COGNITIVE JUSTICE IN LEARNING INTERACTIONS

Inaugural lecture

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ABSTRACT

This presentation is a contribution to the public conversation about the problem of poor learning in the education system, observable in low pass rates, and poor levels of learning performance. It explores how poor learning is about the current challenge of <u>cognitive justice</u> in education: the rights of multiple knowledges to be included in the system and used in learning. It then makes the argument that some solutions are to be found in the places where education happens: <u>learning interactions</u>.

The presentation is a study of <u>what cognitive justice is abou</u>t. It is also a study of <u>learning as interactive activity</u>, as the place where education happens. The point to be made is: if we want to improve learning, we should develop our understanding of how learning interactions work and how that can be used to improve learning on a broader scale.

The challenge of <u>cognitive justice is a challenge multiple knowledges</u>, i.e. changing education in ways that would be inclusive of the knowledge of all citizens, including knowledges currently still being excluded. The proposal here is: learning perfomances can be improved through learning interactions which draw on and promote the use of a diversities of knowledge of learners, to the extent that learners see themselves in the curriculum.

Learning interactions are described as '<u>public educational practices</u>' where knowledge plays an important role, with participants taking stances and actions to exercise their rights to use what they know in responsible and accountable ways.

The presentation suggest some <u>solutions</u> here – that educators look at learning and knowing as taking place moment by moment, as the result of participants using talk to create space, encourage uptake of ideas, and honour the right learners have to use what they in new constructions of learning created using conversational methods.

The presentation offers interpretations of these concepts and challenges, and suggests some implications for teacher education.

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1. INTRODUCTION

Conversations about education and schooling in South Africa, as a rule, this time of the year, are bound to include questions about poor learning performance, low pass rates, and questions about the relevance of the curriculum and the quality of learning. This presentation is a contribution to this public conversation – what are the problems/causes, and what can be done about it. This presentation talks about the problem as a knowledge one, what knowledge is included in and excluded from curricula, i.e. the problem of cognitive injustice, and how the focus on understanding learning interactions better, can make a difference.

I have been occupied with studying learning since I started post graduate studies as beginning teacher of Afrikaans in a technical high school in Potchefstroom in 1976. I took opportunities to find out how best second language vocabulary is learned, which involved a true experimental design study in Morris Isaacson High school in Soweto. The study included pre- and post-test measures and control groups. In the study I found that learning second language words in the context of home language leads to higher marks in a vocabulary assessment. For the D.Ed., the study I looked at the factors related to matric learning performance of Black learners. This study confirmed international findings that cognitive variables have higher weightings in the regression models, with the levels of unexplained variance very high. These have been studies in the positivist tradition, with the associated assumptions about scientific knowledge, and the prescribed designs and methods which allowed these two studies to be labelled as scientific, during those days.

My academic career started in the era of apartheid education, during which time the moulding of researchers followed international golden standards set by academics who were members of associations such as the American Education Research Association, and the European Association for Research on Learning and Instruction. In these associations scientific knowledge of education was narrowly defined as knowledge resulting from methods fully described in methodology text books, and Handbooks and Encyclopaedias of research in Education, written and published in Europe and the USA. This was the time during which you had high status if you were a member, and your papers were included in conference programs. That's how you got ahead in academia in South Africa. This same America/European tradition was dominant in education practice, as was evident in teaching and teacher education, resulting in education work being highly scripted, and professional conduct prescribed.

Professors used guidebooks for thinking – an era of knowledge dominance in academia and in teacher education, on levels of beliefs, philosophical considerations, and practice.

This was the 80's and 90's, and one would expect all the anticipated transformative changes have taken place since then, but seemingly not, judging from the allegations that the education system, including curricula in South Africa is not authentic and responsive (Sayed et al., 2003, Bloch, 2009, Jansen, 1998, Jansen and Christie, 1999).

I offer this brief reference to my experiences as researcher since I feel that it says something about my current engagements with cognitive justice. These experiences were during a time of uncritical acceptance of an education system which have been thought through at universities, maintained and developed by the philosophy professors, and implemented by teachers and academics who have been warned against the –isms in life, such as socialism, communism, and even capitalism.

Since my initial studies, I have continued with inquiries about learning in school and teacher education settings, mostly qualitative and action research. I have experienced, and have many stories to tell, about shifts in my work towards the current focus on interactional nature of learning. These shifts include studies in schools about cognitive education and emancipatory learning in the context of Non-Governmental Organisation work (Naude and Westhuizen, 1996) (van der Westhuizen, 1993), understanding community learning (van der Westhuizen, 2007), practices of equitable learning(Van der Westhuizen, 2012), research learning (van der Westhuizen, 2010), and the need to question assumptions of research on all levels and transform research methodologies to be more responsive and authentic to our lives as educators in South Africa (Van der Westhuizen and Mahlomaholo, 2001, van der Westhuizen, 2007, 2013).

Educators, and I assume policy makers and officials, are concerned on an ongoing basis about LEARNING and ways in which attainment needs to be improved. Symptoms of the problem are noted frequently in the media - low pass and throughput rates, poor learning attainment, and low levels of academic performance in international comparisons of learning performance in matric exams not meeting expectations, and pass rates throughout school grades low (Lolwana, 2006, Taylor and Prinsloo, 2005, Taylor, 2008). These challenges are being confirmed by the results of the Annual National Assessments (Fleisch and Schöer, 2014). The worst allegations about poor

learning is to be seen in the Unesco international studies of <u>Education For All</u> – South Africa performs poorly on measures of curriculum delivery and quality of schooling, dropout rates, and questions about relevance (Rodrigues, 2015). Added to that, we have the generation of <u>Born Frees</u> not being happy about what they learn, and how they experience the school curriculum (Mattes, 2011), questioning the knowledge in the curriculum.

My work in education on <u>the problematic of learning</u> is an attempt to contribute to this challenge at the level of the curriculum; the <u>challenge of knowledge and learning.</u> I have described this challenge as a challenge of equitable (Van der Westhuizen, 2012) and emancipatory learning (Van der Westhuizen, 2012). For me the challenge is that, in every classroom, learning and knowledge development needs to be of quality, just and fair to diversities of learners, and adequate. This is the ethical responsibility we share as educators.

