

Students perceiving risk: a quantitative assessment on three South African university campuses

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Abstract

This paper documents risk as perceived by students in three South African universities—it focuses on risk encountered in everyday choices such as sexual behaviour, alcohol use and freedom of association. The project originated in qualitative research conducted over two years (2008–2009) among Rhodes University (RU) Sociology students. A second—quantitative—phase began in 2010 when findings from the initial phase were used to guide students in designing and piloting a questionnaire. Pilot results then informed a final research iteration in which a

second questionnaire was designed and administered at three universities. The final questionnaire proved robust and performed very well. Among the 1694 valid cases included in analyses, strong associations were found between the universities, respondents' sex and their worldview.

Exploratory factor analysis revealed four latent constructs underlying all responses: The existential experience of risk; Stress and pressure resulting from exposure to financial and emotional risk; Risks attached to the everyday university culture; and Promiscuity. These constructs explained 59.8% of the total variance in all observed cases (all respondents in all universities).

Students' perception of risk in their lives is complex and multi-dimensional. The research found considerable evidence for Beck's claim that in late modernity there is increasing individualisation in people's perception of risk. Also, the degrees to which specific risks resonate in student consciousness demonstrate that risk is—as Zinn claims—both constructed and real.

Key Words: risk, student behaviour, existential experience, sexual violence, South Africa

Résumé

Cet article documente le risque perçu par les étudiants dans trois universités sud-africaines concentre-t-il un risque rencontré dans les choix de tous les jours tels que le comportement sexuel, la consommation d'alcool et la liberté de projet association. The origine dans la recherche qualitative Menée sur deux ans (2008-2009) entre Les étudiants de l'Université de Rhodes (RU) sociologie. Une deuxième phase quantitative a commencé en 2010 lorsque les résultats de la première phase ont été utilisés pour guider les élèves dans la conception et le pilotage d'un questionnaire. Résultats de pilote informe alors une itération de recherche final dans lequel un second questionnaire a été conçu et administré à trois universités. The questionnaire final s'est avéré robuste et très bien performé. Parmi les 1 694 cas valides incluses dans les analyses, de fortes associations ont été trouvées entre les universités, le sexe des répondants et de leur vision du monde.

L'analyse factorielle exploratoire a révélé quatre construits latents sous-jacents toutes les réponses: L'expérience existentielle de risque; Le stress et la pression résultant de l'exposition au risque financier et émotionnel; Risques liés à la culture universitaire de tous les jours; et la promiscuité. Ces constructions ont expliqué 59,8% de la variance totale dans tous les-cas observés (tous les répondants dans toutes les universités). La perception du risque dans leur vie des étudiants est complexe et multidimensionnelle. La recherche a trouvé des preuves considérables pour la demande de Beck C'est à la fin de la modernité, il ya augmentation de l'individualisation dans la perception des gens de risque. En outre, les degrés dans laquelle les risques spécifiques résonnent dans la conscience des étudiants démontrent C'est le risque que les créances Zinn appliquées Bothan-construit et réel.

Mots clés: risque, le comportement des élèves, l'expérience existentielle, la violence sexuelle, l'Afrique du Sud

1. Introducing and conceptualising risk

Shortly after the Chernobyl nuclear accident in the Ukraine in April 1986, German theorist Ulrich Beck's groundbreaking book *The Risk Society* was published. According to Beck's (1992 [1986]) pioneering conceptualisation, sociologists identify risk as a characterising trait of contemporary societies. Rather than assuming risk to be a result of modernity, or assuming a general increase of risk factors in modern society, Beck (*ibid.*) argues that particular ways of perceiving and managing risk are an effect of how societies organise themselves: and that with the breakdown of traditional forms of association—such as social classes, the family and political groupings—an increasing trend to individualisation has emerged (87 *et seq.*). In late modernity this trend often leads to risks being viewed as 'supra-national and non-class-specific *global hazards*' (13). Increasing individualisation and the resultant accumulation of interdependent decisions of individuals contribute largely to the systemic uncertainty of late modernity: individualisation, Bauman argues, 'is a fate, not a choice' (Bauman 2000, 34). In this regard Giddens (1994: 78, 97) uses the concept of 'manufactured uncertainty' implying that risk, as an effect of human activities, is a structural consequence of industrial modernisation. The modern citizen in the modern world is increasingly confronted with man-made rather than natural risk (Giddens 1999; 1990). And in their everyday lifeworld people are compelled to deal with these 'new' risks (Giddens 1990).

Furlong and Cartmel (2007) explore how risk is experienced at the individual level among British youths from the mid-1970s. Specifically, they suggest that changes in education, labour market, family and leisure have significantly affected the way young people experience their lives. In particular, risk, while being generated by ungovernable social forces, is ultimately managed individually:

[L]ife in late modernity revolves around an epistemological fallacy: although social structures, such as class, continue to shape life chances, these structures tend to become increasingly obscure as collectivist traditions weaken and individualist values intensify. As a consequence of these changes, people come to regard the social world as unpredictable and filled with risks which can only be negotiated on an individual level, even though chains of human interdependence [...] remain intact (*ibid.*: 2-3).

Risk is manifested in the constantly increasing consequences for individuals and so there is a growing perception of risk being unavoidable. But there is also a growing recognition that risk should be anticipated and managed. This poses fundamental questions about the epistemological status of risk: does risk exist outside the fact that individuals do or do not

acknowledge it? Can subjective risk assessments be considered as more or less accurate on an objective scale? The concept of risk perception, Jackson *et al.* (2006) argue, implies that differences exist between objective risk assessments made by experts and 'soft judgments' made by ordinary people. Hawkes and Rowe (2008: 617) point out that '[I]t is now generally recognised that laypersons perceive risk in a more complex, multi-dimensional way than do risk assessors, who base their assessments of risk on the likelihood of human harm'.

Although it is now widely accepted within sociological theory that risk is both constructed *and* real (Zinn 2006), what varies is the way this duality is articulated at the conceptual level. Avena and Renn (2009: 3) warn that,

[b]y granting risk an ontological status, debates between risk paradigms are placed into an arena of disagreement over questions of knowledge, about our perceptions and understandings of risk, and about our understanding of how groups and societies choose to be concerned with some risks while ignoring others'.

