with OCD who were randomized to receive 12 sessions—completed over 14 weeks—of either family-based CBT or family-based relaxation treatment (RT), an approach that teaches the family and child relaxation techniques aimed at reducing some of the stress inherent in OCD. Just over half of the patients were randomly assigned to CBT and 48 per cent were assigned to RT.

The CBT program was found to be significantly more effective than RT in decreasing OCD symptoms and, most importantly, helping a large number of children achieve clinical remission. Specifically, 69 per cent of the children who completed all 14 weeks of CBT treatment achieved remission, compared to 20 per cent who fully completed the RT program. Even those children who started, but did not complete, the CBT program did well, with 50 per cent achieving clinical remission.

An important finding of this study is that children in this age range can actively participate in and benefit from CBT that is appropriately tailored to their cognitive developmental level.

The family-based CBT method modelled in the study draws on successful approaches used with older children, but also contains innovative elements that have been specifically tailored to children ages 5 to 8, with special attention paid to the child's cognitive and developmental level and awareness of a child's involvement in and dependence on a family system. A specifically tailored programme is necessary, as younger children generally have less sophisticated emotion awareness and expression skills than older children. Younger children also rely on parents for guidance and direction more so than older children, and parents may be more likely to inadvertently reinforce or even actively accommodate a young child's rituals.

Based on the study's findings, the researchers offer the following clinical considerations and recommendations:

- Treatment of children experiencing early childhood-onset OCD will be most effective if parents are involved in all phases of the treatment.
- Clinicians should consider the child's unique developmental characteristics and tailor psychoeducation, exposures and homework accordingly.
- Clinicians should take time to understand the family context and, in particular, the parents' response to their child's anxieties.
- Teach parents to tolerate their own anxiety about their child's level of distress.
- Use humour generously.


Internet and group CBT for minor depression benefits those with an agreeable personality

A study is suggesting that patients with sub-threshold depression who have an agreeable personality type are more likely to benefit from cognitive behaviour therapy (CBT) than those with a neurotic personality type. The study also found that women and individuals with a higher level of education were more likely to respond to CBT than men and people with less education.
People with sub-threshold depression have deficits in psychosocial functioning and general well-being and are at risk for developing major depression, yet fewer than 20% are detected and treated. CBT has proven to be effective in treating sub-threshold depression; however, little is known about which patient characteristics determine the effectiveness of the various forms of therapy.

In the present study, the researchers recruited 45 men and 85 women, aged a median of 55 years, who scored higher than 12 out of a possible 30 on the Edinburgh Depression Scale—indicating sub-threshold depression. The participants were randomly assigned to receive either internet-based CBT or group therapy.

The researchers assessed patients using the NEO-Five Factor Inventory to determine personality type. They also measured depression scores before and after the intervention using the Beck Depression Inventory (BDI).

Average BDI scores at baseline were similar in the two treatment groups, at around 18 out of a possible 63.

Following treatment, patients who received internet-based therapy had an average BDI score of 10.93, slightly better than those receiving group therapy, who had an average score of 12.12. Higher baseline BDI scores, female gender, lower neuroticism scores, and higher levels of education predicted greater improvement in depressive symptoms in both treatment groups.

The researchers speculate that in this group of people, who were mostly aged over 50 years, level of education might also be related to computer skills, possibly affecting scores in the internet therapy group.

Among patients receiving group therapy, those with higher agreeableness scores showed greater improvements on the BDI. The researchers hypothesize that participants who get along well with others and who generally view others as trustworthy do better in group treatment than people without these characteristics.

Length of psychodynamic therapy predicts long-term outcomes

Short-term psychodynamic psychotherapy produces benefits in patients with psychiatric symptoms more quickly than long-term therapy, but long-term therapy is more beneficial in the longer term.

A Finnish team studied 326 outpatients, of whom 84.7% had mood disorders and 43.6% anxiety disorder. The patients were assigned to long-term psychodynamic psychotherapy, short-term psychodynamic psychotherapy, or solution-based therapy, and followed-up for 3 years.

The self-report Beck Depression Inventory (BDI) and Symptom Check List Anxiety Scale (SCL–90–Anx) were administered at baseline and at 3, 7, 9, 12, 24, and 36 months' follow-up, and the observer-rated Hamilton Depression Rating Scale (HAM–D) and Hamilton Anxiety Rating Scale (HAM–A) at baseline and at 7, 12, and 36 months’ follow-up.

