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Measuring Social Dominance Orientation amongst Entering First-Year Students at a Higher Education

Institution in the Free State

Willem Oudshoorn

University of the Free State

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Supervisor: Miss M. Mentz

Co-supervisor: Mrs A. Botha

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Abstract

Entering first-year students at a higher education institution were used to measure levels of social dominance orientation (SDO). The aim of this study was to investigate the differences in SDO for various demographic groups. Statistical significance was found for race and gender's influence on SDO, but residence had no statistical significant influence on levels of SDO. In this study significant differences for the main effects of race and gender, as well as the interaction between race and gender in terms of SDO were found. According to the results found in this study, Whites are still the perceived higher social status group compared to the other racial groups.

Keywords: social dominance orientation, intergroup contact, diversity, segregation, higher education, prejudice, race, gender, students.

Abstrak

Intredende eerstejaar studente by 'n hoër onderwys instelling was gebruik om vlakke van sosiale dominansie oriëntasie (SDO) te meet. Die doel van dié studie was om verskille in SDO-vlakke te ondersoek vir verskeie demografiese groepe. Statistiese beduidenheid is gevind vir invloede van ras en geslag op SDO, maar residensie het geen statistiese beduidende invloed op vlakke van SDO gehad nie. In dié studie is beduidende verskille vir die hoof-effekte van ras en geslag, sowel as die interaksie tussen ras en geslag, in terme van SDO gevind. Volgens die resultate van dié studie is Blankes steeds die perseptuele hoër sosiale status groep in vergelyking met die ander rasse-groepe.

Introduction

With the dismantling of apartheid in the early 1990s and the establishment of a democratic state, South Africans experienced an increase in interracial contact. Despite this increased contact between racial groups that had become a reality due to the political changes, segregation and racism remain prevalent in society as a whole, as well as in educational settings (Dixon, Durrheim, & Tredoux, 2005). In the current study segregation refers to the voluntary, informal placement of a person or group in the same space as others from a similar racial/ethnic group, therefore creating separate physical space for different racial groups. The mentioning of segregation in the current study does not refer to forced separation (*de jure* segregation) or disadvantaged separation (*de facto* segregation) (Adversity, n.d.). Higher education institutions have attempted to address the social phenomena of racism and discrimination through integration, therefore minimising segregation. Unfortunately, they have not successfully decreased prejudice or segregation within university settings or in the country (Schrieff, Tredoux, Dixon, & Finchilescu, 2005; Christopher, 2001). The unsuccessful decrease in segregation is not only prevalent in South Africa, but occurs in other countries such as the United States of America, Australia and England (Singh Pillay & Collings, 2004; Clack, Dixon, & Tredoux, 2005).

With regard to the phenomena of racism and discrimination on university campuses in South Africa, the former Minister of Education, Naledi Pandor, announced in March 2008, the establishment of the Ministerial Committee on Transformation and Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions. The aim of this committee was to investigate discrimination in all its forms, but more specifically, racial discrimination in public higher education institutions in South Africa. The committee concluded that discrimination, in particular racism, remains pervasive in South African higher education institutions (Ministerial Committee on Transformation, 2008). For example,

Black staff and students reported that racism is still very common, although the emphasis is on the subtle ways in which it occurs. Covert racism seems to be the main form of racism, although incidents of overt racism still persist. Furthermore, the report states that covert racism seems to be accepted by most institutions and that it has become an institutional culture, thus creating opportunities for racist incidents and practices to continue, despite demographic diversity.

Over time, society's perception of what are considered to be acceptable expressions of racial attitudes changes and evolves. This has led to individuals who, although not expressing overt racial prejudice, still continue to hold negative racial attitudes blaming people of other racial groups for unequal outcomes in educational, occupational and economic contexts (Worthington, Loewy, Navarro, & Hart, 2008). Research confirms the finding of various forms of discrimination present on South African university campuses. Schrieff, et al. (2005), investigated seating arrangements and interaction amongst students at a South African university. The researchers observed seating patterns in informal, public spaces at the University of Cape Town and in the dining rooms of the university's residences. Students from different racial groups separated themselves from one another voluntarily, confirming segregation between the racial groups, even within a structurally diverse institution. Alexander (2007) argues that intergroup contact is linked to the defining of group boundaries in space. Different racial groups create and define boundaries in physical space to separate them from other groups. According to Alexander (2007), this can lead to discriminatory practices. These findings resulted from an experiment conducted by Alexander (2007) to investigate the prevalence of racial boundaries in a South African multiracial university's residence dining room. Black and White students were recruited to 'infiltrate' this dining room's boundaries by Black or White students sitting at designated White or Black tables respectively.

The outcome was the maintenance of the homogeneity racialised spaces, even when these spaces were disrupted or intruded upon.