Colleagues and I have been working over the last five years or so, with concepts of <u>learning equity</u> – encouraging cohorts of student teachers and honours and master's students to consider what equitable learning can involve, by exploring equity theory, and working out educational implications, drawing on Freire's writings. We're finding that classroom <u>learning conversations</u> following conversation guides proposed in Magano's text (Magano et al., 2010) go a long to help students understand what it means to take the moral responsibility for ensuring that learning is equitable, defined as quality learning, doing justice to who learners are, where they are from, etc. contribute the goal we have of educating <u>thoughtful and critical educators.</u>

We have seen evidence in assignments and exam papers of student philosophies of teaching how the focus on learning equity in teacher professional preparation makes a difference in student conversations about the purposes of education in their domains of study, and their own inquiries of what <u>educational learning</u> is to be about in their careers as teachers. In our education studies module we encourage students to work with the notions of learning equity on two levels – the level of principles/assumptions they make about learners and <u>diverse abilities and needs</u>, but then, especially, to consider forms of practices that would contribute to meaningful and emancipatory learning.

The problems of learning and knowledge in education seem to have reached a watershed – with momentum gaining: in curriculum terms it is about what knowledge is official, and how is the knowledge shared and developed. This is also a time when strong voices are emerging in education calling for

decolonizing of knowledge (Mbembe, 2008), confronting problems of epistemic othering (Keet, 2014). And this call seems to go beyond the hashtag-prompts, judging from the points of curriculum transformation appearing on the agendas of stakeholder meetings. At UJ this agenda is being confirmed in official statements on "The post-colony and knowledge epistemology": "We need to establish inclusive traditions, with particular reference to Africa, and that it is now time to do so earnestly, urgently and with integrity". This is an acknowledgement of the problems of curriculum relevance and authenticity which has been noted by various authors (Odora Hoppers, 2001, Sayed et al., 2003).

The challenges of **COGNITIVE JUSTIVE** in South Africa have been placed on the agenda of education development in general, and higher and school education in particular, arguing in the strongest terms that knowledge dominance of Western/modernist traditions needs to be problematized in favour of a dispensation which would be inclusive of the knowledge of all citizens (Odora Hoppers, 2009, Hoppers, 2010, Hoppers, 2002). This has been spearheaded by the SARCHI Chair in Development Education at Unisa, with a process involving groups of international and local fellows from higher education institutions and community agencies, as well as elders knowledge holders from different communities and knowledge domains in South Africa. These articulations have been brought to UJ in the Faculty seminar series in 2014 where Odora Hoppers spoke about cognitive justice as transformation by enlargement, and part of the broader process of transformation of the academy (Odora Hoppers, 2014). Key to these deliberations is linking cognitive justice to the need for healing and citizenship in higher education (Odora Hoppers, 2013).

Cognitive justice is broadly defined as the advancement of multiple knowledges, including knowledge of rural communities, knowledge that is indigenous and has been excluded from the current limiting mainly Western enterprise of science and knowledge production (Odora Hoppers, 2008).

 This presentation is an inquiry into what COGNITIVE JUSTICE is about, in terms of concepts, imperatives, and ethical practices. It is also an inquiry into the knowledge and learning crisis in education, and how a renewed understanding of learning interactions can contribute to improving the situation. The main point is that the crisis in education is a crisis of learning, and that learning interactions are the places where attainment and cognitive justice will be improved.

2. THE COGNITIVE CRISIS IN EDUCATION, AND THE IMPERATIVE OF COGNITIVE JUSTICE

The Oxford dictionary definitions of <u>cognitive</u> include: how we know or perceive things; being aware. The word <u>justice</u> is described as just treatment, fairness and to advantage someone. Zulu (2015) referred to the constructs of <u>Toka</u> and related constructs of justice, 'loka le', 'maloka le' and 'boloka', with meanings which include to save, to salvage; parrallel to; equal distance to. Cognition in Sesotho is defined as <u>Nano</u> – thought processing. These meanings enrich our understanding of cognitive justice – as being about fairness of knowledge; treating knowledge in ways that are fair; saving, salvaging thought processing to be equal, same distance…

Let me appreciate what it means to work with concepts, starting with these dictionary definitions, knowing well that "A concept has a career, a fate, an autobiography, a destiny. It needs an ancestry, a genealogy specifying its various transformations. It absorbs smells, biases, and memories as it grows." (Visvanathan, 2011): 2). This is the invitation, also given the concepts of this paper, to continuously explore interpretations, in inquiry-based conversations where meanings are enriched through analyses of experiences and practical use of concepts (Magano et al. 2010).

Descriptions of cognitive justice have, internationally, developed in relation to knowledge work of the academy and sciences as part of what universities do. Here I would like to summarise these interpretations, and then to consider implications for education practices in classrooms and teacher education.

<u>Cognitive justice</u> is a call for the need to revise concepts of knowledge and knowledge production in the forms of scientific and disciplinary inquiry, as is clear in writings of Shiv Visvanathan (about how the remnants of colonialism and social inequalities brought injustices in communities in India), Catherine Odora Hoppers (who wrote significant analyses of the education development challenges in South Africa and the rest of Africa). De Sousa Santos (who wrote about the Eurocentric remains of colonialism and how universities are negatively affected, also in Africa) (de Sousa Santos, 2013).

<u>Shiv Visvanathan</u> is a scholar and activist working on science studies in India who describes COGNITIVE JUSTICE with reference to his encounters with

scientists, the knowledge industry, and the social and political changes in India. He wrote:

> Cognitive justice is the right of every individual or group to pursue and perpetuate the forms of knowledge that their ways of life depend upon. In a negative sense, it seeks to protect the group from modern western science or any other form of knowledge that seeks to hegemonize eliminate or museumize it. It is a concept which seeks both the survival of communities and to protect the logic of their creativity. Having defined it one has to realize that formal definitions do not capture the life world of such a concept, the polyphony of voices contained in it (Visvanathan, 2011: 8).

