The Scientific Tradition and Belonging at a South African University: Is There Space for an Outlier Group?

Sabrina Liccardo - University of the Witwatersrand, Johannesburg (and Commonwealth Split-site Doctoral Scholar at the University of East London).
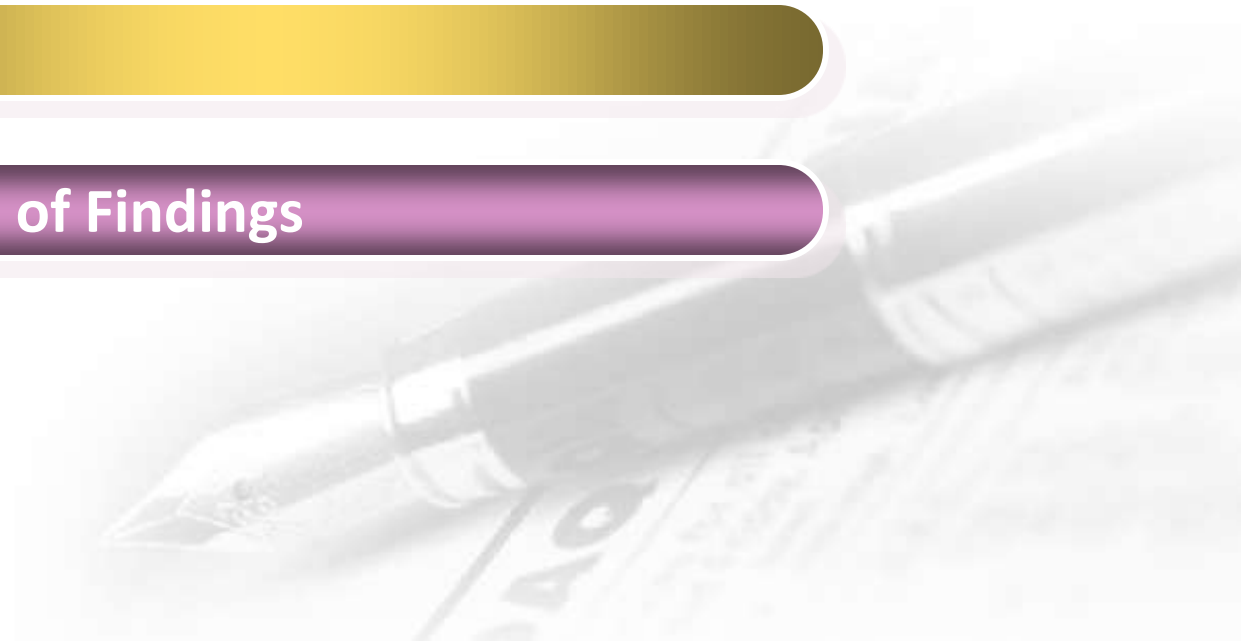Professor Jill Bradbury - University of the Witwatersrand, Johannesburg.

1 May 2013

Presentation Outline

Contextualising this Research

Theoretical Framework

Method

Discussion of Findings

"education has always functioned as a site where counter discourses have emerged and strong battles of power relations have been staged; education has always been constituted as a significant locus of resistance, a smooth space for forces of deterritorialization to be released" (Tamboukou, 2003, p. 13).

Marginalised Group:

1) Traditionally white university.

2) Male and white dominated fields.

3) Previously disadvantaged families.

Elite Group:

1) Globalisation and the information technology revolution.

2) Shortage of critical skills.

3) Shortage of women in science.

4) The transformation programme for higher education in South Africa.

5) Academically talented: transformation scholarship project at Wits.

Aims of the Research

The purposes of this research are twofold:

Belonging-Alienation: practices of social inclusion and exclusion at university

Identity making-fragmentation

Belonging and Alienation

Belonging is constituted along three analytical levels (Yuval-Davis, 2006):

1. Social locations

People's positionality in the intersections of social divisions as well as the positionality of categories along an axis of power in society.

2. Identifications and emotional attachments

Belonging is constructed through narratives of individual and collective identities and emotional attachments and are always situated as they are told in the context of a particular place and time.

