

# CREATING AN INCLUSIVE SPACE FOR FACULTY IN THE ACADEMY

## IDENTIFYING AND REMOVING SYSTEMIC BARRIERS

### ABSTRACT

The literature continues to tell us about the persistent and pervasive barriers that continue to prevent many faculty from fully participating and contributing to the academic mission of their institutions. These barriers also impede the ability of educational institutions to create and disseminate knowledge. The seven barriers in this report, identified from a review of literature in Canada, the U.S. and the UK, speak to the historical, structural, psychological, behavioural and attitudinal barriers in the Academy. They include: isolation and lack of collegiality; not being accepted as a scholar; accusations of bias when teaching or researching subject matter related to their identities and/or involving diverse perspectives; difficulties getting published; impact of stereotypes and unconscious biases; being seen as a threat to those with power; and tensions between the expectations of the past and today's realities. Identifying and acknowledging these barriers provides an opportunity to create a more inclusive space for all faculty. Dialogue and openness to including different ideas, perspectives, experiences and circumstances in the academic work of the Academy are key to eliminating these barriers, as well as to advancing excellence in higher education.

**Ryerson  
University**

**Equity,  
Diversity  
& Inclusion**

Prepared by Tamar Myers  
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# CREATING AN INCLUSIVE SPACE FOR FACULTY IN THE ACADEMY

## IDENTIFYING AND REMOVING SYSTEMIC BARRIERS

### INTRODUCTION

Ryerson's 2014-2019 academic plan, *Our Time to Lead*, affirms the university's commitment to, "... creating an open and accessible environment that is vibrant, inclusive and representative of an institution of excellence."

A critical piece to achieving our shared vision for the university is to create an environment where the fullest range of knowledge and perspectives is included and acknowledged as an indicator of academic excellence. This requires reexamining how knowledge is created, what knowledge is created, what is accepted as scholarly work, and who is regarded as an academic expert. It also requires changing some of the structures and processes that were established in universities at a time when there was less diversity in academia, and which may now serve as barriers to the inclusion of diverse faculty.

The information and suggestions contained in this document are provided as a resource for faculty, researchers and university leaders to understand and address the barriers that can prevent Ryerson from producing the highest quality academic work in teaching, scholarly research and creative activities (\*\*SRC) and service.

There is a considerable body of literature in the United States, Canada and the United Kingdom that speaks to historical, structural, psychological, behavioural and attitudinal barriers in the academy, including research produced by Ryerson faculty. Most of the literature has examined the barriers for women, minorities (includes visible minorities, racialized people, as well as those who are referred to as minorities in the U.S) and for minority women in the academy. However, the issues are also relevant to other faculty who may be marginalized in academic institutions, such as indigenous faculty, faculty with disabilities and LGBTQ faculty, as can be seen in the few articles that are found which speak to the experiences of faculty from these groups.

The barriers that limit the potential of faculty who are marginalized in the academy, also point to issues that are becoming of more concern to all faculty, such as external influences on academic institutions and academic freedom. Diverse faculty may be the, "...canaries in the academic mine, and all those who care about higher education should learn from their experiences" (Gonzalez & Harris, 2013, p. 290). Actions taken to eliminate the barriers will benefit all faculty, and the academy, by encouraging the open exchange of ideas and inclusion of diverse voices to enrich academic work.

\*\*SRC is used when discussing implications for Ryerson University. 'Research' is used when referencing literature that discusses or refers to research.

## Literature on Barriers in STEM

*While feminist critiques of objectivity, and the struggles to theorize concepts like voice, authority, identity, ways of knowing and positionality have influenced work in the social sciences, humanities, and education, the physical and biological sciences and engineering have remained largely unaware and poorly informed by these advances. However, we in the field of engineering education, especially those of us concerned with making engineering a more equitable and socially responsible environment for all people, cannot afford to ignore the theoretical advances made in the humanities, such as those on gender, simply because they were not initially generated in engineering.*

(Pawley, 2004, p. 3)

As the above quote suggests, scholars in the STEM fields have been slow to explore the barriers to diverse faculty in their fields, therefore, the literature is limited. The existing literature currently focuses on unconscious bias, stereotypes, work/life balance and on losing women in the "pipeline."

Some examples are provided in each section of this article to help illustrate how the barriers may be exhibited in STEM fields.

## NARROW VIEW OF WHAT CONSTITUTES SCHOLARLY WORK

*In this project what was deemed “worthy” as research and what questions were asked were rooted in the Indigenous teaching of the medicine wheel... Applying an Indigenous framework was natural for me as I am Algonquin, Cree, and French Métis. What was challenging was to find a way of bringing together Indigenous ways of knowing and Western ways of conducting research... (Lavallee, 2009, p. 22)*

It is paradoxical that post-secondary institutions are responsible for knowledge creation and yet the literature suggests that they tend to value established ways of creating knowledge and making that knowledge known. Many existing faculty, who come from more homogeneous and privileged backgrounds, tend to be more accepting of ‘traditional’, ‘mainstream’ perspectives and approaches to teaching and research (Henry & Tator, 2009; Murata, 2006; Turner, Gonzalez & Wong, 2011).

On the other hand, faculty from groups that have been underrepresented in the academy often bring their cultural backgrounds and lived experiences to their work, resulting in very different ideas about creating and disseminating knowledge (James, 2009; LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Lavallee, 2009; Lee, 2006; Murata, 2006). Alternative activities, perspectives and approaches in teaching and research are sometimes less valued in higher education institutions, and may be discredited or assessed as inferior academic work (LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Monture, 2009; Murata, 2006).

