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Multilingual Assessment: Levelling the Cognition–Emotion Playing Field at the University of the Western Cape

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Abstract

This article examines the relatively understudied question of how cognition and emotion (as induced by language) interact in assessment situations in higher education contexts. It does so against the backdrop of different outcomes for students with varying forms of linguistic cultural capital in South African higher education. Applying phenomenology as methodology, we unpack the ways in which students at the University of the Western Cape experience both monolingual and multilingual assessment from the standpoint of the cognition–emotion interface. The findings show that while monolingual assessment created affective barriers to cognition, a far more enabling environment was created by the provision of alternative multilingual linguistic arrangements. The article reflects on the implications of the analysis both for levelling the playing field in a context where language is a major source of inequality and for scholarship on language in assessment.

Keywords: multilingual assessment; cultural capital; cognition; emotion; South Africa

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1. Introduction

Assessment is evolving from a technicist or asocial past to a more social orientation. This shift is consistent with increasing theoretical interest not only in what is assessed, but also in "the how," "the who" and the social ramifications of assessment (Broadfoot and Black 2004; Messick 1989; Shohamy 2017; 1998). Relatively new notions around "the how" and the effects of assessment are being brought to bear on "the what" in order to evolve more rounded, integrated notions of validity (Messick 1989). Thus, validity (as a measure of whether a test is measuring what it claims to be measuring) is, for instance, no longer only about the construct (e.g. ability, skill) being assessed or about the content (or intended scope of the assessment), but also about the consequences. Consequential validity requires, among other things, that a test not have negative consequences that are biased, because a skewed pattern of performance would indicate that something other than the intended construct was being measured (Brown 2000; Frey 2015; Gielen, Dochy, and Dierick 2003; Moss 1998; Reckase 1998; Yen 1998). A related notion, differential validity, describes an assessment that is more or less "accurate and fair for some groups, but not for others" (Frey 2015, 23).

Such a socially anchored view of assessment, especially one that acknowledges linguistic diversity, has particular significance in South African higher education, which mirrors the country's multilingualism with its eleven official languages. English and, until recently, Afrikaans were the exclusive languages of teaching, learning and assessment for South African university students, over 80% of whom are not at home in these languages (Alexander 2012). The Black African population from which the majority of university students are drawn have been shown in the *General Household Survey 2018* (Statistics South Africa 2018) to have small numbers who speak English in the home and outside the home. According to the Survey, 1.6% and 8.6% of Black Africans spoke English inside the home and outside the home, respectively. The numbers for Afrikaans were even lower: 0.9% and 1.0% respectively. The Council on Higher Education (CHE), a national South African think-tank, admits that at South African universities "the structure and assumptions of the core degrees were set many decades ago, [and were] predicated on a largely homogeneous intake with middle-class cultural capital and mother tongue as the language of instruction" (CHE 2015, 63). As if to underscore the consequence of a cultural capital and, specifically, a medium of instruction that have fallen out of alignment with the reality of the majority of the students, the CHE notes that only 27% of students in a 2006 cohort graduated in regulation time, while attrition by end of regulation time stood at 40%. An account of "throughput rates by race for 3-year degrees with first year of enrolment in 2012" paints a picture of unequal outcomes into which language is woven. Thus, in 2017, whereas the graduation rates for Whites was 66%, the average for three other demographics (African, Coloured and Indian) was 57% (CHE 2019, 63). There are far more students in the former group for whom the mother tongue is the language of instruction than in the latter group.

It is arguably through assessment, and the place of language as a co-determinant of performance, that these dismal statistics may have arisen. It is clear from the foregoing that language can simultaneously be an issue of "the how" of assessment and of its social impact. In terms of its social impact, assessment co-sustains and co-engenders unequal educational outcomes, which in turn have broader social ramifications, e.g. demographic representativeness in the workforce (Antia 2021).

Regrettably, although there is copious literature in South Africa and internationally on multilingual teaching and learning (Antia and Dyers 2016; 2017; Banda 2010; Caroll and Sambolín Morales 2016; Madiba 2014; Makalela 2015; Mazak and Herbas-Donoso 2014), multilingual assessment has received considerably less attention. As a result, there is not much granular data on the processes through which different language arrangements in evaluative situations may be enabling or disabling for students from different backgrounds. Specifically, our knowledge is relatively limited regarding how cognition and emotion (induced by language) interact in assessment situations. There is also little empirical research on where, in the assessment process, language is experienced as most enabling or disabling, and this lack of research may in turn prevent the development or prioritisation of possible intervention strategies.

