Mind Pad

Canada's student written, edited, and published psychology newsletter.

Notes d'idées

Le bulletin rédigé, édité et publié par les étudiants de la Société canadienne de la psychologie.

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Le bulletin rédigé, édité et publié par les étudiants de la Société canadienne de la psychologie.

Mind Pad has two mandated goals:

1. It aims to provide a professional newsletter that is written and reviewed by students of psychology who are affiliates of the Canadian Psychological Association. The content of the newsletter should be of interest to all who are practicing and studying psychology, but the primary audience of the newsletter is students of psychology.

2. It aims to offer studying psychology researchers and writers an opportunity to experience a formal submission process, including submission, review, and resubmission from the points of view of both submitter and reviewer/editor.

Le mandat de *Notes d'idées* a deux objectifs :

1. Fournir un bulletin professionnel rédigé et évalué par les étudiants en psychologie qui sont membres affiliés de la Société canadienne de psychologie. Le contenu devrait être d'intérêt à tous les praticiens et étudiants en psychologie, mais les étudiants en psychologie sont les lecteurs cibles.

2. Fournir aux étudiants en psychologie l'opportunité de connaitre le processus formel de soumission y compris la soumission, la révision, et la resoumission du point de vue d'auteur et d'évaluateur/redacteur.

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CANADIAN PSYCHOLOGICAL ASSOCIATION

SOCIÉTÉ CANADIENNE DE PSYCHOLOGIE

A *word from the editor...*

By Rana Pishva MSc.

Fallor ergo sum .... [a student] – *St-Augustine*
[If I am mistaken, I am...a student]

I am a student. An attentive observer. An apprentice. I, by definition, am ignorant.

More specifically, I am a graduate student in clinical psychology. In the course of 4 years, I am expected to learn to conduct and publish creative and ethical research, think critically, administer psychometric tests, listen actively, and ask Socratic questions.

Sometimes I am wrong...but how does that feel? As a person whose primary occupation is to acquire knowledge, what is like to err?

Journalist Kathryn Schulz suggests that it doesn't feel like anything. Being wrong feels exactly like being right....until you find out otherwise. It is only when we are faced with an error that most of us experience a string of negative emotions: shame, embarrassment, anger. Others, particularly children respond physiologically to wrongdoings (Kochanska, 2003). It can lead us to question our abilities and seek reassurance (Newman, 1996).

Earlier this year I administered a standardized test of intelligence to a young boy. I miscalculated his raw score, and as a result, concluded that he was of Low Average intelligence, when he was actually in the 51st percentile. My supervisor revised the testing and pointed out my error. A rugged pulled beneath my feet, my heart dropped into my stomach as I sulked into embarrassment. Had it not been for my supervisor revisiting my testing, I would have thought wrongfully, that my assessment was correct. I (and my supervisor) had to remind myself that I was a student – that it was my role to learn, and that it involved errors. Thankfully for supervision, I corrected my mistake.

We attempt to avoid errors as much we can. Yet we forget all too often that it is through those errors, trips and falls that we grow from students to psychologists. Why is such a crucial process tainted by such negative emotions? It is by accepting track changes, re-calculating, discussing, re-rewriting that we will develop skills necessary for success.

In developing the idea for MindPad, I wanted to provide psychologists-to-be a safe arena for growth, exploration, emancipation of ideas. I want us to help each other through our mistakes, by reviewing each other's work, providing meaningful, helpful advice, and debating ideas that will allow us to transition from apprentices to teachers. Hopefully I was right.

I was pleased by the overwhelming number of applications for the board of editors. I proudly introduce to you MindPad's first board of editors:

Dr. Angela Birt, (Mount Saint Vincent University) is our senior advisor. Our undergraduate reviewers are: Natasha Korva (UBC), Lev Tankelevitch (U Toronto), Daphne Vrantisidis (U Toronto). Our graduate reviewers are Rachel Wayne (Queen's University), Thomas Huber (U of Detroit), Jessica Flores (UBC), Kenneth Colosimo (York), and Selena Hodsman (U Windsor).

Congratulations to Brenden Sommerhalder whose innovative logo was selected for the publication!

I would also like to thank my fellow executive members of CPA's Student Section for their support and help. I am grateful for CPA's board of directors, Dr. Karen Cohen in particular, who believed in this project. I am also appreciative of Brenden Sommerhalder and Tyler Stacey-Holmes' support and advice. This project would not have taken flight without everyone's contribution.

I can't wait to read my fellow students' work, and learn from your words (and mistakes!). I encourage you to take your written work off the shelf: send us your research or theoretical reviews, conference reports, synopsis of posters, opinion papers and campus corner reports to us! If you have any comments about an article you read in this issue, please send me your feedback or write a reply so we can start the conversation!

Please send your articles, comments and suggestions to rana.pishva@queensu.ca

More information about MindPad's mandate can be found at www.cpa.ca/students/MindPad.

Rana

References:

Kochanska, G. (2002). Committed Compliance, Moral Self, and INTernalization: A Mediational Model. Developmental Psychology, 3, 339-351.

Newman, M.C., (1996). The emotional impact of mistakes on family physicians. Arch. Fam Med., 2, 71-75.

Schultz, K. (2010) Being Wrong: Adventures in the Margin of Error. HarperCollins, 2010

Un mot de la rédactrice en chef...

Par Rana Pishva MSc.

Fallor ergo sum .... [une étudiante] – *St-Augustine*
[Je me trompe, donc je suis... une étudiante]

Je suis une étudiante. Une observatrice attentive. Une apprentie. Je suis, par définition, ignorante.

Plus particulièrement, je suis une étudiante aux études supérieures en psychologie clinique. En quatre ans, on s'attend à ce que j'apprenne à mener et à publier de la recherche créative et éthique, que j'acquiers une pensée critique, que j'administre des tests psychométriques, que j'aie une écoute active et que je me pose des questions socratiques.

Parfois je suis dans l'erreur... comment est-ce que je me sens à cet égard? En tant que personne dont l'occupation principale est d'acquérir des connaissances, comment se sent-on quand on erre?

La journaliste Kathryn Schulz suggère qu'on ne sent rien. Lorsqu'on est dans l'erreur on se sent exactement comme si on avait raison... jusqu'à ce preuve du contraire. Ce n'est seulement lorsqu'on est confronté à la preuve que nous étions dans l'erreur que la plupart d'entre nous éprouvons un bouillonnement d'émotions négatives : la gêne, l'embarras, la colère. D'autres, particulièrement les enfants réagissent physiologiquement aux fautes (Kochanska, 2003). L'erreur peut nous mener à remettre en question nos capacités et à chercher la rassurance (Newman, 1996).

Plus tôt cette année j'ai administré un test standardisé d'intelligence à un jeune garçon. J'ai mal calculé sa note brute, et en conséquence, j'ai conclu qu'il avait une intelligence moyenne faible, alors qu'il faisait partie en réalité du 51 premier percentile. Mon superviseur a révisé le test et signalé mon erreur. J'ai senti le tapis glisser sous mes pieds, mon cœur battait à tout rompre, puis je me suis terrée dans l'embarras. Si ce n'avait été de mon superviseur qui a révisé le test que j'avais administré, j'aurais cru à tort, que mon évaluation était exacte. J'ai dû (ainsi que mon superviseur) me rappeler que j'étais une étudiante – que c'était mon rôle d'apprendre, et que ceci pouvait supposer des erreurs. Dieu merci pour la supervision, j'ai pu corriger ma faute.

Nous tentons d'éviter les erreurs autant que nous le pouvons. Nous pouvons oublier trop souvent que c'est par les erreurs et les trébuchements que nous passons d'étudiants à psychologues. Pourquoi un processus aussi essentiel est-il entaché d'autant d'émotions négatives? C'est en acceptant les changements de voie, les nouveaux calculs, la discussion, les nouvelles rédactions que nous allons acquérir les compétences nécessaires au succès.

En élaborant l'idée pour MindPad, je voulais fournir aux psychologues en devenir une tribune pour la croissance, l'exploration, l'émancipation des idées. Je voudrais que nous nous entraidions par nos erreurs, en révisant entre nous notre travail, en fournissant des conseils significatifs et utiles et en débattant des idées qui nous permettront de faire la transition d'apprentis à enseignants. J'espère que j'avais raison.

Je suis enchantée par le nombre époustouflant de demandes de siège au comité de rédaction. Je suis fière de vous présenter le premier comité de rédaction de MindPad :

D^{re} Angela Birt, (Université Mount Saint Vincent) est notre conseillère principale. Nos évaluateurs au niveau du premier cycle sont : Natasha Korva (UCB), Lev Tankelevitch (U de Toronto), Daphne Vrantisidis (U de Toronto). Nos évaluateurs aux études supérieures sont Rachel Wayne (Université Queen's), Thomas Huber (U of Detroit), Jessica Flores (UCB), Kenneth Colosimo (York) et Selena Hodsman (U de Windsor).

Nos félicitations vont à Brenden Sommerhalder dont le logo innovateur a été choisi pour la publication!

Je tiens aussi à remercier mes collègues membres du comité exécutif de la section des étudiants de la SCP pour leur soutien et leur aide. Je suis reconnaissante envers le conseil d'administration de la SCP, envers D^{re} Karen Cohen en particulier, qui ont cru en ce projet. J'ai aussi apprécié le soutien et les conseils de Brenden Sommerhalder et de Tyler Stacey-Holmes. Ce projet n'aura pas pu voir le jour sans la contribution de tout un chacun.

Je suis débordée d'enthousiasme à l'idée de lire le travail de mes confrères et de mes consœurs et d'apprendre de vos mots (et de vos erreurs!). Je vous encourage à détabletter vos travaux : faites-nous parvenir votre recherche ou vos examens théoriques, vos comptes rendus de conférence, vos résumés d'affiches, vos articles d'opinion et vos rapports du coin du campus! Si vous avez des commentaires au sujet d'un article que vous lisez dans le présent numéro, veuillez me faire parvenir votre rétroaction ou rédiger une réponse de manière à ce que nous puissions entamer la conversation!

Veuillez faire parvenir vos articles, vos commentaires et vos suggestions à rana.pishva@queensu.ca

Vous trouverez plus d'information au sujet du mandat de MindPad à l'adresse www.cpa.ca/students/MindPad.

Rana

References:

Kochanska, G. (2002). Committed Compliance, Moral Self, and INTernalization: A Mediational Model. Developmental Psychology, 3, 339-351.

Newman, M.C., (1996). The emotional impact of mistakes on family physicians. Arch. Fam Med., 2, 71-75.

Schultz, K. (2010) Being Wrong: Adventures in the Margin of Error. HarperCollins, 2010

Population aging in Canada: Potential impacts on clinical practice and higher education in psychology

Heather MacArthur

University of New Brunswick

ABSTRACT

Canada is currently undergoing a major demographic shift, in which the proportion of senior citizens is growing more rapidly than any other age group (Statistics Canada, 2010). The present article examines the influence that an aging population could have on higher education and clinical practice in psychology, and proposes that both educators and clinicians will need to increasingly engage with issues affecting the elderly, work with older students and clients, and address ageism in society. The article concludes by suggesting that psychology begin preparing for these changes now, in order to mitigate the difficulties that could accompany an aging population.