Another quantitative study that has been conducted to measure racial issues on campuses is that of Singh Pillay and Collings (2008). According to a survey these researchers administered in 2002, moderately high levels of racism at a South African university prevailed. In 2006, the survey was replicated and the findings suggested that despite the four-year time period that had elapsed, both overt and covert forms of racism persisted. Given the research findings above, it is clear that racial problems are still pervasive at higher education institutions in South Africa. An example of the prevalence of negative racial attitudes resulting in racial discrimination can be identified through the infamous video^{*} of four students from President Reitz residence, a hostel on the University of the Free State's campus. The video serves as a stark reminder of the difficulty higher education institutions face to effectively implement integration and to try to reduce prejudice and racism.

The rationale for successful transformation and the elimination of discrimination in institutions of higher education is multi-faceted and includes national policy priorities, the cost of discrimination to the individual and the benefits of diversity in educational contexts. Since 1994, national policy has resulted in the widespread transformation of South African society in all sectors, including the higher education environment. The Education White Paper 3 (Department of Education, 1997) clearly lists educational transformation objectives as being democratic, non-racial and non-sexist. Problems arising on campuses regarding racial issues have a direct negative influence on the transformation of the educational system and therefore, the broader society as well. According to the Ministerial Committee on Transformation (2008), these influences on the educational system are also detrimental to an individual's self-development and identity. Focusing on an institution's productivity, the adverse consequences on the

^{*} Video can be viewed on www.youtube.com.

individual level include a decrease in pass rates, lax morality and a decline in the overall academic environment. In society, social cohesion and development can be negatively influenced (Ministerial Committee on Transformation, 2008).

The Ministerial Committee stated that discrimination of any kind is dangerous and extremely costly and includes psychological and physical implications for individuals. The Committee further stated that discrimination has a negative psychological impact on those who discriminate and on the victims of such discrimination, especially regarding human dignity. Among other costs, individuals are declined opportunities to achieve their full potential. Therefore, human resources are not fully utilised in the country (Ministerial Committee on Transformation, 2008).

There is extensive evidence of the benefits of diversity in educational settings. In their research, Hurtado, Dey, Gurin, and Gurin (2003) demonstrated how diversity contributes to individual student development, including better preparation to deal with a complex and diverse society and work environment. Research indicates that both White and students of colour benefit socially, cognitively and academically from interaction (Sugrue et al., 1999). Gurin (1999) stated that universities need to capitalize on their available diversity, for example, structured opportunities for students to interact across difference. This will further the educational benefits that flow from diversity.

However, in 1954 *Brown v. Board of Education* stated that although desegregation would benefit both Black and White learners in schools, mere desegregation would not necessarily realise educational benefits (Kurlaender & Yun, 2005). This document also emphasises the importance of meaningful integration between diverse groups. Similarly, in institutions of higher education, students should

experience meaningful integration through both their curricular and co-curricular activities with diverse peers to realise the benefits of diversity. Merely co-existing in the same institution is not sufficient for these purposes (Gurin, Nagda, & Lopez, 2004).

The importance of meaningful integration and contact is emphasised in Allport's contact hypothesis (Allport, 1954). Pettigrew and Tropp (2006) presented an article of a meta-analytic test of intergroup contact theory with 713 independent samples from 515 studies. These studies confirmed Allport's theory which indicated that interaction between members of different groups can reduce intergroup prejudice only if certain optimal conditions are present, namely: equal group status within the situation; common goals; intergroup cooperation; and the support of authorities, law, or custom. Under these conditions, research unequivocally links increased intergroup contact with lower levels of prejudice and conflict (Dixon et al., 2005; Tredoux & Finchilescu, 2007). In 1997, Pettigrew updated the contact hypothesis by adding a fifth condition: friendship potential. This refers to the potential for students to reduce levels of prejudice through cross-racial friendships (Odell, Korgen, & Wang, 2005).

For diversity initiatives to be successful and meaningful within institutional cultures that are constantly in flux, Milem, Chang and Antonio (2005) highlight the importance of systematically assessing a campus's racial climate in order to monitor the state of affairs and effectively design interventions. However, for various reasons, measuring racism and negative out-group attitudes is very complex in the South African context. Firstly, there are numerous conceptual definitions of racism proposed in psychological literature. Many are conceptually problematic, as racism is often portrayed as unidirectional, manifesting itself from a specific in-group to other out-groups, which is not always the case (Singh Pillay & Collings, 2004). Secondly, racism is assumed to be directed towards a minority

group, but in the South African context the reverse is true. The minority group has not been the victims of racism, but the perpetrators (Ballie, 2006). Thirdly, in measuring a socially unacceptable attitude, a person may attempt to act in a socially acceptable manner, because he/she knows his/her behaviour is being assessed (social desirability), resulting in biased results (Engberg, 2004). Thus, in order to assess campus racial climates, a measure should be used that is both reliable and has construct validity in the context within which it will be used. In an attempt to overcome some of the problems associated with traditional measures of racism, it was decided to investigate social dominance orientation as a potential predictor of negative attitudes toward out-groups.