This description refers directly to experiences in India – where processes of democracy, after British rule, brought struggles for survival of local knowledges, dominated by what is still being taken as Western colonial/modernist views of science which involves "empty universalism" and marginalization of community knowledges (Visvanathan 2011: 8). The quote highlights the fact that knowledge is owned and used by people because their lives depend on it, which is a struggle against western science which seeks to eliminate, erase, and disregard community knowledge as good enough for a museum.

Visvanathan goes on to describe cognitive justice as being about the 'democracy of knowledges' in society - recognizing the right of different forms of knowledge to co-exist; a plurality of knowledges which is an active recognition of the need for diversity (Visvanathan 2009: 5). Knowledges are not methods, but ecologies, ways of life "… connected to livelihood, a life cycle, a lifestyle; it determines life chances" (Visvanathan 2009: 6).

For Visvanathan(2002: 184, 185), democracy faces the challenges of a) creating ecology of knowledge forms, beyond the present "power system of knowledge" which privileges modern science over traditional systems of knowledge, b) realizing that science is an enclosure movement which is destroying or museumizing alternative knowledge forms, and c) "… stop looking at the citizen as a layman before the priests and experts of science, and acknowledging that the citizen is a person of knowledge… every man is a scientist, every village a science academy".

Visvanathan (2009: 9) stated that: "The idea of cognitive justice thus sensitizes us not only to forms of knowledge but to the diverse communities of problem solving. What one offers then is a democratic imagination with a non-

market, non-competitive view of the world, where conversation, reciprocity, translation create knowledge not as an expert, almost zero-sum view of the world but as a collaboration of memories, legacies, heritages, a manifold heuristics of problem solving, where a citizen takes both power and knowledge into his own hands".

Odora Hoppers has taken the concept as central to her work in Development Education which has a focus/mission to transform the academy to be inclusive of all African voices and worldviews of indigenous social order (Odora Hoppers, 2014). She talks about the need for transformation which supports the "new political project of a democratic society based on social justice" (Odora Hoppers 2014). Education in South Africa suffers from the over reliance of western, modernist conceptions of knowledge, and the exclusion of indigenous knowledge, and she advocates for COGNITIVE JUSTICE as a "transformation by enlargement", opening up, restoring, expanding views of knowledge to include IKS "without duress" (Odora Hoppers, 2014).

For Odora Hoppers (2009: 16) cognitive justice is about the right of different forms of knowledge to survive, creatively and sustainably. Cognitive justice is about returning to life Indigenous Knowledge Systems, restoring their '… place in the livelihood of communities so that they can, without coercion, determine the nature and pace of the development they require" (Odora Hoppers 2009: 16). Knowledge rests in people – for Africa the challenge has to be that of how to build on local knowledge that exists in its people as a concomitant to working with global knowledge and information (Odora Hoppers 2009: 2). This is about a 'crisis of knowledge dominance', of '…cultural imperialism – misrepresentations resulting in insecurity, self-doubt (Odora Hoppers 2001a: 7; 2009). For Odora Hoppers (2009: 16) the crisis of knowledge is a result of the "the toxic hierarchy inherited from the Western system…" As a result of '…cultural imperialism – misrepresentations resulting in insecurity, self-doubt (Odora Hoppers 2001a: 7)(see (Chilisa, 2005). It is because of the dominant practices of western science and "… epistemologies that rewards mimicry, docility and passive assimilation of the good old ethos of indifference to others, individualism and "competitiveness unto death" that underpin the new globalisation imperative" (Odora Hoppers 2001: 4). (See also Odora Hoppers' challenge to academics at UJ (Odora Hoppers, 2014).

De Sousa Santos (2013) describes the crisis of cognitive justice as Western Abyssal thinking: Social reality divided into two realms – two sides of the line – realities existent and "non-existent".

Based on these brief descriptions, this presentation and my current work at UJ is in support of the case made by a growing number of scholars and knowledge holders, that <u>COGNITIVE JUSTICE</u> is a universal imperative, for all matters education. It is a serious call, given the centuries of dominance over African indigenous knowledge (Odora Hoppers, 2008).

For the purpose of this inquiry, I want to focus on the question of knowledge in the curriculum – accepting that curriculum knowledge is codified, official, prescribed, and assessed, what are the implications for curriculum work knowing well that that <u>all knowledge is partial</u> and that <u>multiple knowledges have the right to survive</u>. Knowledge, in this context is community knowledge, connected to livelihoods, ecologies of life, determining life chances – owned and used by people because their lives depend on it, to paraphrase Visvanathan's views.

The questions then: What are the implications for curriculum as content and as process, as pedagogy? And in practices of learning interactions?

3. WHAT ARE LEARNING INTERACTIONS? HOW IS LEARNING INTERACTIONAL?

Learning interactions are at the heart of education – the places of learning and knowing where human beings enter into a relationship of a very special kind. Biesta (2005: 62) captured some of the importance of what learning interactions are about:

> "If education is indeed concerned with subjectivity and agency, then we should think of education as the situation or process which provides opportunity for individuals to come into presence, that is, to show who they are and where they stand.
>
> This means coming into presence requires careful attention to hear and see what and who is other and different. Coming into presence is as much about saying, doing, acting and responding, as it is about listening, hearing and seeing. In all cases, therefore, coming into presence is about being challenged by otherness and difference."

This presentation is my inquiry into the nature of learning interactions, and how "coming into presence" with another involves knowledge and knowledge work. I explore how interactions are used to create space for cognitive justice. In clarifying what learning interactions are about, I draw on a review of mainly Western / modernist literature and include the growing number of conversation analysis research studies. I do this in a tentative way, with the intention of identifying and evaluating concepts and perspectives that may be valuable for education and research.

Considerations of what is involved in learning interactions, in the South African context, have to start with Paulo Freire's conceptualizations of learning as dialogue and as emancipatory praxis. These have been explored extensively in South Africa previously as critical studies of curriculum change, but have since 1994 lost their place in policy documents.