Countries all over the world are currently seeing major demographic shifts. Birth rates are declining and life expectancy rates are increasing around the globe, the combined effects of which have resulted in an aging population. Indeed, with people living longer and fewer children being born, the world's population age eighty and older is expected to increase by 233% between 2008 and 2040 (United States Census Bureau, 2009). Canada, for its part, is no exception to these demographic trends. Whereas the median age in Canada was 27.2 years in 1956, it had reached 39.5 years in 2002, and is projected to climb to 46.9 years by 2056 (Statistics Canada, 2010). The proportion of seniors within the population is also increasing: Canadians age 65 or older represented 13.7% of the population in 2006, and this proportion is expected to reach between 25% and 30% by 2056 (Statistics Canada, 2010). Such changes will have a significant impact on the Canadian economy and social structure, and the field of psychology itself will not be immune to the far-reaching effects that population aging will have on the country as a whole (United Nations, 2007; Laidlaw & Baikie, 2007). The present article examines the implications that shifting demographics will have on psychology as a discipline, both in education and in clinical practice.

Demographic change and higher education

An aging population will have major implications for university education in Canada, including that offered by psychology departments at both the graduate and undergraduate levels. While gerontology education is currently a very specialized field within universities, an increased demand for services that meet the needs of the elderly will necessitate that gerontology be made more prominent within higher education (Anderson, 1999). As such, it is likely that as population aging becomes more and more evident in Canada, course material related to gerontology will be integrated into all areas of psychology, rather than being considered exclusively within the realm of geriatric psychology. This way, students will be exposed to information about aging throughout their education, and will thus be better prepared to enter a workforce that will increasingly serve the elderly.

Given that the working-age population is projected to shrink relative to the non-working population in coming years, labour shortages may become a major problem, especially within health-related professions (Center for Health Workplace Studies, 2006). For this reason, Anderson (1999) suggests that educational institutions will need to form closer partnerships with community employers, in order to ensure that upcoming professionals are equipped with the skills necessary to work with elderly clients. Service providers, employers, and the general public will increasingly look to universities to supply sufficient numbers of well-trained professionals, in order to keep up with the high demand for services (Anderson, 1999). Psychology, then, is one of the professions that will need to work in closer concert with community organizations in order to ensure that future psychologists are being trained with the skills that are needed to serve an aging population.

As the proportion of young people declines in Canada, universities, including psychology programs, will also need to cater to larger numbers of older students (Grigsby, 1991). Indeed, the shrinking of the nation's working-age population will necessitate that older adults be kept working for as long as possible, and many of these older workers may need to be retrained for careers in health services

(including health psychology), and other high-demand occupations (Healthy Aging and Wellness Working Group, 2006; Grigsby, 1991). Furthermore, the constantly evolving nature of the current job market requires that older employees regularly learn new skills and upgrade their education and training (The Education Resources Institute, 1996). Neal (2008) points out that many members of the aging Baby Boomer generation have now reached financial stability, and are thus able to build new careers based on personal interests and a desire to contribute to society. For these reasons, post-secondary institutions are likely to see a spike in the proportion of adult learners returning to academia for continuing education and retraining. Educational institutions and all departments within them will need to closely examine their policies, practices, and infrastructure to ensure that any barriers to accessing education are removed for these older students (Anderson, 1999).

In addition to eliminating barriers within their own ranks, institutions of higher education will be called upon in coming years to help combat ageism in society at large (Anderson, 1999). Ageism, as first defined by Butler (1969), refers to bias against an individual due to his or her age. Research suggests that ageism continues to be a major problem in society, as stereotypes of the elderly as incompetent and worthy of pity are pervasive, and consistent across cultures (Cuddy, Norton, & Fiske, 2005; Hummert, Garstka, & Shaner, 1997). The elderly are also underrepresented in the mass media, and even when they do receive representation on television and in print sources, depictions are generally negative and only partially-developed (Vasil, & Wass, 1993). Therefore, psychology as a discipline must not only scrutinize its own practices for ageist content, but must also play a role in educating and ending discrimination within the general public. Considering psychology's long history of investigating social biases and discrimination, the discipline is poised to play a lead role in challenging some of society's ageist assumptions.

According to Anderson (1999), the aging population and the general public will also increasingly look to universities for information on normal and successful aging, as well as on specific problems that may be faced by the elderly. The areas of health and rehabilitation psychology will be particularly well-equipped to deal with such questions, and these fields have already been identified as two of the fastest growing domains in psychology (Frank, Gluck, & Buckelew, 1990; Trull, 2005).

Demographic Change and Clinical Practice

Changing demographics in Canada will have important consequences for clinical practice as well as for psychology education. Given that the number of older individuals with mental health problems is anticipated to increase four-fold between the years 1970 and 2030, clinical psychologists will inevitably work with more senior clients in their day-to-day practice, and will need to become more familiar with issues affecting the elderly (American Psychological Association, n.d.). Indeed, as population aging becomes more acute, Laidlaw and Baikie (2007) note that psychotherapists will need to be particularly proficient at distinguishing between normal and pathological aging. For instance, it will be critical that psychologists be able to determine whether an elderly person is depressed, or whether he/she is simply being realistic about the state of his/her health and lifespan. Furthermore, changes in life expectancy rates will necessitate that people adjust their perspectives on what it means to be "old." At present, the research literature generally defines an individual as "elderly" or as an "older adult" at the age of 60 or 65 (Lachman, 2004); however, many people do not label themselves as "old" or as "seniors" even at very advanced ages (Abeles, 1997). As people live to be older than ever before, the age at which a person is considered elderly is likely to change, and psychologists will thus need to educate seniors, caregivers, and the general public as to how long the average person can expect to live. They must also play an important role in countering any negative cognitions held by elderly clients about the aging process, and in encouraging optimistic lifespan expectancies (Laidlaw & Baikie, 2007).

Working with an increasing number of clients in their eighties, nineties, and into the one-hundreds will also prove to be a challenge for practicing psychologists (Laidlaw & Baikie, 2007). While clinicians do work with clients of this age already, larger numbers of the "oldest old" (those 85 years of age and older) needing psychological treatment will require that clinicians engage more often with complex and multifaceted problems that have been chronic and persistent over many years (Abeles, 1997). Indeed, some issues may be severe and resistant to treatment, especially if the antecedents and consequences of problematic behaviours have become firmly entrenched in the daily routine of the senior over many decades or a lifetime (Laidlaw & Baikie, 2007). According to Abeles (1997), psychological problems in older adults may not always present in accordance with classic (defining) symptoms, but may rather be non-specific in nature (i.e., refusal to eat), thus making diagnosis more difficult. Problems may be further complicated by a large number of physical comorbidities, which will require careful consideration by clinicians (Laidlaw & Pachana, 2009). Longer life-expectancies will also pose new challenges for couples: relationships can be expected to last for many years longer than in previous generations. Couples may live together for an extended time into the older years, and thus, the positive or negative relationship dynamics that exist between couples may be intensified, an issue that will have to be taken into account by psychologists (Laidlaw & Baikie, 2007).

Practicing psychologists in the near future can also expect to deal with more palliative care issues, as they will inevitably begin to see an increasing number of older clients who are nearing the end of their lives, and who may be hav-

ing difficulty adjusting to the end-of-life process (Laidlaw & Baikie, 2007). Similarly, psychologists will need to be prepared for greater exposure to cases of dementia, which is seen more often in elderly clients (Laidlaw & Pachana, 2009). Of particular concern is the estimation that by the year 2030, 7.7 million people age 65 and over will have Alzheimer's Disease, a 50% increase from the current prevalence rate (Alzheimer's Association, 2011). Similarly, rates of Parkinson's, the second most common neurodegenerative disease after Alzheimer's, are expected to rise in coming years due to the aging population (Parkinson Society British Columbia, 2009). Higher rates of dementia and palliative care issues, in turn, will have consequences for caregivers of the elderly, who may also need psychotherapy. Many middle-aged adults, for example, will find themselves in situations where they are caring for both dependent children and their elderly parents (Chisholm, 1999). As the burdens on this "sandwich generation" increase, so too will their need for support and resources, and clinicians will be increasingly relied upon to provide these things (Laidlaw & Pachana, 2009).

Another unique challenge to be taken up by clinical psychologists involves being prepared to meet the demands of diverse populations, given that a growing number of older adults are immigrants to Canada or are members of ethnic minority groups (American Psychological Association, n.d.). Very little research has been conducted on what the particular needs are, if any, of seniors from ethnic minorities, and it will therefore be essential for clinical psychologists to exercise the utmost sensitivity when working with these populations (Laidlaw & Pachana, 2009). Clinical psychologists must also be equipped to deal with the particular issues faced by elderly women, as women typically live several years longer than their male counterparts (Canadian Broadcasting Corporation, 2010). For this reason, women are more likely to face chronic illness, widowhood, and living alone, all of which contribute to specific psychological issues (such as depression) that must be addressed by the psychologists involved in their care (WebMD, n.d.; Laidlaw & Pachana, 2009).

Conclusion

It is clear that shifting demographics in Canada will have a significant impact on both higher education and clinical practice in psychology. In order to be able to successfully meet the challenges that will be brought about by an aging population, it is important that psychology programs and clinicians begin to prepare now for the changes ahead. If anticipated in advance, psychology as a discipline could have a major impact on mitigating the potential difficulties associated with population aging. Indeed, if the discipline can draw on its strengths and resources, psychology is poised to produce and train professionals who can take the needs of the elderly into account, challenge ageist assumptions, and provide competent service to an aging population.

Résumé

Le Canada fait actuellement face à un changement démographique majeur, où la proportion des personnes âgées croît plus rapidement que celle de tout autre groupe d'âge (Statistique Canada, 2010). Le présent article examine l'influence qu'une population vieillissante pourrait avoir sur l'enseignement supérieur et la pratique clinique en psychologie, et propose que les enseignants et les cliniciens devront de plus en plus faire face à des questions touchant les personnes âgées, travailler avec des étudiants et des clients plus âgés, et s'attaquer à la question de l'âgisme dans la société. L'article termine en suggérant que la psychologie doit commencer à se préparer pour ces changements maintenant, afin d'atténuer les difficultés qui pourraient accompagner une population vieillissante.

References

Abeles, N. (1997). What practitioners should know about working with older adults. *American Psychological Association*. Retrieved October 23, 2011, from http://www.apa.org/pi/aging/resources/guides/practitioners.pdf

Alzheimer's Association. (2011). 2011 Alzheimer's Disease facts and figures. *Alz.org.* Retrieved October 23, 2011, from http://www.alz.org/downloads/Facts_Figures_2011.pdf

American Psychological Association. (n.d) Psychology and aging: Addressing mental health needs of older adults. *American Psychological Association.* Retrieved October 17, 2011, from http://www.apa.org/pi/aging/resources/guides/aging.pdf

Anderson, T. B. (1999). Aging education in higher education: Preparing for the 21st century. *Educational Gerontology, 25*, 571-579. doi: 10.1080/036012799267639

Butler, R. N. (1969). Age-ism: Another form of bigotry. *The Gerontologist*, *9*, 243-246.