Against this backdrop, this article analyses the nexus of language, emotion, and cognition in assessment. It draws on the concepts of cultural capital, cognition, and emotion to analyse students' experience of a pilot project on multilingual assessment at a South African university, namely, the University of the Western Cape. The core aim is to investigate the ways in which students experience both monolingual and multilingual assessment from the standpoint of the cognition–emotion interface. Additionally, the article documents the perceived criticality of language at different phases of a model of the assessment process. The two key research questions in this article are therefore:

- How is emotion entangled with cognition under different language conditions across stages of assessment?
- At which stage of assessment (input or output) is language perceived as being more crucial to students' success?

2. The Institutional Context

The University of the Western Cape was established in 1959 as a bilingual Afrikaans–English institution meant to serve the Coloured community of South Africa. It has, however, since evolved to become an institution open to all. Despite the multilingual nature of its population, English is the de facto language of teaching, learning and assessment even though the institution's language policy (UWC 2003) recognises a role for other majority languages, namely, isiXhosa and Afrikaans (Antia and Van der Merwe 2019).

Traditionally a university attracting students in the low socio-economic status category, its throughput rate tends to reflect the national reality of students who do not complete their degrees. Black African and Coloured students make up the majority of these non-completers (Antia and Dyers 2017). A significant contributing factor to this (as argued in this article) is the CHE's contention that the cultural capital (including language) in the South African higher education system is unaligned with the realities of newer student demographics.

It was concerns of this nature, and a desire to implement the provisions of the institution's language policy of 2003 (UWC 2003), that led us to begin experimenting with multilingual and multimodal teaching. We have at different times jointly taught a third-year linguistics module on multilingualism (LCS 311—Multilingualism in Education and Society), traditionally taught in English despite the actual home languages of our students. Out of the 818 students who enrolled for this module in the years 2017–2019, only 47.2% self-identified with English as a home language; the rest, 52.8%, self-identified with one or another of the ten South African official languages (mostly isiXhosa and Afrikaans).

In responding to the anomaly of using English to teach a module on multilingualism to students over 50% of whom do not have English as home language, we reworked our English lecture materials into different varieties of Afrikaans and isiXhosa. Deriving design principles from Hornberger's (2004) biliteracy model, we produced versions of our English PowerPoint lecture materials in two varieties of both Afrikaans and isiXhosa, in written form and as podcasts. These materials were then made available to students on the institution's e-learning platform. Details of this intervention and its effects have been documented elsewhere (Antia and Dyers 2016; 2017; 2019; Dyers and Antia 2019).

As an extension of our project, we have since 2017 been piloting multilingual assessment in the same module by presenting assignment instructions and test and examination questions in English, Afrikaans and isiXhosa, and allowing students to write their answers in any of these languages. Here, again, we have taken a proactive view of the relevant portion of the institution's language policy (UWC 2003), which allows for negotiation between students and lecturers on the choice of language used in assessment.

3. Cultural Capital, Cognition, and Emotion in Assessment Contexts

Interestingly, the CHE employs Bourdieu's term *cultural capital* in explaining some of the effects of the higher education system's original design. Understanding how social hierarchies become converted into academic hierarchies (Bourdieu 1984) is one preoccupation in the sociology of education. In culturalist approaches employed to explain how the educational system supports the reproduction of social class distinctions, language use is widely evoked. Thus, Bourdieu invokes language in the

context of his notion of cultural capital. In its embodied state, cultural capital refers to the knowledge, skills, manners, and experiences into which individuals are socialised in upper-/middle-class homes and that serve as a distinct social badge. The orientations or predispositions (*habitus*) which the home fashions towards language and literacy are resources that potentially give some students a head start in school over other students. As Grenfell (2004, 55) notes, a thesis of Bourdieu's is that "the linguistic background of the family influences the student's ability to deal with both the content and form of scholastic language [and that] there is an implied interest in perpetuating the misunderstanding as it shores up social selectivity."

Based on Bourdieu's premise that the educational system reproduces the structure of power relationships between social classes, it follows that the specific languages and literacies that constitute the embodied cultural capital of the dominant classes, as well as the internalised dispositions towards them, become crucial for success in the educational system. The putative interest served by the education system translates into some cultural arbitrary, that is, an imposition of a power elite's cultural canons (of language choice, language use, literacy practices, literacy events, genres) that are fundamentally arbitrary, but are passed off as natural. Thus, tests and assessments, like teaching, proceed on the basis of

> a model of the "right" mode of intellectual activity; for example, the very nature of the tests set …, the type of rhetorical and linguistic qualities required and the value attached to these qualities, the relative importance given to written papers and oral examinations, and the qualities required in both instances, tend to encourage a certain attitude towards the use of language. (Bourdieu 1971, 201)

We see language centrally implicated in "the how" of assessment. While some students from non-dominant classes would nonetheless be successful, on the whole, success becomes the monopoly of students whose backgrounds of relevant privilege have adequately equipped them. Thus, language as an issue in "the how" of assessment potentially produces negative societal impact, which calls into question the construct validity.