An example of the difference between Western science’s approach from that of some Aboriginal faculty is in the understanding of observation in research. In one of her research papers (2009), Dr. Lynn Lavallee discusses the ‘traditional’ Western approach to observation for quantitative inquiry, which involves establishing controlled environments. This is different from an Aboriginal approach that, for example, may include observations that have been passed down through generations, such as concerning the medicinal properties of plants. Lavallee suggests that the Western approach is limited and that many researchers are beginning to realize that new approaches are needed, which she argues can be provided by incorporating Aboriginal methods and knowledges into research.

Other examples discussed in the literature, include women researchers and researchers from Eastern cultures infusing their experiences into their research and papers. LGBTQ\*, women and minority women faculty may also bring critical perspectives to their research from feminist theory, queer theory and critical race feminism (Berry, 2006; Fine, 2000; LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Rich, 2000). This knowledge and understanding, which is developed from the ‘inside out,’ is often subject to criticism by other faculty who believe that more established approaches, for example theory driven or experimental approaches, are the only valid ways to generate knowledge in the academy (LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Murata, 2006; Rich, 2000; Turner, Gonzalez & Wong, 2011).

Different approaches to education can also create risk for diverse faculty, particularly when employing critical pedagogy that, “...situate the university squarely within the dynamics of a multiethnic, multicultural and rapidly globalizing world, thus disrupting conventional ideas of the university as a self-contained and unfettered space of knowledge production and dissemination” (Neverson, Fumia, Hernandez-Ramdwar, Jamal & Knight, 2013, p. 6). The risk of instruction that challenges the knowledge taught at the academy and/or students’ worldviews and beliefs is that it can result in negative perceptions and evaluations of the faculty member’s teaching (Kardia & Wright, 2004; LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Laube, Massoni, Sprague & Ferber, 2007).

By placing more value on established perspectives and approaches to teaching and research, the academy restricts innovation and can marginalize diverse students (LaSala, Jenkins, Fredriksen-

Goldsen & Wheeler, 2008; Neverson, Fumia, Hernandez-Ramdwar, Jamal & Knight, 2013). In addition, by placing a higher value on academic work that adheres to traditional institutional norms, the academy limits its ability to enrich its teaching and research (Green, Creswell, Shope & Clark, 2007; LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Lee, 2006).

## **Suggestions to increase the recognition of work of diverse scholars**

- Create opportunities in departments/schools to share and discuss different teaching methods and techniques and the concerns of students identified in the document, *Inhabiting Critical Spaces: Teaching and Learning From the Margins at Ryerson University* (Neverson, Fumia, Hernandez-Ramdwar, Jamal & Knight, 2013), as learning for all faculty in departments/schools. Consider the recommendation in the document to attend lectures of other faculty members, outside of evaluation activities.
- Create opportunities for faculty to share and discuss approaches to teaching and SRC that reflect different and critical perspectives.
- Review the separation of teaching, research and service work and identify new ways of valuing and crediting scholarship, research and creative activities so that different approaches to knowledge creation, such as participatory action based research, are recognized as SRC work.
- Review evaluation criteria for teaching and research to identify and mitigate the impact of biases.
- Review the processes for providing awards and recognition to ensure that inclusive criteria are used, and to incorporate equity, diversity and inclusion into the criteria.

## **EXPECTATIONS OF OBJECTIVITY**

*By making a conscious effort to include literature from racially and ethnically diverse scholars and to incorporate scholarship from the respondent's culture, the researcher continues to invite additional voices to the interpretation and validation process while potentially increasing theoretical sensitivity. (Green, Creswell, Shope & Clark, 2007, p. 487)*

Creating change for their communities is often one of the reasons individuals from marginalized groups become academics; they want to make an impact within their communities (James, 2009; Katira, 2006; LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Lee, 2006). However, having an interest in, or bringing in perspectives from group(s) they are affiliated with creates risks in the academy. The work of diverse scholars within their own communities is sometimes seen as biased and self-serving and their research – which may be criticized as ‘mesearch’ – can be viewed by colleagues as lacking rigour and objectivity (LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Lee, 2006; Spafford, Nygaard, Gregor & Boyd, 2006; Turner, Gonzalez & Wong, 2011). In this way, the expectation that objectivity requires distance and separation from the subject matter or communities being studied creates a barrier for diverse faculty.

Qualitative researchers take the position that all research includes biases that are inherent in the researcher's background and experiences, and so including as many different voices and perspectives is important to provide a balanced understanding (Green, Creswell, Shope & Clark, 2007; Lavalley, 2009). Similarly, critical pedagogy promotes bringing multiple perspectives to teaching (Neverson, Fumia, Hernandez-Ramdwar, Jamal & Knight, 2013). In addition, the Tri-Council Policy Statement, *Ethical Conduct for Research Involving Humans* (CIHR, NSERC & SSHRC, 2010) indicates that where there is a significant social, cultural or linguistic distance between the community and researcher, there is more potential for misinterpretation.

This is not to say that there aren't pitfalls with what is often called 'insider' research. Much of the debate about this type of research has taken place in the education field, as researchers often examine their own institutions or institutions within their sector and, therefore, they have personal experience with the systems and processes they are studying. The 2007 article by Justine Mercer, *The challenges of insider research in educational institutions: Wielding a double-edged sword and resolving delicate dilemmas*, explores the benefits and drawbacks of 'insider' research, related to access, rapport, intrusiveness and familiarity. In the end, the author argues that by viewing 'insider' and 'outsider' research as a continuum and not a dichotomy, the researcher can mitigate the problems and realize the benefits of each approach.