Learning is 'dialogical practice', and a process of learning and knowing, more than social conversation which is "overly focused on the individual" (Freire and Macedo, 1996): 381). The practice of the facilitator is directive: to help students "…turn … rigorous understanding into knowledge, thus transcending and universalising it. If one remains stuck in his or her historical location, he or she runs the risk of fossilizing his or her world disconnected from other realities" (p. 385). The teacher is the one who narrates the subject/content, resulting in "Education … suffering from narration sickness" (Freire, 2005)p. 71, which is what is associated with banking education, much of what we still have with the current system of standardising content and assessments.

Biesta (2012) noted that emancipation is not an intervention from the outside, as something that another does for you, as justification for the actions of the emancipator who is the knowing teacher, while the student is not. Learning is not reproductive, but an orientation to truth – where finding truth is "…the outcome of collective processes of learning and discovery" (Biesta, 2012). Emancipation as about restoring the connections between human beings (Odora Hoppers and Van der Westhuizen, 2013).

In the traditions of research in the academic disciplines, learning interactions have been conceptualized in a variety of ways. Vygotsky would describe learning interactions as mediated interactions where participants use semiotic instruments and psychological tools to develop higher mental functions, through the use of speech in social interactions to develop "self-regulation"; similar to Wittgenstein's notions of "language games" (Wertsch,

2008: 67): 67). Wertsch "(2008) illustrates this with reference to the example of how children, when they build a puzzle, move from other-regulation to self-regulation.

Bakhtin's writings opened up views about the dialogicality of interaction; building understanding through interaction and speech genres, beyond scripts of monologues which are deaf to the voice of the other (Bakhtin, 1984): 279, 293). "To live means to participate in dialogue..." as way of seeking the truth (Bakhtin 1984: 110).

Levinas (Stocker 2005) noted the ethical responsibilities shared by two humans meeting – where the 'I' and the 'other' carry an ethical and reciprocal responsibility, with the other as the primary/supreme and the 'I' not being able to exist without the 'other' – offering a new way of understanding subjectivity in relation to the other (Biesta, 2003).

Depictions of the nature of learning interactions may come closer to understanding actual process/activity, how they are approached, and the talk that happens during the exchanges of turns. For this purpose, it is useful to draw on the socially oriented theories of learning, and the Conversation Analyses work over the last ten years or so in mainly European and American literature. These perspectives consider interactional learning as discursive activity, where the cognitivist perspective of learning is challenged - knowledge is discursive, not in the sense of being constructed together, but in the sense of an interactional accomplishment (Melander 2007). Learning and knowing are "...properly located in the world of everyday affairs" (Stahl et al. 2006: 11). As such, learning is seen as "...as socially organized meaning construction" (Stahl et al. 2006: 11) - not a process of articulating mental content, but creating responses to utterances of the other person; learning talk is not a window into the mind, but a discursive practice (Edwards 1997). Socially oriented theories therefore looks at learning as socially organized, institutionally based interactions, involving all aspects of social organization and activity.

The distinctive and emerging features of learning interactions may be summarized, illustratively, for the purpose of this analysis, in terms of: a. approaches to and practices of participation, b. flow, structure, and organization, c. how learning is accomplished conversationally, and d. the role of knowledge in interactions.

a. Participation in learning interactions adhere to institutional and socio-cultural norms of practice

How participants approach and participate in learning interactions have been described by authors in different contexts and disciplines, including in classroom studies (Edwards, 1997, Markee and Kasper, 2004), mathematics (Koole, 2012), language (Kasper and Wagner, 2011, Seedhouse, 2011), computer supported learning (Stahl et al., 2006), mentoring and professional learning (Tillema et al., 2015b) and various others.

Drawing on the and other studies, the following features may be noted:

. Who the participants are, i.e. their institutional status, the setting and the learning task determines approach, pedagogic form (Edwards; Melander 2012). (Arminen, 2000, Drew and Heritage, 2006).

. Any learning interaction is a "…an accountable, public, and locally occasioned process" which means that the interaction does not just provide *evidence of* learning; "… it is where learning itself is to be found…", i.e. "learning-in-*and-as*-interaction" (Koschmann 2013: 1038). Learning and knowledge is both the object of the interaction, as well as the basis for the flow of the interaction.

. The process of interaction is limited by the institutional and other norms, and often scripted (Edwards, 1997)(See Wittgenstein's notion of language games).

. Status is about presumed knowledge (Raymond and Heritage, 2006). Participants are more or less knowledgeable about the topic of the interaction, and find themselves somewhere on the continuum K+ to K-, as described by Heritage and colleagues (Heritage, 2013). In this regard, Melander noted: conversationally, participants create/display/take stance in terms of their epistemic identities as knowing /unknowing – and in peer groups these change over time (Melander 2012).

. Teachers vary their approach to learning conversations according to lesson topic, e.g. life orientation lessons on difficult topics, group counselling sessions of gender based violence, etc., differ (Andresen 2012, Naidoo 2012).

. Participants use conversational practices of interruption to steer interactional learning. In our studies at UJ we have collected examples of how learners use their talk to interrupt and to shake things – 'go bolela go a shikinya' (van der Westhuizen and Dunbar Krige), to account for views (Naidoo 2012, Andresen 2012), gender differences in talk moves (Bachrach 2012). We also have data

showing how teachers, counsellors and mentors use talk to create space, ignore, and leave asymmetry as is (Pretorius 2013).

. Participants use talk to confirm their status and account for their approach and participation, e.g. in the case of mentoring references by the mentor to course material as authority, and by students referring to practice experiences as authority (Pretorius and Van Der Westhuizen, 2015).