In the context of assessment in our pilot project, we read Bourdieu's analysis both in terms of class differences between students and from the perspective of differences between the embodied cultural capital/habitus of the students and the cultural capital/habitus which institutional pedagogical actions would seem to require. It was seen above that a large proportion of our students come from backgrounds where middle-class English is not the main code used at home.

An understanding of how language interfaces with cognition and emotion in assessment situations should powerfully elucidate the dynamics of the inequality of assessment outcomes as linked by Bourdieu to privileged linguistic cultural capital. Cognition is defined as "all forms of knowing and awareness, such as perceiving, conceiving, remembering, reasoning, judging, imagining, and problem solving" (*APA Dictionary of*

Psychology 2007). It names a repertoire of mental abilities or processes, including attention, memory, thought, and problem-solving, that are necessary for everyday activity (Swain 2013). Attention "is our ability to focus on specific stimuli, ideas, or events for further processing in working memory" (McCrudden and McNamara 2017, 7); memory (across its many types) deals with the encoding, storing, and retrieval of information; executive functions allow for the attainment of goals through relating and integrating available information, problem-solving, etc. Repurposing Zeidner's (1998, 38) 3-stage account of information processing in testing situations as a model of prototypical assessment, it is easy to see how many forms of assessment may require most of these mental abilities and how language is implicated. An input phase has to do with attention or initial processing of questions and instructions to understand what is required. A processing phase involves remembering, reasoning or problem-saving in response to an input that has been attended to. In an output stage, an answer that is the culmination of previous processes is communicated.

A certain mismatch between the linguistic cum rhetorical qualities of the questions/instructions and the linguistic cultural capital of the student impedes attention and influences what is then passed on for processing as possible answer in the processing stage (Antia 2021; Van der Westhuizen et al. 2010). At this stage, it is worth noting that recall has been shown to be influenced by the language in which the information was encoded (Paxton and Tyam 2010; Antia and Dyers 2017). At the output stage, the linguistic and rhetorical qualities expected of answers could lead to further jeopardy when a student is penalised either for answers not provided on account of linguistic impediment or for answers formulated with linguistic and rhetorical infelicities—and reflecting, even, some misunderstanding of the question at the input stage.

Emotion comprises those "valenced processes (e.g., action tendencies, attention, overt behavior, subjective feelings, and alterations in peripheral physiology) that are triggered by specific external or internal stimuli (e.g., actual or remembered threat for fear)" (Okon-Singer et al. 2015, 8). It is more specifically defined extensionally as including "states of anger, disgust, fear, happiness, and sadness" (Okon-Singer et al. 2015, 8). A related term, affect, is seen by these same researchers as "the experience or expression of emotion" (Okon-Singer et al. 2015, 8). On the basis of research on anxiety in testing (e.g. Zeidner 1998), it is easy to see how the linguistic and rhetorical qualities of a task can affect a student without the requisite cultural capital at the input stage, leading to an inability to concentrate on the task and to attend to cues in the stems of the questions. Being "psyched out" or going blank occurs in the processing stage, and manifests as anxiety (in this case induced by language choice) preventing the student from recalling information stored in memory. At the output stage, feelings of inadequacy and negative self-talk can impede the ability to even demonstrate what is known.

Rather than the above compartmentalisation of cognition and emotion, we opt for a framework in which emotion and cognition interact around linguistic cultural capital to

shape experiences and outcomes in assessment situations. A long history of separating emotion and cognition is rapidly giving way to scholarship making claims such as the following: emotion "lends power to memory, to perception, to thought, and to action no less than to the drives" (Tomkins 1982, 356); cognition and emotion are mutually enhancing and together "yield an outcome greater than either of them alone" (Del Rio and Álvarez 2002, 65); "emotion and cognition [are] partners in the mind" (Ledoux 1996, 25). Tyng et al. (2017, 1) aptly state that emotional experiences "are ubiquitous in nature and important and perhaps even critical in academic settings, as emotion modulates virtually every aspect of cognition. Tests, examinations, homework, and deadlines are associated with different emotional states that encompass frustration, anxiety, and boredom." Of course, emotions can also be of a more positive kind. Reading language into Okon-Singer et al's (2015) account of the interaction of cognition and emotion, it is evident that excitement over the linguistic features of a test, just as well as frustration, can influence attention; distracting emotional cues can negatively affect the working memory.