In all, 128 patients were assigned to long-term psychodynamic therapy, 101 to short-term psychodynamic therapy, and 96 to solution-based therapy, with 42 discontinuing treatment prematurely. Approximately 60% of participants used auxiliary treatment and 3.1% were admitted to hospital, none of whom were assigned to solution-based therapy.
The results revealed statistically significant reductions in symptoms on all rating scales, at 51% on the BDI, 36% on the HAM–D, 41% on the SCL–90–Anx, and 38% on the HAM–A.

During the first year, short-term psychodynamic therapies were significantly more effective than long-term psychodynamic therapy, with comparative reductions on the four scales of 15 to 27%. There were no significant differences during the second year, while long-term psychodynamic therapy was more effective after 3 years' follow-up, with comparative reductions of 14 to 37% on the outcome measures.

There were no significant differences between short-term psychodynamic therapy and solution-based therapy at any of the follow-up assessments.

The findings indicate that the length of therapy rather than the form is important when predicting the outcome of the therapy. More research comparing the effects of different forms of short-term and long-therapy is needed, however.


THE PSYCHOLOGY OF ECONOMICS

"Phantasie" should form part of economic models—Psychoanalysing the stock market

Investors get carried away with excitement and wishful ‘phantasies’ as the stock market soars, suppressing negative emotions which would otherwise warn them of the high risk of what they are doing, according to a new study led by UCL (University College London). Economic models fail to factor in the emotions and unconscious mental life that drive human behaviour in conditions where the future is uncertain, says the study, which argues that banks and financial institutions should be as wary of ‘emotional inflation’ as they are fiscal inflation.

The paper explores how unconscious mental life should be integrated into economic decision-making models, where emotions and ‘phantasies’—unconscious desires, drives and motives—are among the driving forces behind market bubbles and bursts.

One of the authors explains:

“Feelings and unconscious ‘phantasies’ are important; it is not simply a question of being rational when trading. The market is dominated by rational and intelligent professionals, but the most attractive investments involve guesses about an uncertain future and uncertainty creates feelings. When there are exciting new investments whose outcome is unsure, the most professional investors can get caught up in the ‘everybody else is doing it, so should I’ wave which leads first to underestimating, and then after panic and the burst of a bubble, to overestimating the risks of an investment.
“Market investors’ relationships to their assets and shares are akin to love–hate relationships with our partners. Just as in a relationship where the future is unexpected, as the market fluctuates you have to be prepared to suffer uncertainty and anxiety and go through good times and bad times with your shares. You can adopt one of two frames of mind. In one, the depressive, individuals can be aware of their love and hate and gradually learn to trust and bear anxiety. In the other, the paranoid schizoid, the anxiety is not tolerated and has to be detached, so the object of love is idealised while its potential for disappointment is ‘split’ off and made unconscious.

“What happens in a bubble is that investors detach themselves from anxiety and lose touch with being cautious. More or less rationalised wishful thinking then allows them to take on much more risk than they actually realise, something about which they feel ashamed and persecuted, but rarely genuinely guilty, when a bubble bursts. Again, like falling in idealised love, at first you notice only the best qualities of your beloved, but when everything becomes real you become deflated and it is the flaws and problems that persecute you and which you blame.

“Lack of understanding of the vital role of emotion in decision-making, and the typical practices of financial institutions, make it difficult to contain emotional inflation and excessive risk-taking, particularly if it is innovative. Those who join a new and growing venture are rewarded and those who stay out are punished. Institutions and individuals don’t want to miss out and regulators are wary of stifling innovation. If other investors are doing it, clients might say ‘why aren’t you doing it too, because they’re making more money than we are’.

Testosterone levels could predict stock market success

A high testosterone reading could predict an excellent day on the stock market, with above-average profits.

Researchers followed 17 male London financial stock traders for eight days, and found that each trader’s testosterone levels were higher on days when profits exceeded his one-month daily average, than on other days. With elevated testosterone, traders may experience more confidence and take more risks—qualities that could bolster trading performance.

However, too much testosterone or prolonged elevation could lead to impulsive decisions and extreme risk-taking, turning a trader’s profits into losses. The researchers also found that the traders in the study had spikes in levels of cortisol, a hormone that plays a role in how we respond to stress, associated with higher market volatility. Rising cortisol could reduce a person’s inclination to take risks, possibly overriding the effect of testosterone. These spikes in cortisol levels could serve as a built-in buffer to keep testosterone-induced financial risk-taking in check.


Sleep deprived people suffer “power failures”

New imaging research shows that brain activity differs in sleep-deprived and well-rested people. Individuals who are sleep-deprived experience periods of near-normal brain function, but these periods are interspersed with severe drops in attention and visual processing.

This study shows what happens in the sleep-deprived brain and may explain why sleep-deprived people fail to stay alert. “The main finding is that the brain of the sleep-deprived individual is working normally sometimes, but intermittently suffers from something akin to power failure,” said Clifford Saper, MD, PhD, of Harvard University, an expert unaffiliated with the study.