Canadian Broadcasting Corporation. (2010). Life expectancy in Canada nears 81. *CBC News.* Retrieved October 25, 2011, from http://www.cbc.ca/news/health/story/2010/02/23/life-expectancy-canada.html

Center for Health Workplace Studies. (2006). The impact of the aging population on the health workforce in the United States: Summary of key findings. *University at Albany: State University of New York.* Retrieved September 29, 2011, from http://www.albany.edu/news/pdf_files/impact_of_aging_excerpt.pdf

Chisholm, J. F. (1999). The sandwich generation. *Journal of Social Distress & the Homeless*, *8*, 177-191. doi: 10.1023/A:1021368826791

Cuddy, A. C., Norton, M. I., & Fiske, S. T. (2005). This old stereotype: The pervasiveness and persistence of the elderly stereotype. *Journal of Social Issues*, *61*, 267-285. doi: 10.1111/j.1540-4560.2005.00405.x

Frank, R. G., Gluck, J. P., & Buckelew, S. P. (1990). Rehabilitation: Psychology's greatest opportunity? *American Psychologist*, *45*, 757-761. doi: 10.1037/0003-066X.45.6.757

Grigsby, J. S. (1991). Paths for future population aging. *The Gerontologist*, *31*, 195-203. doi: 10.1093/geront/31.2.195

Healthy Aging and Wellness Working Group. (2006). Healthy aging in Canada: A new vision, a vital investment from evidence to action. *Newfoundland and Labrador Department of Health and Community Services.* Retrieved September 29, 2011, from

http://www.health.gov.nl.ca/health/publications/vision_rpt_e.pdf

Hummert, M., Garstka, T. A., & Shaner, J. L. (1997). Stereotyping of older adults: The role of target facial cues and perceiver characteristics. *Psychology and Aging*, *12*, 107-114. doi: 10.1037/0882-7974.12.1.107

Lachman, M. E. (2004). Development in midlife. *Annual Review of Psychology*, *55*, 305-331. doi: 10.1146/annurev.psych.55.090902.141521

Laidlaw, K., & Baikie, E. (2007). Psychotherapy and demographic change: Why psychotherapists working with older adults need to be aware of changing demographics now. *Nordic Psychology*, *59*, 45-58. doi: 10.1027/1901-2276.59.1.45

Laidlaw, K., & Pachana, N. A. (2009). Aging, mental health, and demographic change: Challenges for psychotherapists. *Professional Psychology: Research and Practice*, *40*, 601-608. doi: 10.1037/a0017215

Neal, A. (2008). The back-to-school boom. *Saturday Evening Post*, *280*, 72-74.

Parkinson Society British Columbia. (2009). April is Parkinson's awareness month: Tulip a symbol of hope for the cure. *Parkinson Society British Columbia*. Retrieved October 25, 2011, from http://www.parkinson.bc.ca/13-Mar-09

Statistics Canada. (2010). Demographic change. *Statistics Canada*. Retrieved September 29, 2011, from http://www.statcan.gc.ca/pub/82-229-x/2009001/demo/int1-eng.htm

The Education Resources Institute. (1996). Life after forty: A new portrait of today's- and tomorrow's- postsecondary students. *Institute for Higher Education Policy*. Retrieved October 22, 2011, from http://www.ihep.org/assets/files/publications/g-l/LifeAfterForty.pdf

Trull, T. J. (2005). Clinical psychology (7th ed.). Belmont, CA: Thomson Wadsworth.

United Nations. (2007). World population aging 2007 executive summary. *United Nations*. Retrieved September 29, 2011, from http://www.un.org/esa/population/publications/WPA2007/ES-English.pdf

United States Census Bureau. (2009). An Aging World: 2008. *U.S. Census Bureau*. Retrieved September 29, 2011, from http://www.census.gov/prod/2009pubs/p95-09-1.pdf

Vasil, L., & Wass, H. (1993). Portrayal of the elderly in the media: A literature review and implications for educational gerontologists. *Educational Gerontology*, *19*, 71-85. doi: 10.1080/0360127930190107

WebMD. (n.d.). Depression in the elderly. *WebMD*. Retrieved October 25, 2011, from http://www.webmd.com/depression/guide/depression-elderly

Attrition in Parent-Child Interaction Therapy: A Clinical Study

Michelle K. Mankovits

University of the Fraser Valley

ABSTRACT

Parenting interventions have been found effective in reducing maladaptive child behaviours (e.g., Hembree-Kigin & McNeil, 1995); however, high attrition rates in these programs are often reported (e.g., Kazdin & Mazurick, 1994). This suggests the need to better understand and address the causes of attrition. The archival files from 29 families who participated in a clinical Parent-Child Interaction Therapy program were examined to find the attrition rate across treatment, and to identify the reasons given for leaving the program before completion. A high attrition rate of 69% (n = 20) was found. A qualitative data revealed that the most common reason for attrition was the parent did not have the time to participate in treatment (40%, n = 8). A further problem was identified in that 35% (n = 7) of program drop-outs did not attend a single treatment session after completing program intake. A post hoc review of qualitative data revealed that the most common reason for leaving the program within this specific group, was that an alternative treatment was sought (57%, n = 4). Other common reasons for attrition are discussed. Possible solutions to decrease attrition, such as offering time-saving incentives or more convenient program formats, are suggested.

Short-term evidence-based parenting interventions have been found effective in reducing maladaptive child behaviours and in preventing the onset of conduct disorder (e.g., CIHI, 2009; Hembree-Kigin & McNeil, 1995). Unfortunately, high attrition rates in these interventions are often reported (e.g., Kazdin & Mazurick, 1994). In order to ensure that as many children as possible can benefit from parenting interventions, a better understanding of the rates and causes of attrition within clinical programs is needed.

Parent-Child Interaction Therapy (PCIT; Eyberg, 1988) is a short-term evidence-based parenting intervention, developed to treat severely maladaptive and disruptive behaviours, such as aggression and non-compliance, in children aged 2-7 (Hembree-Kigin & McNeil, 1995). PCIT is conducted in-office and consists of two phases through which a parent is coached while interacting with the child. Parent coaching is conducted by two trained therapists who discreetly observe the parent-child interaction from behind a two-way mirror. The therapists communicate with the parent through an ear-bug, offering the parent in-vivo guidance in the use of positive parenting practices. The discreet nature of the therapist observation allows the child to interact more naturally with the parent (Hembree-Kigin & McNeil, 1995).

The first phase is called child-directed interaction (CDI), and the parent is coached to follow the child's lead and to give ample attention and praise for prosocial behaviours. The second phase is called parent-directed interaction (PDI), and the parent is coached to guide the child's behaviour by using consistent and effective commands and discipline. The program is typically completed over 8–14 weekly one-hour sessions, and parent are considered to have completed treatment is once both phases of the program have been mastered (Hembree-Kigin & McNeil, 1995).

Completion of PCIT effectively reduces maladaptive child behaviours within both clinical and normative ranges, and has displayed both short-term and long-term effects (e.g., Boggs et al., 2004; Hood & Eyeberg, 2003). However, as the treatment requires a large amount of parent time and participation, high attrition rates are often found (e.g., Boggs et al., 2004). While families who complete treatment see large improvements in child behaviour, families who drop-out do not see such improvements (Boggs et al., 2004). Further, similar benefits are not seen when candidate families seek alternative treatment in lieu of PCIT, such as in-school services (Boggs et al. 2004). This suggests the importance of reducing attrition rates by identifying and addressing the barriers which prevent families from completing treatment.

The aim of this paper is to summarize the attrition rate and reasons given for leaving treatment early, found in a clinical PCIT program.

TABLE 1

Distribution of Drop-Outs by Attrition Group

ATTRITION GROUP	%	N
Completed intake, did not attend any session	35%	7
Dropped-out during CDI, only attended 1 treatment session	20%	4
Dropped-out during CDI, attended more than 1 treatment session	30%	6
Completed CDI, dropped out during PDI	15%	3

TABLE 2

Reasons Cited for Leaving Treatment Among Treatment Drop-Outs

REASON GIVEN FOR LEAVING TREATMENT	%	N
Parent too busy to take part in therapy	40%	8
Parent returned to workforce	25%	5
Insufficient access to child or change in child custody	20%	4
Alternative treatment sought	15%	3
Parent unable to find childcare for other children while attending therapy	10%	2
Parent unable to continue do to medical reasons or pregnancy	10%	2
Parent unable to continue do to personal or marital problems	5%	1
Parent unwilling to participate in therapy	5%	1
Treatment not progressing fast enough	5%	1
Parent chose to continue self-directed therapy at home	5%	1
No reason given	5%	1

Note. All percentages based on participants who left treatment before completion (n = 20). Some families (n = 9) gave multiple reasons for leaving. All 'parent(s) return to workforce' frequencies are also represented in the 'family too busy to take part in therapy and/or homework' group.

TABLE 3

Reasons Cited for Leaving Treatment in Families Who Did Not Attend Any Session

REASON GIVEN FOR LEAVING TREATMENT	%	N
Alternative treatment sought	57%	4
Family too busy to take part in therapy	43%	3
Insufficient access to child or change in child custody	14%	1
Parent unable to find childcare for other children while attending therapy	14%	1
Parent unable to continue do to medical reasons or pregnancy	14%	1
Parent unwilling to participate in therapy	14%	1

Note. All percentages based on participants who left treatment after completing intake, but did not attend any treatment sessions (n = 7). Some families (n = 3) gave multiple reasons for leaving.

Method

Procedure

Data for this study was obtained from the 2007-2009 archival files of a clinical PCIT program run through the British Columbia Ministry for Children and Family Development. The program was run by two Masters level therapists who received in-depth training in the administration of the program. The program was offered during normal working hours and was provided free of charge.

Treatment was conducted based on the PCIT protocols suggested by Hembree-Kigin and McNeil (1995) with two exceptions: two children older than 7-years at intake were excepted into the program; and the mastery of each phase was determined based on therapist discretion. As a clinical program which serves the community, these exceptions were made in order to help as many families referred for treatment as possible, and to reflect the needs of the program participants.

All families were referred for treatment by a medical or mental healthcare provider. Only families who showed initial interest to enter treatment, and who completed intake, were used for this study. A family could choose to end treatment at any point during the program, rather than complete the program. If a family chose to leave treatment before completion, a short telephone interview was conducted to determine the family's reasons for leaving.

Participants

Data was collected from the archival files of 29 mother-child dyads who had previously participated in the program. The children were aged 20 months to 99 months at intake (M = 55.42 months, Mdn = 50.00 months, SD = 17.86), and 83% (n = 24) were male.

Measures

Attrition Rate. The amount of treatment completed at the time of program exit was obtained from the files of each family. A program attrition group was assigned to each family as follows: 1) attended intake, but did not attend any treatment sessions; 2) dropped-out during CDI, attended only one treatment session; 3) dropped-out during CDI, attended more than one treatment session; 4) completed CDI, dropped out during PDI; 5) completed treatment.

Reasons for Attrition. Qualitative data was obtained concerning the reasons given for attrition, from the files of all the families who did not complete treatment.

Results

Of the 29 families who showed interest in the program and completed intake, only 31% completed treatment (n = 9), yielding a 69% attrition rate (n = 20). A summary of the number of families per attrition group can be found in Table 1. No relationship was found between program completion and either child sex, X^2(1, n = 29) = 2.72, p = .099, or age at intake (r = −.173, n = 29, p = .370).

A chi-square goodness of fit test confirmed that participants were more likely to have dropped-out during treatment than to have completed the program X^2(1, n = 29) = 4.17, p = .041. However, participants were no more likely to have dropped out during any one time-point (as measured by attrition group) across treatment X^2(3, n = 20) = 2.00, p = .572. Further, no relationship was found between the time-point at program exit and either child sex, X^2(3, n = 20) = .381, p = .944, or age at intake (r = −.067, n = 20, p = .780).

Qualitative Analysis of Attrition

A qualitative analysis revealed that the most common reason for attrition was that the parent became too busy to continue treatment (40% of drop-outs, n = 8). Of these parents, the majority (63%, n = 5) cited a return to the workforce as the reason they became too busy to continue with treatment. A summary of all the reasons given for leaving

treatment before completion can be found in Table 2.

It was also found that of the families who did not complete treatment, 35% (n = 7) did not attend a single treatment session after completing program intake. As such, a post hoc review of qualitative data was done to identify the reasons that participants in this group gave for exiting the program. The most common reason that a family did not attend a single treatment session was that the family chose to seek an alternative treatment instead, followed by the parent having become too busy to attend treatment. A summary of all the reasons given for leaving treatment among participants in this group, can be found in Table 3.