In the STEM fields, knowledge is traditionally seen as objective facts and truth and, therefore, unbiased. However, as the number and status of women in the sciences has increased, we are learning more about the biases that existed before they were able to bring more inclusive perspectives to research. For example, a 2014 article by Janine Clayton and Francis Collins in *Nature*, which discusses sex balance of cells and animals in clinical research, points to the agreement by National Institute of Health (NIH) scientists and leaders that the exclusion of women in clinical research has been, "bad for women and bad for science" (Clayton & Collins, 2014, p. 282). Since the NIH mandated the inclusion of women in the clinical research they fund we have gained new knowledge, such as that the same medication can have different effects on men and women or may require different doses for women and men.

Ryerson Chemistry and Biology professor, Lesley Campbell, recently published a journal article, *Gender-Heterogeneous Working Groups Produce Higher Quality Science* (2013), which offers empirical evidence that heterogeneous teams produce results perceived to be of higher quality by peers than results produced by homogeneous teams.

As the quote at the beginning of this section indicates, faculty who bring themselves and diverse 'voices' to their teaching and research enrich their academic work. By becoming more open to different perspectives on, and critiques of objectivity in scholarship the academy can enhance its ability to realize the benefits of diversity.

## **Suggestions to promote the inclusion and valuing of diverse perspectives in academic work**

- Create opportunities for discussion of different perspectives and frameworks for scholarship and creative activities including objectivity/subjectivity, positivist, post-positivist, constructivist, qualitative and other research paradigms. Engineering and Science Faculties may want to invite colleagues from the social sciences or humanities to help facilitate discussions.
- Encourage faculty to review and discuss the Ethics Framework in the Tri-Council Policy Statement, *Ethical Conduct for Research Involving Humans* (CIHR, NSERC & SSHRC, 2010) as well as the specific policies related to research involving First Nations, Inuit and Metis peoples of Canada.
- Provide improved support at the department/school, Faculty and institutional level for infusing critical pedagogy into instruction for all academic programs, both in terms of what is taught and how material is taught.
- Identify strategies to increase the diversity of groups conducting SRC activities at the University, such as including more women in STEM disciplines.
- Evaluations of excellence and quality of SRC should provide increased weight on the value of including diverse perspectives, such as the perspectives of the communities being studied, and incorporating the work of diverse scholars.
- Provide more opportunities for faculty to develop cultural competencies.

## **BARRIERS TO PUBLISHING**

*Although top-tier journals may publish on topics related to diverse populations, seminal writings on diverse populations are not consistently found in these publications. ... In the academic marketplace of salience and citation, many of these works are undervalued. (Green, Creswell, Shope & Clark, 2007, pg. 487)*

Some of the challenges for diverse faculty, related to getting published, include: different ways of creating and disseminating knowledge may make it more difficult to get published; the subject matter they study, outside of the mainstream, may not be well known to reviewers; and publishing in smaller, less well known journals that are more receptive to their areas of interest may be less valued by tenure and promotion committees (Henry & Tator, 2009).

If the research challenges established canons in the field, it may not be accepted in some of the top tier journals and may need to be published in journals that are more inclusive. An example of this is that faculty publishing in what are considered traditionally male fields, such as Philosophy, may find they cannot publish articles in top tier journals with a feminist voice or perspective (Haslanger, 2008) and they may have to consider publishing in feminist journals that may not be as highly regarded in their disciplines. The literature also suggests that faculty from minority groups produce a considerable amount of qualitative research, which has had limited acceptance in mainstream journals (Green, Creswell, Shope & Clark, 2007).

Presentations at scientific conferences provide an opportunity to try out new ideas and findings prior to submitting material for publication, and provide faster opportunities to contribute to and advance knowledge in a field than publication. They also help raise the profile of a scholar's research, and help academics to connect and network (Casadevall & Handelsman, 2014). All of this can help faculty to get published. A recent study found that there are significantly more women selected as speakers for scientific conferences when there are women conveners involved (Casadevall & Handelsman, 2014). This suggests that a lack of diversity of those who make decisions related to what work gets disseminated is a barrier for scholars from underrepresented groups.

In addition, a report of the U.S. National Academy of Sciences [NAS], National Academy of Engineering [NAE], and Institute of Medicine [NIM] Committee on *Maximizing the Potential of Women in Academic Science and Engineering* (2007), indicates, "Evidence shows, however, that productivity is not an independent characteristic of individuals but rather a reflection of their positions in the academic hierarchy and the access to resources that those positions make possible" (NAS, NAE and NIM Committee, 2007, p. 113). Women faculty in STEM tend to be in lower ranks, and have more teaching load and other characteristics associated with lack of access to resources. The report suggests that systemic barriers that restrict women's access to resources lead to lower publication productivity.

### **Suggestions to improve assessments of SRC productivity and support diverse faculty in getting published**

- Develop an understanding of the SRC work of faculty colleagues and why they may not publish in mainstream journals, for example in feminist studies or disabilities studies journals as alternatives to mainstream Sociology journals.
- Review SRC productivity assessment processes to explore how to incorporate factors such as access to resources, implicit bias, new ideas, and appropriateness of publication to area of inquiry.
- Identify alternative means for assessing SRC quality beyond publication productivity, including the impact of the work, using a variety of criteria to assess impact.
- Facilitate more opportunities for partnering of new faculty with an established colleague to publish work and be 1<sup>st</sup> author.

## UNDERVALUED BASED ON STEREOTYPES AND UNCONSCIOUS BIASES

*In graduate school, one of my teachers told me that he had 'never seen a first rate woman philosophy and never expected to because women were incapable of having seminal ideas.'* (Haslanger, 2008, pg. 211)

Stereotypes are barriers for diverse faculty because they involve making assumptions about individuals that are not based on their actual abilities, but instead are based on their association with a group. For example, the assumption that someone is good or bad at math based on race, or a good or bad leader based on gender.

