

PsychDigest

June 2007



FROM THE EDITORS	3
Subscription Information.....	4
IN THE NEWS	5
Ceiling height can affect how people think, feel and act.....	5
Why children love their security blankets.....	6
Adults cannot tell when children are lying.....	7
On the other hand.....	8
... Children are less prone to false memories.....	8
... And are adept at reading an adult's body language.....	9
The latest brain research shows that	10
... Size matters: bigger means smarter.....	10
... More areas are involved in the location of pain than previously thought.....	11
... Arthritis pain is processed in brain's 'fear zone'.....	11
... Arthritis disability can be reduced by counselling.....	12
... as can pain associated with fibromyalgia.....	12
Why too much memory may be bad for you.....	12
Substance abuse.....	13
A new 'matrix of harm' for drugs proposed.....	13
Brain scans reveal why smokers struggle to quit.....	13
A Short Walk Helps Smokers Quit.....	14
Not ready to quit? Try cutting back.....	14
'Might have beens' help explain addictions.....	14
Schizophrenia, schizotypal and delusional disorders.....	15
Early treatment of psychosis can prevent more than 7 killings per year in NSW.....	15
'Jumping to Conclusions' and attributional style in persecutory delusions.....	15
Neurotic, stress-related and somatoform disorders.....	16
Trauma is common in childhood, but PTSD is not.....	16
Does distraction facilitate problem-focused coping with job stress? A 1 year longitudinal study.....	16
Change in neuroticism can affect mortality rates.....	17
REVIEW ARTICLE: CIRCADIAN RHYTHMS – LATEST FINDINGS	17
Add extra hours to your day	17
... with two bright pulses of light.....	17
... or an 'after hours' gene.....	18
But which clock?.....	18
Circadian rhythms explained?.....	19
GENDER ROLES	20
Direct and Indirect Assessment of Gender Role Identification.....	20
PSYCHOLOGICAL DEVELOPMENT: LEARNING DISABILITIES	21
Widget Rebus symbols.....	21
Symbols can improve the reading comprehension of adults with learning disabilities.....	21
ORGANISATIONAL PSYCHOLOGY	21
Interviewing techniques.....	22
Behavioural interviewing significantly improves employee selection.....	22
CONFERENCES & EVENTS	24

Methodology

Information for **PsychDigest** is harvested from the most reliable, relevant, current and comprehensive sources available, including information from leading publishers such as Elsevier, John Wiley & Sons, American Psychological Association (APA), American Psychiatric Publishing (APPI), Springer, Taylor & Francis, British Psychological Society, the American Medical Association, the Australian Academic Press, Guilford Press, Blackwell Publishing, Cambridge University Press, International Universities Press, Sage Publications, Routledge Mental Health, and Psychology Press.

Psych & Soma also has access to databases such as ScienceDirect, EbscoHost, Proquest, PsycINFO, Academic Research Library, IngentaConnect, PubMed, SpringerLink, Medline, CurrentContents (Web of Science), Clinical Pharmacology, and Sabinet and SA Media.

In addition to subscription-based journals, Psych & Soma also monitors quality-controlled scientific and scholarly open-access journals, which offer free and usually full text articles. We also keep an eye on more popular journals such as *Science* magazine, *Scientific American*, and *New Scientist*.

These lists are by no means exhaustive, and new sources are added on a regular basis. All of these sources are not only monitored for relevant news items, but are also continuously reviewed for suitability.

Various methods are used to keep up-to-date with the most current news in the fields of psychology and psychiatry: journal contents alerts, email alerts, website-monitoring software and services, RSS feeds (RSS stands for 'real simple syndication', blog news ('blog' is shorthand for 'web log'; these are continuously updated news and article sites owned by individuals, groups or companies). Regular topical searches of databases and websites are further undertaken.

Our expertise is based on an MA in Humanities, an N.Dip in Library and Information Studies, and 17 years in the information and technical editing fields (Martie), and a D.Phil in Human Resources Development (Thomas).

Copyright Policy

PsychDigest's content is protected by copyright under both South African law and foreign countries, under the Berne Convention. Title to the content of PsychDigest remains with Psych and Soma Information and Resources CC. Any use of the content not expressly permitted is a breach of and may violate copyright laws. No one may reproduce any of the content of PsychDigest, either in print or electronic form, without prior written permission from Psych and Soma Information and Resources CC.

Disclaimer

The subscriber agrees to use **PsychDigest** at her/his sole risk. The content of **PsychDigest** is for the sole purpose of being informative and developmental. The content of **PsychDigest** is not and should not be used or relied upon as medical or other advice. The content should not be used in place of a visit, call, consultation or the advice of the subscriber's physician or other qualified health care provider. Although every endeavour is made, Psych and Soma Information and Resources CC makes no representations or warranties about the accuracy, reliability, currentness, completeness, or timeliness of the content of **PsychDigest**. Under no circumstances will Psych and Soma Information and Resources CC, its members or its employees be liable for any loss or damage caused by a subscriber's reliance on information obtained from **PsychDigest**. It is the responsibility of the subscriber to evaluate the accuracy, completeness or usefulness of any of the content of **PsychDigest**. In no event shall Psych and Soma Information and Resources CC or any third parties mentioned be liable for any damages (including, without limitation, direct, indirect, incidental, special, consequential or punitive damages, personal injury/wrongful death, lost profits, or damages resulting from practice interruption) resulting from the use of the content of **PsychDigest**.

FROM THE EDITORS

Dear subscribers,

No tales of great woe this month. The third issue of *PsychDigest* has been safely delivered (and it is still the first week of the month!), and although the sun is not shining, we can all indulge in a warm cup of hot chocolate (yes, the latest rumours are that cocoa helps lower blood pressure and improves brain blood flow) and some fascinating news from the world of psychology, neuroscience, and related fields.

In this issue we have some shocking news for you (adults cannot tell when children are lying), some encouraging news for arthritis sufferers and smokers who are trying to quit, and a glimpse into the enthralling panorama of the human brain.

Now that we have used up all the adjectives we had put aside for this month ...

In March 2008, the International Society for Affective Disorders (ISAD) will hold its biennial conference in Cape Town, South Africa. One of the trends in the psychology field is a greater emphasis on the connection between mind and body—the physical and chemical processes that occur during therapy; research and diagnosis by monitoring physical changes that take place in the body; and new treatments, including a new generation of psychotropic drugs, that treat the body in order to heal the mind.

The ISAD conference highlights this trend, with internationally-recognised pioneers in the use of physical modalities to treat depression speaking on repetitive transcranial magnetic stimulation (rTMS) and magnetic seizure therapy (MST); vagus nerve stimulation (VNS); deep brain stimulation (DBS); and electroconvulsive therapy (ECT).

However, a different trend is emphasising the spiritual aspects of mental illness and its treatment. Eastern philosophies have combined with western methods, resulting in a focus on spirituality, attitude, the search for insight and mental quietude with techniques such as transcendental meditation, right mindfulness (also known as 'right meditation'), and tai chi chuan (often abbreviated to tai chi), a Chinese martial art with 'internal' qualities, with the focus on elements such as awareness of the spirit, mind, qi (breath, or energy flow) and the use of relaxed leverage rather than unrefined muscular tension, tension that soft stylists call "brute force".

This more spiritual focus in psychology is not new, but is receiving increasing attention as researchers report on the results of studies into the impact of these methods on both body and mind.

Both of these trends are delivering exciting results, and will be extensively covered by *PsychDigest* during the course of the year.

Please send us your comments, criticisms, corrections etc. on this and the previous two issues of *PsychDigest* (contact details below). What would you, as subscriber, like to see more of? Less of? What did you like, and what can we do to improve our service to you? We will publish (at our discretion) any commentary, letters, short viewpoint articles, case studies, mini-research articles, reviews (literature, books), news items etc. if you give us your written permission. We will publish them anonymously, pseudonymously, or under your own name, as you prefer. Please include any details you wish us to publish with the item: your name, speciality, qualifications, even a short CV or biography if you wish.