4. Methods

Phenomenology unpacks a group's experience of a phenomenon (Cresswell 2007), which in the current context translates as our students' cognitive and emotional experiences of different language arrangements in assessment situations. The data for this study was obtained over the period 2017–2019 from our teaching project described above. At the beginning of each of these years, the students were asked to sign letters of informed consent if they were willing to contribute their work as data for our research project. We followed the ethical guidelines of our university—total anonymity for the students who gave their consent, the right to withdraw their contributions at any time, and the right to have access to the completed research. In the major essay assignment for this course, students were requested to reflect on the multilingual provisions that were made in the course, both in teaching and learning as well as in assessments. Towards the end of the essay, they were specifically asked to give an account of their experience of multilingual assessments, which included an assignment task with multilingual instructions in Afrikaans, English, and isiXhosa, and a mid-term test with instructions and questions in these three languages (see Textboxes 1 and 2 below). In addition, students were given the option of writing their answers in any of these languages, or to engage in translanguaging.

In their account, students had to consider how being provided with multilingual instructions and questions made them feel (if applicable); how their ability to understand instructions and questions was affected (if applicable); how being allowed to write their answers in one or any combination of the three languages affected (if at all) their ability to deliver their answers in the mid-term test; and any other impact they wished to report.

Textbox 1: Multilingual instructions (in English-Afrikaans-isiXhosa) for a mid-term test on the module LCS311

INSTRUCTIONS/ INSTRUKSIES/ IMIYALELO

A. ANSWER ANY TWO OF THE FOLLOWING FOUR ESSAY QUESTIONS. ANSWER BOTH SECTIONS (a) AND (b) OF EACH QUESTION. EACH ESSAY SHOULD BE NO LESS THAN 2 PAGES LONG. READ EACH QUESTION CAREFULLY, AND REMEMBER TO NUMBER YOUR ANSWERS CORRECTLY.
BEANTWOORD ENIGE TWEE VAN DIE VOLGENDE OPSTEL VRAE. BEIDE (a) EN (b) VAN DIE VRAAG WAT JY KIES MOET BEANTWOORD WORD. BEIDE JOU OPSTELLE MOET TEN MINSTE TWEE BLADSY LANK WEES. NOMMER JOU ANTWOORDE EN LEES ELKE VRAAG MET AANDAG VOOR JY DIT BEANTWOORD.
PHENDULA IMIBUZO IBEMIBINI KULE MIBUZO MINE IKWELI PHEPHA. PHENDULA AMACANDELO AMABINI KUMBUZO NGANYE (A) AND (B). UMBUZO NGAMNYE FUNEKA UNGABI NGAPHANTSI KWAMAPHEPHA AMABINI UBUDE. FUNDA UMBUZO NGAMNYE DE UCACELWE, KHUMBULA UKUBA KUMELE UWUNOMBOLE UMSEBENZI WAKHO.
[…]

Textbox 2: Sample multilingual question (in English-Afrikaans-isiXhosa) from a mid-term test question paper for the module LCS311

Question 1:

a) Define globalization and describe its main characteristics. Then, name four globalization-related factors which are affecting contemporary multilingualism.
Translation in isiXhosa: Nika inkcazelo ye-globalization kunye nengcaciso yempawu zayo. Emva koko xela imeko zibene ezichaphazela ukusetyenziswa kwelimi ezininzi kutshanje.
Translation in Afrikaans: Gee n definisie vir globalisering en beskryf die hoof kenmerke van globalisering. Verskaf ook vier faktore verwant aan globalisering wat contemporary veeltaligheid beïnvloed.

From a total of 150 written assignments, 55 excerpts were harvested for the connections made in them between language and cognition/emotion. For cognition, thematic content analysis was employed (Hseih and Shannon 2005). Heuristics employed included words and propositions related to the nature (e.g. ease, difficulty) of understanding, remembering, understanding, processing, inferencing, writing, and other cognitive processes. For emotion, the analytical frame was provided by Appraisal, an extension of the interpersonal metafunction of language in Systemic Functional Linguistics (Halliday and Matthiessen 2004; Matthiessen, Lam, and Teruya 2010). Appraisal is concerned with the use of language for evaluation, specifically, "the kinds of attitudes that are negotiated in a text, the strength of the feelings involved and the ways in which values are sourced and readers aligned" (Martin and Rose 2007, 17). We drew on such relevant concepts as Affect and Appreciation (under Attitudes) and Force and Focus

(under Graduation). In a third stage of analysis, excerpts illustrating cognition–emotion interactions were mapped onto the hypothesised phases of the assessment process and processed both in terms of different student profiles and differences between the institution's privileged linguistic capital and the capital possessed by the majority of the students.

5. Data Presentation and Analysis

Let us begin with a few introductory comments. It should be pointed out that there was little by way of data that could be uniquely mapped onto the "processing stage" in the 3-stage model of assessment. The reason for this observation could very well be that in reality, or at least for our students, some of the issues identified in the processing stage of the model are interwoven with both the input and output stages. Illustrative of this are examples to be presented of memory lapses and being stuck. As a result, the data presented and analysed will be in relation only to the input and output stages. Second, as a reflection of the classroom composition, there was very limited data from students with English as home language.