Assumptions based on stereotypes can be expressed overtly, as illustrated by the above quote, or they can impact decisions and assessments of individuals through what are referred to as unconscious, inherent or implicit biases. These are biases that influence judgment and decision making without individuals being aware of that influence. There are a considerable number of studies, mostly in Psychology, that provide evidence of how biases impact the assessment of an individual's capabilities.

In a recent study, *Science Faculty's Subtle Gender Biases Favor Male Students* (Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012) faculty members assessed the qualifications of male candidates for a laboratory manager position as significantly better than those of female candidates, despite the fact that the researchers designed the applications to be equivalent. This study and many others like it provide evidence that biases can impact the evaluation of the work of diverse faculty, particularly women, in STEM fields (Ewing, Stukas & Sheehan, 2003; Gonzalez & Harris, 2012; Harlow, 2003; Kardia & Wright, 2004; Sprague & Massoni, 2005). In addition, historically, many women have been part of groundbreaking work, but have been excluded from recognition for their contributions. For example, Jocelyn Bell Burnell was not included as a recipient of the Nobel Prize in Physics in 1974 for her role in the discovery of pulsars (Lee, 2013; Stime, 2012).

The result of stereotypes and unconscious biases is that scholars from underrepresented groups are often excluded and their contributions may not be valued and recognized. Women, Aboriginal, minority and LGBTQ faculty, and faculty with disabilities are more likely to be assessed as having inferior qualifications and abilities (Ewing, Stukas & Sheehan, 2003; Gonzalez & Harris, 2012; Harlow, 2003; Kardia & Wright, 2004; MacNell, Driscoll & Hunt, 2014; Sprague & Massoni, 2005).

Research conducted by Ryerson faculty also provides findings consistent with other studies. The study by Neverson, Fumia, Hernandez-Ramdwar, Jamal and Knight (2013) identifies judgments made by peers and students about the expertise and authority of instructors to teach subject matter, based on their actual or perceived race, gender, sexual orientation and/or gender identity (Ewing, Stukas & Sheehan, 2003; Kardia & Wright, 2004; MacNell, Driscoll & Hunt, 2014). Other research has shown that student comments in evaluations of minority women faculty often focus on their appearance and dress instead of their knowledge and skills (Lazos, 2012; Moody, 2012).

### ***Suggestions to eliminate bias from the assessment of diverse faculty***

- Encourage assessors to conduct self-assessments to be more aware of their own biases and prevent their biases from influencing decision making.
- Explore ways to account for student biases in evaluating faculty, for example consider relying more on peer assessments when there is a discrepancy between those assessments and student evaluations.
- Develop a variety of tools and criteria to assess teaching competency.
- Ensure that criteria and processes for assessments are clear and transparent, including those used in hiring and tenure review processes.
- Include diverse faculty in hiring and evaluation committees.

## ISOLATION AND LACK OF COLLEGIALITY

*Although my identity was in turmoil, and I felt stigmatized by the hiring process, I had retained substantial confidence in my ability to achieve tenure and believed things would be different after I was “one of them.” It didn’t occur to me that I would never feel as if I belonged here. (Niemann, 2012, pg. 341)*

When faculty are members of equity seeking groups that are underrepresented in a field, department or school, it can lead to isolation, unwanted comments, unwarranted criticism and other effects that are sometimes referred to as tokenism (Clark, 2006; Hewstone et al, 2006; LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Moody, 2012; Niemann, 2012; Royal Society of Chemistry, 2008). In many cases, faculty members who are seen as ‘tokens’ are subject to more scrutiny and questioning of their expertise (Clark, 2006; Niemann, 2012; LaSala, Jenkins, Fredriksen-Goldsen & Wheeler, 2008; Turner, Gonzalez & Wong, 2011). This increased scrutiny, as well as internalized stereotypes, can lead to performance pressures that result in underperformance (Steele, 2010).

Another circumstance that can contribute to isolation is when faculty observe and understand in different ways, or have different teaching styles or research interests from most of their colleagues. In these circumstances, they are often treated as outsiders and learn not to express views that challenge established perspectives and experiences. They remain silent, which further isolates them from their colleagues and contributes to the negative perception of their expertise (Clark, 2006; Murata, 2006; Spafford, Nygaard, Gregor & Boyd, 2006; Turner, 2002; Hewstone et al, 2006).

In addition, faculty who are isolated often do not have access to informal networks within their department/school and field, as well as access to advice and support from colleagues. The more different faculty are from what is considered the ‘norm,’ the more they become isolated (Haslanger, 2008; Hewstone et al, 2006; James, 2009; Royal Society of Chemistry, 2008; Turner, 2002).

In a similar way, faculty with disabilities may also be silenced and isolated. The attitudes of colleagues who see a faculty member with a disability as a deficit and drain on department funds may lead that faculty member to restrict their participation in activities that require accommodation, such as committees and seminars (Woodcock, Rohan & Campbell, 2007).

The consequence of tokenism is that the lack of participation of diverse faculty limits their ability to contribute and enrich the work of the department or school. In addition, diverse faculty may not be able to fulfill their potential, which can have a serious impact on their confidence and, ultimately, on their careers in the academy.

### Suggestions to help diverse faculty become fully included

- Increase the diversity of faculty at Ryerson, so that faculty members in departments/ schools reflect diverse perspectives and experiences. This will assist in making faculty feel as though they have an equal opportunity to participate and to express their opinions and perspectives.
- Create opportunities in departments, schools and Faculties for networking and encourage faculty from underrepresented groups to participate.
- Encourage underrepresented faculty to establish networks outside of their department, school or Faculty and/or outside of the University, for example, associations or groups of faculty or professionals from their equity group.
- Create more frequent opportunities for open sharing and discussion about faculty work that is free of assessment and critique, providing an opportunity for faculty in departments/schools to learn about different experiences and perspectives, and to connect with one another.