Martie (Chief Editor) & Thomas Groenewald

Feedback can be mailed to Psych and Soma Information and Resources, PO Box 252, Florida 1710 (South Africa), or emailed to feedback@psychsoma.co.za

SUBSCRIPTION INFORMATION

Annual subscription (electronic): **R1200 / US\$ 170 (12 issues)**

Per issue (electronic): R110 / US\$ 15

Annual subscription (printed, SA only): R1380

Per issue (printed, SA only): R130

Payment options:

- Do an **electronic bank transfer** (account detail below)
Bank ABSA
Branch: Florida (branch-code: 63034140)
Current account No: 4066236194
Reference: Use your surname and initials as reference
- Send a **cheque or postal order** payable to: **Psych and Soma Information and Resources CC**
to:
PO Box 252
Florida
1710 (South Africa)
- By **debit order**:
Please visit <http://www.psychsoma.co.za/subscribe.htm>, fill in the debit order form

Please fax (011 472 2524) or e-mail (psychdigest@psychsoma.co.za) along with proof of payment, the following information:

- Your title, initials & surname
- Your HPCSA number
- Your e-mail or postal address

We have submitted an application to the Professional Board for Psychology for *PsychDigest* to be accredited as a 'service provider' for CPD continuing education units. We are expecting to hear the results from the application by July 2007.

IN THE NEWS

CEILING HEIGHT CAN AFFECT HOW PEOPLE THINK, FEEL AND ACT



Library of Congress, Great hall

Marketers, event planners, contractors and real estate agents have always had an instinctive belief that ceiling height can influence consumer choices. Consumer-focused research has now found proof that ceiling height has an impact on how people process information, which influences their thinking, feelings and actions. It was found that a higher or vaulted ceiling can stimulate thoughts of freedom, leading people to engage in more free-form, abstract thinking, while a lower ceiling can evoke feelings of confinement, resulting in a focus on specifics and more detail-specific processing.

The research has implications for retailers faced with consumers whose thought processes might influence what products they buy, how they process point-of-purchase information, and even sales persuasion strategies. It also has implications for business leaders, educators and psychologists: rooms with a higher ceiling can help people make more abstract connections between objects, processes or ideas, enabling a flow of problem solving to unfold. In a low-ceiling room, feelings of constraint and confinement can dull problem solving. However, a lower ceiling can be desirable in contexts where attention should be focused on details. As one author points out: "If you're having surgery done, you would want the operating room to encourage item-specific processing."

The research study, *The Influence of Ceiling Height: The Effect of Priming on the Type of Processing People Use*, will be published in the August 2007 edition of *The Journal of Consumer Research*.

Innovations Report. (2007, April 27). *Researchers find ceiling height can affect how a person thinks, feels and acts*. Retrieved June 3, 2007, from <http://www.innovations-report.de/html/berichte/studien/bericht-83419.html>

Mauk, B. (2007, May 7). *Ceiling Height Alters How You Think*. Retrieved June 3, 2007, from the LiveScience.com Web site: http://www.livescience.com/health/070507_high_ceilings.html

Medical News Today. (2007, April 1). *Ceiling Height Can Affect How A Person Thinks, Feels And Acts*. Retrieved May 27, 2007, from the Medicalnewstoday.com Web site: <http://www.medicalnewstoday.com/medicalnews.php?newsid=68886&nfid=crss>

Serani, D., Dr. (2007, May 1). *High Ceilings = High Achieving*. Retrieved May 27, 2007, from the Dr. Deb Web site: <http://drdeborahserani.blogspot.com/2007/05/high-ceilings-high-achieving.html>

WHY CHILDREN LOVE THEIR SECURITY BLANKETS

Children often develop an attachment to an object such as a soft toy or a blanket that they sleep with every night. Researchers now believe that childrens' attachment to these objects might be because the children think the toy or blanket has a unique property or 'essence'. A recent study showed that 3-6 year-old children prefer their own cherished items over apparently identical duplicates.

The researchers are studying whether people prefer an individual or an object because it *is* that individual or object, or because that individual or object possesses certain unique properties. To illustrate the question, they point to the fact that all languages make some structural distinction between words that refer to individuals as individuals (as in proper names like "Tessie"), versus words that refer to individuals as category members (as in common nouns like "dog"). People value sentimental objects as worth much more than their apparent value, for example a wedding ring, and an object that belonged to a famous person is viewed as being much more valuable than an apparently identical copy.

It is obvious that people have likes and dislikes about certain categories; one might prefer dogs over cats, or beer over wine. It is obvious as well that people can evaluate individuals by virtue of the categories they belong to or the properties that they possess. One might like Tessie because she is a dog, or because she is loyal or friendly. What is less clear, though, is under what circumstances people make evaluative judgments about an individual in part because it is that individual, separate from the category that it belongs to or any properties that it possesses or is thought to possess. (Hood & Bloom, 2007)

They explored this issue by asking whether children view objects that they have an emotional attachment to as having special value over perfect duplicates. Two groups of children were involved: one group brought with them a toy or object that they had an emotional attachment to, while the second group of children brought a non-attachment object. Attachment objects were stuffed toys and blankets, whereas non-attachment objects were all toys and dolls.



In the first of two studies, children were shown an impressive 'scientific' machine that "could copy any object", but was in fact a conjurer's cabinet where an accomplice inserted replica items from behind a screen.

The first toy 'copied' was one supplied by the researchers, i.e. one that the children would have no emotional attachment to. The children were allowed to choose which of the two toys they wanted to keep - the original or the 'copy'. Both groups of children showed a preference for the 'copied' toy.

The experimenter then suggested that they copy the child's own toy or object. If the child agreed, the experimenter placed the object in the box and repeated the question as to which object the child would like to keep.

All children with non-attachment objects allowed their object to be copied and 62 per cent (13) of those chose the duplicate. In contrast, four of the attached children refused to allow the experimenter to copy their object at all and, of the remaining 18, only five children chose the duplicate.

In sum, children with attachment objects preferred their original object to a duplicate, and did so to a greater extent than children with non-attachment objects. None of the children gave a detailed reason for their choice; they would typically simply state, "because it's mine".

In the second study the copying illusion was repeated, but the original was deemed to be special because either it (a) had belonged to a famous person or (b) was made of a precious metal. Unlike the first experiment, the child was able to see both the original and the copy. The results showed that the children were more than three times more likely to give a higher value to the original when it was described as special because of its relationship to a famous person, than when it was described as special because it was made of a precious metal.

This finding suggests that children develop preferences for certain particular individuals. However, the researchers point out that the results are constrained in interesting ways: children prefer their attachment objects over perfect duplicates, but show no such preferences for more mundane objects. They appreciate that an object owned by a famous person is more valuable than a duplicate with no such history, but that an object that is special because it is made of silver is no different in value from a duplicate object that is also made of silver. An alternative interpretation of the results might be that children believe their attachment object has a hidden and invisible property—an "essence"—that distinguishes it from everything else. Children might further believe that this essence is not copied by the duplicating machine, and hence prefer the original item—not because of the individual *per se*, but because of a property that the individual is thought to possess.

The researchers liken this early reasoning to adult notions of 'essences' where we think invisible properties inhabit objects that make them unique as if these properties were physically real. This may explain why some adults think that authentic works of art and memorabilia, or an autograph of a famous person, contain some of the essence of the original creator or owner. Likewise, it also partly explains our reluctance to touch or wear items previously owned by murderers.

Science Daily. (2007, March 8). *Why Children Love Their Security Blankets*. Retrieved May 31, 2007, from the ScienceDaily.com Web site: <http://www.sciencedaily.com/releases/2007/03/070307161756.htm>

Hood, B. M., & Bloom, P. (2007, March 1). Children prefer certain individuals over perfect duplicates. *Cognition (Online)*. Retrieved June 3, 2007, from the ScienceDirect—Cognition Children prefer certain individuals over perfect duplicates Web site: <http://tinyurl.com/yrhf33>

ADULTS CANNOT TELL WHEN CHILDREN ARE LYING

The British Psychology Society reports on a study that showed adults to be useless at telling whether children are lying or not.

Thirty children aged between 11 and 13 were told they were going to be interviewed about one event that had really happened to them, and about another that they'd never experienced. The children's task was to talk about both events as if they had experienced them both. Half the children were given two minutes to prepare for talking about the experience they'd never had, the others had to make up their account on the spot.