3. Ethical and political values (the politics of belonging)

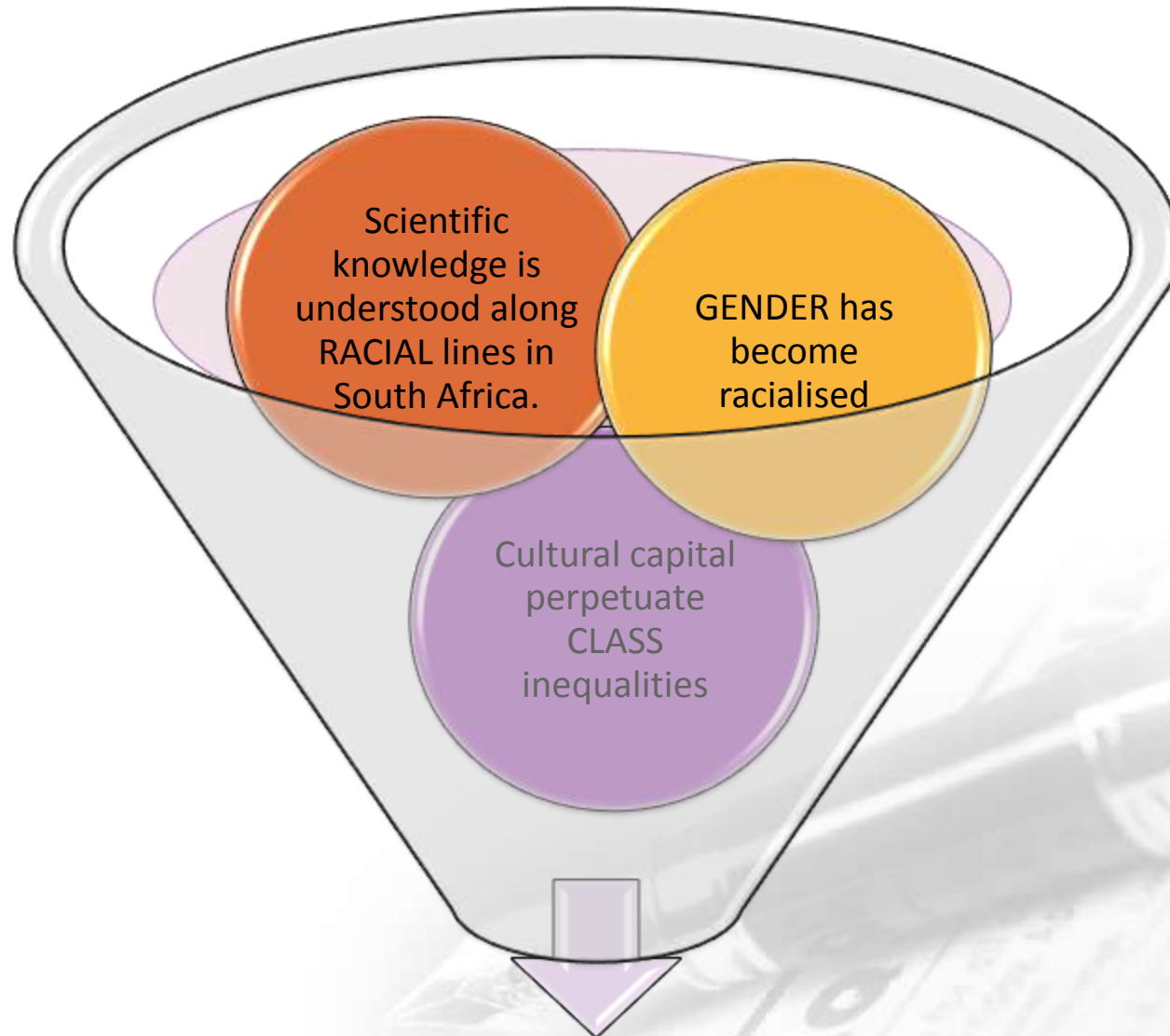These levels of belonging could also become politicized requisites of belonging because political projects often present requirements for belonging that relate to social locations, identifications and a common set of values.

Case in point:
the apartheid government

Scientific knowledge is understood along RACIAL lines in South Africa.

GENDER has become racialised

Cultural capital perpetuate CLASS inequalities

Tradition

Through tradition, we inherit prejudices or 'fore-meanings' (Gadamer, 1982) that constitute our being and informs understanding.

We continually participate in producing and determining tradition:

"Tradition is not simply a precondition into which we come, but we produce it ourselves, inasmuch as we understand, participate in the evolution of tradition and hence further determine ourselves" (Gadamer, 1982, p. 261).

Understanding as the 'fusion of horizons' (Gadamer, 1982) between past and present, self and other (this distance invites reflection as interpretation).

Method

Data Collection

- 19 in-depth interviews

- Questions: language of instruction during high school, university preparedness, academic challenges, and support systems.

- Each interview was approx. one hour in duration, audio-recorded, and transcribed.

Data Analysis

- The interview data was coded using Atlas.ti and preliminary categories were generated
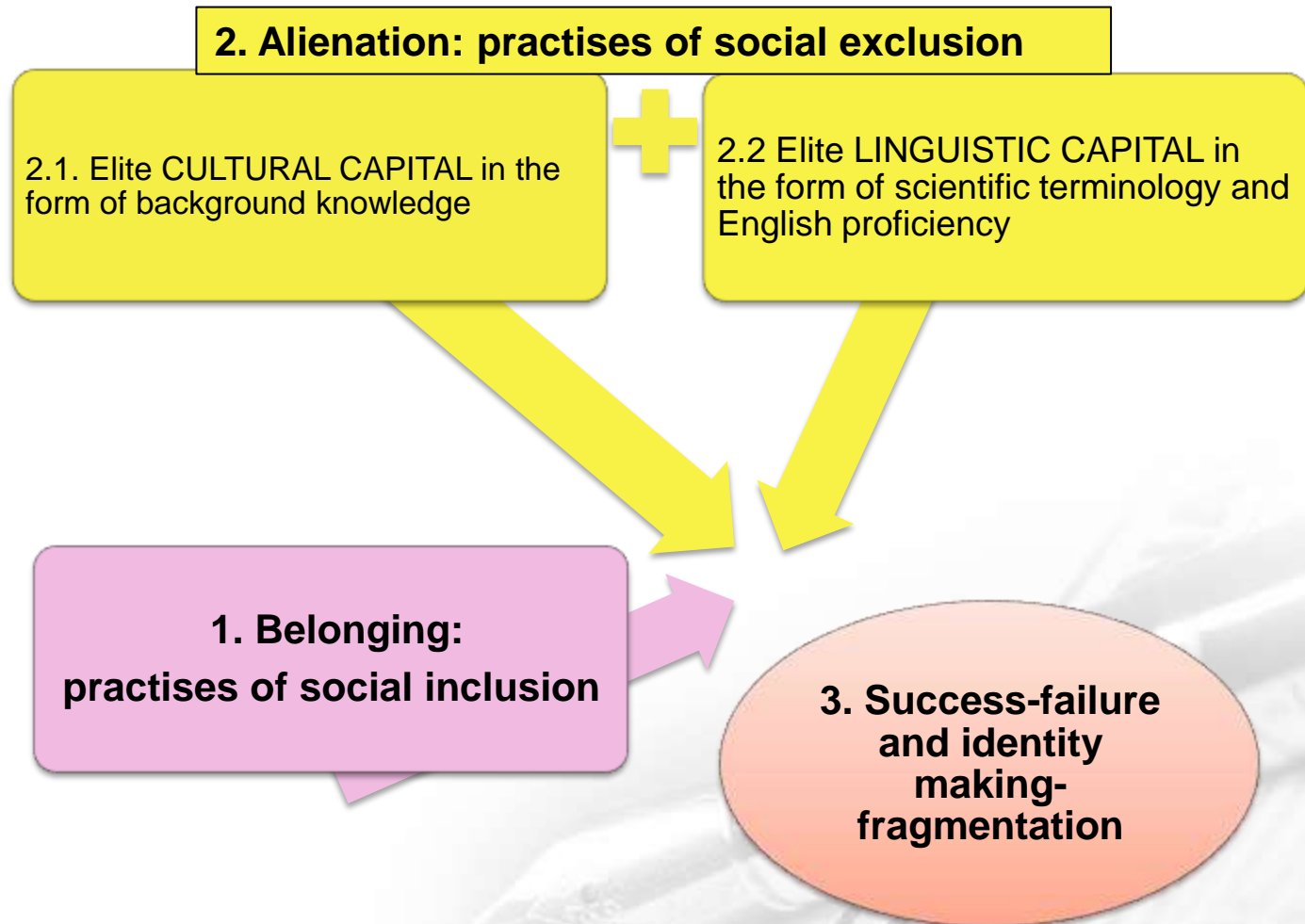
- Content analysis in three broad stages.