. Learning interactions display 'trouble' similar to trouble talk (Jefferson, 1988) in ordinary conversations – We are all skilled in identifying and handling trouble in a normal conversation – while you speak, you realise what you are saying is not really what you want to say, or when you see the facial expression of the other, then you rephrase. Our studies of learning trouble are pointing to complexities of how trouble is identified, negotiated, accepted/not accepted, and the clever ways in which students play along for the sake of respecting the professor, or where the professor makes response preferences of ignoring/skipping, or extending and creating space (Van der Westhuizen and Pretorius, 2015).

b. Learning Interactions in formal settings demonstrate distinctive pedagogical features as well as social conversational bases

Various studies have described how learning interactions consist of the traditional initiation-response-feedback (IRF) format, meaning that it is the teacher who initiates, often by means of a question, getting an answer, and responding/giving feedback (Mehan, 1979, Sinclair and Coulthard, 1975). Since these earlier studies we have learned that there is much more to learning interactions, in terms of discourse practices and interaction patterns (Kumpulainen and Wray, 2002, Mercer, 2010). Conversation analysis studies of classroom interaction have extended and deepened the understanding the conversational bases of such interactions, characterized by specific sequence organizations and response preferences.

. Conversations are displays of turn taking, organized in sequences in nested layers of interaction as the episodes of the interaction (see the distinction made by (Clayman and Gill, 2004). We know this of conversations in everyday talk: they are orderly, sequential, and methodological accomplishments (Melander 2007: 8). While people converse – there is a shared understanding of the business of the conversation, and participants contribute towards keeping the conversation going (Melander 2007: 9). This unfolding can happen because of the possibility of understanding – which is "a collective achievement, publicly

displayed and interactively oriented" (Mondada 2011: 542). Understanding is situated, contingent, embodied and intersubjective (Mondada 2011:542). It is "not treated as a mental process but is related to the next action achieved by the co-participant and demonstrating her understanding" (Mondada 2011: 543).

. The original studies by Sacks (1992) have clarified how speakers "do understanding" embedded in next turns in a sequence of interaction, and is as Schegloff (1992) put it, a by-product of conversational actions such as agreeing, answering, assessing, responding. Understanding is "a collective achievement, publicly displayed and interactively oriented to within the production and the monitoring of action" (quoted by Mondada 2011:550)(see also (Koschmann, 2013).

. The conversational dimension of learning interactions is evident in the distinction between practice and action: practices "…produce recognized categories of social action" (Koschmann 2013:3), recognized by the other conversationally, what Schegloff refers to as 'action formation (Schegloff 1997) (Heritage, 2012b).

. Various studies conducted here at UJ have explored the conversational basis of learning interactions. These include studies showing how classroom pedagogy is supported and strengthened by conversational practices, in lessons about goal setting (Pullen), and Life Orientation lessons on topics such as HIV, sexuality, pornography (Andresen, Naidoo). In these and other studies (Metsing, Bachrach, Du Preez) we have evidence of how adult talk do the conversational work of supporting, creating trust, persuading, eliciting responses, advice giving, accounting, assessing, other repairing and learning appropriation. Learner response preferences do the conversational work of responding, explaining, self- and other repair, and the testing of ideas.

. Mentoring studies: studies at UJ clarify how participants use conversational actions of assessment and requests for information to demonstrate their stance on a topic, as well as confirming their role and status in the interaction (Van der Westhuizen and Pretorius, 2015) (Pretorius, 2015). Participants use conversational strategies to create space for participation (Pretorius and Van Der Westhuizen, 2015). This is done by the mentor's display of 'ostensible uncertainty'(Pretorius 2015).

c. Learning is an interactional accomplishment

We may assume that learning in interactions has been aligned with curriculum goals and outcome statements, and assessed in formal continuous and summative assessments. This view is limiting since it does not allow for the fact that learning also happens outside of school, and in everyday informal settings (Resnick, 1987, Lemke et al., 2015).

Studies from the perspective of socially oriented learning theories have been concerned with understanding how learning is evident in talk-in-interactions, in informal as well as formal educational settings. From these studies:

. Learning is a "…situated practice that produces recognized categories of social action"; it is a witness able practice where participants seek to find regularities (Koschmann 2013: 3). Following the work by Schegloff (1996, quoted by Koschmann 2013: 3) these practices include offering an account of something, where the participant must be heard, understanding demonstrated, and a response in subsequent talk showing an understanding of what the preceding talk was doing.

. Displays of learning by students are mostly oriented to what the lecturer presents – in the forms of 'news receipts' and 'surprise tokens' marking change of state, as was found in of computer mediated communication tasks (Paulus and Lester, 2013). This means that conversationally, learners offer tokens and give indications of how they change their minds, sometimes neutral, sometimes distancing themselves (Paulus and Lester 2013). See also different tokens of change of state, and of orientation (Koschmann, 2011).

. Learning may also be displayed interactionally by changes in orientation, and changes in organisation of participation (Melander 2007). Learning as changed participation is often caused or followed by repair actions (Hellermann and Lee, 2014).

. Participants draw on interactional resources for learning – these include taking cues from one another about how meanings may be explored, and the use of "tokens" as resources to participants to understand a prior turn, e.g. acknowledgement tokens ["yes", "mmm"]; change of state tokens ["oh", repetitions]; displays of empathy and affiliation; collaborative turn completion; and performing a projected next action (Deppermann 2012: 757).

d. The role of knowledge in learning interactions

Conversation analysis (CA) has been described as a <u>social theory</u> which treats knowledge as central to interactions (Heritage, 2008, Heritage and Raymond, 2005). Stivers et al. (2011) illustrate the value of this perspective in their analysis of what they call the <u>"morality of knowledge"</u> which involves analyses of epistemic asymmetry in terms of access, primacy and responsibility, governed by social norms, and influenced by alignment and affiliation. In conversations, participants show how they are accountable for what they know, how certain they are, and the relative authority they have, upon which they exercise their rights and fulfil their responsibilities - "…interactants treat knowledge as a moral domain with clear implications for their relationships with co-interactants" (Stivers et al. 2011: 9).