The research team used functional magnetic resonance imaging (fMRI) to measure brain blood flow in people who were either kept awake all night or allowed a good night’s sleep. Researchers tested the same participants in both conditions.

During imaging, participants did a task that required visual attention. Researchers showed them large letters composed of many smaller letters. Participants were asked to identify either the large or small letters and to indicate their responses by pushing a button.

Well-rested and sleep-deprived volunteers showed a range of reaction times. Those participants with the fastest responses, both in sleep-deprived and well-rested conditions, showed similar patterns of brain activity. However, well-rested and sleep-deprived participants with the slowest responses—also called attentional lapses—showed different patterns of brain activity.

Previous research showed that attentional lapses normally induce activity in the frontal and parietal regions of the brain, “command centres” that may compensate for lost focus by increasing attention. However, during attentional lapses, the scientists found reduced activity in these brain command centres in sleep-deprived compared to well-rested volunteers. This finding suggests that sleep deprivation reduces the brain’s ability to compensate for lost focus.

Sleep-deprived people also showed reduced activity in brain regions involved in visual processing during attentional lapses. Because the brain becomes less responsive to sensory stimuli during sleep, reduced activity in these regions suggests that, during attentional lapses, the sleep-deprived brain enters a sleep-like state.

“To my knowledge, this is one of the first studies to look carefully at brain imaging during lapses of consciousness after sleep deprivation, the equivalent of ‘blanking out,’” said Emmanuel Mignot, MD, PhD, at Stanford University, who was not involved in the study. Although attentional lapses result in the same behaviours, “lapses due to sleep deprivation are clearly different neurobiologically than lapses in well-rested people”.


SUBSTANCE ABUSE

Brain imaging shows how alcohol decreases brain sensitivity to threats

Brain imaging research shows that, after consuming alcohol, social drinkers have decreased sensitivity in brain regions involved in detecting threats, and increased activity in brain regions involved in reward. This first human brain imaging study of alcohol’s effect on the response of neuronal circuits to threatening stimuli helps to explain why people engage in risky behaviour while intoxicated.

Working with a dozen healthy participants who drink socially, researchers used functional magnetic resonance imaging (fMRI) to study activity in emotion-processing brain regions during alcohol exposure. Over two 45-minute periods, the study participants received either alcohol or a saline solution intravenously and were shown images of fearful facial expressions. Previous studies have shown that expressions of fear signal a threatening situation and activate specific brain regions. The same group of participants received both alcohol and placebo, on two separate days. Comparing brain activity, the team found that when participants received the placebo infusion, fearful facial expressions spurred greater activity than neutral expressions in the amygdala, insula, and para-hippocampal gyrus—brain regions involved in fear and avoidance—as well as in the brain’s visual system. However, these regions showed no increased brain activity when the participants were intoxicated.

In addition, alcohol activated striatal areas of the brain that are important components of the reward system. This confirms previous findings and supports the idea that activation of the brain’s reward system is a common feature of all drugs of abuse. The scientists found that the level of striatal activation was associated with how intoxicated the participants reported feeling. These striatal responses help account for the stimulating and addictive properties of alcohol.

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Computer-assisted CBT helps addicts stay clean for longer

A new study finds that drug abusers who used a computer-assisted training programme in addition to receiving traditional counselling stayed abstinent significantly longer than those who received counselling alone.

Seventy-seven people who sought treatment for drug and alcohol abuse were randomly assigned to receive traditional counselling or to get computer-assisted training based on principles of cognitive behavioural therapy, as well as sessions with a therapist. The subjects who received computer-assisted training had significantly fewer positive drug tests at the conclusion of the study.

Kathleen M. Carroll, professor of psychiatry and lead author of the study, and her team at the Yale School of Medicine developed a software program to help supplement counselling in drug addiction as well as other psychiatric disorders. The computer-assisted therapy programme consists of text, audio, and videotaped examples designed to help the user learn new ways of avoiding the use of drugs and changing other problem behaviours.

Those participants assigned to computer-assisted training were exposed to six lessons, or modules, that they accessed from a computer located at the treatment programme. Each module included a brief movie
that presented a particular challenge to the subjects’ ability to resist substance use, such as the offer of drugs from a dealer. The narrator of the module then presented different skills and strategies to avoid drug use, and also showed videotapes of individuals employing those strategies.


