

MIND OPEN

INSIGHTS IN
PSYCHOLOGY

Number 1 - Summer 2008

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Why a digizine?

Considering the modest size of the population and the limited number of universities, psychology research in The Netherlands is surprisingly visible on the international stage, as judged by the world-average level of the scores for citation impact and productivity (www.qanu.nl; 2006). Within The Netherlands, the Psychology Research Institute of the University of Amsterdam has the highest citation impact scores, and performs well above world-average level, according to the recent report of The Netherlands Observatory of Science and Technology (www.nowt.nl; 2008).

Considering the high impact of our research, why do we bother to start a digizine with the aim to increase the visibility of our research? Shouldn't we rather invest our limited time and money in efforts to push up our impact scores still further? After all, publications in high-impact journals represent the most effective vehicle for knowledge dissemination; aren't they?

Needless to say, I am convinced that the publication of MindOpen has added value.

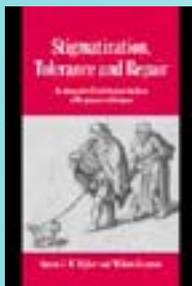
A fast magazine, presenting pithy interviews with authors of recent high-quality publications, is bound to arouse the interest of colleagues outside and inside the Research Institute. All too often, we need all available time

to keep up with studies published in our own sub-discipline. MindOpen gives you the opportunity to get a quick glimpse 'over the fence'. The brief, poster-like presentations draw your attention to the original publications, stimulate you to have a corridor chat or e-mail contact with the author concerned, or even may give you a suggestion for your own research.

By attaching MindOpen (or its web link www.fmg.uva.nl/mindopen) to your outgoing e-mails you can do your share in its world-wide circulation among colleagues from your own and various neighboring disciplines. In this way, MindOpen may promote new contacts, stimulate the interchange of ideas and ultimately contribute to the advancement of science.



Gerard Kerkhof,
director Psychology Research Institute



Dijker, A. J. M., & Koomen, W. (2007)

Stigmatization, tolerance and repair

An integrative psychological analysis of responses to deviance

Cambridge: Cambridge University Press

Dooremalen, H., de Regt, H., & Schouten, M. (2007)

Exploring humans

An introduction to the philosophy of the social sciences

Amsterdam: Boom



Ten seconds of free will

by Denny Borsboom

Several years ago I attended a lecture by Berkeley philosopher John Searle. Someone in the audience asked: ‘What do you think about free will?’ Searle replied: ‘I have just one thing to say about free will. This is free will.’ Upon saying this, he raised his arm. ‘Next question, please.’

At the time, I considered this a bad answer to a good question, but I have since come to view it as a good answer to a bad question. The issue of whether we have free will necessarily involves several blanks that must be filled in, namely who the ‘we’ is supposed to be, what a ‘will’ is, and from what that will ought to be ‘free’. Filling in these blanks gives rise to nonsensical, unsolvable, or trivial questions. Searle answered one of the trivial ones by raising his arm, simply because he did not do it at gunpoint.

There exist people who believe that every interesting question has an experimental answer, and free will is no exception to their territorial ambitions. For instance, in the early 1980s, Benjamin Libet let subjects perform voluntary actions, like flexing their wrists, and recorded electro-encephalogram (EEG) measures of their cortical activity. It turned out that the so-called readiness potential (a peak in the EEG readings that precedes action) occurred before the moment at which subjects reportedly had chosen to flex their wrist. The brain ‘acted’ before the subjects ‘decided’.

Some concluded from this that we have no free will; rather, we are the slaves of our brains. I have always found this to be a weird conclusion, especially given Libet’s experimental setup. For instance, while

preparing this column, I spent last night repeatedly trying to flex my wrist ‘voluntarily’. It turns out to be quite hard to deliberately control the timing. As a matter of fact, my wrist surprised me a couple of times by flexing involuntarily. It takes a lot of wishful thinking to relate this task to the question of free will.

For those intent on drawing the conclusion that free will does not exist, the time differences in Libet’s experiment – which were in the order of hundreds of milliseconds – made this relatively easy; one could imagine that the brain is generally a fraction ‘ahead of the mind’. Recently, however, Soon and colleagues published a paper in *Nature* where they testified that, using functional magnetic resonance imaging (fMRI), they could pinpoint preparatory brain activity up to ten seconds before people decided to act.

Ten seconds. In ten seconds I can eat a slice of pizza, play a round of blues on my guitar, or – on a good day – prove that the square root of two is not rational. In fact, if I were hooked up to an fMRI scanner, and brain measures predicting my actions ten seconds later were communicated to me, I would have sufficient time to decide that the experiment is an insult to my intelligence, and get out of the scanner. That is free will. Next question, please.