They suggest a different approach: embedding risk within the world of social actors, rather than considering it 'a state of the world independent of our knowledge and perceptions' (*ibid.*:2). In this view '[r]isk refers to uncertainty about and severity of the consequences (or outcomes) of an activity with respect to something that humans value' (*ibid.*). Jackson *et al.* (2006) point out a paradox of late modernity, namely that more knowledge produces more risk: 'Attention and judgement create a risk in this sense: modern systems of risk assessment classify, select and respond, bringing attention to bear on a danger or opportunity, giving a newly formed risk meaning and technical precision' (sec. 3, par. 1). While less knowledge can still be a source of greater risk for issues such as STDs (see Kalichman *et al.* 2005), a focus on the domain of risk perception and conceptualisation within a context of higher risk awareness is revealing of how risk is recognised and dealt with in contemporary society. University students, whose lives are daily involved in knowledge exchange and communication practices, offer a privileged standpoint from which to observe such new reflexivity of risk.

Wall and Olofsson (2008: 432) focus on young people's 'sensemaking' of risk, or 'how risk is put in the social context of young people's everyday life'. According to them sensemaking is defined 'as the way people materialize meanings of risk within a social context' (*ibid.*). This draws attention to the role that social interaction plays—with its norms, values, pressures and roles—in forming individuals' understanding of risk. The cultural nature of risk becomes evident once we take into consideration voluntary risk, where risk is inextricably and simultaneously tied to issues of constraints, choice and control (Douglas & Wildavsky 1983). In instances such as binge drinking, which is high amongst South African university students (HEAIDS 2010: xii), risk can operate as a discouragement but can also be a substantial incentive.

Moore and Burgess (2010)—comparing drinking and drug-related behaviour to religious and community rituals in the US—argue that risk taking in relation to substances is better understood as functional rather than irrational. They conclude that ‘[t]he public perception of risk [...] is symbolic of social processes, dispositions, and deep cultural structures, and suggestive of the contemporary relationship between the individual and society’ (112). Similarly, recent studies (e.g., Leve *et al.* 2011; Seear 2009; Adam 2005) linking risk with everyday practical morality, contend that active and conscious risk taking is not necessarily an act of rebellion, nor the outcome of lack of information, but can even be read as an expression of the political ethos of neoliberalism. We interpret neoliberalism in keeping with Hayek’s view (in Thorsen & Lie 2006: 13) of a ‘...“spontaneous order” of social life, which is better than any kind of artificially created order when it comes down to securing individual liberty and well-being.’ Regarding risk, Thorsen and Lie (*ibid.*: 15) add that in a neoliberal ethos, ‘[i]ndividuals are also seen as being solely responsible for the consequences of the choices and decisions they freely make.’ It has even been claimed that ‘the new “borderlessness” of some risks, and the process of reflexive modernization in neoliberal regimes, have been linked to the apparent disappearance of class [...] the reflexive individual negotiation of risk has replaced traditional “class consciousness”’ (Threadgold & Nilan 2009: 50–51).

Cebulla (2007:130), among others, contends that the overrepresentation of risk in contemporary societies overlooks the continued influence of class and other traditional structures. However, while class, education, gender and other traditional dimensions of social life still affect the kind and level of risk that is experienced, the paradigm of individualisation imposes that the consequences of risk are mostly dealt with at the individual level. According to Bauman, contemporary consumerist societies are ‘characterized by a far advanced deregulation and de-routinization of human conduct, directly related to a weakening and/or crumbling of human bonds’ (Bauman 2007: 49). In this frame, the individualising process ‘consists of transforming human identity from a given into a task and charging the actors with the responsibility for performing that task and for the consequences (also the side-effects) of their performance’ (Bauman 2000: 31–32).

Hayenhjelm (2006) notices that risk taking is not necessarily the result of a rational calculation of costs and benefits, or a misinterpretation of possible negative outcomes—risk taking can also be understood as a choice that offers an element of hope for an individual with limited options or in a vulnerable position. Hayenhjelm defines this (high) risk taking as ‘risk from vulnerability’ (192). This blurs borders between voluntary and involuntary risk taking, thus pointing to the influence of context and of social norms. The issue of social norms is closely related to the ethos of neo-liberalism and to dominant cultures in communities such as university campuses.

Risk perceptions and judgements among young people are shaped to some extent by peer pressure and notions of what is desirable to those within their own generations (Mudhovozi, Ramaruma & Sodi 2012); this is also found to be the case among South

African university students (Rau, Coetzee & Vice 2010). In pursuing the desirable, and the normative in terms of social acceptance, it is not unusual for students to be unrealistically optimistic when judging their susceptibility to negative consequences of risk taking (*ibid.*). The study of sexual behaviour is an area in which sociocultural formulations of risk have proven especially fruitful. The inequitable balance of power between women and men in sexual relationships of South African youth and the gendered nature of HIV infection are well established facts; these are also vectors of risk in university contexts (Gordon & Collins 2013; Rau, Coetzee & Vice 2010). There is also a dense network of cultural norms and values linking alcohol, risky sexual behaviour, and exposure to violence in sub-Saharan Africa (Woolf-King & Maisto 2009), and more specifically, as experienced by South African students (Pengpid *et al.* 2013). It is not only in their wider social settings that students feel at risk: as a national study of higher education institutions in South Africa found:

[T]here was not a strong sense among students that they were safe from physical harm at the institution, with only 61% agreeing with the statement. Perceptions that physical injury through violent crime was a problem were held by 17% of students, while only just over a third (38%) agreed that female students were safe from sexual harassment at the institution' (HEAIDS 2010: xiii).

Regarding the psychological wellbeing of South African university students, Young and Campbell (2014) find high levels of anxiety regarding academic performance—particularly amongst students who are the first generation of their families to attend university. The latter are more vulnerable than usual to the ordinary pressures of university studies because they must cope with huge family expectations as well as financial pressures resulting from families who still live in an apartheid legacy of poverty. An additional vulnerability is that students from historically disadvantaged backgrounds are often educationally under-prepared (Coetzee, Elliker & Rau 2013). Transformation of and in higher education is a key goal in South Africa (Thaver & Thaver 2010), but to what extent do students still perceive racism as being part of everyday university culture? These are some of the social and cultural factors related to risk that motivated our study.

The social actors in this article are students from three South African universities—one institution in a small city, one in a medium sized city, and one in a large city. We ask students about their perceptions of risk as anticipated and experienced in their everyday life. Rather than focusing on macro-level natural, structural and technological risks, we examine risk at the individual level where students need to anticipate and manage risk in relation to everyday human choices such as sexual behaviour, alcohol use and freedom of association. Literature and earlier research findings point to a further two issues that we also investigate: financial challenges and pressure to perform academically.