Social Dominance Orientation

Social dominance theory is built on the assumption that all human societies are structured as systems of social hierarchy (Umpress, Smith-Crowe, Brief, Dietz, & Watkins, 2007). The theory suggests that societies minimise group conflict by creating consensus on ideologies that maintain group hierarchies and legitimise discrimination, as well as apportioning and assigning positive and negative socially valued assets to different groups (Pratto, Sidanius, Stallworth & Malle, 1994). In short, social dominance orientation (SDO) is the basic individual difference variable in the social dominance theory that shows an individual's attitudinal preference for either group's equality or dominance (Snellman & Ekehammar, 2005). These individual differences can be measured by the Social Dominance Orientation Scale (Pratto et al., 1994).

To better understand the dynamics of SDO, Guimond, Dambrun, Michinov, and Duarte, (2003) distinguished between three conceptualisations of SDO namely: SDO as a personality trait, SDO as a mediator of the effects of situational variables, and SDO as a mediator of the effect of social position on

prejudice. For the purpose of this study, the focus will be on social position. Social position is defined as the location of people within a social structure. This definition focuses on the membership within groups, especially the top of the social hierarchy. This is characterised by a relatively large share of valued commodities such as wealth, political power and high status, as well as being labelled as the dominant social positions (Sidanius & Pratto, 1999). The findings of Guimond, et al. (2003) suggested that prejudice can be explained through the following: a cause (dominant social position), an effect (prejudice increases), and a mediator (SDO). People scoring higher on SDO are seen as being more prejudiced, more conservative, more favourable toward the military, and more patriotic; whereas those who score lower are more favourable toward women's rights, gay rights, and social programmes in general (Guimond et al., 2003). Findings of other studies have confirmed the abovementioned by showing that SDO often manifests as one of the primary predictors of prejudice (Guimond et al., 2003). It has been found that SDO predicts certain ideological beliefs cross-culturally. Studies conducted in Canada, Taiwan, Israel and China confirmed SDO as a predictor of racial prejudice (Pratto et al., 2000).

Pratto et al. (2000), state that SDO further determines whether a certain ideology is accepted or rejected by an individual. People who have a higher SDO will tend to favour social hierarchy, whereas a person with lower SDO will tend to favour social equality. People high on SDO generally believe that social groups do and should differ in value, whereas people low on SDO support group equality and oppose group differentiation along status and power lines (Pratto et al., 2000). Thus, SDO can be viewed as the key individual characteristic of accepting or rejecting group inequality ideologies (Pratto et al., 1994).

In support of the above mentioned, Pratto et al. (1994) found that SDO strongly and consistently relates to anti-Black racism and nationalism. Furthermore, SDO correlated consistently positively with

inequality beliefs toward gender, social opportunities, cultural superiority and conservatism. Thus it can be theorised that people who score high on SDO are more likely to be relatively conservative and racist (Perreault & Bourhis, 1999).

Although for members of a dominant group, high scores in SDO are also associated with patriotism and a conservative political stance, this is not true of members of a group that is disadvantaged within a society (Levin, Sidanius, Rabinowitz, & Federico, 1998). Various factors exert an influence over levels of social dominance. Examples of such factors are temperament, socialisation, gender and group status and are suggested to imply a stable influence on an individual's level of SDO (Pratto et al., 1994). For example, results of an SDO study showed that men are more likely to have higher SDO scores than women (Pratto et al., 1994).

In South Africa the process of racialisation, where one perceives another according to race, is still present and is deeply rooted in the consciousness of its people (Smedley & Smedley, 2005). In the past, physical traits have been used as markers of social race identity, but because of the flexibility of racial ideology, these distinctive physical traits need no longer be present for humans to racialise others (Smedley & Smedley, 2005). Factors such as group status, an abstract trait, can be used to racialise and discriminate against different social groups. A combination of group status and race can thus increase levels of SDO even further.