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**PSYCHLITS: ON THE PSYCH RADAR**

**Severe stress raises schizophrenia risk in early pregnancy**

Children born to women who suffer severe stress early in pregnancy are at increased risk of developing schizophrenia later in life. Risk increases only during early pregnancy, and not at any other time during pregnancy, or in the six months leading up to it. The results come from a Danish study of 1.38 million births from 1973 to 1995, which found that the risk of schizophrenia increased by 67% among the offspring of women who experienced the death or serious illness of a close relative before or during pregnancy. This study did not look at all types of mental illness, and the only stressful event the researchers looked at was the death or illness of a relative.


**Why teenagers get hooked more easily, and find it harder to quit**

New drug research suggests that adolescents may get addicted and relapse more easily than adults, because developing brains are more powerfully motivated by drug-related cues. This conclusion has been reached by researchers who found that adolescent rats given cocaine—a powerfully addicting stimulant—were more likely than adults to prefer the place where they got it. That learned association endured even after experimenters had extinguished the drug-linked preference. A small reinstating dose of cocaine appeared to rekindle that preference, but only for the adolescent rats.

### 20 minutes per week of physical activity boosts mental health

Twenty minutes per week of any physical activity, including housework, is enough to boost mental health. These findings are based on a representative sample of almost 20,000 men and women who were quizzed for the Scottish Health Survey about their state of mind and how much weekly physical activity they engaged in. Any form of daily physical activity was associated with a lower risk of distress, when other influential factors, such as age, gender, and the presence of a long-term condition were taken into account. The range of beneficial activities included housework, gardening, walking, and sports, although the strongest effect was seen for sports, which lowered the risk of distress by 33%. While just 20 minutes improved mental state, the more activity a person indulged in, the lower were their chances of psychological distress.

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### The role of spirituality and meaning in severe depression

A qualitative study exploring the role of spirituality and meaning among 15 participants suffering from severe depression found the following emerging themes: (1) depression creates a sense of spiritual disconnection. Participants indicated feeling disconnected from God, the community, and oneself; (2) spirituality plays an important role in coping with the pain of depression; (3) there exists a deep yearning for a sense of meaning and a struggle to make sense of one’s pain; and (4) coming to terms with one’s circumstances and one’s depression at some level assists in the healing process.

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### Hope for SAD patients in discovery that eye processes light differently from sight

New research with mice has discovered that the eye uses light to reset the biological clock through a mechanism separate from the ability to see. The findings suggest that patients with trouble sleeping or seasonal depression—disorders that can be linked to lack of exposure to daylight—could benefit from the development of easier, more available tests to determine if they are able to detect light properly for functions distinct from normal sight. Researchers genetically modified mice so that a particular set of retinal ganglion cells—cells that receive input from the rods and cones of the animals’ eyes and send information to the brain—no longer functioned. The mice were still able to use light to see normally, but had great difficulty synchronizing their circadian rhythms to light/dark cycles, the constant lengthening or shortening of daylight hours that occurs depending on the time of year.

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Making friends randomly

Rather than picking our friends based on intentional choice and common values and interests, our friendships may be based on more superficial factors like proximity (such as neighbours) or group assignments (your department at work). Fifty-four students met one another for the first time at an introductory session, and were then randomly assigned seats in a group of chairs organized in rows. Those who had neighbouring seats rated a higher friendship intensity one year later. The same was true even if participants were merely in the same row. This counter-intuitive finding suggests that friendships may not be as deliberate we think.


Migraine and temperament linked to handedness in major affective disorder

Among patients with major affective disorders, non-right-handedness is associated with migraine and bipolar affective temperaments, or ‘soft bipolarity’. Migraine, which has been suggested as being associated with left-handedness, is a common co-morbid disorder in depressive and bipolar patients. In this study, participants with migraine had a significantly increased prevalence of non-right-handedness, at 37% versus 19%. The prevalence of non-right-handedness was also significantly higher in patients with cyclothymic, hyperthymic, or irritable temperaments than in those with a depressive or no affective temperament, at 42% versus 24%. Patients with co-morbid eating disorders and those with asthma also had a significantly increased prevalence of non-right-handedness than other patients, at 48% versus 26%, and 45% versus 26%, respectively.


Migraine associated with psychiatry disorders

Migraine is associated with major depressive disorder, bipolar disorder, panic disorder, and social phobia, leading to poorer health-related outcomes than either migraine or a psychiatric condition alone. Researchers examined data from the 2002 Canadian Community Health Survey, which involved 36 984 individuals. The 12-month and lifetime prevalence of mental disorders was more than twice as high among individuals with migraine than those without, at respective rates of 8.6% versus 3.4% and 18.8% versus 9.8% for major depressive disorder; 2.8% versus 0.7% and 5.4% versus 2.0% for bipolar disorder; 5.5% versus 1.6% and 9.6% versus 4.0% for panic disorder; and 6.7% versus 2.5% and 14.3% versus 7.3% for social phobia. Migraine was not associated with drug, alcohol, or substance dependence, and the increased prevalence of psychiatric disorders was not linked to socio-demographic variables. Regardless of migraine, psychiatric disorders were less common in individuals aged over 65 years, those in a relationship, and those with a higher income.