## DIVERSITY AS A THREAT TO POWER

*An example of systemic racism that is manifested in academe is viewing epistemology as operating in a neutral space. In reality, however, production of knowledge contributions, curricular decision making, and allocation of funds within the academy are always related to power and who holds it. (Henry & Tator, 2009, pg. 30)*

When there is more diversity among faculty, many groups that have been marginalized and excluded as producers of knowledge acquire power. This can be seen as threatening and disruptive by those who are invested in existing power structures and/or what they view as the established truth (Brandon, 2006; Huckaby, 2006; Neverson, Fumia, Hernandez-Ramdwar, Jamal & Knight, 2013; Rich, 2000).

New ideas that challenge the established canons in a field will always take time to be tested out and accepted, including in STEM fields, but the hurdles that diverse scholars from underrepresented groups in the academy face are often more difficult, and the literature suggests it takes much longer to be recognized for achievements. Faculty with power may look for opportunities to belittle and demean the work of diverse faculty who challenge the status quo (Henry & Tator, 2009; Monture, 2009; Niemann, 2012).

An example of this is seen in the experience of Astrophysicist Subramanian Chandrasekhar, which is documented in the book by Arthur Miller, *Empire of the Stars: Friendship, Obsession and Betrayal in the Quest for Black Holes*. Thanu Padmanabhan reviewed the book in a 2005 article, *The Dark Side of Astronomy*. While a graduate student at the University of Cambridge in 1935, Chandrasekhar presented his discovery that stars with a mass above a specific value, which came to be known as the Chandrasekhar limit, could collapse to a point of infinite density. It is understood today as how black holes are formed. This idea was derided by Arthur Eddington, who was a professor at Cambridge and was recognized as an authority in the field at the time. Not only did Eddington mock Chandrasekhar's conclusions, he also challenged his calculations and logic. Padmanabhan (2005) indicates that the appropriate way of dealing with his concerns would have been for Eddington to work with Chandrasekhar to explore his ideas. Padmanabhan commends the book for not shying away from issues such as racism in scientific circles and the role it played. Padmanabhan also notes that Chandrasekhar remained bitter throughout his life about the fact that leading physicists in Europe never supported him. In fact, Chandrasekhar left Cambridge and became a faculty member at the University of Chicago. Almost 50 years after he first presented his ideas as a graduate student, Chandrasekhar received a Nobel Prize in Physics for that work in 1983, together with his faculty supervisor at the time.

Those who have been historically excluded from the academy may find that they are not readily accepted as members of the community of scholars in the academy, and that there are expectations of conformity in terms of behavior, dress and demeanor in order to be seen as someone with authority and expertise (Brandon, 2006; Clark, 2006; Gonzalez & Harris, 2012; Henry & Tator, 2009; Huckaby, 2006; James, 2009; Neverson, Fumia, Hernandez-Ramdwar, Jamal & Knight, 2013). An example of this is that faculty who speak with specific accents may have their expertise questioned, as though their accents are not associated with knowledge and intellect (Clark, 2006).

Scholarship and expertise are also often tied to qualities perceived to be associated with masculinity, such as competitiveness and aggressiveness, and are not usually connected with qualities perceived to be associated with femininity, such as nurturing and expressing emotion. This can make it more difficult for women who bring these characteristics to their research and writing to have their work recognized as quality academic work (Brandon, 2006; Clark, 2006; Gonzalez & Harris, 2012).

Faculty members who do not conform and align themselves with those who represent the established elite, may be marginalized and pushed out of the academy, keeping their voices and perspectives out of teaching and research. Students are also more likely to be disrespectful to faculty who do not look or

act as they expect someone in a position of authority in the classroom to look or act like (Lazos, 2012; Moody, 2012; Neverson, Fumia, Hernandez-Ramdwar, Jamal & Knight, 2013).

## **Suggestions to promote equity amongst faculty**

- Departments and schools should develop strategies and actions to foster a culture of collegiality.
- Faculty should be encouraged to discuss their experiences of power and politics and how it aligns with the literature on power and politics in the academy.
- Nomination processes and practices for awards and positions such as Chair/Director, Board of Governors, Senate, RFA Executive, etc. should be reviewed to identify ways to improve fairness and avoid cronyism. For example, have a committee review the annual reports of faculty before making nominations for awards.

## **CONFLICT BETWEEN REALITIES OF TODAY AND EXPECTATIONS OF THE PAST**

*Career timelines in academia create challenges for individuals, particularly women, who want to pursue fast-track academic careers in the sciences without forgoing childbirth and child-rearing.* (Goulden, Mason & Frasch, 2011, pg. 156)

As with many professions, the expectations of faculty were established at a time when there was little diversity in the occupation and, therefore, those expectations reflect what was considered reasonable for a fairly homogeneous and privileged few (Henry & Tator, 2009). For example, up until the latter part of the 20<sup>th</sup> century there were few women faculty and many women did not work after marriage. Given that reality, there were fewer incidences of tensions between personal and professional responsibilities. Demanding faculty workload responsibilities related to teaching, research and service could be met within that context (NAS, NAE & NIM Committee, 2007).

Similarly, the different obligations in some cultures related to eldercare and taking care of people who are not relatives, was not an issue when individuals from those cultures were rarely present in the academy. Faculty with disabilities also face realities that make meeting workload requirements challenging, because the environments they work in are often not designed to be accessible to them. For example, faculty who are deaf may need additional planning and preparation time for classes, conducting research, writing papers and presenting at events in order to communicate effectively with hearing audiences (Woodcock, Rohan & Campbell, 2007).