Method (cont.)

Pseudonyms	Home Province	Faculty	Enrol	YOS in 2009
Alala	Gauteng	Engineering and the Built Environment	2007	3rd year
Elizabeth	Gauteng	Engineering and the Built Environment	2007	3rd year
Devyani	Gauteng	Engineering and the Built Environment	2007	3rd year
Joyce	Limpopo	Engineering and the Built Environment	2007	2nd year
Judith	Limpopo	Engineering and the Built Environment	2007	Repeat 2nd year
Eluminata	Gauteng	Science	2007	3rd year
Fortunata	Gauteng	Science	2007	3rd year
Amna	Gauteng	Science	2007	3rd year
Manka	Gauteng	Science	2007	3rd year
Ruth	Mpumalanga	Science (mining engineering in 2007)	2007	2nd year
Teresa	Limpopo	Engineering and the Built Environment	2008	2nd year
Esther	Mpumalanga	Engineering and the Built Environment	2008	2nd year
Lisungu	Limpopo	Engineering and the Built Environment	2008	Dropped out
Zainabu	Mpumalanga	Engineering and the Built Environment	2008	2nd year
Eluminata	Limpopo	Engineering and the Built Environment	2008	2nd year
Mpho	Gauteng	Science	2008	2nd year
Nxolisi	Limpopo	Science	2008	2nd year
Kate	Gauteng	Science	2008	2nd year
Pamela	Gauteng	Science	2008	2nd year