Linked to group status, social dominance theory predicts that within any given society, members of high-status groups will tend to have higher levels of SDO that serve to perpetuate their relative advantage, compared to that of members of low-status groups who seek greater group equality (Levin &

Sidanius, 1997). In a study conducted by Sidanius, Pratto, and Mitchell (1994), SDO predicted a degree of out-group discrimination. Levin and Sidanius (1993) also found that high SDO subjects, who belonged to artificially high-status groups, especially degraded and discriminated against out-groups. The status of a group can thus predict whether discrimination is likely to be especially severe or not. These results support social dominance theory's argument that members of higher status groups will tend to be more in-group serving than lower status groups (Pratto et al., 1994). The studies that have been conducted in the past ten years in this field have focused on the idea that actual or perceived membership in a high-status group heightens SDO, especially when group membership is made significant. However, Rios Morrison and Ybarra (2008) found that membership of a high status group alone was not sufficient to increase the level of SDO. Levin and Sidanius (1993) demonstrated that for people with a high group status, realistic threat can result in heightened levels of SDO. According to Crocker and Luhtanen (1990) people especially degrade out-groups when they strongly affiliate with in-groups and when their group status is threatened. Thus, group status and threats to the dominant position of the high-status group both play an important role in the understanding of out-group discrimination and how it links to SDO.

A study conducted by Strydom and Mentz (2008) confirms the relationship between SDO and group status in the South African context. The results of the study indicated that White students were rated by themselves and all other racial groups identified in the study as having the highest status. In line with social dominance theory, White students scored significantly higher on social domination than any of the other groups. Furthermore, White males had significantly higher SDO scores than White females (Strydom & Mentz, 2008). Because Whites have been the dominant role-players in defining the political, legal, social and cultural dimensions of Western society (and in particular within the South

African context), it is logical to suggest that Whites will have a stronger orientation toward social dominance than other racial groups (Worthington et al., 2008). Whites might perceive the changing of structures and policies they built as threatening to their more dominant position in society.

Guimond et al. (2003) also predicted that people in a dominant social position will score higher on SDO than others. These researchers also found that exposure to higher education will not necessarily decrease SDO. Their study was conducted with students from a university in France. Students who studied psychology scored lower on SDO, but those who studied law scored higher than the general population of higher education students. Senior law students scored higher than first-year law students. These findings demonstrate that education does not necessarily reduce intergroup prejudice, but rather, that the socialising of an individual into a more dominant social position, with a higher social status, can increase the level of SDO. The importance of carefully structured diversity initiatives at higher education institutions is evident from the abovementioned research.

Despite a relatively consistent set of research findings demonstrating differences among racial groups in perceptions of campus climate, very little research has been conducted to examine the sources of these differences outside of global alternative variables related to racial group memberships. Thus, the study of racial attitudes on predominantly White university campuses appears to be one of the most promising areas of inquiry regarding the campus climate for people of colour (Worthington et al., 2008). Given the problem experienced on South African campuses regarding racial issues, such as overt and covert racism, segregation and racial discrimination, there is a pressing need to understand these phenomena more accurately and clearly. The understanding of campus climates at universities is relevant to the dynamics of the interaction between different racial groups and their perception of one another. Because

SDO levels correlate with the aforementioned variable, the understanding and identification of SDO levels in universities' students' attitudes are thus of utmost importance. Given the abovementioned discussion, it was decided to investigate SDO amongst entering first-year students at a higher education institution in the Free State.

The results obtained from this study could inform the understanding of contact between interracial groups in educational settings. In turn, improved policies regarding the integration of living and learning environments will result in students benefiting optimally from their diversity experiences. Such research would be of particular value on the campus of the UFS where many challenges regarding residence integration and the medium of instruction in classrooms must still be addressed. Results from this study will be particularly interesting given that the students who are currently enrolling in universities across the country have always been part of an integrated school system and should therefore not be unfamiliar with interacting with diverse groups.

Research Methodology

The aim of the study was to investigate whether there are group differences for gender (male and female), race (Black African, Coloured, Indian and White) and living arrangements (on-campus or off-campus) on a measure of social dominance orientation.

Living arrangements (residence) are included in the current study to determine whether or not a student's membership to a residence can influence his/her levels of SDO. To support the inclusion of this variable the Reitz video incident can be focused on, where the students involved in the making of the video were all members of an on-campus residence.

A non-experimental (ex post facto) research design was used. This form of research refers to hypothesis testing research with no experimental intervention (Huysamen, 1993). An advantage of using this research design is that a large amount of information can be obtained from a large population in an economical manner and which is relatively accurate. The disadvantages are that expertise is needed in the construction of the questionnaire to produce a reliable and valid study and it can be costly and time consuming (Burns, 2005). The construction of the social dominance orientation scale has been thoroughly done by the developers of the scale and the reliability will be mentioned in the instruments section. The subjects are *self-selected* test subjects because they were chosen according to classification factors (Huysamen, 1993).

The dependent variable is social dominance orientation and the independent variables (classification factors) are the biographical characteristics (gender, race and residence) of first-year students.

Instruments

1. Biographical questionnaire (compiled by Student Success and Development – UFS): Students were required to complete a biographical questionnaire in order to obtain the following information: academic status, number of friends attending the university, gender, citizenship, parents' highest level of education, race, home language, faculty enrolled in, place of residence whilst studying, and language of instruction at university. For the purpose of the discussion in this article, only race, gender and residence are relevant, because of the small sample sizes of some of the sub-groups of language, faculty, etc.