5.1 Emotion and Cognition under Different Language Conditions across Stages of Assessment

At the input stage, students' views of assessment in the module may be categorised as follows: views on monolingual English assessment; dissatisfaction with English at the input stage then recourse to home language; and strategic use of both English and home languages at the input stage. Excerpts (1)–(4) below present some views on monolingual English assessment at the input stage:

(1) The English only policy presents a serious problem for Afrikaans and isiXhosa speaking people whom are inadequate to use English as a language of learning. … *if one gets the instructions wrong* your whole project will be wrong.

(2) I found that in most cases in my other modules, I had to *reread an assignment question or ask people to explain* it further to me, or to *translate it for me*. *Some English words are not entirely or fully easy for me to interpret and understand*. This has *caused a lot of confusion* for me ate times, and it has even *made me quite frustrated* and *worried* about how my marks will turn out to be.

(3) The *instructions* of the assignment *were clear* and *I did not read it in Afrikaans or isiXhosa*. However, I am sure if *English* was not *my first language*, then the Afrikaans or isiXhosa instructions would have benefited me.

(4) I *did not make use of* the instructions for the essay in *the other languages provided*. This is because *English is the language* with which *I am most comfortable*.

We see in excerpt (1) how questions and instructions administered in English are cognitively experienced by students whose home language is not English: the language of the instructions, if not understood, leads to erroneous answers your whole project will be wrong). This statement on cognition is, however, couched within the Appraisal resources of Appreciation and Force, showing how the particular student emotionally evaluates as negative the state of affairs, and underscores this negativity: "the English language policy presents a *serious* problem." Not only is the English medium of assessment negatively appreciated as a problem, but an intensifier of force (*serious*) is added. In excerpt (2), the account of the cognitive effort required to make sense of questions and instructions in English is equally infused with Affect (caused a lot of confusion for me, made me quite frustrated and worried), showing how the student is emotionally disposed to questions presented in English, as well as markers of intensity or Force (*a lot of*, *quite*, *not entirely or fully*), through which a picture of anxiety around marks is painted.

A different picture is obtained from comments made by the very few students who reported being very confident in English. We see from excerpts (3) and (4) that such students, as opposed to those who do not have English as home language, do not seem to face cognitive challenges as a result of the use of only English as the medium for assessments. They find monolingual English instructions *clear* (thus, easy to understand) and record how they feel (i.e. *comfortable*) operating only in monolingual (English) assessment conditions. In sum, under the monolingual English assessment condition at the input stage, we see that a handful of students experience no anxiety whatsoever and are not cognitively impeded, whereas others (the majority) report experiences brimming with anxiety that arguably impedes cognition or is the outcome of impeded cognition. We begin to see the possible micro building blocks of the performance inequalities reported above.

To understand how our initiative on multilingual assessment is perceived as levelling the cognition–emotion playing field, let us turn to how this majority encode their experiences of multilingual assessment. Let us begin with data encoded as "dissatisfaction with English at the input stage then recourse to home language":

(5) *I sometimes feel frustrated when I do not understand* terms like truncated multilingualism, heteroglossia and more, which tend to be more complicated in English than they are in isiXhosa. For example, "intergeneration shifts" of multilingualism are *I understood better when I read in isiXhosa* as "inguqu ngokwezizukulwane" (lit. change over generations). This multilingual arrangement made me feel as though I know the subject.

(6) It also *made me feel at ease*, as I was *not feeling anxious* about certain concepts, which I did not quite understood in English, *as there was always the Afrikaans alternative* to which I could tum for *additional aid*.

(7) … if I did not understand something *in English I would sometimes misinterpret a question* and loose marks. *Now* I am happy because *I do not misinterpret* the questions in this module

specifically. It makes me feel as if the work and questions and tests are more clear and understanding. This is because I *can read the Afrikaans version if I do not understand the English translation*.

(8) *When concepts are big and unfamiliar* to me I tend to read the isiXhosa translation of the concepts, somehow *isiXhosa as my home language allows me to understand concepts better*, the meaning becomes clear to what it means and gives me ideas based on my experience.