2. Alienation: practises of social exclusion

2.1. Elite CULTURAL CAPITAL in the form of background knowledge

+

2.2 Elite LINGUISTIC CAPITAL in the form of scientific terminology and English proficiency

1. Belonging:
practises of social inclusion

3. Success-failure and identity making-fragmentation

2. Alienation: practises of social exclusion

2.1. Elite CULTURAL CAPITAL in the form of background knowledge

+

2.2 Elite LINGUISTIC CAPITAL in the form of scientific terminology and English proficiency

**1. Belonging:
practises of social inclusion**

3. Success-failure and identity making-fragmentation
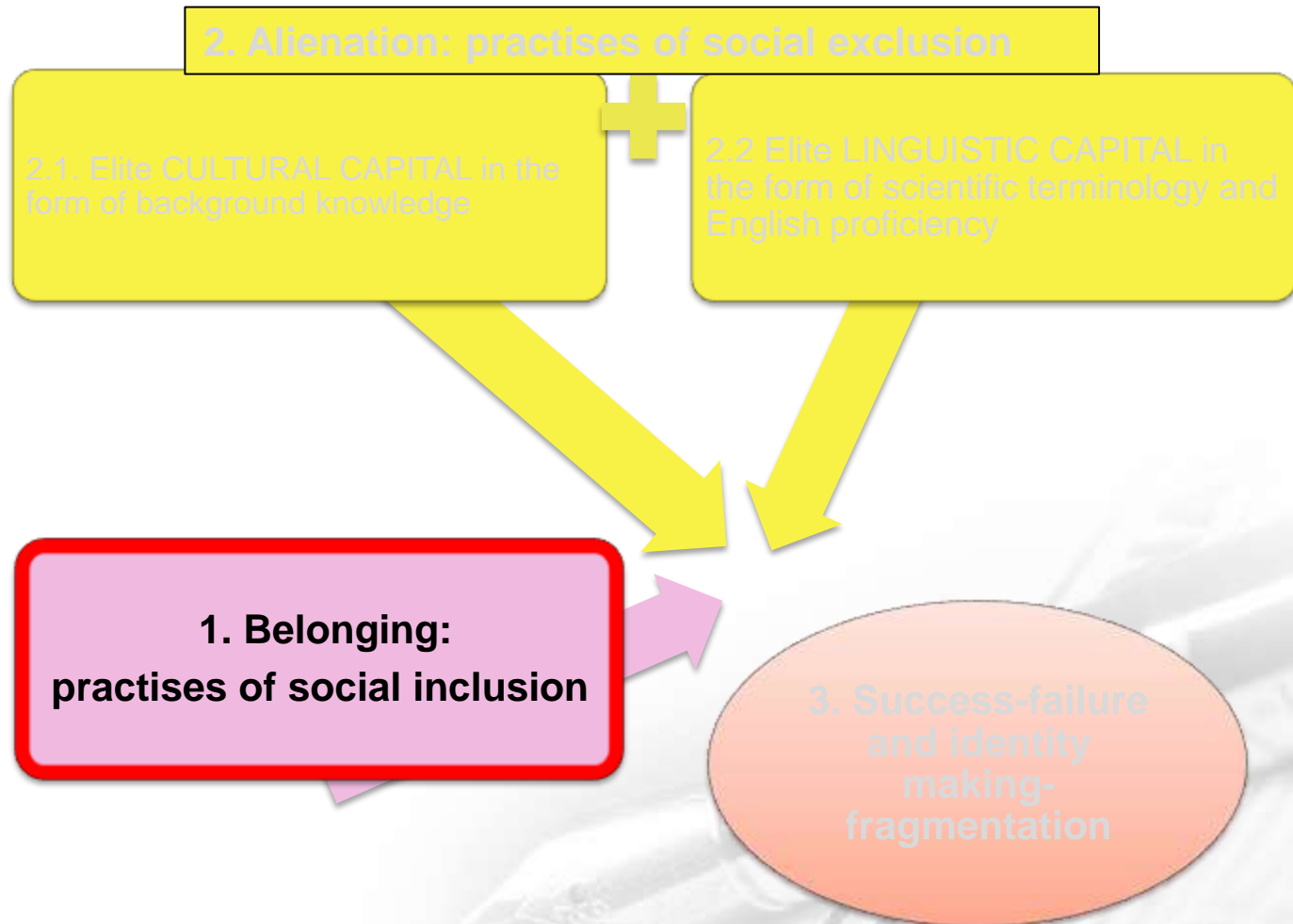
1. Belonging: practises of social inclusion

what academic, social and psychological support has the Programme offered you

the Programme you are more used to CCDU [Counselling and Careers Deve
to CCDU so we know what it is about so it is easy for you, even **if you feel lik
easy for you to go to CCDU because you know you can go talk to [Amina or J
are there** and you know that CCDU is actually about the students.
I understand.
**ust the people in the transformation office that are staying here like you kno
talk to [Karen] so it also helps to know that.** Because sometimes I walk aro
upstairs' [with their academic transcript indicating they have failed course/s]
have these big smiles and it makes me feel better, so that helps. **Like I know
go there.**
ly, and we'll check up on your marks. We'll definitely do that. And what abo

the other girls definitely like having sisters all around you, you know like som
let's say three friends and then I know those are the people I can depend
with the [s]
always som them around,
also academ t together …

Belonging as social places constructed by memberships and identifications (Anthias, 2006).

Place as an "attribute of identity" (Relph 1976, 48)

Ruth: " … especially like the [scholarship] girls because like we were always like together, they have okay – like it just made me feel like at home".

Sabrina: And then the social and psychological support?

…e support – **the fact that when you fail, the [scholarship programme]** th…

…ssure or they don't let you – like **they never let you down** you know…

…hey support failing, no they don't but **they know everybody's got a**…

…ctly.

…know you'd come here in June with 40 – 30% and you expect like [th…

…], I mean you guys to be so angry and no the only thing that you get…

…s just June you can still, you know. You never expect those kind of w…

…are paying for me, who are getting the tutors, who are working ver…

e fact that they gave us the second chance.

Students perceive a sense of academic and social support as a key factor during the transition to university and social support is associated with the development of students' self-concept (Chen, 1999).

Belonging is imagined and narrated from particular social positions and identities that are informed by differing locations and contexts (Anthias, 2006).

Belonging to a community involves sharing values, networks, and visions for the future and is created and maintained through the practices and experiences of social inclusion and exclusion (Anthias, 2006).

2. Alienation: practises of social exclusion

2.1. Elite CULTURAL CAPITAL in the form of background knowledge

+

2.2 Elite LINGUISTIC CAPITAL in the form of scientific terminology and English proficiency

People in positions of power and privilege at the university use elite forms of cultural capital (through practices of testing and teaching) in order to create criteria of inclusion (and thus exclusion) thereby maintaining or improving their positions of power.

The findings indicate that membership rights are about meeting particular criteria of inclusion which, as demonstrated in the data, are stratified along the exclusionary lines of 'race', class and gender.

2. Alienation: practises of social exclusion

...ultural capital** in the form of background knowledge

...ound in programming (and perpetuation of race and class inequalit...*

...tures, he's a good lecturer and he is passionate about the subject itself but h... **f background on the course** and even a first year like we did some programm... n ... another programming language and that was easier than Java and he exp... o so much programming in first year ... ... so he expects us to know all of that... so are there certain principles that underline programming that you learnt be...

...cause lots of people in our class, or **lots of people who made it [passed], actu... ...nce in High School** because there is Computer Science as a subject but **we di... ...ool.**

...you mentioned how High School didn't prepare you, so **what is the main reas... ...rse]?**

...failing my assignments and like **not having a proper programming backgroun...**

People inherit cultural capital from their families whose social class unequally influences children's educational prospects (Bourdieu and Passeron, 1977).

South African townships and rural schools are characterised by a lack of basic facilities, infrastructure and insufficient learning resources such as technical, laboratory and/or computer equipment.