2. Social status questionnaire (compiled by Student Success and Development – UFS) (Appendix A): Social status questions were used as primer questions for the social dominance orientation scale. These questions asked the subjects to rate the different racial groups in South Africa according to their social

status on a Likert scale from 1 to 7, with 1 indicating low status and 7 high status. Students were asked to rate the social status of various racial groups (including their own) based on how the majority of people they knew viewed each group. The racial groups used in the questionnaire were as follows: Black Africans, Coloureds, Whites, Indians, and Asians. Only the results of the Black African, Coloured and White groups will be discussed later on in the article.

3. Social Dominance Orientation Scale (Pratto, Sidanius, Stallworth, & Malle, 1994) (Appendix B): The SDO scale is an instrument developed to examine a wide variety of social and political attitudes. In 13 different samples obtained by the developers, the reliability was found to be between 0.8 and 0.89 (Robinson, Shaver, & Wrightsman, 1999). There are at least four different variations of the scale, but the form used for this study (consisting of 16 questions) was noted by Pratto to be the preferred version (Robinson, et al., 1999). Responses are given on a 1 to 7 Likert scale with 1 representing strongly disagreeing and 7 strongly agreeing with a given statement. Only a total score is obtained. The highest possible score is 112 and the lowest is 16. The scale measures the degree to which an individual prefers inequality between groups. A high score indicates a higher social dominance orientation and a lower score indicates a preference for equality among different groups. These groups may be defined on the basis of race, gender, nationality, ethnicity, religion, social class, region, skin colour, clan, caste, lineage, tribe, minimal groups or any other group distinction which the human mind is capable of constructing (Unger, 2002). As mentioned above, the findings on race, gender and residence will be discussed in this study.

Table 1: Reliability for SDO scale according to race and overall.[†]

	N	Reliability (α)
Black African	979	0.799
Coloured	106	0.832
White	829	0.885
Prefer not to answer	95	n.a.
Total	2009	0.861

A reliability coefficient of 0.65 or higher is suggested to make decisions about groups (Foxcroft & Roodt, 2005). The α -coefficients in Table 1 demonstrate that the reliability of the SDO scale is high for the three race groups. The reliability coefficient for the total sample is also high.

Statistical Analysis Procedures

Descriptive statistics were used to describe the sample in terms of the participants' biographical characteristics and to describe the results of the social dominance orientation and social status scales. Frequencies, means, standard deviations and outliers were determined and explained. In order to investigate the difference between groups, an F-statistic was calculated by means of a two-way analysis of variance (ANOVA). The dependant variable is social dominance orientation and the independent variables are gender (male and female), race (Black African, Coloured and White) and residence (on-campus and off-campus). Apart from determining whether the differences between groups are significant, the effect-sizes were also calculated using Cohen's *d*. According to Cohen's *d* (Cohen, 1992), an effect size of 0.20 is small, 0.50 is medium and 0.80 is large. The effect size indicates the actual difference within the mean values.

[†] Cronbach's Alpha-coefficient was calculated using SPSS software (SPSS Incorporated, 2001).

Participants

Entering first-year students at a higher education institution in the Free State were used as a ‘captured audience’ (Huysamen, 1993). The sample was captured while they were writing compulsory university competency tests; thus, access to the sample was convenient and all first-year students are required to write these tests. The advantage is the convenience of obtaining a large group of participants and avoiding a timely and costly process of sampling. The disadvantage is that there is no guarantee that the behaviours of these people represent behaviours of all the relevant groups (Sampling, 2000). The number of participants was 2009. The subjects’ race, gender and residence data will be shown using the following tables.

Table 2: Number of participants according to race

	N=Sample (2009)	%	N=Total First-year student population (4112)	%
Black Africans	979	48.73	2367	57.56
Coloureds	106	5.28	211	5.13
Whites	829	41.26	1495	36.36
Prefer not to answer	95	4.73		

The White and Black African students accounted for the majority of the sample. The Coloured group and the group that chose not to make their race known were the lowest proportion of the study. The proportions of the different racial groups in the sample are similar to that of the proportions of the first-year entering students at the university, but there is an under-representation of Black students in the sample. Thus, the sample’s representations of the racial groups are well in line with the proportions of

the students at the university, except for Black students. The sample represents 48.86% of the total number of entering first-year students.

Table 3: Number of participants according to gender

	N=Sample (2009)	%	N=Total First-year student population (4112)	%
Male	827	41.16	1602	38.96
Female	1182	58.84	2510	61.04

Female students are under-represented in the sample.