Discussion

This study found that of the 29 families who were referred for treatment and completed intake in a clinical PCIT program, only nine completed treatment. This yielded a relatively high attrition rate of 69%, larger than the 12-47% reported by similar studies of parenting intervention programs (Berkovits et al., 2010; Kazdin & Mazurick, 1994; Phillips et al., 2008; Prinz & Miller, 1994). Most of these studies, however, were conducted in University laboratory settings, rather than in clinical settings (e.g., Berkovits et al., 2010; Kazdin & Mazurick, 1994; Prinz & Miller, 1994). As such, the large attrition rate found in the current study suggests the importance of identifying and addressing the possible treatment barriers found within clinical samples.

Overall, the most common reason for leaving treatment before program completion was that the parent became too busy to take part in therapy, followed by the parent's return to the workforce. These findings differ from similar studies which have reported logistical complaints, such as trouble finding transportation or childcare, as the dominant reason for leaving treatment (e.g., Boggs et. al., 2004; Prinz & Miller, 1994).

The fact that attrition in the current study was chiefly attributed to the parent's inability to find the time to participate, presents a difficult barrier to tackle. Offering time-saving incentives, such as an inexpensive meal while the parent and child interact during treatment, may free-up time that the parent may otherwise spend on family chores (such as cooking dinner).

Another option may be to offer PCIT in a more convenient format, such as by conducting the treatment in-home using a portable closed-circuit camera, instead of a two-way mirror. This would reduce the time that a parent must spend on travel to and from treatment. Alternatively, PCIT also could be offered through other convenient modalities, such as by connecting the family and therapist through online video-conferencing. Interestingly, a study by Berkovits et al. (2010) also found that offering a modified self-guided version of PCIT was therapeutically effective in a subclinical sample, and yielded a substantially lower attrition rate compared to an in-office version.

Most families stated a return to the workforce as their

reason for no longer having the time to attend treatment. This may be best addressed by offering PCIT at more convenient times, such as during evenings or weekends. Other logistical complaints, such as lack of childcare, may be best addressed by offering PCIT at locations that could offer free or discounted childcare during therapy sessions.

The largest attrition group was represented by families who did not attend any treatment session. This was considered especially worrisome. As such, a post hoc analysis was done to better understand the reasons that these families did not attend any treatment sessions after completing program intake. The most common reason was that the family chose to seek alternative treatment. Although all the families initially showed interest in the program, these parents may have later decided to seek a different treatment that would better suit their personal needs or their family's requirements. Unfortunately, Boggs et al. (2004) found that families who are candidates for PCIT, but seek alternative treatment instead, do not show the same long-term improvements in child behaviour. While this may indicate of the benefits of PCIT itself, it may also point to the characteristics of parents who are willing to participate in their child's therapy, compared to those who are not.

Some limitations occurred as part of this study. First, the small sample size limits the generalizability of the findings. Second, the lack of experimental control and the self-selecting nature of participant attrition or completion, reduces the ability of this study to draw causal relationships. Last, the telephone interviews used to ascertain a family's reason for attrition were not completed anonymously, so some of the reasons for leaving treatment may have been censored or concealed by the parent.

Overall, this study suggest that a larger than average attrition rate may occur in clinical PCIT programs. This presents a problematic situation as a large number of the families referred for treatment will not receive the benefits associated with program completion, such as short-term and long-term decreases in maladaptive child behaviours (e.g., Boggs et al., 2004). Further research using larger sample sizes is needed to confirm the high attrition rate found in clinical samples. Future research should also aim to empirically test and confirm ways to reduce attrition, in order to ensure that as many children as possible can benefit from clinical parenting intervention programs.

Résumé

Les interventions de parentage ont été trouvées efficaces dans la réduction des comportements d'enfant mal adapté (p. ex. Hembree-Kigin et McNeil, 1995); cependant, les taux d'attrition élevés dans ces programmes sont souvent signalés (p. ex. Kazdin et Mazurick, 1994). Cela suggère la nécessité de mieux comprendre et de s'attaquer aux causes de l'attrition. Les dossiers d'archives de 29 familles qui ont participé à un programme clinique de thérapie d'interaction parent-enfant ont été examinés pour trouver le taux d'attrition entre le traitement, et de cerner les raisons données pour quitter le programme avant l'achèvement. Un taux d'attrition élevé de 69 % (n = 20) a été trouvé. Les données qualitatives ont révélé que la plupart des raisons communes pour l'attrition étaient que le parent n'avait pas le temps de participer au traitement (40 %, n = 8). Un autre problème a été décelé dans le sens où 35 % (n = 7) des décrocheurs du programme n'ont pas assisté à une seule séance de traitement après avoir été admis au programme. Un examen spécial a posteriori des données qualitatives a révélé que la plupart des raisons communes pour quitter le programme au sein de ce groupe précis, étaient qu'un traitement alternatif a été cherché (57 %, n = 4). D'autres raisons communes d'attrition font l'objet de discussion. Des solutions possibles pour diminuer l'attrition, comme d'offrir des incitatifs qui permettent d'économiser du temps ou des conditions de prestation du programme mieux adaptées, sont suggérées.

References

Berkovits, M., O'Brien, K., Carter, C., & Eyberg, S. (2010). Early identification and intervention for behavior problems in primary care: A comparison of two abbreviated versions of parent-child interaction therapy. *Behavior Therapy, 41*(3), 375-387. doi:10.1016/j.beth.2009.11.002.

Boggs, S., Eyberg, S., Edwards, D., Rayfield, A., Jacobs, J., Bagner, D., et al. (2004). Outcomes of parent-child interaction therapy: A comparison of treatment completers and study dropouts one to three years later. *Child & Family Behavior Therapy, 26*(4), 1-22. doi:10.1300/J019v26n04_01.

Canadian Institute for Health Information (2009). *Children's Mental Health in Canada: Preventing Disorders and Promoting Population Health*. Ottawa, ON: CIHI.

Eyberg, S. (1988). Parent-Child Interaction Therapy: Integration of traditional and behavioral concerns. *Child & Family Behavior Therapy, 10*(1), 33-46. doi:10.1300/J019v10n01_04

Hembree-Kigin, T. L., & McNeil, C. B. (1995). *Parent–child interaction therapy*. New York: Plenum Press.

Hood, K., & Eyberg, S. (2003). Outcomes of parent-child interaction therapy: Mothers' reports of maintenance three to six years after treatment. *Journal of Clinical Child and Adolescent Psychology, 32*(3), 419-429. doi:10.1207/S15374424JCCP3203_10.

Kazdin, A., & Mazurick, J. (1994). Dropping out of child psychotherapy: Distinguishing early and late dropouts over the course of treatment. *Journal of Consulting and Clinical Psychology, 62*(5), 1069-1074. doi:10.1037/0022-006X.62.5.1069.

Phillips, J., Morgan, S., Cawthorne, K., & Barnett, B. (2008). Pilot evaluation of parent–child interaction therapy delivered in an Australian community early childhood clinic setting. *Australian and New Zealand Journal of Psychiatry, 42*(8), 712-719. doi:10.1080/00048670802206320.

Prinz, R., & Miller, G. (1994). Family-based treatment for childhood antisocial behavior: Experimental influences on dropout and engagement. *Journal of Consulting and Clinical Psychology, 62*(3), 645-650. doi:10.1037/0022-006X.62.3.645.

Cross-cultural Counselling on Sexual Health with West African Women: Challenges in Therapeutic Practice for a Canadian Intern

Allison Reeves

PhD Student in Counselling Psychology, OISE-University of Toronto

ABSTRACT

I recently completed an internship in West Africa providing psycho-education and counselling to youth in the area of sexual health. This paper offers a snapshot of this experience and highlights some challenges I faced in managing therapeutic interactions around culturally bound trends in women's health, including early marriage, gender-based violence and female genital cutting. A brief discussion on working through cultural differences in counselling follows, as well as some reflections on the practice of cultural safety.

This summer I completed a five-week internship to provide counselling and psycho-education to youth in the area of sexual health through a Non-Governmental Organization (NGO) that has been operating in The Gambia, West Africa, for over 25 years. The mandate of the organization is to develop health awareness among middle and high school-aged students and at-risk youth. The organization provides programmes in gender equity and sexual and reproductive health as well as confidential HIV testing and counselling.

Sexual and reproductive health initiatives represent an ongoing priority among many West African governments and NGOs (Brieger, Delano, Lane, Oladepo, & Oyediran, 2001). Many of us in the West are aware of the HIV epidemic in sub-Saharan Africa; what is less known, perhaps, are other issues related to women's sexual health and well-being within the continent. In The Gambia specifically, women face intimate partner violence (including sexual violence and trauma), forced marriages and female genital cutting (sometimes referred to as female genital mutilation (FGM)), among other trends. The Western psychological literature notes that many survivors of trauma and violence face anger, fear, and shame in the aftermath of their traumatic experiences, as well as challenges in intimate relationships and mental health sequelae including post traumatic stress disorder and/or mood and anxiety disorders (Baima & Feldhousen, 2007; Beckerman, 2002). Less is written in the literature about mental health outcomes among African women in these circumstances. As a PhD student in counselling psychology who has worked for many years in the field of women's sexual health in Canada, I was interested in the opportunity to learn more about these phenomena from women in another cultural context. Before sharing these experiences, however, it is important to first offer a brief background on women's sexual health in The Gambia.

In Context: Women's Sexual Health in The Gambia

With respect to current sexual health outcomes among Gambian women, there is limited reliable data available. However, country-wide statistics amassed from large international organizations such as the World Health Organization and the United Nations (Gapminder Foundation, 2006), indicate that as compared to Canadian women, Gambian women marry sooner, have more children at a younger age, engage in lower rates of contraception usage, and do not attend school as readily as their male counterparts (on average, Gambian men attend twice as many years of school as Gambian women). In addition, although we have no official statistics on violence against women, many of my colleagues noted that gender-based domestic violence is common within many Gambian families, especially among those with limited access to education. Access to education is essential for women, as it leads to better sexual and reproductive health outcomes, lower levels of poverty, and improved gender equity (United Nations Children's Fund (UNICEF), 2011).

It has been widely acknowledged that sexual health and sexuality are influenced by many determinants of health, including socio-economic status (SES), socio-cultural contexts, one's biology (i.e., hormones), and personal coping skills (Boyce, Doherty, Fortin, & MacKinnon, 2003). Culture in particular plays a major role in constructing sexuality, as desires, meanings and behaviours related to sexuality are learned and expressed through culture (Jackson, 1996). For instance, gender is a cultural construct and includes beliefs about how sexual roles and behaviours should be embodied (Oakley, 1996). In Gambian culture, women have histori-

cally been regarded as sexually passive and submissive. Women's sexual satisfaction has not been of central importance, as demonstrated by the centuries-old tradition of removing a woman's clitoris (FGM). While women have not typically been allowed to express sexual desires or experience sexual satisfaction, they have been used concurrently as the object of men's sexual satisfaction[1].

Males also follow gender norms informed by socio-historical contexts. 'Hegemonic masculinity' is a term that refers to the idealized notions of 'true' masculinity (Connell, 1987), and often relates to notions of aggression, strength and dominance within patriarchal cultures. Although the operation of hegemonic masculinity differs between groups, in Gambian culture it involves norms that position males as the 'breadwinners', the decision makers within the home, the individuals responsible for maintaining order and discipline among women and children, the initiators of sexual encounters, and those who control the sexual experience. Living in a social milieu of male dominance, women become more likely to face dangers associated with violence. In this respect, both males and females play out gender roles introduced by their culture; without education (whether formal or informal), these roles are likely to persist with little critical analysis or challenge.