To some extent, the challenges faced by faculty who are members of groups that have only recently come into the academy have been accommodated through expanded laws, policies, and benefit and leave provisions. However, there are still limitations in terms of what types of responsibilities and activities are covered under these provisions, and how far they go in relieving the tension between personal circumstances and professional responsibilities of diverse faculty.

Personal needs can impact what research can be pursued, what can get done, how many articles can be submitted for publication and how much service work can be done within competing demands (Berry, 2006; Conway-Jones, 2006). For example, recent research indicates that despite changes to accommodate faculty family responsibilities over the past decades, female scientists and engineers who are married and have children continue to be less successful than their male counterparts in their academic careers. Men who are married and have children do not appear to have the same negative impact on their careers (Goulden, Mason & Frasch, 2011).

Another factor that impacts workloads for diverse faculty who are underrepresented in a department, is that they may be asked to take on more service responsibilities than other faculty, e.g. as a representative for their equity seeking group in the academy on committees, for special projects, etc. These demands can affect time to do research and write, and put tenure and promotion at risk (Conway-Jones, 2006; Henry & Tator, 2009; Spafford, Nygaard, Gregor & Boyd, 2006).

As with all of the barriers discussed in this document, the consequence of this barrier is that historically marginalized and underrepresented groups in the academy continue to be excluded and undervalued. Universities are not, therefore, able to fully leverage diversity in pursuit of increased excellence and innovation.

### **Suggestions to assist faculty to balance personal and professional goals and responsibilities**

- Increase accessibility on campus, including with communications, to reduce the requirements for individual accommodation.
- Provide learning opportunities for faculty on equity, diversity and inclusion topics such as Access Ryerson principles and values, to improve collegiality amongst faculty and counter the myth that treating people differently means lowering standards.
- Promote new and improved policies and collective agreement provisions that allow for different paths and timelines to achieve tenure, without lowering standards.
- Universities should lobby for changes that faculty cannot lobby for as individuals, e.g. changes to terms of grant funding that are more supportive of family responsibilities, etc.
- Review expectations and resources for faculty, particularly in STEM, to identify and remove barriers for women faculty and other faculty who have personal commitments or circumstances that, because of expectations, put their ability to obtain tenure and promotion at risk.
- Consider provisions that provide more flexibility in work arrangements, e.g. permit faculty to work part time before and after pregnancy/parental/adoption leave and other long term leaves, to allow for ramping down and up of research.
- While Ryerson does not require faculty to take on excessive service, the literature suggests that this can be an issue for diverse faculty. Therefore, academic leaders should be aware of the workload of faculty, particularly pre tenure faculty, and consider this before asking for participation in service activities, so they are not inadvertently overloaded and can be successful in obtaining tenure or promotion.

### **CONCLUSION: REASSESSING THE IDEA OF A MERITOCRACY**

*...faith in the meritocracy is in the heart of how inequality is reproduced.*  
(Van den Brink & Benschop, 2012, pg. 507)

The idea of a meritocracy in the academy is that those scholars who are most deserving are the ones who are recognized for excellence and advance their careers, and being a member of a historically underrepresented group does not matter. Measures of excellence such as citation indices, peer review and productivity are accepted as objective and bias free (Van den Brink & Benschop, 2012).

However, the literature paints a different picture of the factors that influence who gets recognized for excellence in academic work. Whether scholars pursue and progress in careers as faculty in the academy is often tied to the fact that they are members of groups that have been marginalized in higher education generally, or in specific fields, and this membership, this difference from other faculty, can influence whether or not:

- they have the resources they need to be productive and publish;
- evaluations of their teaching and research reflect biases based on stereotypes;
- they are able to establish supportive networks within their department and field;
- their methods for creating knowledge, and what they consider to be knowledge is accepted as legitimate;
- research that involves their communities is devalued because it is not seen as objective;
- their workload is flexible so that they can achieve both personal and professional goals;
- processes for recognition and promotion are fair and equitable, and success is not dependent on whether they support or are close to those with power.

Unless we question our assumptions about how things work in the academy, these barriers will continue to exist, the literature will continue to expose the sad realities that diverse scholars face, and the risks to higher education, innovation and knowledge generation will grow. On the other hand, now that we have identified the barriers we can act to remove them and foster the free exchange of ideas from diverse perspectives that will further develop excellence and innovation in higher education. If the canaries in the academic mine have paid a price to expose these threats and point the way to a better and more inclusive academy, let's make sure it is not in vain.