New evidence for a schizoaffective spectrum of disorders

The evidence for a schizoaffective spectrum involving a continuum of psychotic illness has been supported by Spanish study findings, which show that the overall pattern of illness-related variables is largely independent of specific diagnosis. Using a dimensional and categorical approach to psychopathology, researchers studied 660 psychotic inpatients. Bipolar Affective Disorder Dimension Scale (BADDS) ratings across the Research Diagnostic Criteria (RDC) classification showed that mania and depression scores were lower in schizophrenia, intermediate in psychosis NOS, and higher in schizoaffective disorder and mood disorders (using DSM-IV criteria). Psychosis and incongruence scores followed a continuum of severity, with scores highest in schizophrenia and lowest in psychotic mood disorder. The dimensional approach for explaining illness-related variability was significantly superior to the categorical approach in explaining familial loading for mood disorders, age at onset, mode of onset, number of hospitalizations, response to treatment, course of illness, work activity, social contacts, and global functioning.

Preschool children should be encouraged to talk to themselves

Parents should not worry when their pre-schoolers talk to themselves; in fact, they should encourage it. Scientists found that 5-year-olds do better on motor tasks when they talk to themselves out loud (either spontaneously or when told to do so by an adult) than when they are silent. In this study, 78% of the children performed either the same or better on the performance task when speaking to themselves than when they were silent. Children with behavioural problems (such as those diagnosed with Attention Deficit Hyperactivity Disorder, or ADHD) tend to talk to themselves more often than children without signs of behaviour problems. High-functioning autistic children also talk to themselves often and in the same ways that non-autistic children do. Talking aloud also improved their performance on tasks.

Three age-of-onset subgroups in bipolar I disorder identified

Bipolar I disorder patients can be divided into three age-at-onset (AAO) subgroups: an early-onset group with an AAO of below 21 years, an intermediate-onset group with an AAO of 22-33 years, and a late-onset group with an AAO of over 33 years. Previous studies have indicated that the average AAO of bipolar disorder is 21 years. However, the findings of several investigations of AAO in bipolar I disorder suggested that there are different subgroups of patients with internal homogeneity of clinical traits, which this new study now confirmed.

Early childhood separation from mother increases risk of schizophrenia symptoms in later life

Children who are separated from their mothers in the first two years of life are more likely to develop schizotypal personality disorder (SPD) symptoms than other children, particularly if they showed early angry emotional behaviour. These findings come from a study of 766 children born in 1975, and followed-up at least twice in 1985–1986, 1991–1993, or 2001–2004. Children separated from their mother for at least one month during the first five years of life had a significant increase in average SPD symptoms in


comparison with other children. The effect was largely due to separation during the first two years of life, with a 0.30% increase in SPD symptoms for each week of separation during the first two years, compared with an increase of just 0.11% for years 2 to 5. Children who reported more behavioural evidence of maternal affection at an average age of 13.7 years were less likely to report SPD symptoms, while children with an angry temperament were more likely to report symptoms.


**PSYCH–POINTERS...**

... to relevant articles

**Influence through ignorance**

Researchers are challenging the classic economic model of information manipulation, in which knowing more than anybody else is the key to influence. Instead, economists Isabelle Brocas and Juan D. Carrillo present a situation—commonly observed in real life—in which all parties have access to the same information, but one party still manages to control public opinion.

For example, a pharmaceutical company such as Merck may be obliged to make public the findings of all studies related to a new drug. Preliminary trials may indicate no short-term side effects, and the company may elect not to perform follow-up trials before releasing the drug on the market.

“Optimally, you want to provide enough information so the other party reaches a certain level of confidence, but stop once you reach that level,” Brocas explained. “Otherwise, it may be the case that more information causes the confidence level to go down.”

As Brocas and Carrillo explain, there are secrets—facts that are deliberately withheld—and there are facts that are not known to anybody. Notably, the party manipulating the flow of information must deliberately choose to remain uninformed as well—which can backfire.

In Merck’s case, a study released five years after the drug was introduced on the market showed that taking Vioxx significantly increased the risk of heart attacks. Merck funded the study, which had been intended to see if the painkiller was also effective against colon polyps.