Not all Gambian women are victims of sexual oppression, however; this section simply highlights some cultural trends that are relevant from the perspective of a Western-trained therapist working cross-culturally, keeping in mind that like all cultures, The Gambia is a changing and evolving nation—a nation that is progressing in the direction of improved women's rights. My experiences working with young women certainly revealed a culture in flux, and the women held differing viewpoints on these topics. Comments such as, "I will marry whoever my father chooses for me" and, "My daughter will NEVER be cut!" (a reference to FGM) demonstrated these divergent perspectives and prompted me to reflect on, and draw from, my training in multicultural counselling.

Multicultural Counselling Work & Bracketing Biases

Multicultural counselling refers to the encouragement of client growth, insight and change through "understanding and perpetuating multiple cultures within a psychosocial and scientific-ideological context" (McFadden, 1993, p.6), and stands in opposition to monocultural counselling, in which therapeutic work is undertaken through a single cultural lens (typically that of the therapist's culture) (Robinson & Howard-Hamilton, 2000). In order to work effectively with Gambian youth, I needed to understand the historical factors shaping their lives, including gender roles and other social norms, as well as individual developmental factors, such as education and family of origin contexts. In The Gambia I worked with a broad range of youth whose experience varied by community and family (urban vs. rural, polygamous vs. monogamous), family level of education (illiterate vs. literate), gender roles within the home (strong paternal presence vs. no paternal presence, aggressive parenting vs. non-aggressive), and other factors.

Working in this cross-cultural therapeutic context was a challenge as I had to respect Gambian cultural norms (such as the widespread opposition to homosexuality) and avoid making broad cultural assumptions while appreciating individual differences. In order to work effectively cross-culturally, Smye and Mussel (2001) suggest that those in the helping professions practice 'cultural safety'. Culturally safe practice requires that therapists examine socio-political, economic and power differences between themselves and their clients. To do so therapists must first possess a strong sense of self-awareness, becoming aware of their own social location, cultural history and beliefs, and power and privilege status. In turn, therapists can better understand their own impacts on therapeutic relationships.

In my work with Gambian women there were particular areas where adhering to tenets of cultural safety posed a challenge. For instance, many girls are promised to men from a young age and often enter into an arranged marriage in their teenage years. Within this setting, girls have sexual relations with their husbands and intimate partner/domestic violence is often pervasive. From a Western perspective this arrangement may be considered a form of child abuse and I found it difficult to engage in discussions on this topic without disclosing my opinions. Another clear example of having to bracket my biases was around the tradition of female genital mutilation, where the clitoris and/or parts of the labia majora are removed or altered to limit access to the vagina. Traditionally, the intention of this practice has been to reduce female sexual desire and enforce purity and chastity among girls, to 'beautify' the female genitals and to honour custom. Through my Western lens, I view this practice as damaging to women's sexuality as it denies the natural sexual aspect of female identity and sexual satisfaction and as such is an expression of gender oppression[2]. And this is to say nothing of the multitude of health risks that accompany this practice, including hemorrhage, recurrent urinary tract infections, infertility, and intense pain during intercourse and childbirth.

Despite my biases, however, these were topic areas where as a counsellor I had to empathize with the young women from their cultural standpoint and avoid overtly placing judgment on these phenomena. While my biases were clear and present in my own mind, I chose my words carefully when the youth disclosed concerns and asked questions related to these issues in the counselling context. For instance, nearly all of the female youth with whom I worked were circumcised (FGM) and therefore disclosing my opinion against this practice may have implied that they

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[1] This is not unlike Western women's sexual roles in various historical contexts (Connell, 2005).
[2] Ironically, this practice is largely perpetuated by older women within communities who believe strongly in the continuity of this tradition.

ought to see themselves as having been victimized. Instead, letting youth reach their own conclusions by asking thought-provoking questions, while supporting their understanding of their own cultural norms and history, seemed a more appropriate way to encourage insight.

I recall one counselling experience where a young woman was confused about whether or not to become sexually active. She stated that she was under pressure by her boyfriend to have sex, but was worried about the potential consequences of doing so, including: pregnancy, the contraction of sexually transmitted infections, and facing discrimination for not remaining a virgin until marriage. In addition she had heard rumours that many young men puncture condoms in order to render them ineffective (whether this reflects an act of defiance, a bid for parenthood, or something else entirely, remains unclear to me). In any case, due to governmental reasons our NGO was discouraged from promoting contraception use with younger teens, and I also felt somewhat stuck. However, what followed (with the help of Socratic questioning and Motivational Interviewing) was an engaging dialogue with this bright young woman on potential reasons why her partner wanted to have sex, pressures they were both under within the context of their gender roles, broader cultural norms around the 'social policing' of women's sexuality, and an investigation of her own sexual desires. I also bent the rules and offered practical advice on contraception use (i.e., "Don't let the condom out of your sight and put it on his penis yourself!"). How this counselling may have served her remains unknown. Our summer program reached completion and I caught my plane home. As with other clients who must terminate prematurely, I can only hope our time together was of some benefit to her.

Concluding Remarks

My counselling work with Gambian youth this summer focused on psychoeducation around gender-based violence and other sexual health issues. The youth primarily sought guidance and therefore my counselling work focused on empathy and reflective listening. I utilized training in multicultural counselling to practice self-awareness and cultural safety, which I believe enriched the therapeutic alliance. From a cross-cultural perspective, I found elements of women's sexual health trends to be disturbing (i.e., domestic violence, FGM, and early marriage), however I made efforts to bracket my biases and relay health-information in an objective way. I had no intention of completely overcoming my Canadian cultural biases, however, as I recognized that they are so deeply ingrained within me. My hope was simply to offer sexual health information, a balanced perspective, options, support, and ultimately, room for growth.

My intention is to return to The Gambia to work in partnership with local organizations on women's health initiatives. Despite some of the challenges facing Gambian women I found the people to be among the most friendly, welcoming and generous that I have met and the country does honour to its namesake as "The Smiling Coast of Africa". Certainly, the progression to more egalitarian gender roles is important for Gambian women in their efforts to achieve a better overall health status, however the charge must be led by Gambians themselves, with the support of international allies.

Résumé

J'ai récemment terminé un internat en Afrique occidentale au cours duquel j'assurais la prestation de psychoéducation et de counseling à des jeunes dans le domaine de la santé sexuelle. Cet article offre un cliché de cette expérience et souligne certains défis auxquels j'ai dû faire face dans la gestion des interactions thérapeutiques entourant des tendances liées à la culture dans la santé de la femme, y compris le mariage hâtif, la violence sexuelle exercée contre les femmes et la mutilation des organes génitaux de la femme. Une brève discussion du travail malgré les différences culturelles dans le counseling suit, ainsi que certaines réflexions sur la pratique de la sécurité culturelle.

References

Baima, T.R., & Feldhousen, E.B. (2007). The heart of sexual trauma: Patriarchy as a centrally organizing principle for couple therapy. *Journal of Feminist Family Therapy*, *19*(3)*,* 13-36.

Beckerman, N.L. (2002). Intimate sexual violence in the United States: Social work and family therapy interventions. *The Journal of Sexual Aggression*, *8*(1)*,* 39-50.

Boyce, W., Doherty, M., Fortin, C., & MacKinnon, D. (2003). *Canadian youth, sexual health and HIV/AIDS study: Factors influencing knowledge, attitudes and behaviours*. Toronto: Council of Ministers of Education, Canada.

Brieger, W. R., Delano, G.E., Lane, C.G., Oladepo, O., & Oyediran, K.A. (2001). West African youth initiative: Outcome of a reproductive health education program. *Journal of Adolescent Health*, *29*(6), 436-446.

Connell, E. (2005). Desire as interruption: Young women and sexuality education in Ontario, Canada. *Sex Education, 5*(3)*,* 253-268.

Connell, R. (1987). *Gender and power: Society, the person, and sexual politics*. Oxford: Polity.

Gapminder Foundation. (2006). *Gapminder World*. Gapminder. Retrieved September 2, 2011 at: www.gapminder.org.

Jackson, S. (1996). The social construction of female sexuality. In S. Jackson & S. Scott (Eds.), *Feminism and sexuality: A reader* (pp. 62-73). New York: Columbia University Press.

McFadden, J. (1993). *Transcultural counselling: Bilateral and international perspectives.* Alexandria, VA: American Counseling Association.

Oakley, A. (1996). Sexuality. In S. Jackson & S. Scott (Eds.), *Feminism and sexuality: A reader* (pp. 35-39). New York: Columbia University Press.

Robinson, T.L., & Howard-Hamilton, M.F. (2000). The convergence of race, ethnicity, and gender: Multiple identities in counseling. New Jersey: Prentice-Hall.

Smye, V., & Mussell, B. (2001). *Aboriginal mental health: What works best*. The Aboriginal Mental Health Best Practices Working Group. British Colombia: University of British Colombia.

United Nations Children's Fund. (2011). *Basic education and gender equality*. UNICEF. Retrieved October 26, 2011 at: www.unicef.org/education/index.php.

The Influence of Implicit Cultural Norms versus Personal Attitudes and Uncertainty Orientation on Eating Behaviour

Jeff Rotman[1], Yang Ye[1], Richard Sorrentino[1], Andrew Szeto[2], Kimberly Dalke[1], and Emiko Yoshida[3]

[1]University of Western Ontario, [2]University of Calgary, and [3]University of Waterloo

ABSTRACT

The moderating effects of Uncertainty Orientation on how normative and personal attitudes predict eating behaviour was examined. Uncertainty Orientation focuses on how people seek out and integrate information about themselves, others, and their environment. It distinguishes between people who are uncertainty-oriented (UOs), that confront uncertainty with the intention of resolving it; and people who are certainty-oriented (COs), in that they attempt to maintain certainty, by creating a predictable environment and maintaining preexisting beliefs. Participants were given either a cultural norms IAT or a personal IAT, as well as measures of explicit attitudes toward eating chips and vegetables. They were then given vegetables and chips to eat, ostensibly as a market research task. Explicit attitudes did not predict eating behaviour. However, a significant interaction on eating behaviour was found suggesting that implicit normative attitudes activated systematic information processing for COs, whereas implicit personal attitudes activated systematic information processing for UOs.

The Influence of Implicit Cultural Norms versus Personal Attitudes and Uncertainty Orientation on Eating Behaviour
    Research has demonstrated that the Implicit Association Test (IAT, Greenwald, McGhee, & Schwartz, 1998) assesses not only implicit attitudes, but also extrapersonal and cultural associations acquired through learned processes and socialization (Han, Olson, & Fazio, 2006; Olson & Fazio, 2004). Olson and colleagues developed the "personalized" IAT which assesses implicit personal associations without the influence of cultural associations. Conversely, Yoshida, Peach, Spencer, and Zanna (in press) developed an IAT that specifically measures the cultural and normative component of the standard IAT.

Markus and Kitayama's work in cultural psychology (1991, 1994) argues that, compared to individuals in Eastern cultures, those in Western cultures have a different self-construal of the interdependence between the self and others. They argue that those in Western culture have a stronger motive to stand out, whereas those in Eastern cultures have more motivation to act like the group. Thus, Yoshida et al., (in press) expected and found that the normative IAT and personal IAT are better predictors of behaviour for those in Eastern culture and Western cultures respectively.