I have described the role of knowledge in learning interactions in a recent publication (Van der Westhuizen, 2015):

> "Interactional perspectives on epistemics in conversations assume that <u>knowledge is socially shared and distributed</u>, and that people form '<u>epistemic communities</u>' based on what they share (Heritage 2013). In everyday talk, epistemic status is about the presumed knowledge of the participant as well as the rights to possess it (Raymond and Heritage, 2006). It embraces what is known, how it is known and a person's rights, responsibilities and obligations to know (Drew, 1991); Stivers et al. 2011 quoted by Heritage 2013: 377). The primacy of *status* in an interaction features in for example requests for information and is a fundamental element in the construction of social action, more important than the form, i.e. the language in which a question is asked (Heritage, 2012a). In contrast, epistemic *stance* is more of a moment by moment expression of knowledge relationships in the context of an interaction (Heritage 2013:377) (p. 122).

In conversations, <u>epistemic identities</u> of knowing and un-knowing are apparent, established and maintained (Melander 2012). Such identities are related to status, but vary depending on the topic – which codetermines the stances taken. Epistemic identities are established conversationally, and they change over time. These changes can be observed as learner trajectories, and they are displays of the "... transformations of knowledge and the changing distribution of knowledge within the peer group and the material environment (Melander 2012: 232).

Rintel et al. (2013) confirm how in the CA tradition, epistemics is the term used to refer to the organisation and management of knowledge in interaction. CA studies have an action orientation in the study of knowledge: studying <u>knowledge-in-action and knowledge-as-action</u> "...for getting the moment-to-moment business of social life done" (p. 2). Features of the former have been noted by Heritage (2012) and others noting how knowledge is used as resource to independently assess utterances and get agreement and "...to enact momentary social cohesion" (p. 2).

ILLUSTRATION

The conversational features in learning interactions may be illustrated with reference to a transcription of a mentoring conversation between a white Afrikaans professor talking to a female black student Zulu about school experience and her learning about pedagogy and practice.

In this extract, the student explains her observations of a teacher who continue to write knots on the board for learners to copy in their books. It seems that the Mentor attempts to use this as an opportunity to teach the student about the practices and value of note taking.

The following may be observed:

+ Approach and participation: how institutional roles are played out by the mentor using knowledge authority to ask questions (lines 20, 33) and guide the interaction.

20	L	You're talking about (.) your expectations:: befo::re but then also
21		finding children ahm (.) ah (.) making notes all the <u>time</u>?
22	S	Ye::s ((nodding)) ahm I think just writing all the time because it
23		wasn't an actual ((gesture both hands)) handout (.) >if you get me<
24	L	especially in LO all they ha::ve is what they're ((right hand gesture))
25	S	given (.) if you get me (.)=
26	L	[Ja::]
27	S	=for tasks
28		[Ja::]
29		and all their work they wrote out.
30		[Ja::]
31		There're no worksheets for them. So they spent many hours
32		writing.
33	L	[So what was the:: (.) issue for you <u>there</u>?
34		(1.0)
35	S	I think in a sense maybe expecting ((right hand gesture)) the
36		teacher as <u>well</u> to interact with the children ↑more and to speak
37		to them because literally (.) the children would come to class and

38		then (.2) "↑Morning, ↑afternoon class. Okay:: your work is on the
39		board↓. Just write it out.↓" ((right hand waving gesture))
40	L	So they would sit and copy all the time.
41	S	[Yes
42	L	Okay.
43	S	[Sit and copy so that's why that ((right hand open palm
44		gesture)) troubled me:: feeling that maybe she needed to interact
45		with them more so °ja°

The Mentor L uses questions as tokens of status and stance. The question is 33 does the work of space making, inviting the student to account for her views in 35 onwards. The student's answers in 35 and 43 are extended accounts where she claims her own authority and assessment of what happened.

In the extract following this one, lines 46 to 102 the interaction is about the possible reasons for notetaking from the board, and what other options for learning there may be. The mentor challenges the accounts of the student with the question in 88.

88	L	How would a lesson like that <u>wo:rk</u> where you encourage (.) ah
89		note taking? (1.0) But not copying from the board ((gesture left
90		arm)) but have interaction and then do notes. How would such a
91		lesson work?
92	S	((nodding))
93	S	Do you mean in the doing of the (.) the lesson?
94	L	[Ja] [yes]
95	S	Ah::m (0.2) I feel that (0.2) maybe in a sense >integrating the
96		two< ((gestures both hands)) (1.0) so you can have your lesso:n
97		speaking to the students and then↓ in a sense ↑asking them to
98		write it after they've written so that it's a bit of both ahm (1.0)
99		((gestures))
100	L	Ye:s ((left arm gesture)) so first the lesson and then let them
101		make notes about what they are (.) about what they observe.
102	S	((nodding)) Ye:s.
103	L	Okay. What about writing (.) ah notes ↑while ah the ↑lesson is
104		going on↓?
105	S	Oh yes that as well >what we do< ahm <u>here</u> at varsity. That also
106		works.
107	L	That's how it works here.
108	S	Yes ((nodding))
109	L	So what do you teach them? What <u>skill</u> would you teach learners
110		ah note taking during a lesson.
111	S	Mmmmm I think maybe it's the skill ((right hand gesture)) of
112		being able to listen↑ (.) and to also write↓.
112	L	Yes
113	S	It's a very good skill to <u>do</u> that ((right hand gesture))=

114	L	[=So its listen and <u>write</u> but its also ((left
115		hand gestures)) identifying the <u>main</u> idea a:nd you distinguish
116		>what's good, what's not good<. I should write this and not tha::t
117		((left hand gestures)) and not copy everything.
118	S	((nodding)) It's like reasoning as well in a sense.
119	L	Ye:s ((nodding))
120	S	You're thinking about what you're writing and you're thinking
121		about (.) what you're hearing instead of mere (.) just copying.

In the extract, the Mentor is the one who exercises his knowledge rights by asking questions throughout, and inviting the student to use answers to make her own claims of authority.

The exctract have a range of examples of conversational practices which achieve specific social actions: S nodding and saying yes in 92, 94, 102, 108, 112, and 119. These practices have the functions of agreeing, encouraging the Mentor to continue – they perhaps also build up towards the accomplishment of learning, illustrated in 120 as a 'change of state'.

4. THE CHALLENGES OF COGNITIVE JUSTICE IN LEARNING INTERACTIONS

The imperative of cognitive justice is, among others, an appeal to educators to critically evaluate their practices of teaching, including their beliefs about knowledge, and how the establish learning relationships and interact with learners.