Another factor of interest to us is students' anticipation of the untoward outcomes of violence, which is a pervasive social force in South Africa. Gaskell *et al.* (2004) stress that, while risk involves loss and benefit, the vast majority of research focuses on loss. From the discussion of literature so far it is clear that there are many different ways of understanding and defining risk—our emphasis is also more focused on the loss rather than benefit of risk. For this research we broadly defined risk as uncertainty manifested in the perceptions, judgements and actions of students in response to situations involving exposure to danger and the possibility of negative consequences. Our research question is: To what degree do South African students from three different universities regard as being part of their lifeworlds risks associated with heavy drinking, sexual behaviours, racism, financial pressure and academic performance?

2. Methodological account

2.1 The prelude to the survey

This project originated in qualitative research conducted over two years (2008-2009) among students at Rhodes University, in Grahamstown, South Africa. The aim of this first stage of the research was to deepen understandings of how students experience and negotiate risk (Rau, Coetzee & Vice 2010: 82). Data were gathered by students, from students, in twenty focus group discussions that explored seven themes: (1) Exposure to crime and violence; (2) Potential conflicts related to racism; (3) Financial constraints and uncertainties; (4) Emotional stress and pressures; (5) Environmental factors; (6) Exposure to health risks including HIV-infection; and (7) Dangers of substance use. In a series of discussions on research design student researchers *themselves* identified these themes as being pertinent to risk perceptions and experiences in the wider student community. These seven themes formed the basis for formulating items on the questionnaire used in the study which is the focus of this article.

In 2010, following the analysis of the twenty focus group transcriptions, a second—quantitative—phase of the research began. Sociology II students undertaking a course in research methodology at Rhodes University were guided in constructing a questionnaire that drew on findings from the rich data collected in the 2008-2009 focus groups. The questionnaire went through different phases of refinement regarding item choice and wording (validity) and formatting (layout and construction), before the students administered it on campus. This initial survey became a pilot study for the wider survey on which this article is based.

Given the scope and intensity of the initial research, the principal researchers decided to extend the research to the campuses of the University of Johannesburg and

the University of the Free State. In this way a comparative analysis was possible. The project is not funded by any grant but the respective Departments of Sociology at the 3 universities carried the cost of printing, stationary and limited research assistance on their respective campuses.

2.2 The final survey instrument administered at three universities

Conscious of the fact that the format of a questionnaire would affect the response rate and response quality in student populations, we decided to restrict the number of items measuring student perceptions of risk in the final instrument to ten. Based on results of the 2010 pilot, ten questionnaire items—which best represented the spread of themes as well as the strength of statistical correlations—were identified and their wording refined.

The three South African universities that participated in this survey were specifically selected because they represent different kinds of institutions: Rhodes University (RU) in Grahamstown in the Eastern Cape is a small residential university in a small city; the University of the Free State (UFS) in the Free State in Bloemfontein is a big residential university in a medium-sized city; and the University of Johannesburg (UJ) in Gauteng is a big residential university in a big city. A small number of independent variables were included in the final survey: University (UJ or UFS or RU); sex; study direction; place of origin (rural or small town or city); worldview (self-classification of political stance as being left or centre or right); and class (self-classification into upper or middle or lower class—with respondents explaining their choice). Three of these independent variables (study direction, place of origin and class) did not yield significant and although we present a table showing basic descriptive statistics for them, they are not expanded on in the analysis.

The theme of environmental risk was dropped because in the pilot responses it displayed limited variability. The pilot found the following two themes to be of particular importance: perceived exposure to health risks, notably sexual health risks; and perceived dangers posed by substance use, notably the excessive consumption of alcohol. Thus in the newest survey instrument we decided to allocate more than one item to these issues (two items on health and three on alcohol abuse).

Researchers have long been in agreement that response effects in surveys increase as questions become more personal, controversial, sensitive, or threatening (cf. Blair *et al.* 1977: 316-321). For this reason the ten questionnaire items measuring perceptions of risk do not attempt to measure 'how much' or 'how many'. They also do not ask respondents to report directly on their own behaviours and activities, particularly regarding drinking and sexuality.

2.3 Sampling

Although sampling was not designed to yield a classic probability sample, where each member of the sampling frame has a known probability of being selected, the stratified sampling as described in the data collection section below ensured that broadly representative groups of students on each participating campus were included. In total 1732 questionnaires were administered: 515 at UJ, 662 at UFS, and 555 at RU. There were more female respondents ($n = 1052, 60.8\%$) than male respondents ($n = 677, 39.2\%$): these proportions are slightly more than the norm on South African campuses, where more females are registered. The distribution in terms of study direction is: Humanities and Education ($n = 739, 42.7\%$); Commerce, Business, and Law ($n = 578, 33.4\%$); and Science—including Health, Pharmacy, and Agriculture ($n = 414, 23.9\%$); these numbers roughly coincide with student numbers in these faculties.

2.4 Ethics

There were several ethical provisos for recruiting respondents: (1) Student fieldworkers should inform potential participants about the aims and processes of the research using a standardised cover letter. (2) Participation should be voluntary. (3) On the last page of the questionnaire respondents were required to provide their student number. Student fieldworkers explained to potential respondents that this identifier was only needed for quality control of the data (spot checks to verify the existence of the student and to verify the legitimacy of the distribution process). Fieldworkers assured potential respondents that their information would be kept confidential and that at no stage would student numbers be used to link respondents personally to the information they provided.

2.5 Data collection

Data collection for this third stage of research on students' perception of risk occurred at all three universities during the second half of 2011. In the cases of UJ and UFS, 3rd-year Sociology students conducted the fieldwork, while at RU 2nd-year Sociology and Industrial Sociology students collected data. Each student had to administer three questionnaires. Representativity of different sexes and study directions were sought via several procedural provisos for recruiting participants: (1) No Sociology students should fill in a questionnaire. (2) One questionnaire had to be completed by a student from each of three faculty groupings: Humanities and Education; Commerce, Business, and Law; and Science (including Health, Pharmacy, and Agriculture). (3) Because there were slightly more female students registered for Sociology at all of the participating universities, each student had to administer at least one questionnaire to a student of

the same sex, while the remaining two questionnaires could be administered to students of any sex. (4) Questionnaires had to be distributed to students registered for their final year of undergraduate study (3rd- or 4th-year). (5) Each questionnaire was handed out with an envelope in which respondents sealed their completed questionnaires. Student fieldworkers had to write their own student number on the envelopes they collected (for spot checks of the distribution process).