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foto: Ingmar Visser

Impact

You are now reading the first issue of MindOpen on your computer screen. Or, if you are still just as great a lover of paper as I am, you will have printed out the PDF file for your own convenience. Whatever the case, in this first so-called 'digizine' from the Psychology Research Institute of the University of Amsterdam you will find six short interviews with staff from the various program groups. They are all the primary authors of very recent articles in high impact journals.

Impact has almost become a magical word in science. The impact of a journal is calculated by taking the average number of citations from all the articles that have been published during the past two years. Imagine, a journal has 125 citations in 2000 and 175 in 2001 and there were 150 articles in both volumes. The impact factor would then be $300/150$, or 2. The higher the impact factor, the greater the scientific prestige – and the greater the temptation to also publish in the journal. Better journals are read by more scientists and that increases the chance of articles from those journals being cited, which also again increases the impact of the journal and those authors published in it, and so forth. It strongly resembles perpetual motion.

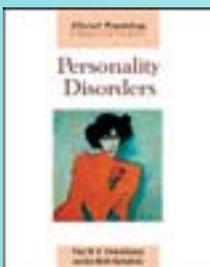
However, articles with high impact factors are not only to impress fellow scientists. Science is also about making the world a better place, even if only a little better. This is why

scientists should sometimes leave their proverbial ivory towers. And this is precisely what MindOpen aims to do: to make interesting research from the Psychology Research Institute accessible to a broader public. The chess research of Frenk van Harreveld and his colleagues provided the inspiration for the cover of this first issue. The University of Amsterdam has got a reputation for chess research to uphold. Adriaan de Groot's doctoral thesis (1948), which was translated as *Thought and choice in chess* in 1965, can be regarded as one of the intellectual forerunners of cognitive psychology and – if one wants to talk about impact – is still even cited frequently today.

Now it is only to hope that MindOpen will have an impact on you. Comments are more than welcome; they will undoubtedly come in useful for the next edition at the end of the year. You can contact us via MindOpen@uva.nl.



Vittorio Busato,
editor



Emmelkamp, P. M. G., & Kamphuis, J. H. (2007)

Personality disorders

Hove: Psychology Press

Frijda, N. H. (2007)

The laws of emotion

Mahwah: Erlbaum



Time pressures level out differences in chess players' skills

by Vittorio Busato

Being able to play chess well depends strongly on two kinds of cognitive processes: slower search and calculation processes and faster processes, such as recognizing patterns in positions. In particular, science writers tend to assume that it is the recognition of patterns, which separates the strong chess players from the weak.

However, what happens as time pressures increase? If strong players rely on pattern recognitions, then their level should not suffer appreciably when playing lightning chess. According to Frenk van Harreveld, assistant professor at the program group Social Psychology, and Eric-Jan Wagenmakers and Han van der Maas, who are affiliated to the program group Methodology as assistant professor and professor respectively, the importance of pattern recognition actually decreases. Chess players with a high ELO rating – the way in which someone's chess playing ability is measured – do not necessarily perform better under the pressure of time than those with a lower rating*.

The University of Amsterdam has a reputation for chess research. Adriaan de Groot's famous doctoral thesis from 1948, which was translated in 1965 and appeared under the title *Thought and choice in chess* – is widely regarded as one of the intellectual forerunners of cognitive psychology. The motive for this thesis was autobiographical. De Groot, himself a chess master, was fascinated by his own “chess thinking”. Van Harreveld also admits that the motive for his own research was autobiographical.

Can you explain this?

‘I read an article written by Bruce Burns in the trade press. He suggested that strong chess players can win lightning chess more easily than weaker players. His explanation was the strong players could rely more greatly on pattern recognition than the weaker players who are much more dependent on their arithmetical skills. As a chess player, I had my doubts about this. I am a chess master myself and have played a lot of lightning chess online. At certain times, I regularly beat world class grandmasters. I would never have been able to achieve this in normal games. If Burns is to be believed, then the stronger players should have been able to beat me more easily in lightning chess. I actually believe that under pressure the relative number of mistakes made by strong players increases, and that is always in the advantage of weaker players. The chance of mistakes is simply greater. This levels out differences in ability.’