## REFERENCE LIST

- Berry, T. R. & Mizelle, N. D. (Eds) (2006). *From oppression to grace: women of color and their dilemmas in the academy*. Sterling, Va.: Stylus Pub.
- Brandon, L.T., Seen, not heard: A conversation on what it means to be black and female in the academy. In Berry, T. R., Mizelle, N. D. (Eds), *From oppression to grace: women of color and their dilemmas in the academy* (p. 169-194). Sterling, Va.: Stylus Pub.
- Campbell, L.G., Mehtani, S., Dozier, M.E. & Rinehart, J. (2013). Gender-Heterogeneous working groups produce higher quality science. *PLoS ONE*, 8(10): e79147.
- Casadevall, A. & Handelsman, J. (2014). The presence of female conveners correlates with a higher proportion of female speakers at scientific symposia. *mBio* 5(1): e00846-13.
- Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada, *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans*, December 2010.
- Clark, M.P., (2006). My skin is brown and I do not wear a tie: Exploring my selves as a southern, black, educated, Christian woman. In Berry, T. R., Mizelle, N. D. (Eds), *From oppression to grace: women of color and their dilemmas in the academy* (p. 13-23). Sterling, Va.: Stylus Pub.
- Clayton, J.A. & Collins, F.S., (2014). Policy: NIH to balance sex in cell and animal studies. *Nature*, 509 (7500): 282-283.
- Conway-Jones, D., (2006). Being all things to all people: Expectations of and demands on women of color in the legal academy. In Berry, T. R., Mizelle, N. D. (Eds), *From oppression to grace: women of color and their dilemmas in the academy* (p. 121-130). Sterling, Va.: Stylus Pub.
- Ewing, V. L., Stukas, A.A. & Sheehan, E.P. (2003). Student prejudice against gay male and lesbian lecturers. *The Journal of Social Psychology* 143(5): 569–580.
- Fine, M., (2000). Dis-stance and other stances: Negotiations of power inside feminist research. In Glazer-Raymo, Ropers-Huliman, B. M., Townsend, B. K., (2000). *Women in higher education: A feminist perspective* (p. 117-130) Needham Heights, MA: Ginn Press
- Gonzalez, C.G. & Harris, A.P. (2013). Introduction: Presumed incompetent: Continuing the conversation Part II. *Seattle Journal for Social Justice*, 12(2): 285-299.
- Gonzalez, C.G. & Harris, A.P. (2012). Introduction: Presumed incompetent: the Intersections of race and class for women in academia. In Gutiérrez y Muhs, G., Niemann, Y.F., Gonzalez, C.G. & Harris, A.P. (Eds), *Presumed incompetent: the Intersections of race and class for women in academia* (p. 1-23). Logan, Utah: Utah State University Press.
- Goulden M., Mason, M.A. & Frasch, K. (2011) Keeping women in the science pipeline. *The Annals of the American Academy of Political and Social Science* 638(1):141–162.
- Gutiérrez y Muhs, G., Niemann, Y.F., Gonzalez, C.G. & Harris, A.P. (Eds) (2012), *Presumed incompetent: the Intersections of race and class for women in academia*. Logan, Utah: Utah State University Press.

- Green, D., Creswell, J., Shope, R., & Clark, V. (2007). Grounded theory and racial/ethnic diversity. In A. Bryant & K. Charmaz (Eds.), *The Sage handbook of grounded theory* (pp. 472-492). London, UK: Sage.
- Harlow, R. (2003). 'Race doesn't matter, but...': The effect of race on professors' experiences and emotion management in the undergraduate college classroom. *Social Psychology Quarterly* 66(4):348-63.
- Haslanger, S. (2008) Changing the ideology and culture of philosophy: not by reason (alone). *Hypatia*, 23(2): 210-223.
- Henry, F. & Tator, C. (2009) (Eds.) *Racism in the Canadian University*, Toronto: University of Toronto Press.
- Henry, F. & Tator, C. (2009). Manifestations of racism in the Academy. In Henry, F. & Tator, C. (Eds.) *Racism in the Canadian University*, (p. 22-59). Toronto: University of Toronto Press.
- Hewstone, M., Crisp, R.J., Contarello, A., Voci, A., Conway, L., Marletta, G., & Willis, H. (2006). Tokens in the tower: Perceptual processes and interaction dynamics in academic settings with "skewed," "tilted" and "balanced" sex ratios. *Group Processes & Intergroup Relations*, 9: 509-532.
- Huckaby, K. (2006). Watching, My other education: Vicarious learning about gender and race in the professoriate. In Berry, T. R., Mizelle, N. D. (Eds), *From oppression to grace: women of color and their dilemmas in the academy* (p. 34-43). Sterling, Va.: Stylus Pub.
- James, C. E. (2009). 'It will happen without putting in place special measures': Racially Diversifying Universities. In Henry, F. & Tator, C. (Eds.) *Racism in the Canadian University*, (p. 128-159). Toronto: University of Toronto Press.
- Kardia, D. B. & Wright, M. (2004). Instructor identity: The impact of gender and race on faculty experiences with teaching. *University of Michigan Center for Research on Learning and Teaching Occasional Paper*. No. 19. Retrieved from: [http://www.crlt.umich.edu/sites/default/files/resource\\_files/CRLT\\_no19.pdf](http://www.crlt.umich.edu/sites/default/files/resource_files/CRLT_no19.pdf)
- Katira, K., (2006). Both oppressor and oppressed: An Asian Indian woman's experience within the academy. In Berry, T. R., Mizelle, N. D. (Eds), *From oppression to grace: women of color and their dilemmas in the academy* (p. 77-87). Sterling, Va.: Stylus Pub.
- LaSala, M. C., Jenkins, D.A., Fredriksen-Goldsen, K.I. & Wheeler, D.P. (2008). LGBT faculty, research, and researchers: Risks and rewards. *Journal of Gay & Lesbian Social Services*, 20(3): 253-267.
- Laube, H., Massoni, K., Sprague, J. & Ferber, A.L. (2007). The impact of gender on evaluations of teaching: What we know and what we can do about it. *NWSA Journal* 19(3): 87-104.
- Lavallee, L.F. (2009). Practical application of an Indigenous research framework and two qualitative Indigenous research methods: Sharing circles and Anishnaabe symbol-based reflection. *International Journal of Qualitative Methods*, 8(1), 21-40. Retrieved from: <http://ejournals.library.ualberta.ca/index.php/IJQM/article/view/943>
- Lazos, S. (2012). Are student teaching evaluations holding back women and minorities? In Gutiérrez y Muhs, G., Niemann, Y.F., Gonzalez, C.G. & Harris, A.P. (Eds), *Presumed incompetent: the Intersections of race and class for women in academia* (p. 164-185). Logan, Utah: Utah State University Press.
- Lee, J.J. (2013, May, 19). 6 Women scientists who were snubbed due to sexism. *National Geographic News*. Retrieved from <http://news.nationalgeographic.com/news/2013/13/130519-women-scientists-overlooked-dna-history-science/>