2.6 Data analysis

All statistical analyses were performed using the SPSS software programme version 20. In addition to analysing data to generate descriptive and inferential statistics, multivariate statistical techniques were employed. The reliability and validity of the questionnaire were tested using Cronbach's Alpha, Kaiser-Meyer-Olkin (KMO) and Bartlett's test, and exploratory factor analysis was used to identify underlying constructs/dimensions. Chi-square tests of independence were used to test for significant effects of selected independent variables on the responses to the 10 items. Analyses of variance (ANOVA) and independent *t*-tests were conducted to identify any significant effects of selected independent variables on the identified dimensions.

2.7 Validity, reliability and other measures of quality

Although the questionnaire comprises only ten items, statistical tests were used to confirm that it measures what it was designed to measure and it addresses the purpose and central research question: To what degree do South African students from three different universities regard as being part of their lifeworlds, risks associated with heavy drinking, sexual behaviours, racism, financial pressure and academic performance? Moreover, the succinct page layout resulted in an instrument that was brief and manageable for respondents. Construct validity was obtained by successive iterations of the research: by first identifying various domains of students' risk experience and perceptions, then identifying priority areas of risk experience and perceptions from focus group discussions, and finally, synthesising the findings into key questions for the final questionnaire.

Cronbach's Alpha was used to determine the degree to which the items on each scale are measuring the same underlying dimension—in other words, to examine internal consistency—based on the average of inter-item correlation. The internal consistency of our questionnaire was measured using all the items. The mean and variance of each of the items were calculated as well as the covariances between all of the possible pairs of items (Knapp & Mueller 2010: 339). Inter-item correlation between the 10 items in each and every fully completed questionnaire was examined: a total of 1694 valid

cases were included. A Cronbach's Alpha value of 0.70 is normally regarded as a good indication of reliability. In our questionnaire the value is 0.60. Given that our instrument comprises only 10 items, this value can be regarded as a sufficient indication of reliability, reflecting a high level of relationship between the individual items.

When subjecting the data to exploratory factor analysis a Kaiser-Meyer-Olkin measurement of 0.68 of sampling adequacy is attained, indicating that the 10 items in the questionnaire can be grouped into constructs or dimensions. The Bartlett's Test compared the correlation matrix of all 10 items to an identity matrix (where there is no correlation) and shows clearly a significant correlation among the 10 items (Chi-square = 2155.3, $df = 45$, $p < 0.001$) thus also confirming that the items can be grouped into constructs/dimensions.

3. Results and discussion

In presenting the findings on students' perceptions of risk attention will fall on the following:

- Results of analyses of categorical data using Chi-square tests
- Results of exploratory factor analysis and identified dimensions
- Results of analysis of variance (ANOVA) and independent t -tests indicating any significant effects of selected independent variables on the identified dimensions

3.1 Descriptive and inferential analyses

Table 1 below summarises the results of the cross tabulation of categorical data from all the questionnaires. Descriptive statistics for each of the 10 questionnaire items are categorised according to the university (UJ, UFS, RU), sex (F/M), and the respondents' worldview (self- classification of political stance as left or centre or right). The three remaining independent variables (study direction; place of origin; and self-classification into upper or middle or lower class) delivered insignificant relationships.

That class was not a significant variable in students' perceptions of risk concurs with Furlong and Cartmel's (2007: 2-3) insight that social structures such as class '... tend to become increasingly obscure as collectivist traditions weaken and individualist values intensify.' As result people see the social world as permeated by risks that they must negotiate as individuals (*ibid.*). Thorsen and Lie (2006) agree that for people living in a time of neoliberal ethos, risks are increasingly seen as having to be managed at the individual level. In conclusion we draw on Threadgold and Nilan's (2009: 2-3) observation that '...the reflexive individual negotiation of risk has replaced traditional "class consciousness"'.

Table 1: Descriptive statistics of item response percentages by selected independent variables

Statement		University				Sex				Worldview			
		UJ		UFS RU		F		M		Left		Centre Right	
		Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n	Percentage	n
1 To be a victim of a violent attack is a real risk in my life	Agree	70.2	71.0	55.5	1136	68.2	62.1	1134	62.1	67.1	69.1	1117	
	Uncertain	15.6	13.1	19.0	271	16.0	15.2	270	17.1	16.2	13.0	264	
	Disagree	14.2	15.9	25.5	319	15.9	22.6	319	20.8	16.6	17.9	308	
	Pearson Chi-Square Significance	42.04 (4df) <0.001				12.62 (2df) 0.002				7.70 (4df) 0.103			
2 Heavy drinking is part of everyday university culture	Agree	37.7	35.0	75.5	844	49.6	47.4	842	53.0	46.8	47.2	827	
	Uncertain	28.0	24.8	9.2	359	20.4	21.4	359	19.2	20.3	23.4	352	
	Disagree	34.2	40.2	15.3	527	30.0	31.2	526	27.8	32.9	29.4	515	
	Pearson Chi-Square Significance	237.54 (4df) <0.001				0.81 (2df) 0.668				7.62 (4df) 0.106			
3 Racism is part of the everyday university culture	Agree	29.3	54.1	24.7	643	37.7	36.4	641	34.4	36.4	41.9	629	
	Uncertain	34.4	25.8	28.1	502	27.6	31.5	502	27.8	30.8	28.7	495	
	Disagree	36.3	20.1	47.2	581	34.7	32.1	580	37.9	32.8	29.4	565	
	Pearson Chi-Square Significance	156.97 (4df) <0.001				3.15 (2df) 0.207				10.21 (4df) 0.037			
4 Contracting a sexually transmitted infection is a real risk for me	Agree	50.1	49.8	35.1	780	43.0	48.5	778	41.9	44.3	51.4	769	
	Uncertain	7.2	11.4	11.4	175	8.9	12.0	174	9.5	10.3	10.5	171	
	Disagree	42.7	38.8	53.5	772	48.2	39.5	772	48.6	45.4	38.1	752	
	Pearson Chi-Square Significance	39.71 (4df) <0.001				13.86 (2df) 0.001				11.79 (4df) 0.019			
5 Heavy drinking adds to my risks in everyday life	Agree	50.0	51.0	45.7	846	47.4	51.3	843	46.7	48.3	53.8	833	
	Uncertain	9.2	10.0	13.7	189	9.8	12.7	189	10.5	12.9	8.0	184	
	Disagree	40.8	39.0	40.6	692	42.8	36.0	692	42.8	38.8	38.2	674	
	Pearson Chi-Square Significance	8.09 (4df) 0.088				9.20 (2df) 0.010				10.59 (4df) 0.032			
6 Heavy drinking is more risky for female students than for male students	Agree	58.4	62.1	69.3	1096	61.6	65.9	1093	62.0	64.7	62.1	1070	
	Uncertain	9.9	12.1	10.6	190	10.8	11.4	190	10.9	10.3	12.9	189	
	Disagree	31.7	25.8	20.0	445	27.7	22.7	445	27.1	25.1	25.0	435	
	Pearson Chi-Square Significance	20.58 (4df) <0.001				5.26 (2df) 0.072				2.90 (4df) 0.572			
7 Being young justifies having multiple sexual partners	Agree	5.8	7.4	8.8	128	3.6	13.3	128	8.6	8.2	4.9	126	
	Uncertain	6.2	5.8	7.0	109	3.4	10.7	108	7.8	5.3	5.6	104	
	Disagree	88.0	86.8	84.1	1492	93.0	76.0	1490	83.7	86.4	89.5	1462	
	Pearson Chi-Square Significance	4.57 (4df) 0.334				100.03 (2df) <0.001				9.50 (4df) 0.050			
8 To fall victim to an act of crime is a real risk in my life	Agree	69.5	64.6	61.7	1122	66.0	63.8	1120	63.9	65.5	67.1	1104	
	Uncertain	13.2	16.0	17.5	270	15.4	16.0	269	16.2	16.1	14.5	265	
	Disagree	17.3	19.4	20.8	331	18.6	20.2	331	19.9	18.4	18.3	318	
	Pearson Chi-Square Significance	7.34 (4df) 0.118				0.90 (2df) 0.637				1.32 (4df) 0.859			
9 My financial situation puts me under stress	Agree	50.2	55.1	38.8	837	47.2	50.1	834	49.4	48.9	46.5	819	
	Uncertain	10.9	11.6	13.4	207	10.8	13.9	207	12.0	12.4	12.0	206	
	Disagree	38.9	33.2	47.8	684	42.0	35.9	684	38.6	38.7	41.4	666	
	Pearson Chi-Square Significance	34.90 (4df) <0.001				7.96 (2df) 0.019				1.16 (4df) 0.884			
10 I am under pressure to make a success of my studies	Agree	79.2	79.5	86.7	1414	84.6	77.1	1411	83.7	81.9	78.8	1383	
	Uncertain	4.3	5.0	5.8	87	4.5	5.9	87	5.2	4.9	4.9	85	
	Disagree	16.5	15.6	7.6	230	10.9	17.0	230	11.0	13.2	16.3	226	
	Pearson Chi-Square Significance	23.98 (4df) <0.001				15.81 (2df) <0.001				5.70 (4df) 0.223			