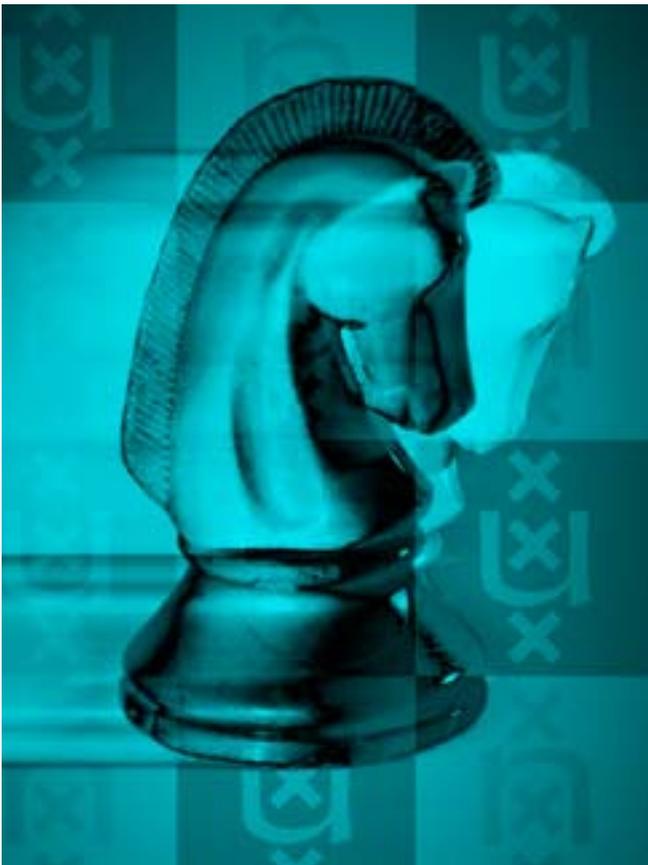
How did you test that idea?

‘We tested it out during Internet Chess Club (ICC) games and during matches at the world championships. ICC players have ratings for standard matches and for so-called bullet and blitz games with respectively one to two and three to ten minutes thinking time. Since

1999, matches at the world championships that end in ties have been decided by lightning chess games. Both studies showed that increasing the time pressure is to the advantage of players with a lower rating.'

Is lightning chess not a completely different game to traditional chess?

'You could see it that way. The rules are the same, but aspects like luck, bluff, coping with stress, become relatively more important. You can win lightning chess if you are far behind both in material and positional terms, but your opponent has run out of thinking time. Motor skills count too, since you have to be able to make a move quickly. They are all grandmasters, but the top ten of traditional chess is not the same as the top ten of lightning chess players.'



What is the scientific importance of your research?

'Research into chess in psychology offers insight into fundamental cognitive processes. Our research shows that the dichotomy between pattern recognition and calculation is too simplistic. Being able to play (lightning) chess well is a combination of slow and fast processes. The fast processes direct the attention, while the slow ones calculate the variations. Strong players do not count more profoundly as such; they are able to calculate correctly as a result of their experience. They spend less time on nonsense.'

And the practical significance?

'These days chess training does not primarily focus on learning patterns off by heart, but on seeing each position as unique. It is all about unlearning dogmas and being able to think outside of the box. That is what we will be focusing on in our follow-up study; this will benefit both chess players and their trainers. Indeed, such an open approach typifies experts in almost every domain.'



* Harrevel, F. van, Wagenmakers, E.-J. Wagenmakers, Maas, H.L.J. van der (2007). *The effects of time pressure on chess skill: an investigation into fast and slow processes underlying expert performance*. Psychological Research, 71, 591-597.

See for the original article:

<http://home.medewerker.uva.nl/f.vanharrevel/>

<http://users.fmg.uva.nl/ewagenmakers/>

<http://home.medewerker.uva.nl/h.l.j.vandermaas/>

In addition, Wagenmakers and Van der Maas have developed The Amsterdam Chess Test, which measures chess proficiency:

<http://users.fmg.uva.nl/hvandermaas/chesshtml/act.htm>

‘It is indeed individual differences that teach us a lot about the brain’

by Mark Mieras

‘If you cross the road here in Amsterdam, you first look left to see if there is any traffic coming. In England, this is not a good idea. There you have to look right,’ says neuroscientist Birte Forstmann. Forstmann conducted research at the program group Developmental Psychology into what happens to the brain when automated behavior is repressed*. How is it that some people are better at this than others?

‘We try to explain individual differences in behavior by first capturing that behavior in models,’ Forstmann adds. ‘With the parameters, which characterize the behavioral differences, we then try to predict brain activity. This is how we discover that there is a direct relationship between inhibition in behavior and neural activity in the right inferior frontal cortex. The more activity in that area of the brain, the easier the repression of automated behavior.’

How did you set up the experiment?

‘We used the horizontal Simon task. That is a task that involves blue and green dots, which are projected onto a screen left and right of a fixation point. As soon as the test subjects see a blue or green dot, they must press the left or right button with their left or right index finger respectively. The location of the projection is irrelevant to the task, but it does interfere with it. A blue dot that one

projects in the righthand image field ends up in the left half of the brain, which preferentially activates the right index finger. This easily leads to mistakes. It is difficult to suppress that erroneous process because it moves so fast. We therefore measure a longer response time than when the blue dot is projected from the other side. The test subjects’ reaction times display a natural distribution for each of the two conditions – blue dot right or left. If one compares the shortest reaction times, then one can see a significant time difference between the two conditions. For the longest reaction time, that difference is much smaller. This is also what the model predicts: the longer the reaction time, the more time there is to suppress the incorrect process. In that instance, one sees the greatest activation in the right inferior frontal cortex.’