The children's parts in the interviews were video-taped and played to 60 students (average age 26 years) who had to identify which accounts were truthful and which were fabricated. Overall, the undergrads were

correct 51.5 per cent of the time – no better than chance. They were slightly better at spotting the unprepared made up accounts, identifying 55.6 per cent of these.

It's no wonder the undergraduates were so poor at spotting the children's lies – the children seemed to anticipate their lie-detection strategies. For example, the most commonly used cue the undergrads said they looked for was a lack of detail in the children's accounts, but meanwhile the children's most commonly cited strategy for appearing convincing was to add detail to their accounts by drawing on information they knew about from other people's experiences. The undergrads also said they had looked for signs of nerves, while the children said they had tried to stay calm.

Children are often witnesses in criminal cases, so these findings have serious, practical implications. "It should be acknowledged that detecting deception in children is a difficult task, perhaps as difficult as detecting adults' lies", the researchers said.

The British Psychological Society. (2007, April 18). *Adults are unable to tell when children are lying*. Retrieved June 1, 2007, from the BPS Research Digest Web site: <http://bps-research-digest.blogspot.com/2007/04/adults-are-unable-to-tell-when-children.html>

On the other hand ...

... CHILDREN ARE LESS PRONE TO FALSE MEMORIES



Children and false memories have been intensively studied since the spate of child-abuse convictions in the 1980s, based on false memory reports by children. In general, researchers believe that false memories of events decrease with age throughout childhood and adolescence. In other words, as we grow into adulthood, our memory accuracy improves.

However, psychologists Charles Brainerd and Valerie Reyna of Cornell University believe that the relationship between age and memory accuracy may not be so simple. Drawing upon fuzzy-trace theory—the popular psychological theory that humans encode information on a continuum from verbatim to "fuzzy" traces that convey a general meaning—Brainerd and Reyna predicted that false memories may actually increase with age under certain circumstances. In other words, adults would have less accurate memories than children.

A common form of false memory happens when people blur the lines between separate but closely related events. An example of this is the experiment related by Elizabeth Loftus in *Nature* (Loftus, 2003) where 62% of participants 'remembered' shaking Bugs Bunny's hand at Disneyland, while 46% 'recalled' hugging him. However, these scenes could not have happened, as Bugs Bunny is a Warner Bros. cartoon character and would not be featured at a Disney property.

Brainerd and Reyna presented a list of words to groups of school children aged between 5 and 15. Many of the words from this "study list" were related to each other (by belonging to certain categories such as animals, furniture, men's names) while others were unrelated "filler" words. After a short break, the students were presented with a new "test list" composed of study list words, new words belonging to the aforementioned categories (animals, furniture, etc.), and distracter words that were new and entirely unrelated to the categories or the study list. Their task was to identify whether they had previously heard a word or not.

As predicted, if the test list provided a new word with a closely related meaning (a "semantic relation") to a word from the study list, older children were more likely to assert that they had heard it before. Simply put, the older children had more false memories in this case than younger children.

"These trends are important," write the authors "because they reveal ..., disturbingly, increasing errors for false memories that are likely to resemble those in real life -- namely, false memories that are pursuant to everyday meaning making."

The reasoning behind this phenomenon is straightforward: Because children lack a sophisticated ability to connect the meanings of words or events compared to adolescents and adults, they are buffered from making the semantic relation memory mistake.

Loftus, E. (2003, March). Our changeable memories: legal and practical implications [Perspectives]. *Nature*, 4, 231-234. Retrieved June 3, 2007, available online from <http://faculty.washington.edu/eloftus/2003Nature.pdf>

MedicineWorld.org. (2007). *Study shows children less prone to false memories*. Retrieved June 3, 2007, from <http://medicineworld.org/cancer/lead/4-2007/children-less-prone-to-false-memories.html>

Science Daily. (2007, May 1). *Children Less Prone To False Memories, Implications For Eyewitness Testimony, Study Shows*. Retrieved June 3, 2007, from the ScienceDaily.com Web site: <http://www.sciencedaily.com/releases/2007/04/070430162627.htm>

... And are adept at reading an adult's body language

University of Washington researchers have found that 18-month-olds engage in what they call "emotional eavesdropping" by listening and watching emotional reactions directed by one adult to another, and then using this emotional information to shape their own behaviour.

The research involved two experiments, involving 96 and 72 infants respectively. In both experiments the infants watched an adult manipulate a toy, then watched while a second adult expressed anger or a neutral reaction in response to the first adult playing with a toy. The infants then were allowed to play with the toy and imitate the first adult's actions.



In the first experiment, the second adult either left the room or quietly sat with a neutral facial expression. In the second experiment, the second adult either turned her back on the child or silently looked toward the child with a neutral expression.

All of the infants were interested in what the first adult was doing; they leaned forward and wanted the toy. When the second adult reacted neutrally or expressed anger, and then either left the room or turned her back, the youngsters grabbed the toy within a second. They also imitated the first adult's action with the toy 2.5 out of three possible times. However, when the angry adult remained present and a neutral face was visible, the infants hesitated, taking an average of five seconds to take the toy. They were only successful in imitating the first adult's action half the time.

The research indicates that children understand other people's emotional states at a very young age, and that they can take in emotional information when directed toward someone else and apply it to themselves. No gender differences were found in how the infants reacted. The experiments are the first demonstration that infants can modify their own behaviour in response to an emotional communication that does not involve them.

The Jewish Exponent. (2007, May 10). *Too Young to Read? Not Between the Lines!* Retrieved June 3, 2007, from <http://www.jewishexponent.com/article/12937/>

THE LATEST BRAIN RESEARCH SHOWS THAT ...

... Size matters: bigger means smarter

When it comes to estimating the intelligence of various animal species, it may be as simple measuring overall brain size. In fact, making corrections for a species' body size may be a mistake.

It has long been known that species with larger body sizes generally have larger brains. Scientists have generally assumed that this pattern occurs because larger animals require larger nervous systems to coordinate their larger bodies. However, new research suggests a simpler reason: larger species are typically smarter.

Previous research showed that primate species consistently outperform others across a broad range of cognitive tasks. That finding provided evidence for species differences in intelligence or "domain-general cognition". This intelligence allows an animal to tackle new and unpredictable situations. Domain-general cognitive ability stands in contrast to domain-specific skills that are suited to particular environment challenges, such as a bird remembering where it cached food.

The new study compared how well eight different brain size measures predicted the domain-general cognition variable generated in the earlier study. To the researchers' surprise, overall brain size and overall neocortex size proved to be good predictors, but the various measures that controlled for body size did not. The results did not change even when various statistical assumptions were altered.

Another unexpected finding was that the overall size of the whole brain proved to be just as good a predictor of intelligence as was the overall size of the neocortex. Scientists making cross-species comparisons have often assumed that the neocortex would be more closely linked to intelligence, since it is considered the "thinking part" of the brain.

Some suggestions for these findings are that larger animals may be better able to control aspects of their environment and therefore have more to gain from being more intelligent. Larger animals also tend to live longer, and can therefore benefit longer from being flexible and adaptable, and perhaps may also need it more because the environment is more likely to change during their lifetime. The challenge now is to test these ideas.

The findings were reported by researchers at Grand Valley State University and the Anthropological Institute and Museum at the University of Zürich, Switzerland. The study has now been published online in the journal *Brain, Behavior, and Evolution*.

EurekAlert! (2007, May 18). *Bigger is smarter: Overall, not relative, brain size predicts intelligence*. Retrieved June 3, 2007, from http://www.eurekalert.org/pub_releases/2007-05/gvsu-bis051807.php



... More areas are involved in the location of pain than previously thought

Spatial aspects of pain are a common problem in diagnosis. For example, patients cannot always distinguish between pain from indigestion and pain from a heart attack. Pain from a nerve injury is often felt at sites other than at the injury, and in some cases, an injury on one side of the body results in pain on both sides.

Current theory states that the areas of the brain involved in pain processing can be divided into two networks: the lateral pain system, thought to be responsible for the sensory aspects of pain such as its location and duration, and the medial pain system, believed to be responsible for the emotional aspects of pain, such as how unpleasant it feels. However, functional magnetic resonance imaging (fMRI) studies are now showing that the medial pain system is also involved in the location of pain.