3.1.1 Associations with ‘University’ UJ (University of Johannesburg); UFS (University of the Free State); RU (Rhodes University):

No fewer than 7 out of 10 questionnaire items, when crosstabulated with the categorical variable ‘university’ yield high Pearson Chi-square values and levels of significance of $p < 0.001$ indicating very strong associations with the variables: 1 (To be a victim of a violent attack is a real risk in my life); 2 (Heavy drinking is part of everyday university culture); 3 (Racism is part of the everyday university culture); 4 (Contracting a sexually transmitted infection is a real risk for me); 6 (Heavy drinking is more risky for female students than for male students); 9 (My financial situation puts me under stress); and 10 (I am under pressure to make a success of my studies). Of these significant ($p < 0.001$) associations:

- The highest Chi-square value is found in the association between the three universities and item 2, ‘Heavy drinking is part of everyday university culture’. Three out of four RU students (75.5%) agree with this statement. Life as a RU student in a small university ‘town’ revolves around activities in and around campus; at RU drinking is a popular form of recreation (Rau, Coetzee & Vice 2010). This is not to say that students from UFS and UJ drink less—as pointed out earlier, research finds very high drinking levels in the whole of sub-Saharan Africa (Woolf-King & Maisto 2009) as well as among South African university students (HEAIDS 2010; Pengpid et al. 2013). It is just that at UJ and UFS drinking is not perceived by students as part of everyday university culture—we surmise that because these students live in larger cities they have many more spaces in which to do their drinking, more off-campus friends, as well as more recreational options than at RU.
- The second highest Chi-square value relates to item 3, ‘Racism is part of the everyday university culture’, with almost half of RU students disagreeing with this statement. Processes of transformation have been more difficult and fraught with reversals on traditionally more conservative campuses (Thaver & Thaver 2010). Traditionally RU is an English-medium liberal university with a strong history of anti-apartheid activism—clearly many current students continue a culture of tolerance: 47.2 % disagree that racism is a part of university culture. UFS and UJ both share a history of Afrikaans as the medium of instruction, and before the transformation of higher education gained momentum, were more aligned with the pre-democratic conservative government norms. UJ was the first of the two campuses to shift its ethos when the university changed its name from RAU (Rand Afrikaans University) to its present University of Johannesburg after which the intake of English speaking students began to rise. The degree to which UJ students disagreed that racism is a part of everyday culture (36.3%) indicates

that transformation processes have taken hold. Transformation on the UFS campus has been the slowest to begin, and although great strides are being made, change has been challenging, no doubt this is why so many students from the campus (54.1%) agree that racism is a part of everyday culture at the university.

- Significantly more students at universities in the big city (UJ=70.2%) and medium-sized city (UFS=71.0%) report that 'To be a victim of a violent attack is a real risk in my life' compared to students in the small city (RU=55.5%). Notwithstanding differences between universities, fear of being victim of a violent attack is unacceptably high in all three cases, pointing to students' awareness of the high rates of violence in South Africa. As pointed out in the introductory section, almost a third of South African students do not feel safe from physical harm *on their own campuses* (HEAIDS 2010: xiii).

More students in the big city (UJ=50.1%) and medium-sized city (UFS=49.8%) are of the opinion that 'Contracting a sexually transmitted infection is a real risk for me' compared to students at the small town university (RU=35.1%). It seems that students estimate their risk of contracting a sexually transmitted infection (STI) higher than the number of self-reported STIs among students found in a national HIV sero-prevalence survey of all higher education institutions in South Africa: a total of 20% [CI: 8,8%–39,5%] of men and 6,5% [CI:2,8%–14,2%] of women reported STI symptoms in the year preceding the survey (HEAIDS 2010: xiv). Although the survey points out the wide disparity in HIV prevalence across different university sites, the overall HIV prevalence among South African university students was 3.4% [CI: 2,7%— 4,4%] (HEAIDS 2010: xi). Regarding risk factors for contracting an STI, the HEAIDS report (*ibid.*: xv) notes that male and female students report that they had 'casual sex with no condoms in the context of alcohol intake when first coming to varsity'. It is interesting that risk at population level of all students is *in fact* lower than *perceptions* of risk found in our study; we wonder if this is not a manifestation of the systematic uncertainty of late modernity postulated by Giddens (1999, 1990). As Zinn (2006) observes, risk is both constructed and real. Perhaps students' overestimation of the risks of contracting an STI is an indication of how much they construct this risk as unavoidable and in need of management (Furlong & Cartmel 2007).