The question here is: what is involved in the challenges of COGNITIVE JUSTICE at the level of learning interactions, formal, informal, and every day, in curriculum work, on levels of practice? Assuming cognitive justice is about the acknowledgement and advancement of multiple knowledges with associated rights, then the question is what is involved at the level of learning interactions?

In the absence of the formal inclusion of multiple knowledges in the current practices of the curriculum, educators share the ethical responsibility to go beyond notions of curriculum knowledge as declarative, procedural, conditional knowledge as conceptualised by Muller (2009). They are challenged to go beyond textbook knowledge, i.e. the <u>official knowledge</u> prescribed in the curriculum (Apple, 2014). This is not just about increasing <u>epistemological access</u> as has been argued by (Shalem and Pendlebury, 2010)(see also Morrow (2009), I would argue, but also about drawing on the full complexities historical

placement of knowledge, local and indigenous (Odora Hoppers, 2014). It is about promoting <u>epistemic diversity</u> in everyday classroom interactions.

This part of the presentation is the focal point of the inquiry – <u>how imperatives of cognitive justice are to be observed and acted upon, at the level of curriculum practice</u>, i.e. where students/learners interact with their educators, inside and outside of the education system. This is explored in terms of practice considerations, as well as broader curriculum and teacher education implications, drawing on findings from Conversation Analysis research summarised in the previous section.

4.1 Practice considerations – cognitive justice in learning interactions

Knowledge rights and responsibilities

Conversation analysis research has shown how knowledge rights and responsibilities play out in all interactions. This holds for both the educator and the learner who, based on their status, institutional roles, positioning in relation to the topic, exercise their rights in ways that serve the purpose of the interaction.

Participants differ in their '<u>knowledge identities</u>' of being 'knowing' or 'unknowing' about the topic, and in terms of their epistemic access, and the skills they have to use of interactional tools to talk about the topic to the point of accomplishing learning. The two likely scenarios are: the educator, in the mould of being educator, follows the script of teaching for learning, i.e. the pedagogical steps according to the lesson plan. Traditionally the learner is the unknowing one, and in the scenario of bringing in different knowledges, the question is how can the educator create space for the learner to exercise her rights, do that with confidence, and manage the interaction in ways that would lead to the discursive creation of knowledge, with both accepting knowledge responsibilities. This is not about deepening understandings; it is more about extending the learning to also reflect the knowledge learners bring to the conversation.

In a learning conversation on healthy living, the teacher takes the knowledge responsibility, as teacher, as the knowledgeable one, to follow perhaps a direct explanation method of teaching to the textbook, the definitions of healthy living, importance of diet, exercise, and handling of stress. In this setting – how do learners in the senior phase put forward what they know, beyond answering teacher questions and waiting for their views to be appropriated? What can the teacher do to elicit, invite, and create space for

home/community knowledge to form part of the learning? This would require conversational practices doing the work of inviting, exploring, claiming, accounting, and repairing?

The educator has the tall order, of identifying knowledge / speech communities in class, strengthening, validating and valuing stance taking, recognizing knowledge authority, rewarding public acceptance of knowledge responsibilities, establishing conducive learning relationships which are sensitive to conversational norms, how learners use 'fashionable speak' (Pretorius), and also involves knowing what the talk is doing – how teachers use their talk to specific curriculum ends, and beyond, and how learners can start benefitting from using their talk in creating new knowledge.

Promoting knowing and learning as discursive practices
The discursivity of learning and knowing is in the interactional exchange. This means it involves all the conversational dimensions including sequences of utterances, response preferences, and the flow of episodes or 'nested layers' of interaction which are associated with everyday conversation, Conversations involve topic changes, extended and delayed responses and sequences, and appropriate progression towards the purpose of the conversation. The question here: how learning is discursive, as constructions of the moment, authentic to the moment to moment unfolding of the learning interaction?

Discursive construction involve the use of knowledge in-interaction, and as-interaction. And: how is talk used for knowledge building that reflects multiple knowledges, beyond the often prescribed definitions of concepts?

The discursivity of knowledge construction may be illustrated – in the scenario where a lecturer teaches a group of 120 honours students, on the curriculum topic learning theories – how are the insights constructed and how are the student knowledges contributing? In an envisioned scenario, this would involve an inquiry based conversation – where the topic is stated in the form of a question, such as: Can one talk about community theories of learning? How are theories of learning articulated in communities? Students would then have to consider moments in their work as educators when they observed and used what they could see as a theory of learning. Sharing in pairs and in plenary would then form the basis of a discursive construction (See Magano et al. 2010 for a description of the facilitation method). Underlying this pedagogic flow of a learning opportunity, is a range of conversational practices which include talk moves pushing for empathy and clarity of the multiple knowledges involved, confirming progress in learning accomplishment such as perspective shifts.

In the end, the summary of analyses of accounts of moments would yield a collective insight as answer to the question what community theories of learning are about.

Nurturing knowledge communities
In learning interactions participants declare themselves, or at least display evidence of, how they are part of knowledge communities, inside and outside of the learning situation. For the sake of advancing multiple knowledges, it would be worthwhile for educators to be aware of these communities, their conversational norms, beliefs and roots. This is critical, given the assumption that learner knowledge is community knowledge, and that they draw, in all learning conversations, on knowledge rooted in their lives, lived experiences.

The educator as knowledge worker through interactions
The challenge of drawing on multiple knowledges goes beyond the levels of good teaching, where learning is mediated to the point that learners understand and have gained new knowledge according to the intentionality of the teacher. The question here is, how can educators see themselves as 'knowledge workers', as active participants in the development of local and indigenous knowledges. This would require understand knowledge contexts, traditions, and worldviews – the kind of humanness worldviews which value a connectedness to the earth and all its inhabitants, "…embraced, relived and celebrated through taboos and totems" (Chilisa 2005: 666)(see also Freire).