The study suggests that much of our sensory experiences are built by comparing incoming information with previously experienced information. Brain mechanisms that process the location of pain now appear to be highly similar to those that process the location for hearing and vision.

Science Daily. (2007, March 29). *Where's Your Pain: New Insights Into How The Brain Processes Pain Location*. Retrieved May 31, 2007, from the ScienceDaily.com Web site: <http://www.sciencedaily.com/releases/2007/03/070328073315.htm>

University of Manchester. (©2007). *Medial and lateral pain systems*. Retrieved June 3, 2007, from the Human Pain Research Group Web site: <http://www.hope-academic.org.uk/Academic/researchdevelopment/Themes/Neurosciences/Pain/PainSystems.htm>

... Arthritis pain is processed in brain's 'fear zone'

In related research, it was found that knee osteoarthritis (OA) patients process arthritic pain and experimental pain (pain induced as part of an experiment) in slightly different ways, and the difference might lead to a new class of analgesics for arthritis.

The researchers used 18F-fluorodeoxyglucose positron emission tomography (FDG-PET) of the brain in 12 patients with knee OA during three different knee pain states: arthritic, experimentally induced, and pain-free. Their goal was to determine whether OA patients have different pain-processing patterns for arthritic pain versus brief, acute, experimental pain. The research showed that both medial and lateral pain systems are activated during arthritic and experimental pain, but the medial system is more active during arthritic pain. This suggests that, for these patients, arthritis pain has more emotional impact—and perhaps stronger associations with fear and distress—than experimental pain. Arthritis pain also prompted heightened activation of the prefrontal cortex and the inferior posterior parietal cortex, areas of the brain instrumental in the supervision of attention. Their activation while suffering arthritis pain may reflect the patients' concentration on coping strategies.

In demonstrating the importance of the medial pain system during the experience of arthritic pain, the study also suggests that this area of the brain would be a good target for both new analgesics and non-pharmacological interventions. The body's own pain-killing chemicals—the endogenous opioid system—could even be a possible candidate for modulation to target pain in the areas identified.

EurekAlert! (2007, March 30). *Arthritis pain processed in brain's 'fear zone,' first PET scans reveal*. Retrieved May 31, 2007, from http://www.eurekalert.org/pub_releases/2007-03/uom-app033007.php

Kelly, J. (2007, March 29). *Emotional Brain Areas Triggered by OA Pain Might Be Good Therapeutic Target*. Retrieved June 4, 2007, from the Contemporary Inflammation, Arthritis, Orthopaedics and Osteoporosis (CIAOMed) Web site: <http://www.ciaomed.org/articles.cfm?articleID=1233>

Medical News Today. (2007, April 4). *Arthritis Pain, The Brain And The Role Of Emotions*. Retrieved June 4, 2007, from the Medicalnewstoday.com Web site: <http://www.medicalnewstoday.com/medicalnews.php?newsid=66548>

... Arthritis disability can be reduced by counselling

Arthritis sufferers who undergo psychological counselling and learn skills for coping with pain have less disability and better quality of life, according to a new systematic review.

Studies in the review paid the most attention to cognitive-behavioural therapy—in particular training in specific coping skills, such as using relaxation techniques and pacing daily activities. Other interventions included biofeedback, stress management, emotional disclosure, hypnosis and psychodynamic therapy.

Counselling and coping skills made the greatest difference in quality of life measures: patients who received the interventions reported a significant decrease in anxiety, depression and psychological disability.

Patients who received psychological treatments also had significant reductions in physical disability and joint swelling, although there was no difference in levels of fatigue or stiffness.

Medical News Today. (2007, May 13). *Arthritis Disability Could Be Reduced By Counseling, Coping Skills*. Retrieved May 31, 2007, from the Medicalnewstoday.com Web site: <http://www.medicalnewstoday.com/medicalnews.php?newsid=70644&nfid=rssfeeds>

... as can pain associated with fibromyalgia

The same group of researchers studied patients with conditions where the pain is thought to be mainly driven by psychological factors, such as chronic widespread pain (fibromyalgia). Patients with fibromyalgia tend to stay focused on the unpleasant aspects of pain (processed within the medial pain system), which may also be amenable to change with psychological therapies and drug interventions.

A new approach to pain. (Autumn 2006). *Arthritis Today*, 134. Retrieved June 4, 2007, from: http://www.arc.org.uk/news/arthritisoday/134_6.asp

Why too much memory may be bad for you

New research from Columbia University Medical Center may explain why people who are able to easily and accurately recall historical dates or long-ago events, may have a harder time with word recall or remembering the day's current events. They may have too much memory – making it harder to filter out information and increasing the time it takes for new short-term memories to be processed and stored.

Results of the study, conducted with mice, found that the absence of neurogenesis (growth of new neurons) in the hippocampus *improves* working memory, a specific form of short-term memory that relates to the ability to store task-specific information for a limited timeframe, e.g. where your car is parked in a huge parking lot or remembering a phone number for a few seconds before writing it down. Because working memory is highly sensitive to interference from information previously stored in memory, forgetting such information may therefore be necessary for performing everyday working memory tasks, such as balancing your check book or decision making.

Science Daily. (2007, March 30). *Why Too Much Memory May Be A Bad Thing*. Retrieved May 31, 2007, from the ScienceDaily.com Web site: <http://www.sciencedaily.com/releases/2007/03/070329092022.htm>

SUBSTANCE ABUSE

A new 'matrix of harm' for drugs proposed

The Lancet has proposed that drugs should be classified by the amount of harm that they do, instead of the current A, B and C classifications in the UK Misuse of Drugs Act. In this new ranking alcohol and tobacco would rank higher than some current illegal substances, such as the Class A drugs LSD, 4-methylthioamphetamine (known as 4-MT or 4MTA), and ecstasy.

Although harmful drugs are currently regulated according to classification systems that purport to relate to the harms and risks of each drug, these classifications are "neither specified nor transparent, which reduces confidence in their accuracy and undermines health education messages."

The proposed classification matrix identifies three main factors that together determine the harm associated with any drug of potential abuse: the physical harm to the individual user, the tendency of the drug to induce dependence, and the effect of drug use on families, communities and society.

Each of the three categories consists of three further categories, leading to a comprehensive nine-category matrix of harm. The researchers hope that policy makers will take note of the substantially different rankings, and that their methodology would serve as a systematic framework and process that could be used by national and international regulatory bodies to assess the harm of current and future drugs of abuse.

EurekAlert! (2007, March 22). *A new 'matrix of harm' for drugs of abuse*. Retrieved June 1, 2007, from http://www.eurekalert.org/pub_releases/2007-03/uob-an032207.php

Brain scans reveal why smokers struggle to quit

Brain scans of smokers revealed three specific regions deep within the brain that appear to control dependence on nicotine and craving for cigarettes. These regions play important roles in some of the key motivations for smoking: to calm down when stressed, to achieve pleasure, and to help concentration. These brain regions may explain why most people try to quit several times before they are successful. Understanding how the brain responds to cigarette cravings can help doctors change nicotine cessation treatments to address all three of these components of withdrawal.

One region that lights up, the thalamus, is considered to be the key relay point for sensory information flowing into the brain. Some of the symptoms of withdrawal among people trying to quit stem from the inability to focus thoughts and the feeling of being overwhelmed, and could thus be explained by changes in this region. Changes in this region were most dramatic among those who said they smoked to calm down when under stress.

Another region that lights up is a part of the pleasure system of the brain. Changes in the striatum were most notable in people who smoked to satisfy craving and for pleasurable relaxation.



A third region that lights up, the anterior cingulate cortex, is vital to cognitive functions such as conflict, self regulation, decision making and emotion. People whose brain scans showed the most differences in this region also reported that they smoked to manage their weight.

Drugs or therapies that target these regions may help smokers stave off the cravings that often spoil their attempts to quit.