Students in the big city (UJ=50.2%) and medium-sized city (UFS=55.1%) agree more with the statement, 'My financial situation puts me under stress' than do their counterparts in the small city (RU=38.8%). RU draws most of its students from outside Grahamstown where it is situated: families who send their children to Rhodes tend towards being quite affluent. Having said that, 38.8% is still high; it may be linked to concerted efforts at RU to increase the intake of students from historically disadvantaged homes, where families are not always able to provide really solid financial support as Young and Campbell (2014) note.

- The majority of students feel 'I am under pressure to make a success of my studies' (UJ=79.2%; UFS=79.5%), although significantly more students from the small city university agree with this statement (RU=86.7%). In South Africa RU is regarded as one of the top five universities in terms of academic standards as well as levels of student achievement—students are indeed under pressure to succeed in their studies.
- More students from RU (69.3%) than from UJ (58.4%) and UFS (62.1%) are of the opinion that 'Heavy drinking is more risky for female students than for male students'. A high proportion of students on all three campuses agree with this statement. But there is a significantly higher awareness among RU students, therefore more should be done on UJ and UFS campuses to raise students' awareness that levels of vigilance, safety, and risk perception diminish when under the influence of alcohol, that females are at higher risk of gender-based violence, and that it is vital to understand that these vectors combine to make heavy drinking more risky for female students than for males (Gordon & Collins 2013; Pengpid *et al.* 2013; Woolf-King & Maisto 2009).

3.1.2 Associations with sex (M/F):

The views of female and male students differ significantly ($p < 0.001$) with regards to four of the ten questionnaire items.

- The highest level of significance is found in the correlation with item 7, 'Being young justifies having multiple sex partners'. More than 9/10 female students (93%) disagree with this statement, compared to 76% of male students. It is encouraging to see that males as well as females disagree with this statement because having multiple sexual partners is one of the key vectors for sexually transmitted infections (STIs) and in the context of low condom use is considered to be a key driver of HIV (Rau, Coetzee & Vice 2010). That more females than men disagree with the statement makes sense given that women are more vulnerable socially and biologically to sexually transmitted infections, particularly HIV (Gordon & Collins 2013; Rau, Coetzee & Vice 2010). This is no doubt one of the reasons why qualitative research finds that women tend to be more conservative regarding sexual behaviours than men (HEAIDS 2010).
- More male students (48.5%) than females (43.0%) agree with item 4, 'Contracting a sexually transmitted infection is a real risk for me'. This makes sense in the light of the HEAIDS (2010: xi) national study of university students, which found that '[m]en tended to report more sexual partners in the past month (19%) than women did (6%).'

Items 7 and 4 are the only two on the questionnaire that ask about sexual perceptions, and in both cases female students differ significantly from male students. Both items indicate that males are more likely to have perceptions that put them at higher risk of sexually transmitted infections.

- More female students (84.6%) agree with the statement 'I am under pressure to make a success of my studies' than do their male counterparts (77.1%).
- Men and women also differ significantly regarding the statement, 'To be a victim of a violent attack is a real risk in my life', with more female students agreeing (68.2%) than male students (62.1%). In South Africa, violence against women (and children) is extreme (UNICEF 2012:11). Our results show that female students are well aware of this fact, but that too many male students are not correctly informed of the gendered nature of violence in South Africa.

3.1.3 Associations with worldview (Self-classification of political stance being left or centre or right):

The association is significant ($p = 0.019$) between worldview and 'Contracting a sexually transmitted infection is a real risk for me': of respondents who declare a right-oriented worldview (conservative) 51.4% agree with the statement, of those who declare a centre-oriented worldview 44.3% agree with the statement, and 41.9% of respondents who declare a left-oriented (liberal) worldview agree with the statement. It is difficult to interpret this result, except to note that across all universities, and whether male or female, students who proclaim themselves to be politically conservative perceive themselves to be at higher risk of suffering a negative outcome of sexual activity. We wonder if politically conservative students also tend to hold sexually conservative views and if this is accompanied by more fear surrounding sexual activity.

As will be seen in the section on multivariate analysis (sub-section 3.2 below), the most significant underlying construct/dimension is the existential experience of risk.

3.2 Multivariate analysis

3.2.1 Factor analysis

Exploratory factor analysis was conducted to establish to what extent the questionnaire reveals the presence of dimensions or constructs that are latent—i.e. not explicitly formulated in the questionnaire—and to what extent these constructs can be reliably identified. The identified constructs are theoretically defensible factors or dimensions that are not directly observable (Bandalos & Finney 2010: 93) but which link together those questionnaire items that share an implicit, broader idea or theme. Factor analysis models the covariation among observed variables (the 10 questionnaire items) as a function of these latent constructs (*ibid.*). And the latent constructs identified by the exploratory factor analysis indicate the existence of discriminant validity of the questionnaire—in other words the ability of the questionnaire to model the covariance of a number of items into one dimension. Thus the factor analysis indicates instances of shared variance found in the questionnaire.

Applying factor analysis to the entire number of observed cases (all 3 universities)

When applying factor analysis to the entire number of observations (1694 complete questionnaires) four components (constructs/dimensions) with eigenvalues greater than 1 were isolated. Construct 1 accounted for 24.4% of the variation; Construct 2 accounted for 13.8% of the variation; Construct 3 accounted for 11.6% of the variation and Construct 4 accounted for 10.0% of the variation. Thus 59.8% of the total variance in the entire number of observed cases (the total number of respondents from all 3 universities) can be explained by the four components/constructs/dimensions as identified in the varimax rotated component matrix regarding all 3 the universities (Table 2).