The transition from secondary and tertiary education is especially challenging for Black students from both rural and urban areas because their educational and socio-economic backgrounds differ significantly to their more advantaged counterparts (Sennett, Finchilescu, Gibson, and Straus 2003).

2. Exclusion & Alienation

b) Background in technical drawing (and perpetuation of gender and class inequalities)

Potter, Van der Merwe, Kaufman and Delacour (2001) found that first year **female Engineering students** needed academic support in Engineering graphics as these students had not taken technical drawing at secondary school.

Several participants in Mokone (2009) study indicated that they did not take technical drawing in high school because it was viewed as a '**boys' course**' and that technical drawing was not offered at specific schools because it is an '**expensive subject**'.

...Okay, that's important and then did you encounter any problems at University that you feel that ...ool could have prepared you for?

...act that maybe I knew what I was going to become ... I only knew what I was ...ut I didn't know that I was going to do something like drawing, like I never tho... draw, like just a simple drawing.

...**ame to my surprise when I came here [univeristy], in Engineering you have t**...aybe **in High School if they knew you're going to do something like Aeronau**...**ey should like introduce courses like drawing** or...

...ey didn't have technical drawing?

...at all. It was just Maths, Science, Biology and Geography ...

...ruggled...

...irst Year, ja.

...magine.

...sics.

South African townships and rural schools are characterised by a lack of basic facilities, infrastructure and insufficient learning resources such as technical, laboratory and/or computer equipment. The educational and socio-economic backgrounds that these students come from manifest in unequal levels of readiness for higher education.

c) Assessment of background knowledge

Joyce: And then software development I just got short of the 50%

Sabrina: It's a difficult subject.

Joyce: So I was like – ja – it's programming and a lot of people never did it at school.

Sabrina: Oh.

Joyce: Ja. So like the First Year I was just shocked and the **lecturer like he just thought maybe we're one of those who knows everything** and then he ... **open the 'code blocks'. I didn't even know what a 'code block' was …**

Sabrina: Okay.

Joyce: Ja. But then and I remember **we had a test. It was like 45 minutes and we really need to be like type quickly** and everything and like we didn't have to write anything down. It was like on the computer and then the problem is only if you like understood the whole class thing and you get there they just give you like **you have to download the question from the computer. They didn't even tell you how to do it.**
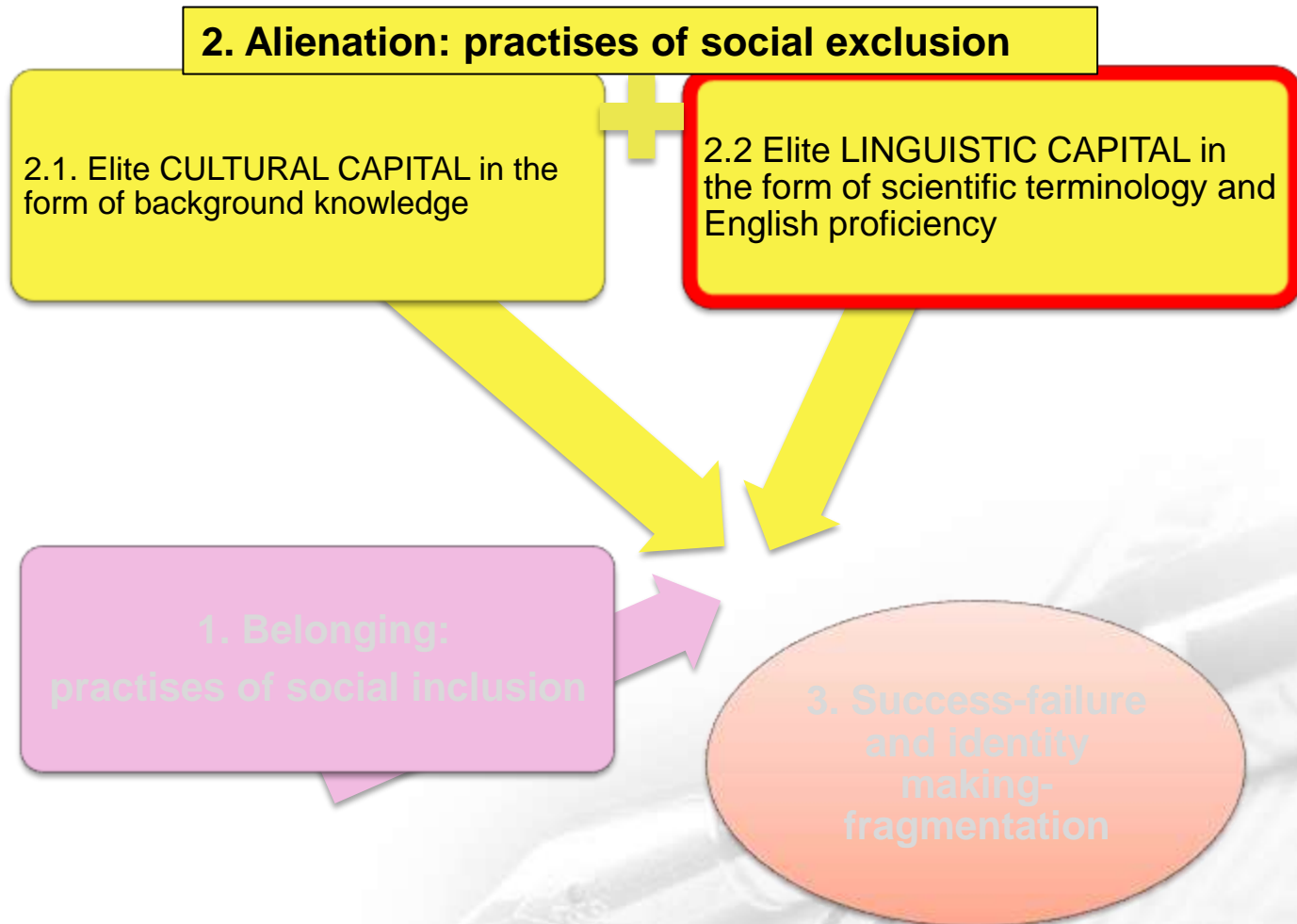
Sabrina: Did you do computers at school? Did your school offer like computer science?