EurekAlert! (2007, March 19). *Brain scans reveal cause of smokers' cravings*. Retrieved June 4, 2007, from http://www.eurekalert.org/pub_releases/2007-03/dumc-bsr031907

A Short Walk Helps Smokers Quit

Smokers should do short bouts of exercise to help them resist the temptation to light up, say experts at the University of Exeter. A review, recently published in the international journal *Addiction*, concludes that when smokers abstain from smoking, exercise can help them to manage withdrawal symptoms and resist the urge to smoke. All 12 studies reviewed in the paper showed that a single bout of moderate exercise, lasting for as little as five minutes, was sufficient to reduce cravings for a cigarette. Exercise, such as a brisk walk, also reduced withdrawal symptoms, including stress, anxiety and poor concentration. As the lead author suggests, "If a drug revealed the same effects it would immediately be marketed as a valuable aid to help people quit smoking or cut down."

Not ready to quit? Try cutting back

In a review article in the December *Nicotine and Tobacco Research*, researchers at the University of Vermont have found an unexpected, effective alternative to motivate smokers to quit smoking – cutting back. According to the qualitative review of 19 studies on smoking reduction in individuals who did not want to quit, this method, typically coupled with the use of nicotine replacement products, led to an increase in quitting in 16 of the studies. Based on this finding, the researchers suggest that clinicians try recommending reduction for smokers who have not responded to repeated cessation advice.

Science Daily. (2006, December 8). *Not Ready To Quit? Try Cutting Back -- Smoking Reduction May Lead To Unexpected Quitting*. Retrieved May 29, 2007, from: <http://www.sciencedaily.com/releases/2006/12/061207160012.htm>

'Might have beens' help explain addictions



US scientists say "what might have beens—or fictive learning—play an important role in the choices people make, and might play a role in addiction. These "fictive learning" experiences, governed by what might have happened under different circumstances, often dominate the evaluation of the choices we make now, and will make in the future.

The researchers used an investment game to test the effects of these "what if" thoughts on decisions. Using functional magnetic resonance imaging (fMRI) to measure blood flow changes in specific areas of the brain, they precisely measured responses to economic instincts. These blood flow changes in the brain reflect alterations in the activity of nerve cells in the vicinity. In this case, they measured the brain's response to "what could have been acquired" and "what was acquired."

Each subject took part in a sequential gambling task. The player makes a new investment allocation (a bet) and then receives a "snippet" of information about the market: either the market went up and the investment was a good one, or the market goes down and the play had a loss.

Fictive learning, the "what might have happened", was shown to play played an important role in decisions about the game. The emotion of regret for a path chosen or not taken can be strongly influential on future decision-making.

These findings provide a new tool for exploring issues related to addiction. For example, why does a person choose using a drug even though he or she can imagine the bad consequences that can result?

PsycPORT. (2007, May 16). *'Might have beens' help evaluate behavior*. Retrieved May 31, 2007, from the PsycPORT website: <http://tinyurl.com/>

SCHIZOPHRENIA, SCHIZOTYPAL AND DELUSIONAL DISORDERS

Early treatment of psychosis can prevent more than 7 killings per year in NSW

The Australian *The Sunday Telegraph* reports that New South Wales has one of the highest rates of homicides committed by people having their first psychotic episode. Dr Olav Nielssen, a psychiatrist at the St Vincent's Hospital in Sydney, compared 16 studies from across the world and found that NSW, the only place in Australia with the relevant data available, scored 3rd place after Pakistan and New York in the 1960s.

Dr Nielssen discovered that in NSW, sufferers of psychosis are diagnosed and treated an average of 45 weeks after the onset of their illness, compared with 12 weeks in Finland, the country with the fewest psychosis-related killings. His research indicates that if the time-to-treatment were halved, about seven psychosis-related killings in NSW could be prevented each year.

The problem, he believes, lies with a mental health act that does not allow patients to be voluntarily admitted to hospital on the grounds that they have a 'need for treatment', as is the case in many countries. In all Australian states, as well as the US and six European countries, medics can detain patients only on the grounds of 'dangerousness', which means treatment starts *after* a patient had hurt or killed someone. In these countries, the average length of untreated psychosis is 25 weeks longer than in those countries with a 'need for treatment' policy.

McLean, T. (2007, May 2). *Early diagnosis saves NSW 'seven murders.'* Retrieved May 27, 2007, from the The Daily Telegraph Web site: <http://www.news.com.au/dailytelegraph/story/0,22049,21657859-5001028,00.html>

'Jumping to Conclusions' and attributional style in persecutory delusions

This abstract is published with kind permission from Springer Science and Business Media.

Persecutory delusions have been associated with a tendency to 'jump to conclusions' and an abnormal attributional style. We hypothesised that jumping to conclusions—requesting relatively little information prior to decision-making—could account for the observed biases in attributional style. Individuals with persecutory delusions (n = 24) were compared with matched depressed psychiatric (n = 24) and nonpsychiatric (n = 24) comparison groups using a modified inductive reasoning task (John & Dodgson, 1994) on which participants requested information before making attributions for common social events. Both clinical groups 'jumped to conclusions' and made attributions on the basis of little evidence. This tendency was greatest in individuals with persecutory delusions. Differences were also found in the proportions of questions seeking internal, external and situational information. However, there were no significant differences between the groups in the final attributions made. These findings inform a model of persecutory delusions whereby a limited cognitive search strategy may influence attributional style.

Merrin, J., Kinderman, P., & Bentall, R. P. (2007, March 21). 'Jumping to conclusions' and attributional style in persecutory delusions. *Cognitive Therapy and Research*. Retrieved June 1, 2007, from the SpringerLink Web site: <http://www.springerlink.com/content/239722p7771r0088/>

NEUROTIC, STRESS-RELATED AND SOMATOFORM DISORDERS

Trauma is common in childhood, but PTSD is not

Potentially traumatic events are common in children, but do not typically result in post-traumatic stress symptoms or disorder, according to a report in the May issue of *Archives of General Psychiatry*. In children, the list of events that could lead to PTSD includes a parent being sent to prison, sudden separation from a loved one, and learning of a traumatic event occurring to a loved one.

Annual interviews were held with 1420 children from age 9, 11 or 13 through age 16. Between 1993 and 2000, participants and their parents were interviewed in separate rooms and asked about traumatic events that may have occurred in the previous year. In addition, they reported any symptoms of post-traumatic stress that the children displayed, including compulsive behaviors to suppress memories, panic attacks and engaging in dangerous activities.

More than two-thirds of the children reportedly experienced at least one traumatic event by age 16, including 30.8 per cent with exposure to one event, and 37 per cent to multiple events. The most common events were witnessing or learning about a trauma that affected others – known as "vicarious" events.

Of those, 13.4 per cent developed some post-traumatic stress symptoms by age 16, but less than 0.5 per cent met the criteria for PTSD. About 9.1 per cent experienced painful recall, or distressing memories or images of the traumatic event, and 2.2 per cent had a milder, sub-clinical form of PTSD. Violent or sexual trauma were associated with the highest rates of symptoms. The post-traumatic stress symptoms were predicted by previous exposure to multiple traumas, anxiety disorders and family adversity. In addition, symptoms were more likely to occur among older children.

Children exposed to trauma had nearly double the rates of psychiatric disorders of those who were not (except for substance use disorders). "Across childhood, the children who experience trauma are often those with anxiety, depressive and disruptive behavior disorders, a finding supported in the present study," the authors write. "This likely reflects common liability conveyed from a limited set of family risk factors."

"In the general population of children, potentially traumatic events are fairly common and do not often result in post-traumatic stress symptoms, except after multiple traumas or a history of anxiety," they conclude. "The prognosis after the first lifetime trauma exposure was generally favorable. Apart from PTSD, traumatic events are related to many forms of psychopathology, with the strongest links being with anxiety and depressive disorders."

Medical News Today. (2007, May 11). *Traumatic Events Common In Childhood, But Not PTSD*. Retrieved June 1, 2007, from the Medicalnewstoday.com Web site: <http://www.medicalnewstoday.com/medicalnews.php?newsid=70205>

Does distraction facilitate problem-focused coping with job stress? A 1 year longitudinal study

This abstract is published with kind permission from Springer Science and Business Media.