The four dimensions identified in relation to the 3 universities consist of the following items:

Construct 1: ***The existential experience of risk***. By existential experience we mean the hard reality experienced by individuals *in their lives*. This construct is made up of 4 questionnaire items:

- To be a victim of a violent attack is a real risk in my life
- Contracting a sexually transmitted infection is a real risk for me
- Heavy drinking adds to my risks in everyday life
- To fall victim to an act of crime is a real risk in my life

Construct 2: ***Stress and pressure resulting from exposure to financial and emotional risk*** comprises 2 questionnaire items:

- My financial situation puts me under stress
- I am under pressure to make a success of my studies

Construct 3: ***Risks attached to the everyday university culture*** consists of 3 questionnaire items:

- Heavy drinking is part of the everyday University culture
- Racism is part of the everyday University culture
- Heavy drinking is more risky for female students than for male students

Construct 4: ***Promiscuity*** consists of a single item in the questionnaire:

- Being young justifies having multiple sexual partners

Table 2: Rotated component matrix with regard to all observed cases (Varimax rotation is used)

Items	Constructs			
	1	2	3	4
To be a victim of a violent attack is a real risk in my life	.686	.177	.079	-.340
Contracting a sexually transmitted infection is a real risk for me	.810	-.009	-.009	.171
Heavy drinking adds to my risks in everyday life	.746	-.058	.036	.200
To fall victim to an act of crime is a real risk in my life	.696	.244	.036	-.203
My financial situation puts me under stress	.223	.757	.008	.155
I am under pressure to make a success of my studies	-.035	.813	.100	-.089
Heavy drinking is part of the everyday University culture	-.075	.056	.726	.051
Racism is part of the everyday University culture	.151	.103	.649	-.126
Heavy drinking is more risky for female students than for male students	.020	-.029	.553	.157
Being young justifies having multiple sexual partners	.026	.065	.111	.890

The most important single dimension/construct among the 10 items is *the existential experience of risk* (made up of four items: To be a victim of a violent attack is a real risk in my life; Contracting a sexually transmitted infection is a real risk for me; Heavy drinking adds to my risks in everyday life; To fall victim to an act of crime is a real risk in my life). The four items constituting this construct are all specifically related to the notion of being 'a real risk in my life'. This construct explains 24.4% of the total variance in the data. It is interesting to note that the four items which make up this construct is a mix of, on the one hand, risk students have little control over (e.g. being the victims of violence and crime) and, on the other hand, risky behaviour students presumably do have more control over (contracting an STI, and heavy drinking adding to everyday risks). Nonetheless the factor analysis clearly shows that one underlying construct orders these into a single factor. The strong presence of *the existential experience of risk* as a construct might be related to the acceptance that 'ungovernable social forces' (Furlong & Cartmel 2007: 2-3) generate risk, but that the risk needs to be managed by the individual himself or herself. Hayenhjelm (2006) speaks of the blurring of borders between voluntary and involuntary risk being influenced by context and social norms; and although he speaks of it in relation to risk taking by vulnerable people out of hope and lack of alternative options, the idea is also relevant to the integration of the two apparently different origins of risk—exogenous and endogenous—that we find in the construct of *the existential experience of risk*. Thus while the existential dimension of risk suggests that risk is managed first of all at the individual level, it also involves the negotiation of students' roles, peer pressure and social control. These apparently conflicting issues are reconciled in the individualization process as theorised by Beck (1992 [1986]). We also note that all the items that combine in this factor endanger the individual's life and result in negative, and arguably severe, consequences that are generally feared.

The second most important dimension/construct among the 10 items is *stress and pressure resulting from exposure to financial and emotional risk* (made up of 2 items: My financial situation puts me under stress; I am under pressure to make a success of my studies). This construct explains 13.8% of the total variance in the data. As noted before, Young and Campbell's (2014) research on the psychological wellbeing of university students found high anxiety about academic performance. This was exacerbated by financial worries, when students struggle to make ends meet, particularly those from poor households.

The third most important dimension among the 10 items is *risks attached to the everyday university culture*. It is made up of 3 items: Heavy drinking is part of the everyday university culture; Racism is part of the everyday university culture; Heavy drinking is more risky for female students than for male students. This construct explains 11.6% of the variance. These items all speak of voluntary risk, where the risks are closely woven with issues of constraints, choice and control (Douglas & Wildavsky 1983).

The fourth most important dimension among the 10 items is *promiscuity* (being young justifies having multiple sexual partners). This single item explains 10.0% of the variance. Here risk is linked closely with morality: exercising choice, when that choice is an agreement with the statement, may best be thought of an expression of the political ethos of neoliberalism (Leve *et al.* 2011; Seear 2009; Adam 2005) where individual choice is enshrined. This construct also emphasises the fact that there is recognition that risk should be anticipated and managed. Because of their greater susceptibility to negative consequences of having multiple sexual partners—including contraction of STIs and emotional difficulties attending partner infidelity—female students are more inclined to reject the notion that being young justifies having multiple sexual partners.

The cumulative proportion of the total variance explained by the 4 most important dimensions/constructs is 59.8%; so almost 60% of the shared variance in the data from all three universities can be ascribed to these 4 underlying constructs.

3.2.2 Analysis of variance (ANOVA) and independent *t*-tests

In order to determine whether the independent variables in this research (universities; sex; worldviews—as shown earlier in Table 1) significantly affect the variation in the four identified constructs, an analysis of variance or independent *t*-test was applied. In this way it could be established if a non-random relationship exists between the independent variables and the four constructs identified by the factor analysis (Klockars 2010: 1).

The three universities

The analysis of variance (ANOVA) results reported in Table 3 point to a significant effect between the three universities for all four underlying constructs. Tukey multiple comparisons tests indicate that the significant differences between the universities are mainly to be found between UJ and RU, and between UFS and RU (Table 3).

Table 3: Mean (\pm sd) dimension scores for independent variables (university; sex; worldviews) and analysis of variance (ANOVA) and independent t-tests results

Dimensions	University			Sex		Worldview			
		mean \pm sd	<i>F</i> (<i>df</i>) <i>p</i>		mean \pm sd	<i>t</i> (<i>df</i>) <i>p</i>		x \pm sd	<i>F</i> (<i>df</i>) <i>p</i>
1	UJ	2.51 \pm 1.03 ^{a†}	15.3 (2,1706)<0.001	F	2.62 \pm 1.02	0.88 (1704) 0.377	Left	2.68 \pm 0.97 ^a	3.37 (2,1672) 0.035
	UFS	2.51 \pm 0.99 ^a		M	2.57 \pm 0.97		Centre	2.59 \pm 0.98 ^a	
	RU	2.80 \pm 0.95 ^b					Right	2.51 \pm 1.04 ^b	
2	UJ	2.38 \pm 1.04 ^{ab}	3.8 (2,1724)0.023	F	2.34 \pm 0.95	0.87 (1722) 0.377	Left	2.31 \pm 0.94	1.79 (2,1687) 0.166
	UFS	2.29 \pm 1.00 ^a		M	2.38 \pm 1.00		Centre	2.36 \pm 0.95	
	RU	2.44 \pm 0.87 ^b					Right	2.43 \pm 1.03	
3	UJ	2.87 \pm 0.84 ^a	20.9 (2,1720)<0.001	F	2.70 \pm 0.79	0.55 (1718) 0.377	Left	2.71 \pm 0.83	0.90 (2,1684) 0.407
	UFS	2.65 \pm 0.80 ^b		M	2.67 \pm 0.81		Centre	2.70 \pm 0.79	
	RU	2.57 \pm 0.73 ^c					Right	2.64 \pm 0.78	
4	UJ	4.51 \pm 0.95 ^a	7.9 (2,1726)<0.001	F	4.64 \pm 0.75	12.86 (1724)<0.001	Left	4.33 \pm 1.02	2.47 (2,1689) 0.085
	UFS	4.43 \pm 0.98 ^a		M	4.04 \pm 1.17		Centre	4.41 \pm 1.02	
	RU	4.28 \pm 1.00 ^b					Right	4.47 \pm 0.87	

