an interview with

Alex J. Rothman

by Dawn Wilkinson, Co-Editor

Initiating and maintaining the link between theory and practice

Alexander J Rothman is Associate Professor in the Department of Psychology in Minnesota. He received his PhD from Yale in 1993 and by 2002 he had been awarded the American Psychological Association's (APA) Distinguished Scientific Award for Early Career Contributions to Psychology; only the 5th person to receive the award for work in the area of Health Psychology. Much of Alex's work centres around the way people process and react to health information and the influence of message framing on behaviour. His publications cover numerous theory-based interventions targeting, for instance, weight loss, sunscreen use, mammography screening, smoking, and flu shots. Increasingly his work has emphasised processes associated with long-term behavioural maintenance, as well as methodological and conceptual issues around theory development, theory testing and interventions.

These themes were reflected in his key note speech at the recent British Psychological Society's Division of Health Psychology (DHP) conference *'"Is there nothing more practical than a good theory?" Linking theory and practice in the study of behavioural initiation and maintenance'*. The speech outlined the importance of advancing theories through experimental interventions using examples from Alex's own work testing a theoretical model delineating initiation and maintenance processes. I managed to catch up with Alex during the DHP conference in the glamorous setting of University of Essex Sports Centre car park. I asked him what, in particular, were the main themes that he wanted people to take away from his key note:

AR: What we are trying to demonstrate is the idea that you can use interventions to test theoretical ideas. I am really interested in the decision processes that may differentiate between initiation and maintenance and you need to be in the intervention world [to do that]. Maintenance to me is not what you do in the last 10 minutes of an hour long experiment or one week into an intervention but what happens over the next 18 months and I'm not even sure that 18 months is where you want to stop.

DW: *Alex's keynote emphasised that we need to prevent theories from stagnating. This would involve being more comfortable with contradictory and disconfirming findings. I asked Alex whether he thought an emphasis on significant confirmatory research was in part due to the constraints and expectations of the academic system, for example journals' reluctance to publishing null findings.*

Alexander J Rothman
Associate Professor
Department of Psychology, University of Minnesota, Minneapolis, MN, USA
rothm001@umn.edu

AR: OK, null findings can be ridiculously difficult to interpret. But I think we need to be more comfortable with being wrong and to be more supportive of people making precise predictions and thus running the risk of being wrong. When a prediction is or is not supported, it speaks to whether the prediction was correct or incorrect and not how good a scientist someone is. As regards to publishing and researchers' practices, it's hard to know what's the chicken and what's the egg. If researchers pursued tight focussed predictions I think the field would feel more comfortable with null findings.

DW: *Alex believes that applied theory-testing can and should lead to a "second generation" of research in which you take the principles of an effective intervention and work out the most optimal way to deliver that intervention in applied settings. However, there is a tendency toward what he calls "horizontal growth" in research and uses the metaphor of a "waistline getting bigger", for example amassing supportive evidence by repeatedly testing the same aspects of a theory, perhaps across different behaviours. Whilst Alex sees this is as valuable in its own right, he highlights the need for more "vertical growth" in which theories are refined and translated into deliverable intervention programmes:*

AR: I probably shouldn't stop just because I've just developed a good [theoretical intervention] technique that worked, because there is probably a lot of room to develop and refine that technique. Just because something works doesn't mean it is necessarily the best

(Continued on page 7)

an interview with

Alex J. Rothman

(Continued from page 6)

or optimal thing to do. Even well designed intervention techniques aren't disseminated as well as one would like. That [intervention] technique might be effective but you need a team of five PhD health psychologists to implement it. In a clinical centre you might have that type of staff support, but in most parts of the country you don't; so consideration must be given to whether there is a way of delivering that [intervention] by people with different kinds of training.

DW: *Alex notes that vertical progress and theory development can only happen where there is collaboration and cross-working:*

AR: You can think about your own personal research programme – how do the studies you are conducting build on each other – but there is another level of research program that's important - the larger programme around a health issue, for example, risk communication. From this perspective, one asks how the studies conducted by different teams of investigators build on each other. And the idea is that if everything is working perfectly I would report a finding and advance the field a little bit, but then I am comfortable with your taking this finding and building on it and then later I follow up on your work. It seems more likely you are going to get progress this way.

DW: *From Alex's point of view, this kind of collaborative working appears to be happening in Europe. I asked him, having recently attended the EHPS conference and now attending the DHP conference, what was his perspective on Health Psychology in Europe compared to the US?*

AR: From what I can see, there is an integrated community here that is different from what you typically find in the US. In the US, you find health cognition research tagged on to either a broader social psychology meeting or a behavioural medicine meeting. In both cases you can see the work but it is often overwhelmed by other stuff. Europe is a place where [this kind of work] is front and centre.

DW: *But, does this mean that Health Psychology loses something here because it is less inter-disciplinary?*

AR: Well this is where it gets complicated and you don't know whether you are looking at different systems or are you are looking at the same system but at different stages of development. I think that for some of the work that is being done here you would want to see that [interdisciplinary work] to begin to evolve, particularly as the work moves from not just delineating the predictors of behaviour but really more aggressively testing those models in clinical interventions. At the same time I have been impressed here, that there is a lot of cross-collaboration done. There seems to be much more of a shared effort so you have lots of groups working on implementation intentions, a bunch of groups working on issues around illness perceptions and risk perceptions, and it appears, at least as an outsider, they are working more cooperatively on the problem [than in the US]. If this perception is accurate and I'm correct to assume that there is a benefit to working more cooperatively, one would expect there to innovations coming out of the European groups in the hear future. We are going to have to wait and see.