An Individual Difference Approach
    The theory of uncertainty orientations posits that individuals differ in how they seek out and integrate information about themselves, others, and their environment (Roney & Sorrentino, 1995; Hodson & Sorrentino, 2001; Sorrentino, Short, & Raynor, 1984). Individuals characterized as uncertainty-oriented (UOs) are motivated by uncertain situations and as a result, resolution of this uncertainty guides their cognition and behaviour. On the other hand, those characterized as certainty-oriented (COs) are motivated by maintaining clarity of the known and avoid situations requiring resolution of uncertainty. Simply stated, UOs are positively motivated by resolving uncertainty, whereas COs are positively motivated in maintaining certainty.
    Due to these differences in uncertainty resolution, it was hypothesized that differences in preferences would be found as a function of uncertainty orientation. Since COs rely on the group more than their own beliefs when it comes to making decisions (Hodson & Sorrentino, 2001; Norman, Sorrentino, Windell, Manchanda, 2008; Sorrentino, Seligman, & Battista, 2007), we predicted that COs' behaviours will be better predicted by the cultural norms IAT than the personalized IAT because of their deference to the in-group and its norms. In contrast, we predicted that UOs' behaviours will be better predicted by the personalized IAT than the cultural norms IAT, because of their self-orientation.

Method

Participants

A total of one hundred and twenty introductory psychology students from the University of Western Ontario were recruited through the participant pool. Six participants were omitted from the analysis for not completing the study and/or not following instructions, and 24 were omitted for being from an interdependent culture—a potential confound. This resulted in a sample of 90 participants (33 men, 57 women, aged 17 to 27, $M = 18.50$, $SD = 1.30$), with 46 and 44 participants in the normative and personal conditions, respectively. Participants received course credit in exchange for their participation.

Measures and Manipulations

Uncertainty Orientation. In line with Atkinson's work that suggests both approach and avoidant measures of a personality dimension (Atkinson, 1964; Atkinson & Feather, 1966), uncertainty orientation is assessed by one's desire to resolve uncertainty and one's desire to maintain predictability (see Frederick and Sorrentino, 1977 and Sorrentino, et al., 1990 for reviews). It is assumed that one's desire to maintain clarity is independent from one's motivation to overcome uncertainty. As such, an individual may be high or low on both of these motives and thus a resultant measure, one that controls for both, is a better predictor than a single measure. Uncertainty is measured by a projective measure based on the Thematic Apperception Test (TAT; Sorrentino, Roney & Hanna, 1992) and is used to assess an individual's desire to resolve uncertainty about the self and the environment. Expert scorers, who have achieved an inter-rater reliability of greater than 0.9 scored the TAT. The desire to maintain clairy is measured through the authoritarian component using Cherry and Byrne's (1977) acquiescence-free message of authoritarianism, which measures authoritarianism using a 21-item measure on a 6-point scale (from -3, "I disagree very much" to +3, "I agree very much"). For example, "What the youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country." Thus, uncertainty orientation is the resultant measure of uncertainty, composed of individual measures of nUncertainty (uncertainty scores standardized) and authoritarianism.

Each participant's nUncertainty and authoritarian scores were standardized into z-scores and subsequently the authoritarian z-scores were subtracted from the nUncertainty z-scores to give the resultant measure of uncertainty orientation (RUM), with those receiving higher scores considered to be more Uncertainty-Oriented and those receiving lower scores considered to be more Certainty-Oriented.

Personal Implicit Attitudes. Personal attitudes were assessed with a personal IAT. The categories assessed were "I like" and "I don't like" as well as "Potato chips" and "Vegetables." Positive words, such as sunshine, friends, etc. were used as positive attribute stimuli (I Like), whereas negative words (e.g. vomit, disease, etc.) were used for negative stimuli (I Don't Like). Pictures of various potato chip brands (e.g. Humpty Dumpty, Lay's, Ruffles, etc.) and various vegetables (carrots, broccoli, etc.) were used for their respective category. Higher values on the IAT correspond to relatively higher liking of chips over vegetables.

Normative Implicit Attitudes. Normative attitudes were assessed with a normative IAT. The categories assessed were "Most People Approve of" (stimuli: exercising, helping, sharing, etc.) and "Most People Disapprove of" (stimuli: cheating, abusing, murdering) as well as "Potato Chips" and "Vegetables" (stimuli remained consistent with the personal IAT). Once again, higher values on the IAT correspond to relatively higher liking of chips over vegetables.

Explicit Measures: The explicit measures consisted of 18 questions on a 7-point Likert scale. Nine of the questions measured attitudes towards chips, whereas 9 of the questions assessed attitudes towards vegetables. For example, participants were asked to indicate their overall evaluation of potato chips/vegetables from 1, 'extremely unfavourable' to 7, 'extremely favourable.'

Consumption of Chips and Vegetables. The weight of chips and vegetables in their respective containers was measured prior to consumption. To determine level of consumption, the final weight was subtracted from the initial weight for both types of food. In order to parallel the IAT, 'food consumption' was calculated by subtracting the consumption of vegetables (in grams) from the consumption of chips (in grams).

Procedure

Participants were tested individually. Upon arriving, they completed a consent form and were led to a room with a computer. They were first given a sentence completion task and authoritarian scale to assess uncertainty. Following that task, participants were randomly assigned to either the personal or normative condition and then completed an IAT (either personal or normative) and the explicit attitude measures (counterbalanced). The experimenter then brought chips and vegetables as well as three dips and asked the participants to evaluate the dips, ostensibly for marketing purposes. Participants were given a brief paper questionnaire to indicate how much they liked each dip and how much they would pay for them. Unbeknownst to the participants, the weights of the chips and vegetables were measured to determine how much they ate.

Results

A multiple regression analysis of variance using effect coding and Model I was conducted with two continuous variables (IAT scores; and the resultant measure of uncertainty, RUM), and one dichotomous categorical variable (Normative vs. Personal) on the dependent variable, the amount of vegetables versus chips eaten. The IAT scores were transformed using their natural logarithm. A signifi-
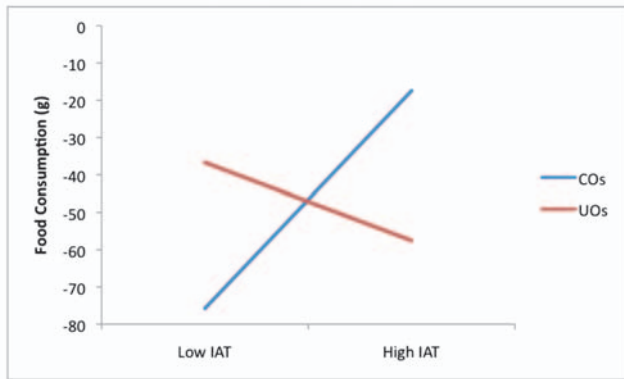
Figure 1. Food consumption in grams as a function of personal IATs measured at +/- 1 standard deviation and uncertainty orientation, UOs vs. COs. Food consumption was measured in grams by the weight of vegetables eaten subtracted from the weight of chips eaten.

Figure 2. Food consumption in grams as a function of normative IATs measured at +/- 1 standard deviation and uncertainty orientation, UOs vs. COs. Food consumption was measured in grams by the weight of vegetables eaten subtracted from the weight of chips eaten.
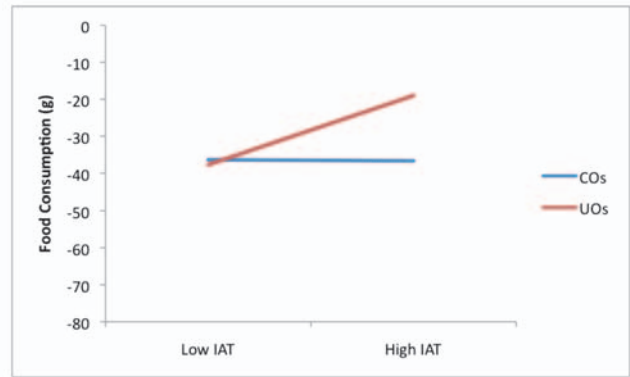
cant effect was obtained for the three-way interaction, , indicating that the interaction between uncertainty orientation and the prediction of food consumption using an IAT, differed between the personal IAT and the normative IAT β = .21, $t(81)$ = 3.97, p = .05. This interaction suggests that the prediction of implicit attitudes on food consumption is moderated by uncertainty orientation and the type of implicit measure.

Using the procedure suggested by Baron and Kenny (1986), to test moderating effects, a tertile split was performed on uncertainty orientation to produce the two groups of interest, UOs (high values) and COs (low values), with moderates excluded as established by the theory of uncertainty orientation (see Sorrentino & Roney, 2000, for a review). We regressed food consumption on IAT scores separately for UOs and COs and for normative and personal IATs. Two t-tests were performed to test the differences between the regression coefficients for UOs and COs for the personal IAT and the normative IAT. The analyses revealed that for the personal IAT, the regression coefficient for COs, b = 151.89, $t(10)$ = 3.24, p = .01, and that for UOs, b = -.54.78, $t(13)$ = -.649, p =.53, were marginally significantly different, $t(24)$ = 1.96, p = .06 (see Figure 1). However, for the normative IAT, the regression coefficient for COs, b = -.78, $t(15)$ = -.02, p = .99, and that for UOs. b = 49.30, $t(13)$ = 1.30, p = .22, did not significantly differ from each other, $t(28)$ = -.84, p =.41 (see Figure 2). Overall, the pattern depicted in Figure 1 and Figure 2 shows that the personal IAT positively predicts food consumption for COs but not for UOs. The normative IAT, on the other hand, appears to positively, but not significantly predict (presumably due to low sample size) food consumption for UOs and not for COs.

Additional analyses revealed the same three-factor pattern of interaction predicted total food consumption (total chips and vegetables eaten), β = -.251 $t(81)$ = -2.21, p =

.02 and vegetable consumption alone β = .249 $t(81)$ = 2.28, p = .03, but not chip consumption alone β = 1.33, $t(81)$ = 1.19, p = .24. Similar to other research, (Hofman, Rauch, & Gawronski, 2007), explicit measures did not predict food consumption, R^2 = .21, p = .52.

Discussion

The results of this study demonstrate a significant interaction whereby COs preference of chips to vegetables was better predicted by their implicit personal attitudes, whereas the eating behaviour of UOs was better predicted by their normative attitudes.

This is contrary to what was expected, however. In hindsight, it appears that when participants were asked to evaluate their preference for food, it activated different processing strategies, which led to these results. Given that their task was to evaluate various food dips, it is suggested that measurement of attitudes activated systematic processing for UOs such that when asked about their personal attitudes they were more likely to engage in controlled food consumption. COs, on the other hand, are engaged when asked to think about the opinions of others and as such engaged in more systematic processing in those situations. Systematic processing should lead people to evaluate and rate foods more carefully and in doing so engage in controlled food consumption, such as trying both foods out. This possibility is supported by the additional analyses reported above, which demonstrated that UOs ate significantly more food in total, and specifically more vegetables (but not chips) in the implicit personal attitudes condition than in the implicit norms condition, whereas COs did exactly the opposite.

Implicit attitudes are regarded as automatic and should predict behaviour when individuals are not engaging in controlled actions (Bargh, 1994). In situations where partici-

pants are actively engaged, however, implicit attitudes should not predict eating behaviour. Following this reasoning, it is logical to propose that UOs, when primed with personal attitudes questions, should be engaged in systematic processing and thus their implicit attitudes should not predict their food preference. On the other hand, when UOs are not engaged, after being primed with normative questions, their implicit attitudes should better predict their preferences. COs should display the opposite pattern; having their implicit attitudes predict their inclinations when not engaged (primed by implicit personal attitudes) but should not predict their preferences when they are engaged as a function of normative questions.