What can we learn from this?

‘Our research shows how fruitful the combination of neuro-imaging and mathematical modeling can be. We begin to understand much more about the brain if we have good mathematical models to use, which describe the differences in individual behavior. In this way – thanks to the combination of methods from brain and behavioral research – we can shed light on the individual differences between people. Differences, which express themselves in behavioral and brain activity.’

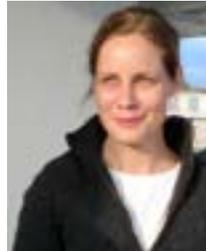
That demands broad collaboration.

‘Certainly. As a neuroscientist, I make grateful use of the experience of the experimental psychologists in our group, such as Richard Ridderinkhof and Wery van den Wildenberg. And from the knowledge derived from the mathematical psychology of our Methodology department with Eric-Jan Wagenmakers and of Scott Brown from the University of Newcastle in Australia. These are sub-disciplines with an enormous tradition. It is really interesting to apply this knowledge to brain research.’

What is the next step?

‘In a new research study we will adopt the same approach, but then with diffusion tensor imaging [a new fMRI technique, see also the interview with Romke Rouw], to also discover individual differences in the structure of the white matter of the neurons in the right inferior frontal cortex. In the future, we also want to research the relationship between differences

in thickness of the cortex. The inferior frontal cortex is very susceptible to ageing. We want to discover exactly what happens in this brain area as we get older and why the inhibition diminishes. With this knowledge it may be possible to develop programs in the future to slow down this denegeration. That is of major social importance.’



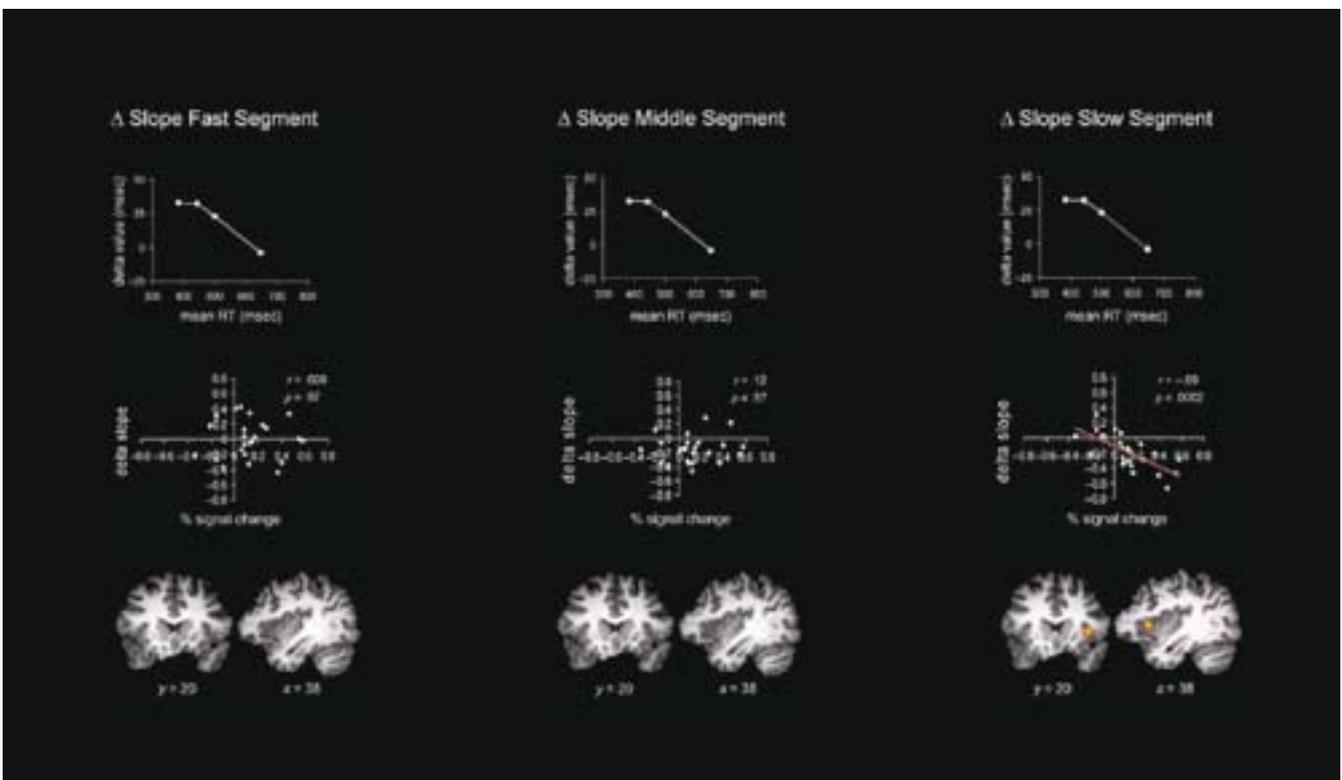
* Forstmann, B.U., van den Wildenberg, W.P.M., & Ridderinkhof, K.R. (2008). *Neural Mechanisms, Temporal Dynamics, and Individual Differences in Interference Control in the Simon Task*. Journal of Cognitive Neuroscience, 27.