Joyce: We had like very basic stuff they will tell you a little, this is a CPU, this is a monitor, this is how it works and then we will go to Internet …. not programming we never did any programming, ja.

> Teachers utilise biased assessment tools in that they reward dominant culture related competences instead of the student's academic performance (Bourdieu and Passeron, 1977).

2. Alienation: practises of social exclusion

2.1. Elite CULTURAL CAPITAL in the form of background knowledge

+

2.2 Elite LINGUISTIC CAPITAL in the form of scientific terminology and English proficiency

1. Belonging:
practises of social inclusion

3. Success-failure and identity making- fragmentation

2.2. Elite **linguistic capital** in the form of scientific terminology and English proficiency (and perpetuation of racial inequalities)

a) Scientific terminology

Alala: But it's like ya I worked so hard and my tutor she was helping us and we had study groups everyday and we were working so hard and I felt like I understood quite a bit and it was actually the [the subject] when I got the 37, I checked my script and there was 3 questions that I got right that he marked wrong.

Sabrina: oh my gosh, what percentage did they count?

Alala: I don't know and I was so upset. But the reason is because [the subject] because it's all in a construction way so in construction there was a foundation question **so in construction he asked for the three shallow foundations so we know them as raft, pad and strip foundation. So in his note pack it's different, it's got some other names and we didn't write that so**.

Sabrina: I would have gone to complain.

Alala: I just thought maybe I could do well if I worked hard but I didn't.

Sabrina: so are

Alala: yes.

Sabrina: Okay.

Alala: Ya, it's st

Devyani: "**You get words and it means two things in the engineering or the maths world and then in normal life** and then you will sit there and you will want to cry because you didn't ask what it meant so the thing is you better ask. So it's a good idea to have an understanding."

b) English proficiency <u>and assessment</u>

<u>Devyani:</u> I think this is very important because **English is a big barrier at Wits**. Even with me, I mean I am not the most well spoken person but I did speak English and I did do English higher grade, but there's a **lot words that come across and you think what are they talking about** … But you do and the **worst is when you get a test or an exam question you like what are these people talking about**. It's like you can't do the work if you can't understand what they asking you.

For information about how high achieving women negotiate and construct their linguistic identities within the context of the university's Anglicised institutional culture and against the backdrop of South Africa's multilingual society see Dominguez-Whitehead, Y., Liccardo, S. and Botsis, H. (accepted, in press for 2013). Language, identity, and ideology: High achieving scholarship women. *South African Journal of Higher Education,* 27 (3).

Teaching

it was just a lot of work. And did you enjoy the content?

at's interesting because ..

ectures about 40% of people were asleep after 15 minutes, others won't even

s boring?

can't even use the notes for the test because it was such a big pack.

.. all of that, because when you talking about chemical engineering you were

ith history, so is it more about interest.

lecturer, I think the first day we had the lecture it was like 'okay I don't like

m paid to teach you history'. So I didn't see the point of doing history. But I

evelop our English language skills. In the essay type of things.
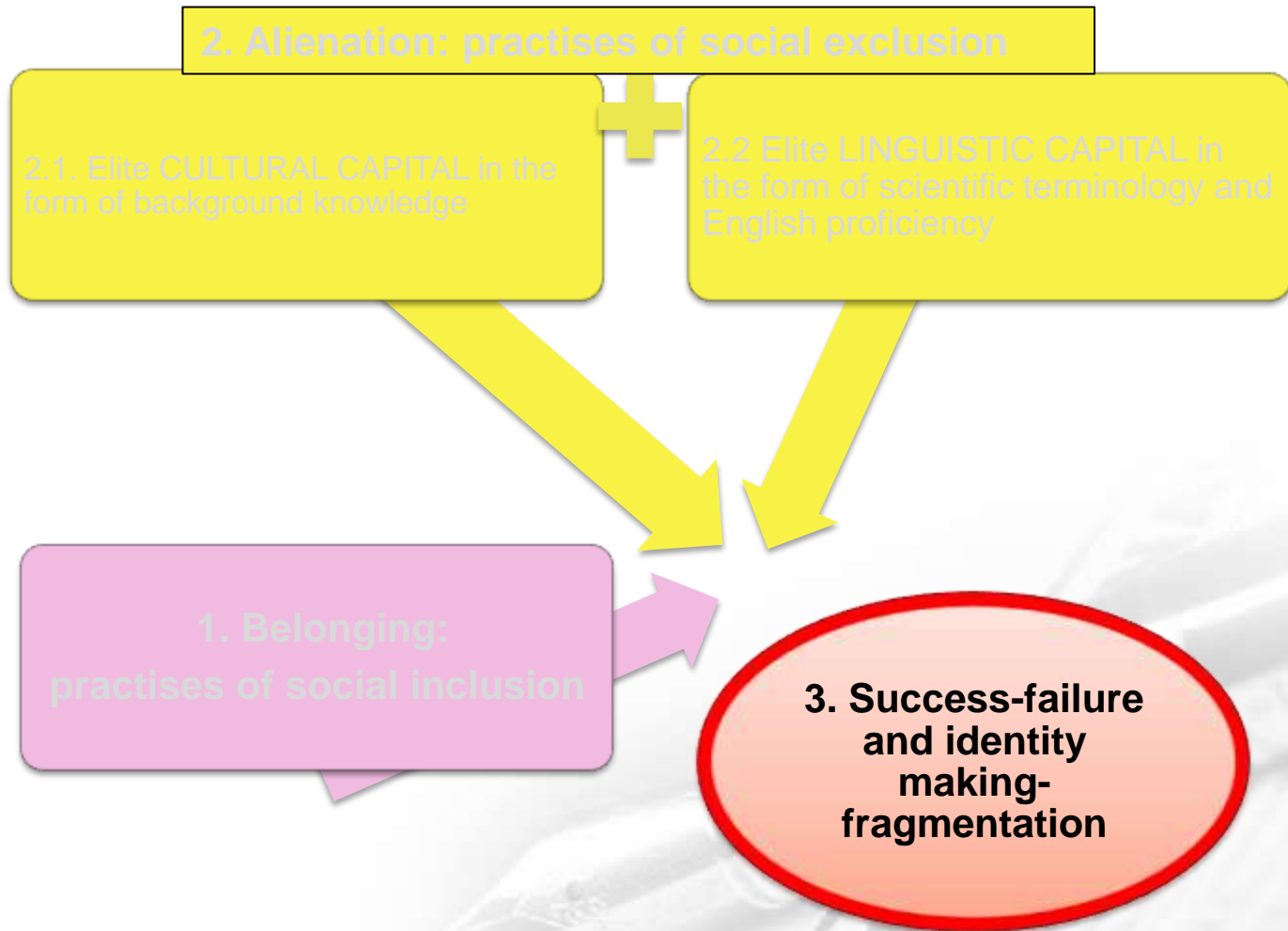
it was more **teaching us the language** than actually doing the course.