These data suggest that being asked to reflect on one's own personal or normative attitudes can activate systematic processing, and that this effect is moderated by UOs and COs respectively. However, the question then posed is why did the results differ from those of Yoshida et al. (in press)? Our cross cultural research (Sorrentino et al., in prep) has shown that Chinese participants may be even more uncertainty-oriented than their Canadian counterparts and perhaps Yoshida et al.'s (in press) sample of Chinese participants showed the same trend.

Additional research is needed to better support the idea that systematic processing can be activated by priming one to think about personal or normative attitudes. However, the need for individuals to process information is fundamental and permeates some of our most important decisions and responsibilities, such as deciding whether an alleged criminal is guilty or when voting for a politician. Thus, if systematic processing is activated differently for different individuals, this not only provides important basic knowledge of psychological processes but vital information for applied research.

Résumé
Les effets modérateurs de l'orientation face à l'incertitude sur la façon dont les attitudes normatives et personnelles prédisent le comportement alimentaire ont fait l'objet d'un examen. L'orientation face à l'incertitude se concentre sur comment les personnes cherchent et intègrent de l'information à leur sujet, les autres et leur environnement. Elle fait la distinction entre les personnes qui sont orientées dans l'incertitude (OI), qui font face à l'incertitude dans l'intention de la résoudre; et les personnes qui sont orientées dans la certitude (OC), dans le sens qu'ils tentent de maintenir la certitude, en créant un environnement prévisible et en maintenant des croyances préexistantes. Un test des associations implicites (IAT) de normes culturelles ou un IAT personnel a été administré aux participants, et des attitudes explicites ont été mesurées à l'égard de la consommation de croustilles et de légumes. On leur a ensuite donné des légumes et des croustilles à manger, soi-disant dans le cadre d'une recherche de marché. Les attitudes explicites ne laissaient pas présager de comportement d'alimentation. Cependant, une interaction importante avec le comportement d'alimentation a été trouvée suggérant que des attitudes normatives implicites activaient le traitement de l'information systématique de l'OC, alors que les attitudes personnelles implicites activaient le traitement de l'information systématique de l'OI.

References

Atkinson, J. (1964.) *An introduction to motivation*. New York: Van Nostrand.

Atkinson, J. & Feather, N. (1966). *A theory of achievement motivation*. New York: Wiley and Sons.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182. doi:10.1037/0022-3514.51.6.1173

Bargh, J. A. (1994). In Wyer R. S., Srull T. K. (Eds.), *The four horsemen of automaticity: Awareness, intention, efficiency, and control in social cognition*. Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.

Cherry, F., & Byrne, D. (1977). Authoritarianism. In T. Blass (Ed.), *Personality variables in social behavior* (pp. 109-133). Hillsdale, NJ: Lawrence Erlbaum Associates.

Frederick, J.E., & Sorrentino, R. M. (1977). *A scoring manual for the motive in master uncertainty* (Research Bulletin No. 410). London, Ontario, Canada, University of Western Ontario

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (2008). Measuring individual differences in implicit cognition: The implicit association test. In R. H. Fazio, & R. E. Petty (Eds.), (pp. 109-109-131). New York, NY, US: Psychology Press.

Han, H. A., Olson, M. A., & Fazio, R. H. (2006). The influence of experimentally created extrapersonal associations on the implicit association test. *Journal of Experimental Social Psychology, 42*(3), 259-259-272. doi:10.1016/j.jesp.2005.04.006

Hodson, G., & Sorrentino, R. M. (2001). Just who favors in in-group? personality differences in reactions to uncertainty in the minimal group paradigm. *Group Dynamics: Theory, Research, and Practice, 5*(2), 92-92-101. doi:10.1037/1089-2699.5.2.92

Hofmann, W., Rauch, W., & Gawronski, B. (2007). And deplete us not into temptation: Automatic attitudes, dietary restraint, and self-regulatory resources as determinants of eating behavior. *Journal of Experimental Social Psychology, 43*(3), 497-497-504. doi:10.1016/j.jesp.2006.05.004

Kitayama, S., & Markus, H. R. (Eds.). (1994). *Emotion and culture: Empirical studies of mutual influence*. Washington, DC: American Psychological Association.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224.

Norman, R. M. G., Sorrentino, R. M., Windell, D., & Manchanda, R. (2008). The role of perceived norms in the stigmatization of mental illness. *Social Psychiatry and Psychiatric Epidemiology, 43*(11), 851-851-859. doi:10.1007/s00127-008-0375-4

Olson, M. A., & Fazio, R. H. (2004). Reducing the influence of extrapersonal associations on the implicit association test: Personalizing the IAT. *Journal of Personality and Social Psychology, 86*(5), 653-653-667. doi:10.1037/0022-3514.86.5.653

Roney, C. J. R., & Sorrentino, R. M. (1995). Reducing self-discrepancies or maintaining self-congruence? uncertainty orientation, self-regulation,

and performance. *Journal of Personality and Social Psychology, 68*(3), 485-485-497. doi:10.1037/0022-3514.68.3.485

Sorrentino, R. M., & Roney, C. J. R. (2000). *The uncertain mind: Individual differences in facing the unknown*. New York, NY, US: Psychology Press.

Sorrentino, R. M., Roney, C. J. R. & Hanna, S. (1992). Uncertainty Orientation. In C. P. Smith,

J. W. Atkinson, & D. C. McClelland (Eds.), *The handbook of thematic analysis* (pp. 419-427). New York: Cambridge University Press.

Sorrentino, R. M., Seligman, C., & Battista, M. E. (2007). Optimal distinctiveness, values, and uncertainty orientation: Individual differences on perceptions of self and group identity. *Self and Identity, 6*(4), 322-322-339. doi:10.1080/15298860601008937

Sorrentino, R. M., Short, J. C., & Raynor, J. O. (1984). Uncertainty orientation: Implications for affective and cognitive views of achievement behavior. *Journal of Personality and Social Psychology, 46*(1), 189-189-206. doi:10.1037/0022-3514.46.1.189

Sorrentino, R. M., Raynor, J. O., Zubek, J. M., & Short, J.C. (1990) Personality functioning and

change: Information and affective influences on cognitive moral and social development. In E.T. Higgins & R.M. Sorrentino (Eds). *Handbook of motivation and cognition* (Vol 2. pp. 193-228) New York; Guilford Press

Sorrentino, R.M., Szeto, A., Yang, Y., Satoru, Y., Sadafusa, K., Nezlek, J.B., Thrash, T.,

Shenghua, J., Wang, Z., Rotman, J. (2011). *Cross-Cultural Differences in Self-Regulation and Affective Reactions to Daily Events: A Motivational Approach*. Manuscript in preparation

Yoshida, E., Peach, J. M., Spencer, S. J., & Zanna, M. P. (in press). Not allautomatic associations are created equal: How implicit normative evaluations are distinct from implicit attitudes and uniquely predict meaningful behavior. *Journal of Experimental Social Psychology.* Retrieved from http://arts.uwaterloo.ca/~sspencer/spencerlab/publications.html

Understanding Psychosis: An Examination of Language Comprehension Impairments in Schizophrenia and the Cognitive Neuroscience Model of Memory

Emmanuela Tedone and Dr. Robert Cassidy
Concordia University

ABSTRACT

The purpose of the present literature review was to assess language comprehension in adults with schizophrenia. Impairments in this area have been largely attributed to problems in semantic and working memory. The former deficits are linked to poor semantic memory networks and working memory issues, which lead to disturbances in incorporating contextual cues as well as a decrease in memory capacity. In this review, it is proposed that these two well-known theories are not as independent as past research has suggested, but mutually interact to better explain the nature of the presenting deficits.

"With his left hand, Thomas enacted each of the steps he'd rehearsed in his mind. Slicing at the point of his right wrist, he crunched through the bone, amputating his hand cleanly with the sharp knife … When you're the sane brother of a schizophrenic identical twin, the tricky thing about saving yourself is the blood it leaves on your hands " (Lamb, 1998, p. 5). In every sense, Thomas' erratic behavior lies at the heart of the psychiatric term, psychosis. Initially introduced into psychiatric literature and used synonymously with psychic neurosis, psychosis was derived from the Greek word psyche, meaning soul (Bürgy, 2008). Subdivided into two groups, one of which was entitled schizophrenia disorders by Kraepelin and Bleuler, psychosis developed a slightly new meaning and led to the development of a complex dichotomous disorder (Bürgy, 2008).

Described as a challenge to psychology and affecting approximately one percent of the world's population, schizophrenia, affects human behavioral, perceptual and cognitive characteristics. The complex nature of the disorder has left linguists, neurolinguists and psycholinguists dumbfounded by the true essence of language dysfunction in schizophrenia (Kuperberg & Caplan, 2003; Titone, 2010). Researchers have managed to extensively document language production abnormalities, but language comprehension impairments have received much less attention as the problems are more subtle and difficult to document (Kuperberg, 2010a). Still, findings have isolated a relationship or interplay between language processing deficits and underlying memory networks (Condray, Yao, Steinhauer, van Kammen, Reddy, & Morrow, 2008). Simply, the role of semantic and working memory deficits will be explored in explaining dysfunctions in language comprehension in adults with schizophrenia through a review of past studies. Also, an examination of the role of these abnormalities in enhancing understanding of the cognitive neuroscience model will also be discussed.

Two of the most prominent and well-known theories credit deficits in the structure and function of semantic memory deficits, as well as the inability to apply contextual working memory cues to language communication impairments (Kuperberg, 2010b). Disturbed language function shows an abnormal activation of words or concepts stored in semantic memory, and is likely due to the inability at matching a word when the word is placed in a given context (Salisbury, Shenton, Nestor, & McCarley, 2002). On the other hand, working memory issues refer to specific task deficits, capacity and context in assessing language comprehension (Salisbury et al., 2002). As explained by Baddeley, there is an independent context which does not hinder semantic interpretations of the target words or sentences, and an interactive context which highlights the mutually-dependent role of context and semantic interpretation of targets (Bazin, Perruchet, Hardy-Bayle, & Feline,

2000). Thus, semantic and working memory theories may not be as mutually exclusive as was initially thought but share a complementary union instead (Niznikiewicz, Mittal, Nestor & McCarley, 2009).

Proper semantic network functioning in a healthy individual depends on the ability to activate related networks and to disregard unrelated ones through automatic priming and cognitive skills. Patients with schizophrenia have difficulty doing so (Kuperberg, 2010; Niznikiewicz et al, 2009). This difficulty is not necessarily because of disturbances in semantic memory or working memory but of a combined impairment. A patient with schizophrenia tends to have difficulty in determining whether or not a word is appropriate even when placed in a meaningful sentence (Kuperberg & Caplan, 2003).

Under experimental conditions using short Stimulus Onset Asynchrony (SOA; i.e. interval between the onset of the prime and target words), semantic networks are activated and depend on semantic context and automatic priming abilities (Mathalon, Faustman, & Ford, 2002; Kuperberg, 2010a). Especially in indirect priming cases, whereby the prime word *lion* is "semantically associated" with the target word *stripes* through an unmentioned word *tiger*, a semantic connection is due to automatic skills (Kuperberg, 2010a). In this sample, the majority of patients with schizophrenia (1 woman, 17 men, M_{age} = 40.0) did show reduced semantic priming effects at long SOAs. At long SOAs, the patient is not time restricted and has the opportunity to use cognitive strategies, which are more dependent on working memory (Mathalon et al., 2002). In these scenarios, the patient has trouble semantically categorizing related target words, and shows working memory deficits in holding information in their memory over time. Simply, processes that promote priming are overtaken by working memory deficits. (Condray, Siegle, Keshavan & Steinhauer, 2010; Kuperberg, 2010b; Mathalon et al., 2002).