For the original article, see:

<http://home.medewerker.uva.nl/b.u.forstmann/>

<http://www.wery.dds.nl/>

<http://users.fmg.uva.nl/rridderinkhof/>



Is evolutionary psychology a meta-theory for psychology?

by Dagmar van der Neut

In 1995, the evolutionary psychologist David Buss wrote an article in which he contended that evolutionary theory is an overarching theory for everything. According to Buss, many psychological facts and findings can be explained by evolutionary psychology. Psychological characteristics, just as biological characteristics, emerged during evolution as adaptations to environmental demands.



However, Annemie Ploeger, doctoral candidate in the program group Developmental Psychology, has ascertained that the predictions, which neo-Darwinists like Buss have made about psychological characteristics, are inconsistent with some scientific facts. In its current form, evolutionary psychology cannot therefore be considered a meta-theory. This is what Ploeger argues in a recent article that she published together with Maartje Raijmakers, associate professor at the same program group, and Han van der Maas, professor at the Methodology program group.* Nonetheless, they note that if people were to learn the lessons from evolutionary developmental biology, it still could.

One of the spearheads in evolutionary psychology is that the human mind is constructed from the so-called domain specific competences. Can you elucidate this?

‘According to the neo-Darwinian perspective, many human abilities came into being as a result of specific problems that our ancestors encountered. Many specialized mechanisms developed in the brain as a result. For instance, the dangers of snake bites resulted in a fear of snakes, which can be traced to a specific region of the brain. This is largely true, but there is also a great

deal of scientific evidence for more general mechanisms. Statistical learning, for example, the recognition of regularities in images, music and language, the working memory, but also the processing speed for various tasks. Evolutionary psychologists cannot explain how these fit in their theories.'

What could they learn from evolutionary developmental biology?

'Effects of genes are very modular: if you switch a gene off, then you can see what goes wrong with precisely which characteristic. That is handy, because a genetic error does not immediately disfigure the entire system. However, modularity has a major disadvantage: it is not flexible. Computer simulations reveal that extreme modularity leads to an evolutionary dead end. Developmental biology demonstrates that genes can also have an effect on multiple phenotypes. We call these pleiotrophic effects. These effects keep the door open to evolution when the environment is changeable. I think that there are genes that have an effect on very specific areas of the brain, but also genes that have an effect on more areas at the same time. The development of more general skills can thus fit into evolutionary theory perfectly well.'

Alongside nature and nurture, you argue that there is a third factor in play, which can explain the variation between individuals? That sounds new.

'It seems to be extremely difficult to breed standardized laboratory animals. They have the same genes, they have the same diet, and they are kept under the same conditions. Still, there are fat and thin animals. How can that be? Already back in 1993, developmental psychologists Peter Molenaar, Dorett Boomsma and Conor Dolan wrote that they thought that self-organization was the third factor that plays a role here. This is derived from chaos theory, which posits that an immeasurably small difference in the starting conditions can lead to big differences in the end condition. An

unanticipated change at a higher level arises through the interaction between body parts and brain areas within the individual.'

And what does evolutionary psychology say?

'It does not preoccupy itself with this. There is not really any place for individual differences within evolutionary psychology. So whoever talks about a meta-theory, is seriously blowing his own trumpet. Incidentally, Buss has written a commentary on my article, and he continues to defend his original position. He does not appreciate criticism, critics immediately become enemies. While I am actually rather balanced in my comments. Evolutionary psychology can provide a meaningful contribution to psychology; it is extremely interesting. I have also been smitten by the bug. However, an overarching theory must bring a discipline together. At the moment it very much stands on its own.'



* Ploeger, A., Maas, H.L.J. van der, Raijmakers, M.E.J. (2008). *Is Evolutionary Psychology a Metatheory for Psychology? A Discussion of Four Major Issues In Psychology From an Evolutionary Developmental Perspective*. Psychological Inquiry, 19(1), 1-18.