Now, embroiled in a $4.85 billion settlement, the company claims that Vioxx poses no statistically significant long-term risk to the heart once it is no longer taken. This claim is disputed: Merck stopped monitoring patients after only a year, discontinuing the study once the drug was taken off the market.

Similarly, the researchers explain, the head of a council or chairperson of a meeting may terminate discussion and introduction of new evidence about, say, whether to continue searching for weapons of
mass destruction. Calling for a vote when sentiment seems biased in a certain direction effectively curtails how much all members, including the chairperson, know about the issue at stake.

“Overall, the ability to control the flow of news and remain publicly ignorant gives the leader some power, which is used to influence the actions of the follower,” the researchers wrote. “Our result suggests that the chairperson, the President and media can bias the decision of the committee, electorate and public by strategically restricting the flow of information.”

The paper also provide implications for several important variants, such as how public opinion is affected when there is more than one source of information available to everyone, and it is not excessively costly to obtain.

Competition, supported by media diversity and public sources of research funding, not only induces outlets to release more information, but also causes the “influence through ignorance” effect to diminish—and under certain circumstances to vanish.

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Brocas, I. & Carrillo, J.D. (2008). Influence through ignorance. At the time of writing, the article was freely available at http://www.rcf.usc.edu/~juandc/PDFpapers/wp-influ.pdf. According to ScienceDaily.com, the article was published in The RAND Journal of Economics (Winter 2008), which was not yet available online.


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Theory-of-mind as a unifying construct

Theory of Mind (ToM) refers to a person’s ability to understand that another person has his or her own unique way of thinking and feeling. ToM is a well-known and rapidly expanding field of research in the neurosciences, cognitive sciences, social sciences, evolution, and brain imaging. This review article expands ToM into areas where there has not yet been research. It proposes that ToM could illuminate the relationship between religion/spirituality and health, and could provide the lingua franca for the hundreds of schools of psychotherapy. The author discerns two different kinds of spirituality: personal versus impersonal. Empathy is central to ToM research and is also central to mental health training and practice. ToM illuminates familiar topics in a new light; for example, ToM reveals a close link between psychology and spirituality in self-efficacy and locus of control research.

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On the hazards of being a stranger to oneself

This paper traces out the socio-political consequences of self-ignorance and self-deception. These consequences were clearly recognized more than 2000 years ago by early Greek philosophers, in part along the lines of a conceit of wisdom. The consequences were more recently spelled out in striking ways by Carl Jung in his psychoanalytic analyses of “mass-minded man” who, through self-ignorance and self-deception, wreaks havoc and cruelty on others. The paper also points out the challenge of attaining self-knowledge and possible paths to its attainment that bolster or augment classic psychotherapeutic approaches.

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REBT with children and adolescents in educational settings

This review article discusses the need for a comprehensive intervention strategy for students who experience difficulty managing self-defeating emotions and behaviours in educational settings. The article identifies related research in the literature, and describes how the application of Rational Emotive Behaviour Therapy (REBT), as a comprehensive educational intervention, has been implemented with children and adolescents who have been identified as having emotional disturbance in various educational settings.


DRUGS & MEDICATION

Neupro recommended for approval for restless legs syndrome: European Medicines Agency

Neupro® (rotigotine transdermal patch) has been recommended for approval by the European Medicines Agency (EMEA) in the symptomatic treatment of moderate-to-severe idiopathic Restless Legs Syndrome (RLS) in adults.

The decision is based on data from two well-controlled clinical trials that evaluated the efficacy and safety of Neupro® over a six-month period in almost 1000 patients with RLS. In these trials, Neupro® showed significant and clinically relevant improvements in RLS symptoms compared to placebo, and was generally well tolerated.

The most frequently reported adverse events associated with rotigotine in these studies were application site reactions, nausea, dizziness, somnolence and headache.


FDA approves Seroquel for maintenance treatment in Bipolar Disorder

The US Food and Drug Administration (FDA) has approved Seroquel (quetiapine fumarate) for the maintenance treatment of patients with bipolar I disorder, as adjunct to lithium or divalproex. Seroquel is approved by the FDA for the treatment of schizophrenia, and is the only single agent approved by the FDA for the treatment of both depressive episodes in bipolar disorder and acute manic episodes associated with bipolar I disorder.

**Dimebon improves thinking and memory in Alzheimer's patients**

Alzheimer's patients treated with the investigational drug Dimebon showed improvement in the key aspects of cognitive function over a one-year period compared with placebo. The improvement occurred in not only memory and language, but also in more complex functions such as awareness of time and place, and praxis—the process of getting an idea and initiating and completing a new motor task. These clinical results were generated during a pivotal trial of Dimebon in patients with mild-to-moderate Alzheimer's disease (AD).