DW: *Alex also noted that research in Europe has perhaps benefited from the physical and conceptual distance from the theoretical models that it has been evaluating, allowing a more removed and, thus perhaps, more critical approach:*

AR: There is something different about people doing research on their own or their mentor's theories. When you are doing research on other people's theories you have some perspective and distance. For example, when we do work on our model of message framing even if we try to be as objective as we can possibly be, it is hard not to feel invested in the outcome. But when other people are working on our model, they not only may be able to remain object, but also be able to more readily detect weakness in the model. Much of the work that's been done here on the theory of planned behaviour may have benefited from the fact that people could take a critical look at the model, whereas in the US a lot of the work may be tied up with people who developed the model. Again, it is an empirical question. As more models start to emerge [out of Europe], people in the US may find themselves in a better position to test and evaluate them.

DW: *I asked Alex to what extent he thought there was convergence between the US and Europe in their approaches to Health Psychology*

AR: I think generalisations are dangerous, but in the areas that I work there is a lot of synergy. If I think about the time that I finished graduate school in 1993 there may have been an article here and there in an APA journal that was written by someone from Europe but that would have been the exception. Now it's no

(Continued on page 8)

an interview with

Alex J. Rothman

(Continued from page 7)

longer the exception and I think that's facilitated synergy – you can't work on the same projects if you don't know what other people are doing. It used to be if you wanted to know what was being done over here you had to read **the European Journal of Social Psychology** and now that is no longer the case.

DW: *One potential forum for international contribution and debate will be the new EHPS journal* ***Health Psychology Review*** *coming out in 2007. This will be the first review journal in Health Psychology and will be edited by a multi-national team. I asked Alex, as an associate editor on the new journal, what he thought it would bring to the discipline:*

AR: People aren't doing enough theoretical writing and thinking and critiquing and that's a real problem. I think there are a number of reasons for it, one of them is actually structural - people are going to write the things that they know are going to get published, and I know from my own experience, getting theoretical papers around health published can be difficult. So I think the journal affords a phenomenal opportunity for theoretical innovation. The arrival of the new journal will really serve as a spur [for] new ideas, new thinking, more critical thinking about theories, and more integration of findings. However, the success of this new initiative will depend on people starting to write types of articles that they haven't tended to work on in the past. I think its going to take a little bit of time to get up to speed but once it does I predict that it will be so successful that it will breed competitors. But if you've got a system where everybody across the globe is reading and writing in the same journal you'd think that has to be productive.

DW: *I asked Alex what he thought about the future of health psychology generally.*

AR: The future is interdisciplinary collaborations that link different levels of analysis whether it's the psychological and the structural or the psychological to more biological experiences. The trick is going to be doing it in a way that everybody is equally comfortable around the table and everybody's contribution is equally valued. The push towards all these interdisciplinary initiatives sometimes makes people worry "well does that mean I not only have to be a social psychologist but also I now need to be a doctor and a bio-statistician and an anthropologist?" and my answer is no - what you need to be is a really good X whatever X is, but at the same time you have to also be able to interact effectively with people who do Y as opposed to X. We may find that our ability to engage in these conversations and interactions will naturally evolve as we engage in more and more interdisciplinary collaborations.

DW: *In terms of his own work, Alex sees himself developing research on process health messages and decision making, using experimental techniques to empirically test and develop theory-based interventions.*

AR: I see my own work as continuing to try to demonstrate that you can do basic science and develop a rich understanding of the decision processes that people engage in as they reason about their health and then take those principles and integrate them into interventions in order to see how those principles really work in complex environments. I am a strong believer in the power of the laboratory and there is tremendous value in being able to use a controlled laboratory setting to get rid of all of the noise in order to obtain a clear look at the relationship between two variables. But we sometimes forget that one of the reasons we controlled the noise was that it probably matters in some way or another and so you have got to, at some point, let it in, and interventions are a phenomenal way [to do that].

DW: *More philosophically, Alex would like to further explore the systems and structures that scientists work in and how we can change existing practices and perceptions to advance the field.*

AR: I've become more and more interested in studying how we as researchers think and act -- what shapes the thinking and work we do, how the systems we utilize operate? [People need to be more] comfortable with the value of challenging their ideas and finding out when their predictions do not hold. We need to appreciate the value of learning not only when and where a variable predicts behaviour, but also when and were it does not. It would be wonderful if everything was simple; that we could rely on three variables to explain behaviour and could assume that they matter all the time. If this were true we could quickly put ourselves out of business and go on vacation, but unfortunately life is more complicated than that and we need to be more comfortable with this idea.

Those seeking to explore Alex's theoretical discussion further can read about some of the themes from the DHP keynote speech in his article:

Rothman, A.J. (2004). "Is there nothing more practical than a good theory?": Why innovations and advances in health behavior change will arise if interventions are used to test and refine theory. International Journal of Behavioral Nutrition and Physical Activity, 1:11.