For the original article, see:

<http://home.medewerker.uva.nl/a.ploeger/>

<http://home.medewerker.uva.nl/m.e.j.raijmakers/>

<http://home.medewerker.uva.nl/h.l.j.vandermaas/>

People with synesthesia have other brain connections

by Mark Mieras

People with synesthesia have unusual extra experiences. Those who have the commonly occurring grapheme-color synesthesia, for example, see colors as letters. Romke Rouw, assistant professor at the Psychonomy program group, investigated how this trait develops in the brain together with her colleague Steven Scholte.

Rouw explains that ‘there are divergent ideas about this. One theory contends that the brains of those with synesthesia have another structure than people without the condition. While another concerns the difference in the feedback process: the same brain structure works in a different way. These theories co-existed for quite some time, without there being any clear empirical evidence for either of them. I wanted to change this state of affairs.’

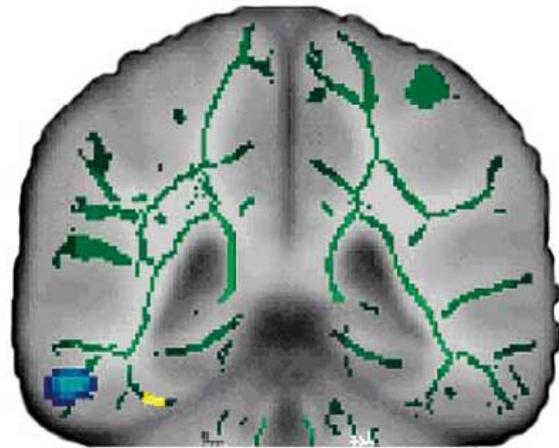
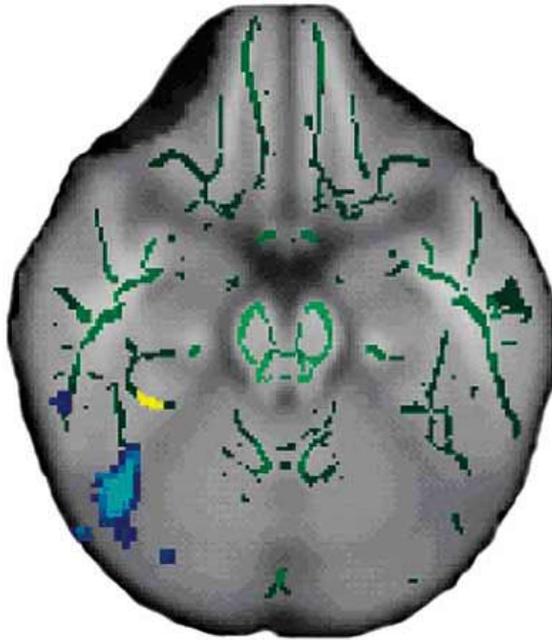
That sounds rather ambitious.

‘At the University of Amsterdam we have the opportunity to do fMRI and DTI research amongst other things. The latter technique – diffusion tensor imaging – is comparatively new. You can measure the characteristics of the white matter using DTI. When Scholte told me about this, I thought: ‘So the technique really exists! You should study synesthesia with it!’ This is how our scientific collaboration on this project began. We each had our own areas of expertise. That we are both relatively young staff members makes it even nicer that our work together

has led to an elite publication in *Nature Neuroscience*.* Our research revealed that people with grapheme-color synesthesia do actually have a slightly different brain structure to those without the condition. With DTI one measures, among other things, a cluster of increased connectivity at the gyrus fusiformis of the temporal lobe. That is precisely where the theory expects the cluster to be.’

Do you distinguish between two kinds of synesthetic experiences?

‘You have “projectors” who experience synesthetic colors in the outside world, and “associators” who experience them in their minds. An interesting question is whether you can explain that difference in subjective experience from differences in brain structure. This question stimulated my interest in this topic even more. Using questionnaires we could make a clear distinction between the projectors and associators in a group of eighteen test subjects. The scanner did indeed record a relationship with the structure of the brains. Projectors show the greatest anisotropy in this cluster near the gyrus fusiformis. This is noteworthy because we know that the centers for both color and letter shapers are found close-by. It appears that people who experience synesthetic color in the outside world have more or more coherent white matter here.’



What is the greatest value of this research?

‘I was pleasantly surprised that a questionnaire, which is not really the most fashionable research method in the neurosciences, gave added value to this study. Thanks to the questionnaire we were able to use the individual differences in the experiences of the test subjects in the DTI research. A soft and a hard method, which when combined yielded great results. Our publication should hopefully give a greater impetus to researchers to include the differences in the subjective experiences of test subjects in their research.’

What is the secret of this success?

‘Our research makes it clear just how important it is to invest in new techniques. We gratefully made use of the opportunities offered by the Psychology Research Institute. Investing in new techniques pays for itself and gives us an edge on other researchers in the world. That is valuable. This lead can also be increased with the future Spinoza Center for Neuroimaging Amsterdam.’

