Kwantlen Psychology Department Research Labs

Lifespan Cognition Lab @ KPU

In the lifespan cognition lab, we combine laboratory-based tasks with eye tracking technology to see how thinking changes across the lifespan from preschool to old age. Our current work focuses on perspective-taking in children and adults. Specifically, we want to know how children and adults learn to take the perspective of another person. Our research is currently supported by the Canada Research Chairs program.

Our cognition lab conducts research that is of central interest to Dr. Daniel Bernstein. Our most recent areas of research involve false memories, metacognition, and hindsight bias. We are also interested in theory of mind, belief and memory, developmental metacognition, mild head injury and sleep and dreams.

Visit: http://lifespancognition.org/

For more information, contact Dr. Daniel Bernstein: Daniel.Bernstein@kpu.ca

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Investigating Investigation

What factors affect an eyewitness's recall of an event?; How do we optimize witness recall and investigator decision making?; What factors bias how investigators seek and interpret evidence?

Research: I am a researcher who is interested in eyewitness recall and investigator decision making. I draw on social and cognitive psychology in my exploration of these applied issues. Compelling factors that I am particularly interested in are the effect of contextual and motivational information on the investigative process and witness recall, the role of expertise in the investigative process, ways to support the quality and quantity of witness and victim recall, and the possibility of a latent biases in investigation. My publications cover the above issues in both workplace and legal contexts (although I am also interested in other investigation domains e.g., fraud) and I present at national and international conferences aimed at both academics and practitioners.

For more information, contact Dr. Carla MacLean: Carla.maclean@kpu.ca

ORGASM LAB

OBSERVATIONS AND RESEARCH IN GENDER AND SEXUALITY MATTERS

The Observations and Research in Gender and Sexuality Matters (O.R.G.A.S.M) Human Sexuality Lab in the Department of Psychology at Kwantlen Polytechnic University is where we actively explore issues in human sexuality such as sexual orientation, commercial sex, and atypical sexuality, and attempt to educate the public on the various misconceptions around these topics that remain so prevalent in our society.

Topics of the O.R.G.A.S.M Lab also represent the diverse interests of our lab's membership. Under the tutelage of Dr. Cory Pedersen, the O.R.G.A.S.M. lab's members have been able to turn their wide variety of gender and sexuality interests into original and innovative research studies. Please visit our website at www.orgasmresearchlab.com.

For more information, contact Dr. Cory Pedersen: cory.pedersen@kpu.ca

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Social & Political Cognition Lab

The Social & Political Cognition Lab is directed by Dr. Rajiv Jhangiani and conducts research in three broad areas: 1) Political Psychology, including political violence such as terrorism, genocide, and other conflict, 2) Social Cognition, including studies of decision making, and 3) the Scholarship of Teaching & Learning, including topics such as multiple-choice testing, peer-assessment, and the impact of the adoption of open educational resources.

Volunteers must have completed PSYC 2300 & 2400 (minimum B in each) and commit to 6 hours per week including a month of training.

Visit: http://thatpsychprof.com/research/

For more information, contact Dr. Rajiv Jhangiani: Rajiv.jhangian@kpu.ca

The Issues in Media, Advertising and Gender (IMAGe) Lab is devoted to exploring the psychology of gender-related issues in mainstream media and advertising. Since 2007, Dr. Arleigh Reichl and the IMAGe Lab have conducted numerous empirical studies on various forms of prejudice in advertising and the effects of such on individuals' attitudes and behaviour. More recently, the lab has expanded its scope to include the effects of other cultural constructs in addition to magazine advertisements.

Visit: http://www.reichllab.com/

For more information, contact Dr. Arleigh Reichl: Arleigh.reichl@kpu.ca

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The Kwantlen Traffic Safety Lab

The Kwantlen Traffic Safety Lab is interested in both pure and applied research into the determinants of traffic accidents. Past research projects have examined how cognitive, attentional, and perceptual factors influence motorcycle/car accidents at intersections.