In a recent study, normal participants (7 women, 7 men, M_{age} = 31.4) and participants with schizophrenia (7 women, 7 men, M_{age} = 34.4) were presented with word pairs that differed in terms of semantic association and frequency (Condray et al., 2010). Immediately after the word pair, letter probes were shown that were completely unrelated to the initial word pair (Condray et al., 2010; Kuperberg, 2010a). In comparison to the control group, the schizophrenia group showed a lower N400 amplitude in response to semantic relatedness and word frequency. The N400 is the most important component in terms of semantic meaning and processing, and is sensitive to errors or semantic anomalies (Fernández & Cairns, 2010, p. 89). These patients also seemed to have a lot of difficulty identifying and selecting the semantically-associated word pairs over the non-associated word pairs (Condray et al., 2010). Evidence from this study suggests that schizophrenia patients exhibit a semantic deficit, as shown by the failure to effectively select meaningful target words in response to the prime. This same group also has poor working memory by not accounting for word frequency in their target selection choice.

For the most part, language as a whole is typically associated with the left hemisphere in adults; however, it has been suggested that language comprehension is a process belonging to the right hemisphere too (Joss & Virtue, 2009). During semantic priming tasks, unclear words tend to have more activation in the right hemisphere, as compared to clearer words which show larger activation in the left hemisphere (Joss & Virtue, 2009). In one study, healthy adult subjects (7 women, 8 men, M_{age} = 24) and schizophrenia adult patients (5 women, 9 men, M_{age} = 26) took part in a lexical decision task (Mohr, Pulvermüller, Rockstroh, & Endrass, 2008). In this task, participants were shown letter strings with meaningful or pseudo-type words. The data implied that the left hemisphere plays a greater role in the processing of word stimuli, but that schizophrenia patients definitely show an impaired transfer of information between both hemispheres (Mohr et al., 2008). More importantly, words presented bilaterally did not activate both hemispheres. The dominant left hemisphere did not play such a prominent role in schizophrenia patients either, illustrating that the right side does not successfully transfer information to the left. A few explanations have been hypothesized to account for this discrepancy, such as decreased activation levels or poor integration skills (Mohr et al., 2008). Unlike normal patients which display equal activation levels in the left hemisphere for strong and weak associations, the results from the Mohr et al. (2008) study reinforced current neuropsychological evidence that language activity in the left hemisphere in schizophrenia is impaired, and potentially attributable to deficits in semantic and working memory.

This poor working memory deficit is also displayed with regards to contextual information (Bazin et al., 2000). It was found that providing schizophrenia patients with additional contextual information does not improve cognitive performance (Kuperberg, 2010b). In a French experiment, schizophrenia patients (8 women, 22 men, M_{age} = 32.4), were shown incomplete sentences and asked to fill in the missing parts with the first word they deemed fit (Bazin et al., 2000). Approximately half of the words were defined as ambiguous clauses. An example of this is the French word, *serviette*, which is used to refer to a briefcase or a napkin (Bazin et al., 2000). Immediately after the presentation of an ambiguous clause, the patients were shown a context clause that primed multiple word meanings. While

it has clearly been shown in past research that schizophrenia patients display what Baddeley termed as "interactive contexts", the findings from this study only found deficits in interactive contexts in patients with thought-disorder (Bazin et al., 2000).

The precise role of semantic memory and working memory has been assessed through research on homographs, which are words with the same spelling but have a different meaning and/or pronunciation. Homographs show the role of context in semantic associations (Salisbury et al., 2002). Sitnikova, Salisbury, Kuperberg, and Holcomb (2002) conducted an experiment where ERPs were used to look at sentence processing abnormalities that had the potential to activate context-inappropriate semantic links. Contrary to earlier studies which assessed individual word pairs or short sentences, this study looked at more natural language tasks. Sentences eliciting context-inappropriate associations were created and implanted with one or more target words; for example, *The book must have great stories because the author won an award* (Sitnikova et al., 2002). In half of the cases, the final target word matched the context of the clause in which it was embedded, *The book must have great stories because the author won an award for it*; while in the remaining half, the target word was not congruent with the context of the clause, *The skyscraper had ninety stories because the author won an award*. In both of these examples, the target word *author* was semantically-meaningful to the homographic word *stories* (Sitnikova et al., 2002). Participants with schizophrenia (1 woman, 11 men, M_{age} = 37.7) and subjects in the control group (1 woman, 11 men, M_{age} = 25.5) were asked to read the sentences normally as if they were engaging in a general reading comprehension assignment. During this process, the subjects needed to determine if the assigned target word that immediately followed the clause was relevant to the meaning of that sentence (Sitnikova et al., 2002). The findings here suggest that individuals with schizophrenia have impaired sentence processing only when the context-inappropriate homograph interfered with this process. Unlike normal individuals, those with schizophrenia cannot inhibit the context-inappropriate homograph from obstructing the meaning of the sentence as a whole (Sitnikova et al., 2002).

In sum, adult individuals with schizophrenia display numerous abnormalities and impairments in terms of cognitive processes. Most emphasis has been placed on semantic and working memory deficits in accounting for these abnormalities. In many cases, semantic deficits are attributed to poor structural and functional mechanisms. Working memory deficits are thought to be due to a failure at incorporating contextual cues, poor integration of stimuli and a decreased memory capacity. It appears that the majority of past research in this area has been studied in terms of language production and positive thought disorder. While the evidence from these studies is much clearer in establishing associations between production impairments in schizophrenia and these two theories, it is only through an understanding of language comprehension that production can be better understood as well.

Furthermore, abnormalities in semantic and working memory tend to have been researched as individual theories with little attempt to evaluate them as a combined influence to the field of language and schizophrenia. In this brief literature review, studies have been selected with the aim of highlighting the role of semantic and working memory within a single experimental task, or if not, how one or the other may be used to account for the research findings. While the studies discussed have really only focused on laboratory tasks, there is still a need to understand these mysterious abnormalities from a constrained and controlled viewpoint. Schizophrenia is a multifaceted mental disorder, and testing in laboratory settings may be the only way for researchers to attain some sort of control. Nevertheless, there is a movement towards the assessment of more natural comprehension tasks in the efforts of increasing internal and external validity. Gradually, researchers are shifting from the study of single-word recognition, to sentence completion, and now discourse analysis to show real-world cognitive functioning. Each of these efforts and advancements contributes to a more appreciative understanding of the cognitive neuroscience model of memory and of language.

Résumé

L'objet du présent examen de la littérature était d'évaluer la compréhension linguistique chez les adultes atteints de schizophrénie. Les déficiences dans ce domaine ont été grandement attribuées aux problèmes de sémantique et de mémoire de travail. Ces derniers déficits sont liés à des réseaux de mémoire sémantique faibles, qui mènent à des désordres dans l'intégration des indices contextuels ainsi qu'à une diminution dans la capacité de mémoire. Dans cet examen, on suggère que deux théories bien connues ne sont pas indépendantes comme le supposait la recherche passée, mais interagissent mutuellement pour mieux expliquer la nature des déficits présentés.

References

Bazin, N., Perruchet, P., Hardy-Bayle, M., & Feline, A. (2000). Context-dependent information processing in patients with schizophrenia. *Schizophrenia Research, 45,* 93-101. doi: S0920-9964(99)00167-X

Bürgy, M. (2008). The concept of psychosis: Historical and phenomeno-logical aspects. *Schizophrenia Bulletin, 34,* 1200-1210. doi: 10.1093/schbul/sbm136

Condray, R., Siegle, G., Keshavan, M., & Steinhauer, S. (2010). Effects of word frequency on semantic memory in schizophrenia: Electrophysio-logical evidence for a deficit in linguistic access. *International Journal of Psychophysiology, 75,* 141-156. doi: 10.1016/j.ijpsycho.2009. 10.010

Condray, R., Yao, J., Steinhauer, S., van Kammen, D., Reddy, R., & Morrow, L. (2008). Semantic memory in schizophrenia: Association with cell membrane essential fatty acids. *Schizophrenia Research, 106,* 13-28. doi: 10.1016/j.schres.2008.03.009

Fernández, E., & Cairns, H. (2010). *Fundamentals of Psycholinguistics.* United Kingdom: John Wiley & Sons Ltd.

Joss, L., & Virtue, S. (2009). Hemispheric processing of semantic informa-tion: The effects of the semantic priming task and working memory capacity. *Laterality, 14,* 345-361. doi: 10.1080/13576500802434593

Kuperberg, G. (2010a). Language in schizophrenia part 1: An introduction. *Language and Linguistics Compass, 4,* 576-589. doi: 10.1111/j.1749-818x.2010.00216.x

Kuperberg, G. (2010b) Language in schizophrenia part 2: What can psycholinguistics bring to the study of schizophrenia and vice versa? *Language and Linguistic Compass, 4,* 590-604. doi: 10.1111/j.1749-818x.2010.00217.x

Kuperberg, G., & Caplan, D. (2003). *Language dysfunction in schizophrenia.* Neuropsychiatry Philadelphia: Lippincott Williams and Wilkins.

Lamb, W. (1998). *I Know This Much Is True.* New York: Harper Collins.

Mathalon D, Faustman W, & Ford J. (2002). N400 and automatic semantic processing abnormalities in patients with schizophrenia. *Archives of General Psychiatry,* 59, 641-648. Retrieved from http://www.bieegl.net/Publications/Papers/2002.pdf

Mohr, B., Pulvermüller, F., Rockstroh, B., & Endrass, T. (2008). Hemispheric cooperation – A crucial factor in schizophrenia? Neurophysiological evidence. *Neuroimage, 41,* 1102-1110. Retrieved from http://0-www.ncbi.nlm.nih.gov.mercury.concordia.ca/pubmed/18456515

Niznikiewicz, M., Mittal, M., Nestor, P.G., & McCarley, R.W. (2009). Abnormal inhibitory processes in semantic networks in schizophrenia. *International Journal of Psychophysiology, 75,* 133-140. doi: 10.1016/j.ijpsycho.2009.10.006

Salisbury, D., Shenton, M., Nestor, P., & McCarley, R. (2002). Semantic bias, homograph comprehension, and event-related potentials in schizophrenia. *Clinical Neuropsychology, 113,* 383-395. doi: 10.1016/S1388-2457(02)00003-2

Salmon, N., & Pratt, H. (2002). A comparison of sentence- and discourse-level semantic processing: An ERP study. *Brain and Language, 83,* 367-383. doi: 10.1016/S0093-934X(02)00507-2

Sitnikova, T., Salisbury, D., Kuperberg, G., & Holcomb, P. (2002). Electro-physiological insights into language processing in schizophrenia. *Psychophysiology, 39,* 851-860. doi: 10.1017/S004 8577202010466

Titone, D. (2010). Language, communication and schizophrenia. *Journal of Neurolinguistics, 23,* 173-175. Retrieved from http://schizophreniafo-rum.org/images/livedisc/Titone.pdf

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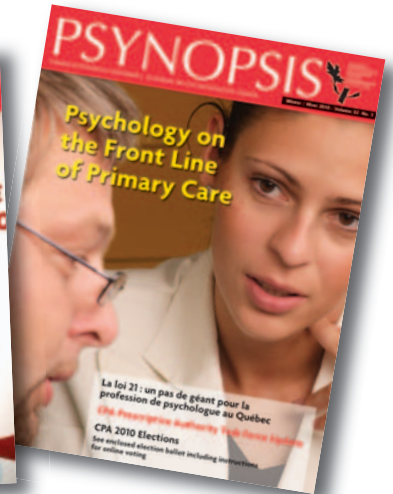- Practice and Personal Banking Products

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