What next?

‘There are many more forms of synesthesia. I would really like to study whether there is also a difference in brain structure. Apart from more people with grapheme-color, I am therefore also looking for people who put letters, numbers or dates on a visual-spatial form or “number-line”. That also often occurs. If you recognize this, and are interested in participating in research, please contact me.’



* Rouw, R. & Scholte, H.S. (2007). *Increased structural connectivity in grapheme-color synesthesia*. Nature Neuroscience, 10, 792-797.

For the original article, see:

<http://home.medewerker.uva.nl/r.rouw/>

<http://home.medewerker.uva.nl/h.s.scholte/>

Optimal group decision-making

by Vittorio Busato

‘Why do groups with generally well-educated members often make such foolish decisions? The quality of final decisions largely depends on how group members exchange and process information among themselves.’

These are the words of Carsten de Dreu, professor at the program group Labor and Organizational Psychology. Together with his colleagues, Bernard Nijstad, associate professor at the same program group, and Daan van Knippenberg, who is now a professor at the Erasmus University Rotterdam, he produced a very extensive review of group decision-making processes*. In this, they make a distinction between two kinds of motivations: social and epistemic motivation.

The first indicates the degree to which group members allow their own or group interests to prevail. Epistemic motivation relates to how far group members are prepared to go to glean information for the benefit of the decision-making process. De Dreu and his colleagues have condensed the available knowledge on this issue - from the existing literature as well as data acquired through their own recent laboratory and field research projects - into the Motivated Information Processing in Groups (MIP-G) model (see illustration).

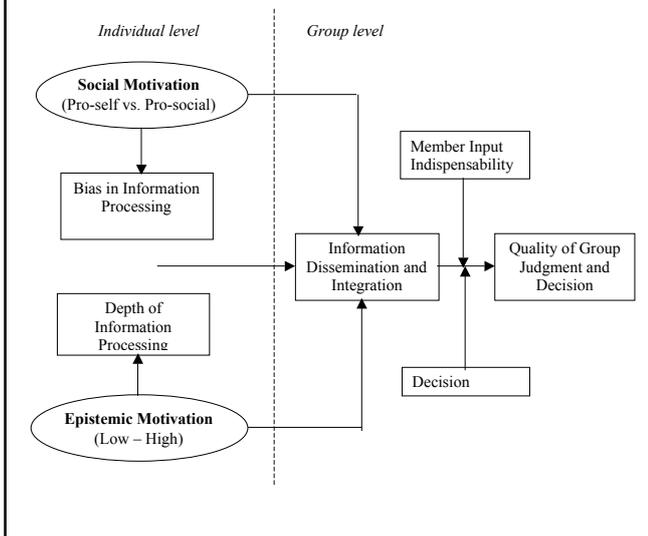
In sum, what does all this collected knowledge yield?

If all group members allow their own interests to prevail, then things go wrong. It is always good for a group to pay heed to collective interests. This leads to better decisions, though only if group members also think about decisions carefully. There is one exception: crisis situations. If a fire has to be extinguished, a patient is in danger of bleeding to death, a surprise attack is launched. In such instances, a group has to act swiftly and cannot reflect on the situation too deeply or critically. The managers in a group then assume a leading role. They must know when they should act authoritatively as leaders and when they can afford to give group members more individual responsibilities.’

To what kind of groups do you generalize your conclusions?

‘Our model is based on groups of four to ten people. Consider, for example, teams in organizations, top management teams, professional policy teams, a team that must design a new car. Naturally, there are groups that produce outstanding results, but more often such teams appear to founder.’

A heuristic overview of the Motivated Information-Processing in Groups (MIP-G)



Can you give an example?

‘A team of detectives has to solve a murder. Each team member possesses specific information. One knows a lot about the victim’s personal history, while another has considerable forensic knowledge and yet another knows a lot about offences that have been committed. Together they must find the perpetrator. They will more easily succeed if they exchange, combine and think through the information amongst themselves. And that often does not happen in groups. Members keep information to themselves, for example, because they think that others will not be interested in it or for personal reasons. The inadequate exchange of information is an important reason why group decision-making often goes wrong. I also make this association when I read in the newspaper that the budgets for the Betuwe train line or the North/South subway system in Amsterdam are being exceeded by many millions. All kinds of vague reasons are then given for this. However, the groups responsible have paid barely any attention to making optimal decisions. Indeed, I tend to think that the group members have been too greatly focused on their own interests or keeping their backers satisfied.’

What is the scientific significance of your review?

‘We have brought together an enormous amount of disparate knowledge in an orderly and more efficient model. This is how new insights are gained, which can be used to further advance science. Moreover, such syntheses usually inspire others to come up with new research questions. Though I will only be able to say more about this in five years time.’