Table 4: Number of participants according to residence

	N=Sample (2009)	%	N=Total First-year student population (4112)	%
On-campus	511	25.44	970	23.59
Off-campus	1498	74.56	3142	76.41

The sample's gender and residence proportions of students are also representative of the proportions of the entering first-year students at the university. The majority of students in the sample stay in residences off-campus. However, the off-campus students are slightly under-represented in the sample.

Data Collection

The data were collected in 2009 during the first two weeks of the first semester. The research was conducted by means of a survey and the questionnaire was available in English and Afrikaans. The purpose of the research and confidentiality was explained to all participants. All those students who were willing to participate completed an informed consent form. The data were collected by means of optical cards and were scanned after completion.

Results

Owing to the small number of students of Indian and Asian ethnicity, the responses of these students were not included in the statistical analysis. Groups included for statistical analysis are Black Africans, Coloureds and Whites. The descriptive statistics of the group that marked the option 'I prefer not to answer' when asked their racial identity will also be discussed, but this group will not form part of the inferential statistical analysis. The reason for the inclusion of the last-mentioned group is that of the number of participants who are in this group ($N = 95$). The findings from this group may be valuable in understanding how an individual rates the social status of other groups, while preferring not to make his/her own racial identity known. The level of social dominance orientation of this group can also contribute to the understanding of how these individuals view hierarchy vs. equality. Although not explicitly stated by the individuals, it can reasonably be hypothesised that these individuals decided not to state their race because of the sensitive matter of racial issues on campus. It is possible that they believed that by hiding their racial identity, they are protecting their race group. This is only a hypothesis and there can be various reasons for the students not stating their race. To determine the true reasons, further research needs to be conducted. The number of males and females who did not indicate their race is relatively similar; therefore no specific gender preference was noted.

Table 5: Number of participants according to gender and residence for group that preferred not to answer

	N
Male	48
Female	47
On-campus	24
Off-campus	71

Social Status

The participants were asked to rate the status of different racial groups according to how they think most people they know perceive each group. The mean scores for the overall sample for the social status of the different racial groups are reflected in the table below.

Table 6: Mean scores for the different racial groups' social status.

N = 2009	Mean	Standard Deviation (SD)
Black South Africans (n = 979)	4.59	1.611
Coloured South Africans (n = 106)	4.49	1.363
White South Africans (n = 829)	5.48	1.350

According to the results above, Whites were rated the group with the overall highest social status. If a rating of 4 can be seen as average (median score), and the standard deviations are smaller than 2, then the White group has a more favourable rating regarding social status than the other groups. The Black

African and Coloured groups' social status rankings are very similar, and relatively lower than the social status of the White group.

The social status ratings for the groups were also examined within each racial subgroup. The results of this are reflected in the table below:

Table 7: Social status ratings for the groups within each racial subgroup

Average social status rating of racial groups (N = 2009)						
Racial classification	Black	SD	Coloureds	SD	Whites	SD
Africans						
Black Africans (n = 979)	4.54	1.738	4.61	1.445	5.80	1.336
Coloureds (n = 106)	4.76	1.496	4.16	1.318	5.36	1.125
Whites (n = 829)	4.63	1.489	4.44	1.267	5.14	1.326
Prefer not to answer (n = 95)	4.56	1.745	4.40	1.627	5.35	1.406

Black Africans, Coloureds, Whites and the group that did not state their race perceived Whites as belonging to a higher social status group than the other racial groups. The ratings amongst the different racial groups seem to be similar. Black students rated Coloureds slightly higher than themselves, while Coloured students rated Black students higher. Of particular interest is that both these groups rated their own group as having the lowest social status. The perception of Whites concerning their social status concurs with how the other groups perceive them, but the Black Africans' and Coloureds' perceptions about their own social status does not concur with how other groups see them.

Social Dominance Orientation

Participants were asked to indicate to what extent they agreed or disagreed with the statements given. Responses are given on a 1 to 7 scale, where 1 represents strongly disagree and 7 represents strongly agree. Statements 9 to 16 are reverse scored. A total score is obtained with the highest possible score of 112 and the lowest of 16.