This study examined the sole and combined effects of problem-focused coping and distraction on employee well-being (i.e., stress responses and job performance) using two-wave panel survey data with

a 1-year time lag. Participants were 488 male employees, who worked for a construction machinery company in western Japan. Hierarchical multiple regression analyses were conducted to examine whether distraction moderates the relationship of problem-focused coping with well-being. More use of problem-focused coping was negatively related to subsequent stress responses among those high in distraction. The combination of high problem-focused coping and high distraction was positively related to subsequent job performance, although it was limited only to the high job stress situation. Results suggest that the combination of high problem-focused coping and high distraction may lead to lower stress responses and better performance (but only in high job stress situations for performance) than the combination of high problem-focused coping and low distraction, at least for male blue-collar workers.

Shimazu, A., & Schaufeli, W. B. (2007, May 24). Does Distraction Facilitate Problem-focused Coping with Job Stress? A 1 year Longitudinal Study. *Journal of Behavioral Medicine*. Retrieved May 31, 2007, from the SpringerLink Web site: <http://www.springerlink.com/content/rq714775948363h5>

Change in neuroticism can affect mortality rates

While mellowing with age has often been thought to have positive effects, doing so could also help you live longer. Scientists at Purdue University, in the US state Indiana, compared neurotic and non-neurotic men over time, and tied change in the trait with mortality.

The study tracked the change in neuroticism levels of 1663 aging men over a 12-year period. The men's mortality risk was calculated over an 18-year period using the average levels and rates of change.

Neurotic men whose levels of the trait dropped over time had a better chance at living longer. They seemed to recover from any damage high levels of the trait may have caused. On the flip side, neurotic men whose neuroticism increased over time died much sooner than their peers.

A neurotic personality was defined as a person with the tendency to worry, feel excessive amounts of anxiety or depression, and to react to stressful life events more negatively than people with low levels of the trait. Neuroticism levels were measured using a standardized personality test.

Data were controlled for age, depression levels, and both subjective and objective ratings of overall health.

MedicineWorld.org. (2007, April). *Change in neuroticism tied to mortality rates*. Retrieved June 1, 2007, from <http://medicineworld.org/cancer/lead/4-2007/change-in-neuroticism-tied-to-mortality-rates.html>

REVIEW ARTICLE: CIRCADIAN RHYTHMS – LATEST FINDINGS

ADD EXTRA HOURS TO YOUR DAY

... with two bright pulses of light

In a study funded by NASA, scientists managed to reset the body clocks, or circadian rhythms, of 12 healthy volunteers to accommodate 25 hours per day.



The participants spent 65 days in individual rooms without windows, clocks, or any other time clues. After having established each participant's natural circadian rhythm, the researchers delivered two pulses of extremely bright light—almost ten times brighter than normal room light—at the end of each day via the overhead fluorescent lights. After the pulses of light, participants stayed up for an extra hour, effectively getting 25 hours out of the day. They stayed on this schedule for a month, and judging by their core body temperature and levels of melatonin—a hormone involved in circadian rhythms—their bodies had adjusted to the

schedule. (Hitti, 2007)

... or an 'after hours' gene ...

An altered body clock gene has been identified that can make a normal day up to three hours longer. The altered gene, named 'after hours' or *Afh*, is a variant of a gene called *Fbxl3*, which was previously unknown to play a role in keeping the internal body clock of mammals running on time.

The discovery was made by scientists from the UK Medical Research Council (MRC) in collaboration with New York University. By monitoring when and how often mice chose to run on an exercise wheel, the team spotted an alteration in some of the animals' normal rhythms. Instead of following the typical 24-hour-pattern, some of the mice had body clocks that stretched to up to 27 hours. Closer study of the DNA from the mice revealed that those on a 27-hour-cycle had the after hours version of the *Fbxl3* gene, one of a large family of genes that control the breakdown of specific proteins within body cells.

The after hours version of the *Fbxl3* gene appears to interfere with normal regulation of the body clock on a cellular level. In mice and humans, there are molecular feedback loops that run over a period of roughly 24 hours to keep the body clock on time. A feedback loop is a cyclical system that relies on the input and breakdown of molecules to keep it running. One of the key components of this loop is a protein called *Cry*. The researchers found that mice that carried the after hours gene also had a delayed *Cry* protein breakdown rate, leading to a slowdown in the molecular feedback loops and a lengthening of the body clock cycle.

Dr Patrick Nolan, of the MRC Mammalian Genetics Unit and who led the study, said: "We need to do a lot more research before this discovery could be applied to the human body clock cycle in any way, what it has shown us is yet another gene involved in controlling circadian rhythms and this in itself is a useful starting point for further study."

The original research paper, *The after hours mutant reveals a role for FBXL3 in determining mammalian circadian period*, was published in *Science* on 26 April 2007. (Medical Research Council, 2007)

But which clock?

Circadian rhythms, also known as body clocks, are cyclical changes in physiology, gene expression, and behaviour that run on a cycle of approximately one day, even in conditions of constant light or darkness. Scientists now know that the body does not have only one body clock; at least one other clock has been found in the adrenal gland. The adrenal gland is involved in several important body functions, such as body temperature regulation, metabolism, mood, stress response and reproduction. Research also suggests that other peripheral clocks reside throughout the body and that these clocks are perhaps interconnected (Physorg.com, 2006).

Peripheral organs in the body have their own cellular clocks that are reset on a daily basis by a central master clock in the brain. The operation of the cellular clocks is controlled by the coordinated action of a limited number of core clock genes. (Science Daily, *Keeping the body in sync*, 2007)

The importance of body clocks

Circadian clocks are highly conserved in all organisms, and in organisms separated by hundreds of millions of years of evolution (Science Daily, 2007). It is known that the circadian rhythm persists in constant conditions (for example constant dark) with a period of about 24 hours; that the period can be reset by exposure to a light or dark pulse, and that it is temperature compensated, meaning that it proceeds at the same rate within a range of temperatures. (Wikipedia, *Circadian rhythm*, ©2007)

These circadian rhythms play a role in many processes: timing when blooming plants open their petals in the morning and close them at night; or setting when fungi release spores to maximize their reproductive success. In humans, the clocks are responsible for why we get sleepy at night and wake in the morning, and they control many major regulatory functions, such as the sleeping and feeding patterns of all animals, including human beings (Science Daily, *Jet lag, circadian clocks explained*, 2007), daily rhythmic changes in body temperature, blood pressure, heart rate, concentrations of melatonin and glucocorticoids, urine production, acid secretion in the gastrointestinal tract, and changes in liver metabolism (Science Daily, *Keeping the body in sync*, 2007). There are clear patterns of brain wave activity, hormone production, cell regeneration and other biological activities linked to this daily cycle (Wikipedia, *Circadian rhythm*, ©2007).

Circadian rhythms also play a part in the *reticular activating system* in the *reticular formation*. The reticular formation is a part of the brain which is involved in stereotypical actions, such as walking, sleeping, and lying down. It is essential for governing some of the basic functions of higher organisms, and in evolutionary terms, is one of the oldest portions of the brain (Wikipedia, *Reticular formation*, ©2007). The reticular activating system is believed to be the centre of arousal and motivation in animals, including humans. The activity of this system is crucial for maintaining the state of consciousness. It is situated at the core of the brain stem between the myelencephalon (medulla oblongata) and mesencephalon (midbrain) (Wikipedia, *Reticular activating system*, ©2007).

Disruptions of circadian rhythms can cause jet lag, mental illness and even some forms of cancer. A future issue of *PsychDigest* will look at this aspect of the body clock.

Circadian rhythms explained?

Circadian clocks in cells respond to differences in light between night and day, and thereby allow organisms to anticipate changes in the environment by pacing their metabolism to this daily cycle. Cornell and Dartmouth scientists believe that they can explain the biological mechanism behind this process, at least in fungi.

In a study funded by the US National Institutes of Health, the researchers discovered how a fungus (*Neurospora crassa*) uses circadian clock light sensors to control the production of carotenoids, which protect against damage from the sun's ultraviolet radiation just after sunrise. The researchers studied a protein called *vivid*, which contains a chromophore – a light-absorbing molecule.

The chromophore captures a photon or particle of light, and the captured energy from the light triggers a series of interactions that ultimately lead to conformational changes on the surface of the *vivid* protein. These structural changes on the protein's surface kick off a cascade of events that affect the expression of genes, such as those that turn carotenoid production on and off. The circadian clock allows the fungus to regulate and produce carotenoids only when they are needed for protection against the sun's rays.