As a scientist, what do you do to ensure that people in everyday life can benefit from your research?

‘Sometimes we popularize our insights. I also give seminars and workshops. Sometimes organizations will ask me to help solve problems. Then I will talk about our research. We also use this review in our teaching, and it will appear in introductory textbooks for MBA students. In this way, scientific knowledge slowly trickles down into practice, which is fine given that science should also take its time. It is too early to put together teams for the North/South line on the basis of this article’.



* De Dreu, C. K. W., Nijstad, B. A., & Van Knippenberg, D. (2008). *Motivated information processing in group judgment and decision making*. *Personality and Social Psychology Review*, 12, 22-49.

For the original article, see:

<http://home.medewerker.uva.nl/c.k.w.dedreu/>

<http://home.medewerker.uva.nl/b.a.nijstad/>

Writing therapy just as effective as cognitive behavioral therapy

by Dagmar van der Neut



The most popular treatment for post-traumatic stress disorder (PTSS) is still cognitive behavioral therapy, while things could perhaps be far cheaper and easier. Research has shown that writing therapy is effective in relation to a control group, but can this form of treatment compete with the current treatment of choice?

Arnold van Emmerik, currently assistant professor at Leiden University, received his Ph.D. from the University of Amsterdam in 2005 with a thesis on the prevention and treatment of PTSS. As part of his doctoral research, he was the first to compare the efficacy of structured writing therapy (SWT) with cognitive behavioral therapy (CBT). Participants with Acute Stress Disorder and Acute PTSS were given five sessions; participants with chronic PTSS had ten sessions. In a recent article published in *Psychotherapy* and *Psychosomatics* together with his doctoral supervisors from the program group Clinical Psychology, Van Emmerik contends that writing therapy appears to be equally as effective as cognitive behavioral therapy*.

What are the most important differences between the treatments?

*The difference primarily relates to the procedure, rather than the type of treatment. Both, for example, make use of imaginary exposure. SWT only consists

of writing assignments. People must produce detailed descriptions of the traumatic event. The second phase is cognitive reappraisal: one has to write a letter to an (imaginary) friend who had experienced the same thing, giving advice about how he can best cope with the incident and its consequences. They must then apply this advice to themselves. The final phase is social sharing and a farewell ritual; writing a letter to a friend or someone who was involved in the trauma. In contrast, in cognitive behavioral therapy, in vivo exposure is part of the treatment. This is not the case with respect to writing therapy. That is why SWT is a slightly gentler than CBT.'

Why should you suffer more to get the same result?

'With CBT you must indeed repeatedly re-experience your trauma over a long period with all of the negative emotions that accompany it. It can be a difficult, emotionally taxing therapy, which one can thus avoid. SWT also involves revisiting the trauma, but some people can cope with that better. Another advantage is that writing therapy can also be offered over the Internet. Eye Movement Desensitization Reprocessing (EMDR) also works just as well as CBT for that matter. A patient with PTSS can therefore now choose a treatment that best suits him.'

All the therapies work just as well as each other, but we do not even know how EMDR works. Is the effect of a treatment not simply a placebo effect?

'One may think that, although CBT works much better than a placebo treatment such as 'supportive counseling'. A large part of the effect of a treatment can, I believe, be attributed to non-specific factors such as the attention that one receives, support, understanding, the structure of receiving an assignment every week. Yet although the treatments are effective, our research revealed that around a third of participants still suffer from PTSS afterwards. This also applies to the treatment of all kinds of problems; a large proportion do not get better from any treatment.'

I am suddenly rather depressed by this.

'Perhaps our expectations are also too high. That is good, but perhaps not always realistic. There are also people who cannot be cured from somatic complaints. Sometimes doctors have to tell people with cancer that the treatment has not been successful. In practice, people can of course persist with a treatment for longer than in our research, they can switch to an alternative therapy or try medication.'

Otherwise these days we still have treatments inspired by eastern philosophies, such as Acceptance and Commitment Therapy.

'Indeed. We are now considering how we can apply mindfulness therapy to those who are treatment resistant. So that life becomes more bearable with the existing complaints.'



Emmerik, A.A.P. van, Kamphuis, J.H., Emmelkamp, P.M.G. (2008). *Treating Acute Stress Disorder and Posttraumatic Stress Disorder with Cognitive Behavioral Therapy or Structured Writing Therapy: A Randomized Controlled Trial*. *Psychotherapy and Psychosomatics*, 77, 93-100.

See for the original article:

<http://home.medewerker.uva.nl/p.m.g.emmelkamp/>
<http://home.medewerker.uva.nl/j.h.kamphuis/>

You can also send an email to Arnold van Emmerik:

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Suggestions?

Please send an e-mail to: mindopen@fmg.uva.nl

PH.DS (2008)

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