Excerpts (5)–(8) above show an overall pattern of serial language processing of questions and instructions, beginning with the default institutional language (English), followed by home languages. In these excerpts, we again see how cognition is interwoven with emotion under different language conditions of assessment. In the initial English condition, cognitive articulations of not understanding, misinterpreting, lack of familiarity, and not knowing are underpinned by frustration and anxiety, both signalling Affect or how the students are emotionally disposed to dealing with questions and instructions in English. The English assessment condition is also appreciated as complicated and associated with a loss of marks. The recourse to isiXhosa or Afrikaans, in contrast, is encoded in the cognitive terms of understanding and additional aid. Emotionally, besides the ubiquitous Force marker *better* applied to tokens of *understand* as well as the Focus marker of *clear* applied to both *understanding* and *meaning*, there are the Affect corollaries we see in "made me feel at ease," "I am happy," "made me feel as though I know the subject," "makes me feel as if the work and questions are more clear."

The differential processing impact on the two student groups (English home language vs. other home languages) of the institution's privileged cultural capital can be gleaned in the next data set, which presents, even more lucidly than the preceding set, students' strategic use of multilingualism as a resource in assessment. Consider excerpts (9)–(11).

(9) *Reading the Essay One instructions in isiXhosa helped me understood* what was expected from me. *I did encounter some difficulties in understanding the instructions in English* due to some concepts I was unfamiliar with. In equivalence, the latter was no exception in the instructions given in isiXhosa. *But with the ability of knowing these two languages, I was then able to substitute unfamiliar words* and/or concept of a language to the same words and/or concept of another language in order to *enhance my understanding* of the instructions.

(10) Reading the essay instructions *both in English and Afrikaans helped me in providing clarity* in case of something being left out in the English instructions, and vice versa. …I only decided to read the Afrikaans instruction just to be certain or *to double check* the instructions in English. I did not misunderstand the information given in the English instructions, however *I did feel safer* having the opportunity to compare it to another language that I am *comfortable with*.

(11) Although English is my first language, it *helps to read in Afrikaans for clarity*.

Although there is no apparent expression of emotion in excerpt (9), the excerpt is instructive in several respects. First, the student acknowledges that while instructions in English are not always easy to understand, there are also difficulties understanding instructions in isiXhosa. Second, the student sees much value in drawing on their repertoire of English and isiXhosa to develop a composite understanding of the question. The student suggests how this translanguaging process works, even at the level of words. While the author of excerpt (9), a non-home user of English, appears to be operating at a minimal level and is drawing on multilingualism as a resource just to "get a handle on" the task, the authors of excerpts (10) and (11) (home-users of English) come across differently. Their translanguaging appears to help them attain maximum comprehension of the task and even skirt infelicities of formulation by examiners. The cognitive functions of clarifying and verifying in (10) are framed in the emotional terms of feeling safe. What we have, then, is one group using multilingualism as a survival kit or a resource of necessity just to get by, and another using it as a resource of luxury intended to leverage every possible cue and scoop up possibly every available mark that can be associated with a maximal understanding of the question.

At the output stage of assessment, students demonstrate their knowledge in a tangible form and according to certain conventions (what Bourdieu calls "rhetorical qualities"). In the next three excerpts from isiXhosa home language users, the cognition–emotion interactions under both the monolingual English condition and the bilingual English–isiXhosa condition can be inferred.

(12) The term test that we wrote on LCS311 instructions were given in Afrikaans and IsiXhosa, that *made it easy* for students including myself to *understand the question*. I was also given a chance to respond using any language for the test. I must say it was *great exercise*, on this module I was permitted to engage in translanguaging and that has *enhanced my performance*, I *used isiXhosa and English to respond* to questions and I obtained more than 70% on the term test. I am one of the black South African who has a poor English proficiency therefore these arrangements have *boosted my confidence* and my academic performance. Most of the time when I am responding to assessments I always *panic* because *I get concerned about grammar errors* that I can possibly make in English. When I express myself in African language, I *deliver responses much better*.

(13) *Normally, whenever I'm writing a test/exam, there is always a moment where I would pause for a split second and try to remember a concept in which I could use in filling up a sentence and sometimes I would not find it* and thus *change the whole sentence*. However, in having to write a test in both isiXhosa and English was a blessing in disguise. I had a platform to go on and on in writing until I ran out of words because *whatever I wanted to say I was able to say it without having to change any sentences*. Having this opportunity to write in two languages, enabled me to elaborate on what was being asked.

(14) In exam papers they give us a *choice to write our answers in any language* we prefer or mix it if we find it difficult to write in a single language, this *helps me* very much because *there comes a time where I write a sentence in English but stuck halfway through the question paper* because of a simple word or thing I don't know to name in English but I know what

it is in Xhosa so then *I can just put the word in Xhosa without struggling* to search for the word.