The total mean on the social dominance orientation scale for the sample (N = 2009) was 38.07 (SD = 14.595). This is not a high mean given the fact that the highest possible score is 112 and the median score is 61; therefore, a score of 51 points lower than the maximum. Thus, the overall social dominance orientation for the sample seems to represent a fairly low score. The scores for the different racial groups were as follows:

Table 8: Social dominance orientation scores according to race

N = 2009	N	Mean	SD	Minimum	Maximum
Black Africans	979	34.40	12.593	16	106
Coloureds	106	33.90	12.504	16	67
Whites	829	42.77	15.309	16	93
Prefer not to answer	95	39.53	17.444	16	104

Whites had the highest mean score for social dominance orientation, but because of their standard deviation (15.309) it seems that there was more difference of opinion between the participants from the White group. The mean scores for all the groups are still relatively low compared to the possible maximum score for the scale representing a low level of SDO. The opinions of the Black African and Coloured groups seem to be more similar with standard deviation scores of 12.593 and 12.504 respectively. The group that preferred not to answer had the highest standard deviation (17.444) showing that their responses varied the most. All of the groups had members obtaining the lowest

possible score on the SDO scale. The Coloured group had a fairly low individual maximum score (26 points lower than the next group). The Black Africans were the group obtaining the highest individual score. However, because their mean score is lower than that of the Whites and the 'Prefer not to answer' group, it can be assumed that not many of the members obtained such high individual scores and that the White group actually had more members obtaining high scores. As mentioned, the 'Prefer not to answer' group could possibly be hiding their racial identity and therefore answered the questionnaire more honestly because they knew their racial identity would not be known. This could possibly explain the 'Prefer not to answer' group obtaining a higher mean score than the Black African and Coloured groups.

Table 9: Social Dominance Orientation scores according to gender

N = 2009	N	Mean	SD	Minimum	Maximum
Male	827	40.83	15.753	16	106
Female	1182	36.13	13.397	16	96

Males had a higher mean score on social dominance orientation than females. The mean scores for males and females are relatively low, indicating a low level of SDO.

Table 10: Scores according to residence

N = 2009	N	Mean	SD	Minimum	Maximum
On-campus	511	37.96	15.173	16	106
Off-campus	1498	38.10	14.398	16	93

Off-campus students had a slightly higher social dominance orientation mean score than on-campus students.

Statistical Analysis

A two-way between-groups analysis of variance was conducted to explore the impact of race, gender and residence (independent variables) on social dominance orientation, as measured by the Social Dominance Orientation Scale (SDO-scale). Tests of between-subjects effects were conducted with race and gender, race and residence, gender and residence, as well as race, gender and residence. The main effect for race $F = 41.912$, $p = 0.000$ and gender $F = 18.728$, $p = 0.000$ were statistically significant, but not for residence $F = 1.347$, $p = 0.246$. The interaction effect between race and gender was $F = 6.415$, $p = 0.000$, between race and residence $F = 1.076$, $p = 0.358$, between gender and residence $F = 3.646$, $p = 0.056$, and between race, gender and residence $F = 1.715$, $p = 0.162$. The interaction effects between race and gender were statistically significant, but none of the interactions with residence was statistically significant. An Alpha coefficient of 0.05 was used throughout the computing of results. Cohen's d was used to measure and interpret the effect size for the impact of the independent variables on social dominance orientation.

Table 11: Significance of variables and interactions between variables

Variable	F-Value	P-Value	Effect size
Race	41.912	0.000	0.059
Gender	18.728	0.000	0.009
Residence	1.347	0.246	0.001
Race x Gender	6.415	0.000	0.010
Race x Residence	1.076	0.358	0.002
Gender x Residence	3.646	0.056	0.002
Race x Gender x Residence	1.715	0.162	0.003

The effect sizes for all the different variables are small, indicating that the actual difference in the mean scores is low.

Both the Tukey HSD and Scheffe post hoc tests were used to investigate the difference between the subgroups. A statistically significant difference in SDO was found on the 0.05 level between Black and White students, Coloured and White students, Black students and the group who preferred to not make their race known, and Coloured students and the group who preferred not to answer.

The above-mentioned results confirm that Whites scored significantly higher than the other groups and males scored significantly higher than females. Taking into account the interaction effect between race and gender, it can be inferred that White males had a significantly higher SDO than any of the other groups.

Discussion

The aim of this study was to investigate the differences in SDO for various demographic groups. The results show that there is statistical significance for race and gender influence on social dominance orientation, but not for residence.

Race and Social Status:

In this study race had a significant influence on an individual's level of social dominance orientation. It was found that Whites had the highest level of social dominance orientation. These findings correlate with those of earlier studies (Pratto et al., 1994; Perreault & Bourhis, 1999; Strydom & Mentz, 2008; Worthington et al., 2008). Black Africans scored second highest and Coloureds had the lowest score, although still close to that of the Black African group. As mentioned before, Whites were the dominant

group in forming political structures and policies (Worthington et al., 2008) and they most probably experience the greatest threat of change, therefore scoring the highest.