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**ALTERNATIVE & COMPLEMENTARY THERAPIES**

**Green tea ameliorates brain deficits related to sleep apnea**

Chemicals found in green tea may be able to stave off the cognitive deficits that occur with obstructive sleep apnea (OSA).

Researchers examined the effects green tea polyphenols (GTP)—administered through drinking water—on rats who were intermittently deprived of oxygen during 12-hour “night” cycles, mimicking the intermittent hypoxia (IH) that humans with OSA experience.

People with OSA have been reported to have increased markers of oxidative stress and exhibit architectural changes in their brain tissue in areas involved in learning and memory. Chronic IH in rats produce similar neurological deficit patterns.

GTPs are known to possess anti-oxidant properties, acting as a free radical scavengers, and research has shown that the compounds may reduce the risk of a variety of different diseases.

Rats that received the green-tea-treated water performed significantly better in a water maze than the rats that drank plain water. They displayed significantly greater spatial bias for the previous hidden platform position, indicating that GTPs are capable of attenuating IH-induced spatial learning deficits.

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The father I had (Mind Book of the Year Award 2008)

by Martin Townsend

Published by Bantam Press, 2007

The father I had by Martin Townsend, editor of the US newspaper Sunday Express, won the Mind Book of the Year award for 2008. The UK mental health charity Mind describes the book as “a courageous and moving personal account of growing up with a parent affected by mental distress.”

Information from Mind, at http://www.mind.org.uk/News+policy+and+campaigns/Press/boyaward08.htm

The father I had presents a vivid first-hand portrait of the trials, fears and joys of growing up with a father diagnosed with bipolar disorder. Told from the vantage point of a young boy struggling to make sense of his father's illness, Townsend tracks the often humorous highs and harrowing lows of the everyday events that test the heart of a very ordinary, working class-family. Surpassing the heartache and humiliations, The father I had is also the story of the strength and depth of mutual love between father and son.

Work–life balance: a psychological perspective

Edited by Fiona Jones, Ronald J. Burke, Mina Westman

ISBN: 978-1-84169-529-7
Published by: Psychology Press, February 2006

Part 1: Background and Context.


M. Westman, Crossover of stress and strain in the work–family context.


F. Zijlstra, M. Cropley, Recovery after work.
R.J. Burke, Organizational culture: A key to the success of work–life integration.

**Working with parents of noncompliant children: a guide to evidence-based parent training for practitioners and students**
Mark D. Shriver and Keith D. Allen

304 pages
LIST PRICE: $59.95
MEMBER/AFFILIATE PRICE: $49.95
ITEM #: 4317155
PUBLICATION DATE: May 2008
EDITION: Hardcover

Text from the APA at http://books.apa.org/books.cfm?id=4317155

This book presents an in-depth look at evidence-based programs for training parents of children with behavior problems. Authors Shriver and Allen review the empirical support for four major programs, as well as some more popular programs that lack strong empirical support. Throughout this review they teach readers how to identify the best research in parent training, how to prepare for parent training sessions, and show how to translate this research into everyday practice.

Parents usually are the most influential people in a child's life. So when child problems like non-compliance, hyperactivity, sleep problems, feeding problems, toileting problems, academic problems, and adolescent–parent conflict arise it is important for parents to take on the primary role in their resolution. This book explains what parents are taught when collaborating with a psychologist or counselor and how they are taught effectively.

Practitioners, whether they are experienced, new to parent training, or students of the field, will find this book to be a valuable resource for taking interventions developed under tightly controlled research conditions and adapting them to the conditions of day-to-day practice, where resources are more limited and presenting problems are often more complex.

**What to do when you grumble too much: A kid's guide to overcoming negativity**

By Dawn Huebner, Ph.D.
Illustrated by Bonnie Matthews

LIST PRICE: $14.95
ITEM #: 441A450
PUBLICATION DATE: August 2006
EDITION: Softcover


Did you know that life is like an obstacle course? It's exciting and fun, but full of tricky spots to get through. If you're a kid who feels so frustrated by those tricky spots that it's hard to enjoy the good things in life, this book is for you.

*What to do when you grumble too much* guides children and their parents through the cognitive-behavioral techniques used to treat negative thinking. Lively metaphors and illustrations help kids see
life's hurdles in a new way, while drawing and writing activities help them master skills to get over those hurdles. And step-by-step instructions point the way toward becoming happier, more positive kids. This interactive self-help book is the complete resource for educating, motivating, and empowering children to work toward change.

Includes a Note to Parents and Caregivers by psychologist and author Dawn Huebner, Ph.D.