4.2 "Transformation by enlargement" - revising curriculum and teacher education work as cognitive justice work
The argument of this presentation that the problems of learning in South African curricula need to also focus explicitly on what happens in learning interactions, is starting point which would invite educators to take ownership of the imperative of cognitive justice by studying their own practices,

This ground level of engagement will hopefully add to a broader bottom up process, where educators ask questions about what cognitive justice is about, and what they can do to make a difference.

At the same time, work on curriculum policy levels is necessary. This would involve policy makers to be confronted by concepts of cognitive justice related

to the improvement of learning attainment, performance levels, and so on. In this regard, I want to endorse and echo the strong statements by the Unisa SARCHI Chair in Development Education, Prof Odora Hoppers – that this is about transformation by enlargement, a methodology of change which is about taking a larger view, opening up paradigms to include indigenous knowledge systems in education (Odora Hoppers and Richards, 2012: 35).

The challenges of curriculum as content, as an issue of selection, relevant to the social justice agendas in South African society has been well problematized by Zipin, Fataar and Brennan 2015 (Zipin et al., 2015) following (Postma et al., 2015) Leibowitz (Leibowitz and Bozalek, 2015, Vally, 2015). They capture the problematic of curriculum selection as process of privileging 'powerful knowledge' and then argues for cognitive purposes of schooling, may not marginalize ethical purposes if agendas of social educational justice ideals are to be pursued. This is about meeting "…substantive needs and aspirations among the power-marginalised South African groups seeking better lives through schooling" (Zipin et al., 2015: 10).

In this regard, Freire's notions of humanizing pedagogy of dialogic problem posing education is still relevant (Freire, 2005: 85). A deepened consciousness of their situation leads people to apprehend that situation as an historical reality susceptible of transformation (Freire, 2005: 90). Dialogue further requires an intense faith in humankind, faith in their power to make and remake, to create and re-create, faith in their vocation to be more fully human (which is not the privilege of an elite, but the birth right of all). Faith in people is an a priori requirement for dialogue; the "dialogical man" believes in others even before he meets them face to face (Freire, 2005).

The imperatives of cognitive justice have clear implications for teacher education, including clarifying practices of learning interactions as places where multiple knowledge are advanced. Teacher education programmes need to include studies of questions and topics, which would include:

+ Problematizing the role of worldviews in education practice – what knowledge? Whose knowledge?

+ Conceptions of knowledge, knowledge work, knowledge and power, ethics of knowledge, indigenous knowledge, multiple knowledges.

+ Cognitive Justice in education – historical and moral imperatives - Conversational mechanisms of 'othering'.

+ Conversation pedagogy as praxis – developing awareness and skills of talk-in-interaction - Management of epistemic access and primacy; knowing the tokens of learning accomplishment; How to work with learning trouble; becoming skilled in ensuring uptake.

+ Conversations in communities – forms, functions, multiple knowledges and educational implications.

+ Understanding learning in interactions – discursive practices, conversational norms; role of language, challenges of multilingual settings, including communicative practices (see (thi Nguyen, 2012) - Learning conversations for multiple knowledges in subject domains; Learning relationships – face work as interactional achievement (Arundale, 2010).

+ Language learning through conversations (Seedhouse, 2011). Diversity in interactions (Sidnell and Enfield, 2012, Stivers et al., 2009).

+ Teacher professional learning – the nature of mentoring conversations (Tillema et al., 2015a) and teacher dialogue (van Kruiningen, 2013). How shared knowledge is attained and developed (Garfinkel, 1967).

+ Other forms of talk and their educational implications - distinguishing race talk (Whitehead, 2013), gender talk (Whitehead and Stokoe, 2015), gender differences in conversation (Weatherall, 2015), bullying talk, etc.

5. IMPLICATIONS

This presentation is an inquiry into questions I value as educator and researcher – how to grow the understanding of learning and how this knowledge can be used for the improvement of education. The presentation is hopefully saying something about my work as student of learning conversations, but also my need to engage with the question: what for?

Over the last few years we have completed a strand of studies at UJ on the interactional nature of learning in classroom, learning support, counselling, and mentoring settings. This work needs to proceed and include studies which will improve our understanding of socio-cultural norms of conversations in education, the peculiarities of conversations of the born free generation, community learning conversations, as well as the conversational dimensions of problems of violence in schools. The latter focus is planned to be part of the niche focus of the Department of Educational Psychology.

It is worth noting that inquiries into cognitive justice in learning interactions need to be part of the bigger project of changes in higher education, and curriculum transformation in the education system. The time for this is ripe, judging from all the recent student interventions on the national scale, not only calling for #feesmustfall, but also for #relevancemustrise. It seems that educators are making themselves to be part of this #watershedtime by mobilizing revisions of curricula beyond preparing for external reviews.

Perhaps now is the time to 'rethink' how we do knowledge work. Rethinking involves 'rewiring', looking at the heart, exposing, broadening conceptions, to include local understandings (Odora Hoppers and Richards, 2012).

Mainstream knowledge work in education is being acknowledged as university work, including research into philosophies, theories and practices of education. But there are inquiries in communities, research agencies, social movements and others. Knowledge work is the prerogative of all the sectors of society, including the university. Universities are part of the clan of knowledge workers, and inquiries into cognitive justice in education and the implications for teacher education need to include elders/knowledge holders in communities, prioritise rural education traditions, document and expand indigenous knowledge systems, forms and futures. Such work can draw on visions and methodologies already developed by thought leaders such as Catherine Odora Hoppers, Crain Soudien, Andre Keet, and many others.

6. CONCLUSION

Interactions in educational settings are the main activity centres of education. These are the settings where participants meet to pursue educational goals, guided by pedagogic plans as well as practices of conversation. This presentation set itself out to develop some understanding of the challenges, and concludes with the anticipation that the problematic of understanding the challenges of cognitive justice in learning interactions will hopefully be pursued.

In the spirit of the understanding that in conversations, it is appropriate to ask the question "what is this talk doing?" - my talking did some questioning, claiming, accounting, repairing, advice giving, creating space for 'uptake'. For the conversation to continue, my respondent Prof Mahlomaholo may take his turn, after which the conversation will hopefully continue.

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