As found in the study conducted by Strydom and Mentz, (2008), Whites were rated by themselves and the other racial groups as the group with the highest social status. In Strydom and Mentz's study Whites were rated at 5.17 and in this study at 5.48. Black Africans were rated at 4.12 and Coloureds at 3.97 in Strydom and Mentz's study and in the current study Black Africans were rated at 4.59 and Coloureds at 4.49. Referring to these results the trends between the two studies are similar. Whites were the group with the highest perceived social status followed by Black Africans and then Coloureds. Strydom and Mentz (2008) state that despite significant political and social gains for South Africans of colour, Whites still have a higher perceived social status than the other racial groups. Although Whites played the dominant role in South Africa before 1994, that has changed considerably over the past 15 years. A possible explanation for Whites being perceived as having a higher social status may be because of the ingrained perception of this group still found in South African society. Whites seem to rate their social status lower, possibly because their role has changed in the past 15 years, although they still see themselves as having a higher status than the other racial groups.

The impact of social status on SDO was not measured, but it is important to note how the social status findings concur with those of SDO. According to the findings of this study, Whites had the highest overall perceived social status (as rated by other groups and themselves) and the highest SDO levels. This correlates with the prediction of social dominance theory that members of high-status groups will tend to have higher levels of SDO (Levin & Sidanius, 1997; Levin & Sidanius, 1993; Pratto et al., 1994; Crocker & Luhtanen, 1990). These results concur with other research in this area such as that of

Guimond et al. (2003) who predicted that a group with a higher social status will tend to have higher SDO levels.

The size of the group that preferred not to state their race was relatively large ($N = 95$) representing approximately 4.33% of the respondents, but unfortunately, those respondents' results could not be calculated towards the results obtained for race. The reason for including this group was stated in the results section, where the assumption was made that these students concealed their racial identity to protect their racial group. Taking into account the past racial issues on the campus, some participants probably preferred not to state their race, especially if they were given the choice not to do so; thus, they have the opportunity to display their true feelings without compromising their racial identity.

As seen in the results, a few individuals scored high on the SDO-scale referring to the fact that there are still students with a mindset of social hierarchy and dominance. However, it does not seem to be a general tendency amongst the majority of the students, because of the relatively low mean scores within the different racial groups.

Gender:

Gender was found to have an impact on social dominance orientation in previously mentioned studies (Pratto et al., 1994), and a similar result was found in this study. Men and women fulfil different roles with regard to social hierarchy. Men have typically held the leadership roles in religious, social, political and cultural spheres in the past and therefore may have more hierarchy-enhancing attitudes than women. These societal patterns may contribute to the fact that men score higher levels of SDO than women (Pratto, et al., 1994). Given South Africa's political past, men held more of the social leadership roles

than women. It can be argued that the men in the current study hold a more hierarchy-enhancing attitude than the women because of the nature of the society in which they grew up.

White males reported the highest overall mean, and this supports the interaction between race and gender. There was a statistically significant difference between genders, but the overall levels of SDO for males and females were not high. However, the aim of the present study was to identify differences between the different groups and the results demonstrate that there are differences between the groups.

Residence:

According to a search conducted on Google Scholar and EBSCO Host on 13 November 2009, there is a general lack of findings for the impact that residence has on levels of SDO. For the current sample, no significant differences in SDO-levels for off-campus and on-campus students were found.

Conclusion

In this study significant differences for the main effects of race and gender, as well as the interaction between race and gender in terms of SDO were found. Referring to social status, Whites are still the perceived higher social status group compared to the other racial groups. The above-mentioned findings correlate with those of previous studies.

The study will hopefully contribute to research in that it strengthens the argument that race and gender are predictors of SDO. Although the research question was to investigate whether or not there are differences between the groups, to ignore the contribution the present study can offer to previous research would be unwise. Strengthening the argument of specific variables as predictors of SDO can

contribute to future studies on what variables to study. Taking into consideration the aforementioned, this study's results demonstrated differences between groups, therefore further investigation into these groups can uncover not only the broad variable, such as race, contributing to levels of SDO, but the specific group membership as well. It also serves to clarify the general attitudes regarding racial prejudice that entering first-year students have when enrolling in a higher education institution. The strengths of the current study are the large sample size – 48.86 % of entering first-year students participated - and the representation of the sample. The results can thus be generalised to the total population of entering first-years at this higher education institution.

The current study aims to contribute to practice by highlighting the significant inequalities observed in SDO and therefore offering valuable information in the development and implementation of better policies and programmes in higher education. The implication is that racial prejudice/attitudes still need to be addressed, specifically amongst males and White students at this institution.

A limitation of the current study is that the results that were used referred only to Black African, Coloured and White entering first-year students of one higher education institution in the Free State. These results can thus not be generalised to the total population of students in South Africa. Future research can build on this study by sampling students from other universities, of different ages and of different racial and cultural groups. Future research studies can thus focus on other variables and the contribution of these to levels of SDO. Especially considering the diverse South African context, variables of interest can include age, level of education and larger sample sizes of the minority racial and cultural groups (e.g. Indians and Asians).

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