A similar "switch" may be responsible for timing the sleep cycle in humans. (Science Daily, *Jet lag, circadian clocks explained*, 2007)



The research is published in the May 18 issue of *Science*.

— Sources —

- Hitti, M. (2007, May 14). *24 Hours Not Enough See the Light: Pulses of bright light may reset body clock and stretch the day to 25 hours*. Retrieved May 31, 2007, from the MedicineNet.com Web site: <http://www.medicinenet.com/script/main/art.asp?articlekey=81111>
- Medical Research Council. (2007, April 27). *News 'After hours' gene stretches body clock to 27-hour-day*. Retrieved June 2, 2007, from the MRC Web site: <http://www.mrc.ac.uk/NewsViewsAndEvents/News/MRC003657>
- Physorg.com. (2006, March 22). *Research suggests multiple 'body clocks.'* Retrieved June 3, 2007, from <http://www.physorg.com/news67534867.html>
- Science Daily. (2007, March 14). *Keeping The Body In Sync The Stability Of Cellular Clocks*. Retrieved June 3, 2007, from the ScienceDaily.com Web site: <http://www.sciencedaily.com/releases/2007/03/070313114325.htm>
- Science Daily. (2007, May 19). *Jet Lag, Circadian Clocks Explained*. Retrieved June 3, 2007, from the ScienceDaily.com Web site: <http://www.sciencedaily.com/releases/2007/05/070518174657.htm>
- Wikipedia. (©2007). *Circadian rhythm*. Retrieved June 3, 2007, from <http://en.wikipedia.org/wiki/Circadian>
- Wikipedia. (©2007). *Reticular activating system*. Retrieved June 3, 2007, from http://en.wikipedia.org/wiki/Reticular_activating_system
- Wikipedia. (©2007). *Reticular formation*. Retrieved June 3, 2007, from http://en.wikipedia.org/wiki/Reticular_formation

GENDER ROLES

DIRECT AND INDIRECT ASSESSMENT OF GENDER ROLE IDENTIFICATION

This abstract is published with kind permission from Springer Science and Business Media.

Differences in gender role identification exist among both men and women. Earlier researchers have developed several instruments to measure the degree to which individuals identify with the masculine or feminine gender role. In the present study we examined a number of these measurement procedures. Undergraduate students (N = 45) were administered three direct and two indirect measures of gender role identification. In addition, participants were exposed to a psychological stress test that was relatively masculine. Findings reveal that direct and indirect instruments tap different underlying constructs of gender role identification that are nevertheless positively correlated. Furthermore, results suggest that one of the indirect measures, the Gender Implicit Association Test (GIAT), is a promising instrument to provide an estimate of gender role identification. Of all gender role identification measures the GIAT was (a) most sensitive to sex differences and (b) the only significant predictor of systolic blood pressure responses during and after the relatively masculine stress task.

Van Well, S., Kolk, A. M., & Oei, N. Y. (2007, May 22). *Direct and Indirect Assessment of Gender Role Identification*. *Sex Roles*. Retrieved May 31, 2007, from the SpringerLink - Journal Article Web site: <http://www.springerlink.com/content/v5x520p616tm7n61>

PSYCHOLOGICAL DEVELOPMENT: LEARNING DISABILITIES

WIDGET REBUS SYMBOLS

Symbols can improve the reading comprehension of adults with learning disabilities

Adding symbols to written text can make comprehension easier for some adults with mild and borderline learning disabilities

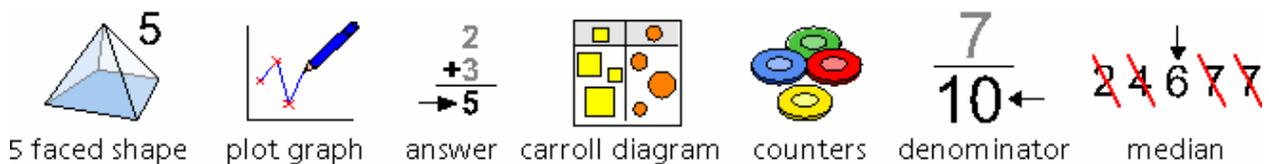
A study looked at the impact of adding of Widget Rebus symbols—a reading and communication symbol system with minimum use of text—to text, and found that participants' comprehension scores were significantly higher for symbolised passages than for non-symbolised ones.

These examples of the Widget Rebus symbols are from the <http://www.widgit.co.uk/> website:

Current affairs:



Mathematics:



Jones, F., Long, K., & Finlay, W. (2007, July). Symbols can improve the reading comprehension of adults with learning disabilities. *Journal of Intellectual Disability Research*, 51(7), 545. Retrieved May 29, 2007, from: <http://www.blackwell-synergy.com/doi/abs/10.1111/j.1365-2788.2006.00926.x>

ORGANISATIONAL PSYCHOLOGY

INTERVIEWING TECHNIQUES

Behavioural interviewing significantly improves employee selection

By Dr Thomas Groenewald, Psych & Soma

If 62 per cent of UK organisations in 2004 used competency-based behavioural interviews for selection purposes—and this figure is reasonably consistent across private, public and voluntary organisations—then there must be something worth investigating (Robinson, Sparrow, Clegg & Birdi, 2007). This percentage has increased by 36 per cent in just two years, according to the Chartered Institute of Personnel and Development (CIPD) in the UK. Nearly 80 per cent of the UK Civil Service departments and agencies had competency profiles in place in 2000, and the remaining were planning to follow suit. These findings prompted *PsychDigest* to look for more literature on competency-based behavioural interviewing.

Behavioural interviewing has many applications. Barclay (2001) recommends it for appraisals, disciplining, grievance handling and accident investigations because of its potential to gather detailed evidence about specific events as well as an objective evaluation of past performance. She also recommends behavioural interviewing for doctors and healthcare workers to gather information from patients; for social workers to interview the children of clients; and for police to interview witnesses or suspects. *PsychDigest* suggests that psychologists can use behavioural interviewing for diagnostic purposes.



Barclay (2001) reports that more reliable and more valid predictions of the likely candidate's job success can be derived through structured interviewing than through 'traditional interviewing'. She differentiates two types of structural interviewing, namely 'situational' and 'behavioural'.

Situational questions pose hypothetical situations that may occur on the job the candidate is selected for, where the candidate is asked what s/he would do in that situation. Behavioural questions, in contrast, focus on past behaviour by asking the candidate to describe what s/he did in the past.

Hood (2004) states that past behaviour is the best predictor of future performance, while Barclay (2001) believes that 'traditional' questions on opinions, attitudes, goals, aspirations, self-descriptions and self-evaluations are weaker, because they offer candidates the opportunity to conceal weaknesses and overstate their credentials.

Behavioural questions are more flexible than situational ones and allow candidates to present their competence by describing past events, rather than imagining hypothetical situations. Behavioural questions further reduce the likelihood of bias by focusing on the competencies necessary for the job. This is of particular importance in South Africa, where employment equity is a statutory prerequisite. Behavioural questions are more likely to elicit truthful responses, because it is difficult for the candidate to fake an explanation of past performance. If there is doubt, the interviewer can always probe further. Behavioural interviewing provides ample evidence to justify decisions and, if necessary, grounds on which to give feedback to internal candidates.

It is feasible to gather through behavioural interviewing similar evidence to those gathered in an assessment centre; however, it is much less costly.

There are substantial costs associated with recruitment, selection, engaging, training and the disciplinary process, should the selected individual perform poorly, caution Golec and Kahya (2007). Selection strategies should be aligned to the organisation's business strategies in order to contribute to the organisation's performance. In the contemporary lean and quality-conscious business environment, selection is a very important issue, asserts Barclay (2001), requiring that every position should have a competency profile and that selection is done in such a way that it matches the incumbent's competencies to those required by the position. Golec and Kahya (2007) provide a comprehensive Analytic Hierarchy Process (AHP), based on fuzzy logic, for the preliminary selection, the selection of the final candidate, and for engaging the appropriate employee. They argue that AHP minimises subjective judgement.