Current Members
Dr. Farhad Dastur
Dr. David Froc
Dr. Daniel Bernstein

Student Research Associates
Bert Sager
Elisabeth Kreykenbohm

Research Collaborators: Dr. Tom Spalek (SFU); Dr. Matt Yanko (MEA Forensic Engineers & Scientists)

Publications

Motorcyclist's lane position as a factor in right-of-way violation collisions: a driving simulator study
B Sager, MR Yanko, TM Spalek, DJ Froc, DM Bernstein, FN Dastur
Accident Analysis & Prevention 72, 325-329
http://www.sciencedirect.com/science/article/pii/S0001457514002152

In press. Motorcycles are not invisible: A change blindness study
B Sager, E Kreykenbohm, DM Bernstein, FN Dastur, DJ Froc
Submitted to Attention, Perception, & Psychophysics.

For more information, contact Dr. Farhad Dastur: farhad.dastur@kpu.ca

The BEE Lab

How do bees first find flowers?

Inexperienced bees have the ability to discover flowers in less than an hour of leaving their nest. What is it about flowers that tell bees they can find food there? Is it the colour, the size, or a special configuration of patterns?

When bees first leave the safety and comfort of their nest, they are equipped with an ability to see the world in colour, and are armed with a familiar odour from when they were fed by their fellow bees.

We recently conducted an experiment with bees in a testing room where they could fly freely 24 hours a day, 7 days a week. Bees could enter the room through a small hole from their nest, and the room contained only patterns. The shape of most flowers and the location of these shapes were studied, among other things.

The petals of many flowers create the shape of a sunburst or radial pattern. We gave bees the choice of a radial pattern and compared it with a bull's eye pattern, which includes multiple concentric circles on top of one another, a pattern not often seen in nature. Location was also manipulated; the radial and circular patterns appeared closer to the edge of these artificial flowers, or near the centre where bees typically find food.

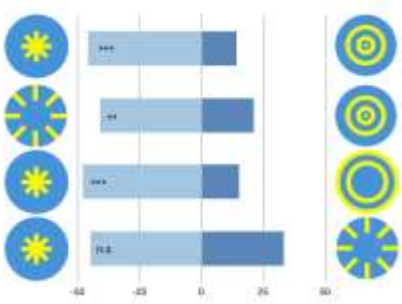
To determine which flower they would choose, we glued radio-frequency-identification (RFID) chips to the bees' backs by holding them by the leg with a tweezer. This chip 'bugged' them (as evidenced by the continuous scratching of their backs), but it did not interfere with their ability to fly. When a bee landed on an artificial flower, the RFID reader would record the bee's unique identifier, which allowed us to track the individual choice of every bee in the colony.

If we look at them landing on a flower, bees only explored flowers if the pattern was located near the centre. However, bees undeniably preferred the radial pattern.

The appearance of flowers has been shaped over the course of evolution as adaptation to bees' visual abilities. Flowers seem to be not necessarily showing the bees where the food is, but rather, how to find the food, with visual aids such as radial patterns.

In other words, flowers will do everything their genetic leash allows to cater to bees' likes and dislikes. But what did flowers look like before they modified their appearances for the bees?

For more information, contact Dr. Levente Orban: Levente.orban@kpu.ca



The Positive Psyc Lab

I study Positive Psychology, an area of Psychology focused on well-being and character strengths (e.g., kindness, humility, gratefulness, perseverance). Some of my studies have focused on character strengths or well-being among people in difficult circumstances (homeless, bereaved). I also have expertise in violence research; I am currently studying the social and character strengths that keep kids away from violence. In the past, I have conducted research on culture, including cultural influences on learning styles and cultural influences on responses to stress.

For more information, contact Dr. Roger Tweed: roger.tweed@kpu.ca

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The MAAD Lab

The Moral and Applied Development Lab is involved in two areas of research:

Environmental Ethics & Development

Environmental Activists. We are currently working with Dr. Michael Pratt at Wilfrid Laurier University studying environmental activists. In addition to gathering personality data on these activists, we are listening to their life stories to learn more about their past experiences with nature that may have shaped their life trajectories. We are currently
collecting follow-up data with these activists.

Mindfulness & Development

Mindfulness Uganda. We are studying the academic and psychological effects of implementing a mindfulness program in a primary and nursery school in post-conflict northern Uganda. The people of this region have lived through the war between the Lord's Resistance Army, led by Joseph Kony, and the government army. This work is in association with Drs. Theresa McElroy & Kim Schonert-Reichl at UBC, and Dr. Anne Katahoire, Makerere University.

Visit: http://www.maadlab.org/home.html

For more information, contact Dr. M. Kyle Matsuba: kyle.matsuba@kpu.ca