88 pages
Black and white illustrations
8 1/2” x 11”
Ages 6-12

VIDEOS

Relational Psychotherapy

with Jeremy D. Safran, PhD

Part of the Systems of Psychotherapy APA Psychotherapy Video Series

LIST PRICE: $99.95
MEMBER/AFFILIATE PRICE: $69.95
ITEM #: 4310846
RUNNING TIME: Over 100 minutes
FORMAT: DVD [Closed Captioned]

Text taken from the APA at http://www.apa.org/videos/4310846.html

In Relational Psychotherapy, Dr. Jeremy D. Safran demonstrates his integrative approach to therapy. Relational psychotherapy explores client relationship patterns, both inside and outside of the therapy room itself. The task of therapy is to work collaboratively to understand what is going on between the therapist and client and to look for the relational meaning in everything that arises in therapy, from responses to interventions to client-therapist interaction.

In this session, Dr. Safran works with a woman in her 30s who separated from her husband but is considering giving her marriage another try. Dr. Safran and the client discuss her marriage and explore past trauma that may continue to affect her current relationships.

Relational psychotherapy reflects a number of different influences including: interpersonal psycho-analysis, object relations theory, self psychology, feminist and postmodern thinking, infant-mother developmental research (including research on attachment theory), developments in emotion theory and research, and both theory and research on therapeutic impasses.
CONFERENCES & EVENTS

Applied Psycho-Neurobiology
25–27 July 2008
Kirkland, WA, USA
Contact: PO Box 5023 Bellevue, WA 98009
Email: csanford@biopureus.com
Or visit http://www.neuraltherapy.com

This psychosomatic healing technique is billed as the most widely used and recognized in Europe, developed by Dietrich Klinghardt MD, PhD. It combines the techniques and insights from American Energy Psychology and Hypnotherapy and the European developments by psychoanalyst Bert Hellinger, Dr.Ryke G. Hamer MD and others. APN uses inner energetic healing principles, a carefully structured dialogue with the client and a select number of techniques to uncouple the body’s habitual stress responses. This includes eye movements, the use of colour glasses, tapping and some muscle testing.

American Psychological Association 116th Annual Convention
14–17 August 2008
Boston, MA, USA
Contact: Candy Won, Director: Convention & Meeting Services
tel: +1 202 336-6020
Email: convention@apa.org
Visit http://www.apa.org/convention08 for information on the programme, and to register

Insights and Solutions: The Combined 2nd International Conference on Alcohol and Other Drug Related Brain Injury and the Brain Injury Australia Conference 2008
1–3 September 2008
Melbourne, Australia
tel: +61 (03) 9278 8137
Email: event@adf.org.au
Visit http://www.arbias.org.au/ for more information

9th Annual Psychiatry Review—Pleasure and Motivation: Addiction, Impulsivity, and Compulsivity
18–19 September 2008
Minneapolis, MN, USA
Contact: Office of Continuing Medical Education, 2829 University Park Plaza, Suite 601, University Avenue SE, Minneapolis, MN 55414
tel: +1 (612) 626-7600; fax: +1 (612) 626-7766
Email: cme@umn.edu
Website: http://www.cme.umn.edu/

5th International Biennial SELF Research Conference, “Enabling Human Potential: The Centrality of Self and Identity”
13–15 January 2009
Dubai, United Arab Emirates
Deadline for submissions: 30 September 2008
Email: m.seaton@uws.edu.au or info@selfuae.org
For registration details and procedures for paper submission visit http://selfuae.org (the website was still under construction on 26 May 2008).

Information from AllConferences.com

With its focus on different research traditions that drive self and identity research, this conference will provide a forum for cutting-edge international research on self-concept, identity, and related constructs. Prominent researchers in the fields of the self, self-esteem, self-efficacy, identity, and the social psychology of the self will discuss issues relating to a) the similarities and differences between leading theories; b) the impact of self-concept on motivation in different spheres of life; c) the theoretical and empirical links between self and identity; and d) the relation between self, identity, and globalisation.

24th Conference of Alzheimer’s Disease International

25–28 March 2008
Singapore
Contact: Stella Chee, 2 Leng Kee Road #04-01 They Hong Centre Singapore 159086
tel: +65 6379 5259/5261
Email: admin@adi2009.org
Visit http://www.adi2009.org for more information or to register

24th International Symposium on Cerebral Blood Flow, Metabolism and Function—ISCBFM 2009

29 June – 3 July 2009
Chicago, IL, USA
Contact: Liraz Bregman, 1-3, Rue de Chantepoulet, PO Box 1726, CH-1211, Geneva 1, Switzerland
tel: +41 22 908 0488; fax: +41 22 732 2850
Email: brain@kenes.com
Website: http://www.kenes.com/brain/