In all three excerpts (12–14), the isiXhosa home language-speaking students describe output in the monolingual English condition negatively, either affectually (panic, concerns about grammar errors) or cognitively (being stuck over an irretrievable word or pausing but not finding the right word—all of which are arguably the outcome of being psyched out in an examination). The multilingual condition, however, brims with positive appraisals of translanguaging in which we see positive statements of cognition (enhanced performance, more than 70%, ability to answer and to elaborate, knowledge of appropriate word in isiXhosa) interacting with positive affectual responses intensified differently (*great exercise*, *boosted confidence*, responses delivered much better, *blessing in disguise*, unfettered writing, *without struggling*). From the analysis, it becomes evident how at the output stage English as the institution's privileged cultural capital raises a cognitive and emotional barrier for non-English home language students to demonstrate their knowledge.

5.2 The Assessment Stage in Which Language Is Perceived to Be More Crucial for Success

The notion of *language in assessment* is obviously polysemic. It could refer to the languages in which instructions and questions are delivered but not the languages used by students for providing answers, or vice-versa. Of course, it could also refer to both. Correspondingly, there is room for more nuanced commentary on the impact of language in assessment situations.

The data of concerns presented in Table 1 below (exclusively from non-English home language students) highlights the *input* stage as critical. There were approximately 43 excerpts that articulated concerns encoded as belonging to the input stage—more than triple the number of excerpts (12) addressing output.

Table 1: Concerns around language in the input stage of assessment

Input issue	**Sample excerpt**
Not understanding	(15) The use of different languages made *me realized* that at times *you are not dumb* but *you just do not understand the language* which is *used to ask a question* and therefore *cannot answer* that which you do not understand.
	(18) Sometimes I *didn't understand the instructions in English* but with the Afrikaans translations as well, I *understood* the instructions *more clearly in the Afrikaans* translation of it.
Misinterpreting	(7) … if I did not understand something *in English I would sometimes misinterpret a question* and loose marks. *Now* I am happy because *I do not misinterpret* the questions in this module specifically.

Input issue	Sample excerpt	
Saving time	(16)	...when I am *struggling to understand a certain word in English* I can read the word in *isiXhosa and that saved me* time because before I *used to ... ask invigilators* whom some of them will give me problem because they claimed that they do not have to explain me each word in the text
Clarification and allaying of fears	(17)	Having the essay instructions provided in more than one language *assisted me in understanding certain aspects of the instructions* which I *may have been unclear* about. There wasn't anything specific which was unclear. Reading the instructions in both English and Afrikaans allowed the *alleviation of any uncertainty* as to how to go about answering various questions.
Concern for precision	(18)	I understood what was asked in both languages, but *reading it in Afrikaans made it* more *clearer* what finer details should be included in the essay and I would have not misunderstood it, *I would have just not fully put all that should be there*.
Anxiety	(6)	It also *made me feel at ease*, as I was *not feeling anxious* about certain concepts, which I did not quite understood in English, *as there was always the Afrikaans alternative* to which I could tum for *additional aid*.
Issues of estrangement	(19)	It made me *feel accommodated* by using both languages *to read* and *write* the mid-term test

The list of concerns on Table 1 runs from the cognitive to the emotional, and underscores the conditions under which students have to succeed in assessment tasks, given the disarticulation between the institution's dominant use of English and the students' own linguistic profile.

6. Discussion

This study employed assessment to insert itself into, and to connect, the following two areas. First, the demographically correlated inequality of student performance in South Africa's higher education and the role language plays in perpetuating and addressing this performance inequality. Second, the question of cognition–emotion interactions, specifically as induced by or directed at language. In effect, then, we sought to understand how language choice in assessment generates cognition–emotion interactions that shed light on performance disparities in South African higher education and to indicate what is needed to provide a more level cognition–emotion playing field.

Data on students' subjective experiences of multilingual assessment at the University of the Western Cape shows how cognition and emotion appear to interact to offer explanations of possible inequality at both vertical and horizontal levels. Vertically, the institution's privileged linguistic cultural capital differs from the cultural capital possessed by the majority of its students, thus disadvantaging the latter. Horizontally, the few students whose cultural capital is more aligned to that of the institution appear

advantaged and have different cognition–emotion responses (with implications for performance) than the majority of students socialised from the home into other forms of embodied cultural capital.

We see fleshed out at a very micro level and in new directions the claims of the CHE with which the article began around the cultural capital assumptions underpinning the design of South Africa's higher education system and its current performance. Even while being cautious about causality, we also become aware of questions around language choice and the very validity of the assessments. Differential validity arises, as was seen above, when an assessment appears fair to one group but not to another (Frey 2015).

Central to a definition of inequality is the notion of avoidable or preventable unfairness. Data from the majority of the students suggests how the playing field for success or performance is perceived to be cognitively and emotionally more level when assessment allows them to draw on a broader set of languages both in reading the questions and in answering them. Thus, the experiences of monolingual English assessment which these students decry are preventable. The reported benefits of multilingual assessment confirm findings in previous studies which, however, focused on cognition (Antia and Dyers 2017; Antia 2021; García and Wei 2014; Lopez, Turkan and Guzman-Orth 2017; Shohamy 2011).