Existing patterns of power and privilege in the sciences will be reproduced if students are not encouraged to critically examine prejudices or 'fore-meanings' (Gadamer, 1982).

Assessments are set in such a way as to reward as Essed and Goldberg (2002) have noted the unconscious desirability and conformity to certain types of normative systems and thus perpetuate 'cultural cloning'.

It would perpetuate what Essed and Goldberg (2002) call 'cultural cloning' or the "reproduction of sameness" (1067) within contemporary culture, thus reproducing gender and racial inequalities and exacerbating the processes of exclusion.

2. Alienation: practises of social exclusion

2.1. Elite CULTURAL CAPITAL in the form of background knowledge

+

2.2 Elite LINGUISTIC CAPITAL in the form of scientific terminology and English proficiency

1. Belonging:
practises of social inclusion

3. Success-failure and identity making-fragmentation

3. Failure and identitiy making-fragmentation

Devyani: You had to do your own work and it always feels like in class everybody knows everything but everybody is in the same boat so you **too scared to ask people because they might think you are dumb.**

Devyani: The **tutors really treated you like dumb** and if you ask them something its like you supposed to know that.

Teachers and schools can be central agents of exclusion and play a critical role in reproducing class inequality (Bourdieu and Passeron, 1977).

This form of **'symbolic violence'** (Bourdieu and Passeron, 1977) not only coerce students into a system that rewards those who posses elite forms of cultural capital but it also creates ancillary feelings of inferiority for these young women.

3. Failure & Identity

Sabrina: So what was your **experience of failing these two courses**?

... depression.

... u?

... oh, I just, I remember I couldn't take it, even now it's like. Ja it's still, it's so ... like failed, ever. I've just always been the kind of person that like gets the ... u're more than someone that gets good marks. You've got such amazing pers ... s so important not to define yourself by your marks … shame, I'm sorry. ... [started crying] … Ja I'll get over it, I think. ... an we do to, to help you? What can the programme do? ... nt now it's just, it's about me … like it's not what the Programme can do. ... hen what can you do ... maybe don't be too hard on yourself, first of all. ... p it. To do like more work, I don't know like just to … to do it differently this t ... **ay. You know, if you don't excel, it's okay.** ... **I have to.** ... ry I didn't want you to cry. ... e. ... e'll stop talking about Courses.

Kate: ... he we ...

Sabrina: No a ...

Kate: Oh okay ...

Pressures of academic and social demands at university: they spoke about how their scholarship, their univeristy, their family, friends and community expected that they not only excel but also become role models.

Devyani: "a lot of people like look up to me and want success for me so it's also like a bit of a drag. It can be a bit irritating sometimes because they expect so much from you but it's also a bit of encouragement not to fail."

But in addition to these external pressures, the amount of pressure Kate placed on herself culminated in emotional exhaustion and/or depression when she failed which became inscribed onto her body leaving a 'mark' that still remains unresolved.

Sabrina: have you experienced any loss of or increase in confidence since you've began University?

Judith: Ja the fact that I just started failing. Like the fact that I failed for the first time in my life.

Sabrina: Oh.

Judith: … You know, for my whole life I always define myself as someone who always passes. Someone who always does well especially academically. So now that you've failed you don't know who you are anymore. You're not sure who you are anymore … Ja you just **have to like go again and search who you are … are but that like you lose your confidence along the process**.

Sabrina: Okay, so your confidence is attached to you academic performance instead of …

Judith: You know because you define yourself as that. You see yourself. You don't see all the other things, you just see academic stuff because it's something that you excel in and then the fact that in that space of yours you're struggling as well and you don't know what you're doing. So you...

Sabri...

Judit...