- Lee, T.S. (2006). Balancing the margin is my center: A Navajo woman's navigation through the academy and her community. In Berry, T. R., Mizelle, N. D. (Eds), *From oppression to grace: women of color and their dilemmas in the academy* (p. 44-58). Sterling, Va.: Stylus Pub.
- MacNeill, L., Driscoll, A. & Hunt, A.L. (2014). What's in a name: Exposing gender bias in student ratings of teaching. *Innovative Higher Education*, December 2014. Retrieved from <http://link.springer.com/article/10.1007%2Fs10755-014-9313-4>
- Mercer, J. (2007). The challenges of insider research in educational institutions: wielding a double-edged sword and resolving delicate dilemmas, *Oxford Review of Education*, 33(1): 1-17
- Moody, J. (2012). *Faculty Diversity*, 2<sup>nd</sup> Edition, New York: Routledge.
- Moss-Racusin, C.A., Dovidio, J.F, Brescoll, V.L, Graham, M.J. & Handelsman, J. (2012). Science faculty's subtle gender biases favor male students. *Proceedings of the National Academy of Sciences of the United States of America*, 109(41): 16474-16479.
- Monture, P., (2009). Confronting Whiteness in the University. In Henry, F. & Tator, C. (Eds.) *Racism in the Canadian University*, (p. 76-105). Toronto: University of Toronto Press.
- Murata, A., (2006). Bridging Identities: Making sense of who we are becoming to be. In Berry, T. R., Mizelle, N. D. (Eds), *From oppression to grace: women of color and their dilemmas in the academy* (p. 24-33). Sterling, Va.: Stylus Pub.
- National Academy of Sciences (US), National Academy of Engineering (US), and Institute of Medicine (US) Committee on Maximizing the Potential of Women in Academic Science and Engineering. *Beyond Bias and Barriers: Fulfilling the Potential of Women in Academic Science and Engineering*. 2007.
- Niemann, Y. (2012) The making of a Token: A Case study of stereotype threat, stigma, racism and tokenism in Academe. In Gutiérrez y Muhs, G., Niemann, Y.F., Gonzalez, C.G. & Harris, A.P. (Eds), *Presumed incompetent: the Intersections of race and class for women in academia* (p. 336-355). Logan, Utah: Utah State University Press.
- Neverson, N., Fumia, D., Hernandez-Ramdwar, C., Jamal, A. & Knight, M. (2013). *Inhabiting critical spaces: Teaching and learning from the margins at Ryerson University*. Retrieved from [http://www.ryerson.ca/content/dam/lt/grants/ltf/LTEF\\_Final\\_Reports/LTEF\\_Neverson.pdf](http://www.ryerson.ca/content/dam/lt/grants/ltf/LTEF_Final_Reports/LTEF_Neverson.pdf)
- Padmanabhan, T. (2005). The dark side of Astronomy. *Nature*, 435: 20-21.
- Pawley, A.L. (2004, June 22). *The feminist engineering classroom: a vision for future educational innovations*. Paper presented at the Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition, Salt Lake City, Utah. (Session 3692).
- Rich, A., (2000). Toward a woman-centered university. In Glazer-Raymo, Ropers-Huliman, B. M., Townsend, B. K., (2000). *Women in higher education: A feminist perspective* (p. 3-15) Needham Heights, MA: Ginn Press
- Royal Society of Chemistry. (2008). *The chemistry PhD: the impact on women's retention*. London, UK: Newsome, J.L.
- Spafford, M. M., Nygaard, V. L., Gregor, F., & Boyd, M. A. (2006). Navigating the different spaces: Experiences of inclusion and isolation among racially minoritized faculty in Canada. *The Canadian Journal of Higher Education*, 36(1): 1-27.

- Sprague, J. & Massoni, K. (2005). Student evaluations and gendered expectations: What we can't count can hurt us. *Sex Roles* 53(11/12): 779-793.
- Smith, D.G., Turner, C.S., Osei-Kofi, N. & Richards, S. (2004) Interrupting the usual: Successful strategies for hiring diverse faculty. *Journal of Higher Education*, 75(2): 133-160.
- Steele, C. (2010). *Whistling Vivaldi: And other clues to how stereotypes affect us*. New York: W.W. Norton & Company.
- Stime, R. L. (2012). Marietta Blau in the history of cosmic rays. *Physics Today*, 65(10): 8.
- Turner, C.V. (2002). Women of Color in Academe: Living with Multiple Marginality. *Journal of Higher Education*, 73(1): 74-93.
- Turner, C. V., Gonzalez, J.C. & Wong, K. (2011). Faculty Women of Color: The Critical Nexus of Race and Gender. *Journal of Diversity in Higher Education*, 4: 199–211.
- Turner, C.V., Gonzalez, J.C. & Wood, J.L. (2008). Faculty of Color in Academe: What 20 Years of Literature Tells Us. *Journal of Diversity in Higher Education*, 1(3): 139-168.
- Van den Brink, M., & Benschop, Y. (2012). Gender practices in the construction of academic excellence: Sheep with five legs. *Organization*, 19(4): 507-524.
- Woodcock, K., Rohan, M.J. & Campbell, L. (2007). Equitable representation of deaf people in mainstream academia: Why not? *Higher Education*, 53: 359-379.