By layering emotion into studies of language and cognition in content assessment, this study opens up a new vista for research and invites re-analysis of previous data on students' experience of assessment. The specific attention in this study to how the students emoted, even while they were articulating their cognitive concerns, revealed that there is a frequent entanglement of emotion and cognition. It was seen how concerns of not understanding, misunderstanding, partial understanding, inability to find appropriate expressions, inability to recall, and poor marks and their respective opposites were embedded in Affect (revealing their emotional disposition of anxiety, frustration, uncertainty, happiness, excitement), Appreciation (in which different language situations were negatively or positively evaluated) and intensified by a range of Force markers. In other words, the picture painted by the data is that, with English, cognitive concerns of understanding, recalling, and writing trigger emotional concerns, which then have the potential to exacerbate the cognitive issues. In contrast, with alternative linguistic provisions, the data paints a picture of a far more equitable arrangement.

Besides the focus on emotion, the study suggests that there is a sense in which views on language and cognition in assessment may not be sufficiently nuanced. The study's modelling of assessment in terms of phases of information processing, despite the shortcomings of categorisation, has allowed us to see how students imagine where in the assessment process language matters more to them. Between the two stages of assessment for which data was available, by a wide margin, understanding

questions/instructions is where students reported having more difficulty. The students' experiences could very well be giving expression to Bourdieu's (1971, 201) point about the linguistic and rhetorical qualities of the test encouraging a certain disposition to language use. Especially in examinations, lecturers often make themselves guilty of using the type of language which makes things difficult for students (through the use of condensed, flowery or metaphorical forms).

This study has also underscored clearly that, from the standpoint of language arrangements, the topic of assessment is worth considering separately from teaching and learning. The concerns with understanding questions and writing down answers show how erroneous it is to assume that once understanding of subject content has been secured through any number of linguistic initiatives, then demonstrating acquired knowledge in assessment contexts can be taken for granted. When a student writes, as in excerpt (15) above, that "at times *you are not dumb* but *you just do not understand the language* which is *used to ask a question* and therefore *cannot answer* that which you do not understand," the point being made is that irrespective of how language may have facilitated what has been taught and learnt, there still are language issues associated with assessment which could impede students' successful completion of an examination. The data presented shows clearly how an institution's policy or de facto practice around the language of assessment, specifically, raises or levels the barrier of entry for success. For language policy formulation, the implication is that assessment clearly deserves its own set of provisions, which need to be carefully coordinated with those for teaching and learning.

7. Conclusion

Given the rediscovery of the "inseparability of cognition and emotion" (Swain 2013), and the relatively few studies on language in assessment in higher education, this study is to our knowledge one of the few to focus on the nexus of language, emotion, and cognition in the assessment of content learning (as opposed to language learning assessment) in a multilingual context. The article is the logical outcome of our work on multilingual teaching and learning (Antia and Dyers 2019; 2017; 2016; Dyers and Antia 2019), through which we have attempted to erode some of those foundations in higher education that reproduce social inequalities.

Using the lens of cognition–emotion interactions, this article has illustrated students' experiences of assessment under different language conditions and across stages of a prototypical assessment process. The key findings are as follows. First, monolingual assessment in English, especially at the input stage, created affective barriers to cognition for many of our students, triggering feelings of anxiety that could impair or even block their ability to recall what they had studied in preparation for the test or examination. In contrast, the provision of alternative multilingual linguistic arrangements appeared to provide a much more enabling environment both cognitively and emotionally, one in which language did not hamper full engagement with the

assessment questions. Second, in universities in multicultural and multilingual environments such as ours, it is not simply a matter of replacing monolingual English assessment with monolingual assessment in the home language(s). Our students typically draw on all their multilingual literacies (Martin-Jones and Jones 2000) in different literacy events, of which assessment is one. In addition, their translanguaging practices/linguistic syncretism (Antia and Dyers 2017) is a key part of their cultural capital (Bourdieu 1971), but is often rejected by higher education institutions.

These findings lead us to conclude that the topic of assessment should be considered separately from teaching and learning. It cannot simply be assumed that students taught multilingually can perform seamlessly when assessed monolingually, given concerns with understanding questions and writing down answers.

In sum, then, this article raises questions of how much is glossed over in studies reporting that linguistic interventions in teaching and/or learning have affected students' performance, but which do not attend closely to the linguistic conditions for information processing in assessment. A challenge here to South African higher education and other national education systems is to extend on-going experimentation and innovation around multilingual teaching and learning to assessment as well, attending to cognition–emotion interactions in the process.

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