Idem-identity (Ricoeur, 1988): the dual aspects of self and other have enabled Judith to approach the question 'what am I?' through the interplay of differences and similarities.
- On the one hand, the recognition of similarities or shared characteristics with other academically talented individuals establishes the foundation for solidarity and creates a sense of belonging for Judith (Hall, 2000).
- Simultaneously, on the other hand, Judith's identity is also constructed through difference provided by others who do not "do well … academically".

Esther: It felt like **I am a failure.** I just thought that I am not going to make it and why am I even here if I can get 22%

Mpho: ... you still have that something that de-motivates you because you did bad in your tests you don't understand anything and **feel like a failure** ...

Mpho: There is that fear of failure, and I think that is my drive, to making sure that **I do not become a failure**.

Teresa: Yes, when you fail, you think I wasn't going to pass anyway. So you get discouraged ... that's when your confidence drops and you don't have that energy.

Conclusion

- Do institutional practises aid a culture of 'symbolic violence'?

- The complexity of transformation.

- The formation of relationships with significant others and places within educational spaces as a force of deterritorialization.

Reference List

Anderson, B. 1991. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso.

Anthias, F. 2006. "Belongings in a Globalising and Unequal World: Rethinking Translocations." *Nira Yuval-Davis, Kalpana Kannabirān Und Ulrike Vieten (Ed.): The Situated Politics of Belonging. London: SAGE*: 17–31.

Anthias, F., & Yuval-Davis, N. 1983. Contextualizing feminism: Gender, ethnic and class. *Feminist Review, 15:* 62-75.

Andrews, P. 2001. From Gender Apartheid to Non-Sexism: The Pursuit of Women's Rights in South Africa. *North Carolina Journal of International Law and Commercial Regulation*, *26*. Retrieved on 30 November 2012 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1006521

Bourdieu, P. 1983 [1997]. The Forms of Capital. In *Education: Culture, Economy, and Society*, edited by A. H. Halsey et al. New York: Oxford University Press.

Bourdieu, P. 1977. Cultural Reproduction and Social Reproduction. In Power and Ideology in Education, edited by J. Karabel and A. H. Halsey. New York: Oxford University Press.

Bourdieu, P. & Passeron, J. C. 1977. *Reproduction in Education, Society and Culture*. Beverly Hills: Sage.

Bradbury, J., & Miller, R. 2010. Narrative Possibilities: Theorizing Identity in a Context of Practice. *Theory & Psychology*, *20*(5), 687–702

Bunting, I. 2006. The higher education landscape under apartheid. In *Transformation in higher education: Global pressures and local realities*, (Ed.), N. Cloete, 35–52. Dordrecht: Springer.

Chen, C. P. 1999. Transition to Higher Education: Major Aspects and Counselling Guidelines. *Guidance & Counselling,* 14, 3, pp. 31- 36

Crenshaw, K. 1991. Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review, 43*, no. 6: 1241-1299.

Reference List (cont.)

Education, D. of. (1997). Education White Paper 3: A Programme for the Transformation of Higher Education.

Education, D. of. (2001). *National Plan for Higher Education*, Pretoria

Essed, P., and D. T. Goldberg. 2002. Cloning Cultures: The Social Injustices of Sameness. *Ethnic and Racial Studies* 25, 6: 1066–1082.

Gadamer, H. 1982. *Truth and Method.* New York: Crossroads

Hall, S. 2000. Who needs "identity"? In P. Du Gay, J. Evans, & P. Redman (Eds.), *Identity: a reader* (pp. 15-30). IDE: SAGE Publications Inc.

Mokone, M. 2009. The adjustment of first year female engineering students into university: an evaluation. Unpublished Masters thesis. University of the Witwatersrand, Johannesburg

Potter, C, Van Der Merwe, E., Kaufman, w. and Delacour, J. 2006. A Longitudinal Evaluative Study of Student Difficulties with Engineering Graphics. *European Journal of Engineering Education* 31 (2): 201–214.

Relph, E. C. 1976. *Place and placelessness*. London: Pion Limited.

Ricoeur, P. (1984, 1985, 1988) *Time and Narrative,* 3 vols. Chicago and London, University of Chicago Press

Ricoeur, P. (1992). *Oneself as another*. Chicago and London: University of Chicago Press.

Sennett, J., Finchilescu, G., Gibson, K. and Straus, R. 2003. Adjustment of Black African Students at a Historically White South African University. *Educational Psychology,* 23, 1, pp. 107 – 116

Tamboukou, M. 2003. Interrogating the emotional turn: Making connections with Foucault and Deleuze. *Eur. J. of Psychotherapy, Counselling & Health* 6(3), 209-223

Wassenaar, D. 2006. Ethical issues in social science research. *In M. Terreblanche, K. Durrheim and D. Painter (Eds.), Research in Practice (2nd edition)*. Cape Town: University of Cape Town Press.

Reference List (cont.)

Wits. 2004. *Into the Future: Transforming Wits*. Johannesburg, University of the Witwatersrand.

Wolpe, H. 1990. *Race, Class & the Apartheid State*. Africa World Press.

Yuval-Davis, N. 2006. Intersectionality and Feminist Politics. *European Journal of Women's Studies* 13, no. 3: 193–209.

Yuval-Davis, N. 2011. *The Politics of Belonging: Intersectional Contestations*. Thousand Oaks, CA: SAGE Publications Ltd.

Contact details

Sabrina Liccardo

Research Psychologist and PhD Student

Psychology Department, University of the Witwatersrand

sabrina.liccardo@gmail.com

Prof. Jill Bradbury

Associate Professor of Psychology

Assistant Dean of Teaching and Learning

Faculty of Humanities, University of the Witwatersrand

Jill.bradbury@wits.ac.za