Hood (2004) suggests that often-used behavioural questions are stale at best and pointless at worse. She offers ten questions that she believes will render remarkable results. These questions include:

- “Describe a situation when a subordinate was able to change your mind on a particular course of action”, and
- “Describe a time when you were faced with a challenging situation that involved balancing competing interests in your personal life with issues in the workplace” or ... balancing competing priorities/customer demands, and how you handled the situation.

The questions suggested by Hood can serve well as exemplars for inexperienced interviewers. “Perfect” answers to identify a behavioural competency entail a description of the Situation or Task, what the interviewee specifically did (Action), and what the Result or impact was of the interviewee's action, or what did s/he learn – the acronym STAR will be helpful for the inexperienced interviewer (International Quality & Productivity Centre, 2007). If the answer is incomplete, the interviewer should probe further. Interviewers can gain an understanding of the candidate/client's work/personal history, experiences, motivation/rationale and acquired competence by collecting behavioural examples (STARS).

Critique against competency-based behavioural interviewing is that it is “pastist” (Barclay, 2001), or present-focused at best, and past-focused at worse (Robinson, Sparrow, Clegg & Birdi, 2007). In the globally competitive market it is necessary to forecast future competency requirements. Their article describes a three-phase methodology, an integrated and highly structured approach of forecasting future competency requirements, which they recommend for organisations to generate detailed and accurate forecasts.

Barclay, J.M. 2001. Improving selection interviews with structure: organisations' use of “behavioural” interviews. *Personnel Review*, 30(1), 81-101.

Golec, A. & Kahya, E. 2007. A fuzzy model for competency-based employee evaluation and selection. *Computers & Industrial Engineering*, 52, 143-161.

Hood, S.B. 2004. Hire echelon. *Canadian Business*, 77(12), 71-73.

International Quality & Productivity Centre (IQPC). 2007. Competency-based behavioural interviewing. Sandton: IQPC.

Robinson, M.A., Sparrow, P.R., Clegg, C. & Birdi, K. 2007. Forecasting future competency requirements: a three-phase methodology. *Personnel Review*, 36(1), 65-90.

— Recommended reading for job hunters —

Competency-based interviews: master the tough new interview style and give them the answers that will win you the job, by Robin Kessler. Published by Career Press in April 2006 (Paperback: 255 pp.)

WEB RESOURCES

NEUROSCIENCE PODCASTS

To whet your appetite for the ISAD conference, listen to the “Brain stimulation and other technologies” podcast (audio and visual) at the Library of Congress website: http://www.loc.gov/today/cyberlc/feature_wdesc.php?rec=3715. This podcast is unfortunately not available for downloading, and must be accessed from the LoC website.

Description from the LoC website:

In May 2005, the Library of Congress, the Dana Foundation, Columbia University, and the National Institute of Mental Health gathered leaders in neuroscience and ethics to discuss the rights and wrongs of using or not using new therapies and enhancements. By defining the most advanced and promising research findings, the conference sought to dispel public confusion about what brain science today can and cannot do.

Other websites that offer downloadable podcasts include ABC Radio National's “All in the mind” series at <http://www.abc.net.au/rn/allinthemind/default.htm>, the Royal College of Psychiatrists podcasts (“Raj Persaud talks to ...”) at <http://www.rcpsych.ac.uk/pressparliament/podcasts.aspx>, and the Brain Science Podcast at <http://brainsciencpodcast.wordpress.com/tag/neuroscience>,

CONFERENCES & EVENTS

The Future Search Network Learning Exchange

The Future Search Network will conduct the Learning Exchange in Africa for the first time:

8–10 November 2007

Aloe Ridge Hotel, Lanseria, Gauteng

The Learning Exchange will incorporate a workshop by the authors of *Don't Just Do Something, Stand There! Ten Principles for Leading Meetings that Matter*, Marvin Weisbord and Sandra Janoff. The workshop will run from 5 to 6 November.

Industrial and other psychologists who need to facilitate large, diverse groups or communities to achieve shared goals could consider Future Search, an interactive task-focus process that is said to help people transform their capability for action very quickly.

Future Search is a powerful and democratic method of organisational planning. The underlying goal is to get people onto common ground and to focus on the future. To make a break through, common ground is necessary. By focussing on the future, less energy is devoted to today's problems.

Future Search strives to bring a 'whole system' into the room to work on a task-focused agenda. A cross-section of people, usually around 50 to 80, concerned with the topic or organisation undertakes the search. The diversity of stakeholders broadens the perspectives in order to view more of the whole - to see more of the 'elephant'. The process has a self-managing character that enables collaboration from the beginning, without the groups members necessarily knowing one another.

Ideally, a Future Search runs over three days, as people need 'soak' time. Day 1 starts by focusing on the past. Time lines of personal miles stones, global events and the future search topic/organisation are drawn. The group then creates a mind map of trends influencing the topic or organisation.

Day 2 begins with descriptions of what the various stakeholder groups are currently doing, as well as what they want to do in future. The groups each report on what they are proud of, and what they regret with regard to the topic/organisation. The afternoon is devoted to creating a future scenario. The participants generate concrete images and examples of what is happening in their chosen future, and the barriers they imagine they have had to overcome to get there.

On day 3 the common ground is confirmed through dialogue. Volunteers signing up to implement action plans conclude the process.

More information on the Learning Exchange and workshop is available on http://www.futuresearch.net/downloads/May_Update.pdf

Future Search. (©2007). *Future Search - The Method - What is Future Search*. Retrieved June 3, 2007, from the FutureSearch.net Web site: <http://www.futuresearch.net/method/whatis/index.cfm>

The Co-Intelligence Institute. (n.d.). *Future Search (a.k.a. "search")*. Retrieved June 3, 2007, from <http://www.co-intelligence.org/P-futuresearch.html>

Weisbord, M., & Janoff, S. (2000). *Future Search: An action guide to finding common ground for action in organizations and communities* (2nd expanded edition). San Francisco: Berrett-Koehler.

8th International Mental Health Conference

17–19 August 2007
Queensland, Australia
Contact: Jan Marquardt
tel: +61 07 55282501, fax: +61 07 55285291
email: jan.marquardt@astmanagement.com.au
Or visit: <http://gcimh.com.au/conference/>

Australasian Society for Bipolar Disorders Conference 2007

20–22 September 2007
Sydney, Australia
Contact: Alyson Arestan
tel: +61 02 9290 3366, fax: +61 02 9290 2444
email: asbd2007@icms.com.au
Or visit: <http://www.asbd2007.com.au>

42nd Annual APS Conference

42nd Annual APS Conference: Psychology making an impact
25–29 September 2007
Brisbane, Australia
Contact: Conference Coordinator
tel: +61 03 86623300, fax: +61 03 96636177
email: apsconference@psychology.org.au
Or visit: www.apsconference.com.au

World Psychiatric Association Conference

"Working Together for Mental Health: Partnership for Policy and Practice."

28 November – 2 December 2

Melbourne, Australia

Contact Sharon Brownie

email: Sharon.Brownie@ranzp.org

Or visit: <http://www.wpa2007melbourne.com>

3rd International Congress on Brain and Behaviour

29 November - 2 December 2007

Thessaloniki, Greece

Contact: Global Events

tel: +30 2310 247734, +30 2310 247743, fax: +30 2310 247746

e-mail: info@globalevents.gr

or visit the congress website at <http://www.psychiatry.gr/congress/>

The event will be accredited with 18 CME credits for the main congress program by the European Accreditation Council for Continuing Medical Education (EACCME).

ISAD (International Society for Affective Disorders) 4th Biennial Conference

14-17 March 2008

Cape Town, South Africa

Contact: Janet Seabrook, ISAD Conference Secretariat

tel: +44 (0) 1865 843691, fax: +44 (0) 1865 843958

email: jm.seabrook@elsevier.com

Or visit: <http://www.isad.org.uk>

Abstract submission deadline: 14 September 2007

Contributions are invited on the following themes:

- Causation of affective disorders
- Primary and secondary prevention of affective disorders
- Treatment of affective disorders

Authors should submit abstracts via the Online Submission Form by 14 February 2007:

<http://www.isad.elsevier.com/call.htm>