***Different superscript letters indicate significant differences within the dimension (Tukey: $p < 0.01$)**

Construct 1: There is no significant difference in *the existential experience of risk* between UJ and UFS. But there are significant differences between RU and the other two universities: student respondents at RU show significantly less existential experience of risk.

Construct 2: There is no significant difference between UJ and UFS in relation to *stress and pressure resulting from exposure to financial and emotional risk*. There is also no significant difference between UJ and RU. But UFS and RU are significantly different: more UFS student respondents say their financial situation puts them under risk than do RU students. And RU students are significantly more under pressure for doing well academically than students from the UFS.

Construct 3: RU is significantly different to UJ and UFS regarding *risks attached to the everyday university culture*, with RU student respondents relating significantly

more to the construct: in RU university culture they perceive more heavy drinking, this heavy drinking is thought of as being more risky for female students (probably because in a context of heavy drinking it is more likely that the effects of heavy drinking on female students is actually witnessed) and RU students perceive less racism in everyday university culture.

Construct 4: There is no significant difference between UFS and UJ in relation to *promiscuity*. However, compared to UJ and UFS, student respondents at RU relate significantly less strongly to the notion that being young justifies having multiple sexual partners.

Sex of students and political worldviews

In as far as the other two independent variables in Table 3 are concerned (namely the sex of students and their political worldview), in only two dimensions are significant differences found between sex of students and their worldviews. This confirms the views expressed in the literature that risks in modern society are seldom neatly associated with social classes, sex, or political groupings, rather these combine in complex ways so that students' social world is unpredictable and filled with uncertainties.

There is a significant sex effect on responses to the dimension *promiscuity* (being young justifies having multiple sexual partners); female students disagreeing more strongly than male students (Table 3). This was discussed earlier.

There is a significant political worldview effect on the responses to the dimension *existential experience of risk*; students who declare a right-oriented worldview (conservative) agree more strongly than those with centre- or left-oriented (liberal) political worldviews (Table 3). We speculate that students who are more conservative are more prone to perceiving their world as dangerous, so that they relate more strongly to *the existential experience of risk*.

4. Conclusions

Not unlike other societies in late modernity where risk is seen as an ever-present reality that transcends social and geographical boundaries (Beck 1992 [1986]; Giddens, 1990), post-apartheid South Africa is a society fraught with risk (Nuttall and McGregor 2007). This resonated in the perceptions of a group of young adults who participated in our study among students at three universities in South Africa. In measuring the perceptions of these students it was evident that they were acutely aware of risk as part of their everyday lives.

For the purposes of our study we operationalised *risk* as uncertainty manifested in the perceptions, judgements and actions of students in response to situations involving

exposure to danger and the possibility of negative consequences. An instrument, which was specially designed for the research, proved robust and performed very well. This achievement points to the value of using a mixed methods approach in construct development (Flick 2014). It also underscores the value of developing an instrument in iterative phases. Our instrument was shaped over a period of two years: it began with qualitative focus group discussions out of which different themes emerged (Rau, Coetzee & Vice 2010), two quantitative iterations followed—a comprehensive pilot study that allowed us to weed out less relevant as well as insignificant items, which led into the formulation of the final instrument on which this article is based.

Students' subjective risk assessments highlight the complex and multi-dimensional nature of risk in their lives. Some of these risks were of their own doing and can be viewed as forms of active and conscious risk taking. Voluntary risk is often associated with a cultural dimension of risk where social pressure to conform to norms in a peer group settings lead some individuals – particularly young people – take risks (see Mudhovozi et al. 2012; Rau et al. 2010; Wall and Olofsson 2008). Although risky behaviour such as heavy drinking was considered by many of the students (particularly on the RU campus) as part of university culture, the fact that they defined binge drinking and practicing in unsafe sex as putting themselves at risk show that they recognise the consequences of such behaviour. Not dismissing the role of social pressure, we argue nonetheless that voluntary risk testifies to active agency on the part of the individual. This speaks to Thorsen and Lie's (2006) remarks that a neoliberal ethos is associated with the view that individuals are accountable for the consequences of their choices.

Whereas some risks can be anticipated, managed and even avoided, other forms of risk seem beyond the individual's control. Many students in the study scored high on their assessment of what could be described as 'risk from vulnerability' (see Hayenhjelm 2006). For example, students across all three campuses defined themselves as being at risk of becoming victims of violent attacks. This was of particular concern to the female students, who clearly saw themselves as vulnerable because of their sex. Results show that more could be done to raise awareness among male university students of the gendered nature of sexual risk and gender-based violence in South Africa.

In the attempt to deepen our understanding of risk we applied multivariate analysis, which revealed that 59.8% of the total variance in the entire number of observed cases (the total number of respondents from all three universities) can be explained by four overarching constructs/dimensions of risk. The four constructs identified in exploratory factor analysis are: 1) *The existential experience of risk*—by which is meant the hard reality experienced by individuals in their lives; 2) *Stress and pressure resulting from exposure to financial and emotional risk*; 3) *Risks attached to the everyday university culture*; and 4) *Promiscuity*. Analysis of variance (ANOVA) results indicate a significant effect between the three universities for all four underlying constructs, with Rhodes University—the small institution in a small city—differing from the other universities on all four constructs.

The research found considerable evidence for Beck's (1992 [1986]) claim that in late modernity there is increasing individualisation in people's perception of risk. Also, the degrees to which specific risks resonate in student consciousness demonstrate that risk is—as Zinn (2006) claims—both constructed and real. It thus seems that student identity is all but a carefree state of mind. Instead, students—at least those in our study—consider risk (both of a voluntary and involuntary nature) as being part of their lifeworlds and a significant contributor to their experience of emotional stress. This is most evident in students' over-estimation of their risk of being infected with an STI, including HIV infection, which is far lower in reality (HEAIDS 2010) than students in this research anticipate.

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