

Effects of status of sexual partner on implicit and explicit attitudes towards condom choice

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ABSTRACT

South Africa has one of the world's highest rates of HIV infections. Limited previous research has focused on the relationship between individuals in different sexual contexts and their attitudes toward condom choice. I tested the hypothesis that implicit and explicit measures of attitudes towards condom choice will differentially illustrate that individuals primed for casual sex contexts, as opposed to sex in the context of long-term romance, will spontaneously associate more strongly with brand condoms over generic condoms. The Implicit Attitudes Test (IAT) measured the association between brand and generic condoms and their valence. The Explicit Attitudes Towards Condoms (EAT-C) questionnaire measured explicit attitudes towards condom choice and condom use. Contrary to my hypothesis, the study's results illustrate that there is no significant correlation between implicit and explicit attitudes with regard to condom choice in different sexual contexts. Moreover, no statistical significance was found on the IAT with regard to implicit attitudes towards condom choice. However, explicit attitudes with regard to condom choice were significant; and these were the best predictors to condom choice preference in different sexual contexts, casual sex and long-term romance.

Keywords: priming; casual sex; romance; condom use; condom choice; IAT; explicit attitudes.

Cut to: Four's grandiose bachelor condo, an incubus of granite and chrome. He had just unhooked my bra with his teeth on his suede bed's scratchy, cheetah-print throw....

His dimensions were of note, but my mescal-amped estrus had notched down to a yearning for tea. "Um ... rubber thingys?" I squeaked. He rose and, preceded by his fleshly confrere, opened a closet. There, in full view, was a large, pawed-at carton with a blue and white generic design. It said: LATEX CONDOMS -- TWO GROSS. "You buy your condoms by the gross???" I honked.

He shrugged. "I buy everything at Costco." ... As for what ensued, let's just say, on the plus side: I was able to further hone my peerless orgasm simulation skills.

(Excerpt from article at Salon.com; retrieved February 2007)

Do people prefer different condoms in different sexual contexts? Specifically, in casual sexual encounter, will people prefer to use luxury brand condoms over generic condoms in an effort to impress their partner? And, in sexual encounters occurring within the context of a long-term relationship, will partners show no preference for either brand or generic condoms, given that there is no longer a need to impress one another?

HIV/AIDS and Attitudes Towards Condom Use

Over the past decade, HIV/AIDS has had an adverse effect on many societies, with most survey studies stating that the disease can no longer be referred to as an epidemic, but a pandemic in which there is no cure in sight for the many affected individuals (Foss, Louir, Walts, & Watts, 2004; Varga, 1997). In South Africa, estimates of the percentage of the population infected by HIV/AIDS vary from a low of 19.5% to a high of 25.8%, with ages 15-24 years most infected by the disease (Shisana et al., 2005).

Recently, considerable and intensive efforts have been made to promote the availability of condoms in South Africa as part of attempts to stem the spread of the virus. Behavioural surveys and focus group studies have described increases in condom use among age groups of 18-24 years (Foss et al., 2004; Varga, 1997). Secondary benefits of this condom marketing have included the prevention of other types of sexually transmitted infections (STIs) as well as the decrease of unwanted pregnancies (Shisana et al., 2005). Clearly, then, the benefits of

increased condom use extend beyond limiting the spread of HIV/AIDS into to the domain of everyday casual sexual interactions.

Surveys and focus group studies of high risk populations have also illustrated that there are a number of obstacles to condom use and the subsequent effective prevention of HIV transmissions and other STIs. Obstacles include the consistently and widely held myths about condoms, e.g., that they emasculate the male user; (CADRE, 2004). Most importantly for this study, a noted obstacle to condom use, as cited by survey and focus group studies, is people's attitudes towards condoms (e.g., Foss et al., 2004; Varga, 1997).

Survey studies in this field (e.g., Foss et al., 2004; Shisana et al., 2005) have focused on attitudes, such as culturally constructed norms of masculinity, which may prevent the use of condoms. These studies have, however, placed limited emphasis on the individual psychology of people who use (or don't use) condoms. Specifically, large-scale survey studies have focussed on epidemiological data and the economic status of high-risk populations. In particular, the survey studies appear to have placed emphasis on the association between poverty, lack of education, and risk of contracting HIV/AIDS.

Few experimental designs have been applied to study attitudes toward condom choice and condom use. Additionally, in the South African context, and in terms of addressing prophylactic aspects of condoms, no studies have focused on the social psychological constructs of self-identity, self-esteem and self-concept, and how these psychological attitudes pertain to condom choice.

Implicit and Explicit Measures of the Self

Arguably one of the most important contributions in social cognition research within the last decade has been the development of implicit measures of self-identity, self-esteem, and self-concept (Fazio & Olson, 2003); Greenwald, McGee, & Swartz, 1998; Nosek & Banaji, 2001). These implicit measures are based on reaction times in response to computer-based tasks, and are particularly intended to assess relatively automatic mental associations, that may be difficult to gauge with explicit self reports. This research developed from the assumption that individuals display distinct implicit and explicit attitudes that require different measurement strategies. It introduced the view that people process social

information not only in explicit (i.e., aware, controlled or reflective) mode, but also in implicit (i.e., unaware automatic or intuitive) mode. More specifically, research using these implicit measures pursued implications of Greenwald and Banaji's (1995) notion that implicit attitudes are "introspectively unidentified (or inaccurately identified) attributes of the self" (p. 10).

From the above insights, the distinction between explicit and implicit operations of the self is especially noteworthy if it turns out that the self functions differently in these two modes. The dimensions that exist in implicit and explicit operations have been utilized to measure a number of constructs, such as people's attitudes to different races: implicitly, White Americans showed a stronger preference for White people than for Black Americans, even when they explicitly claimed no prejudice against black people (Gasgupta et al., 2000). Other studies that have utilised these implicit measures include those investigating consumer behaviour (Brunel, Greenwald, & Tietje, 2004), gender stereotypes (Greenwald, McGhee, & Rudman, 2001), attitudes towards stigmatised behaviours such as smoking (Swanson, Rudman, & Greenwald, 2001), and sexual orientation (Gabriel, Jellison, & McConnell, 2004).

The Implicit Associations Test

The most popular computer-based measures of implicit attitudes is the Implicit Associations Test (IAT; Greenwald, McGee, & Swartz, 1998). The IAT is designed to assess the strength of automatic associations between various concepts presented to individuals. The primary aim of the test is to make explicit attitudes such as self-esteem, self-identity, and stereotypes that individuals may be reluctant to admit. The IAT has been employed to measure a number of social psychology phenomena such as race and gender stereotypes, self-esteem, and consumer attitudes (Greenwald, Nosek, & Banaji, 2003; Brunel et al., 2004; Greenwald & Farnham, 2000).

Greenwald et al. (1998, p. 1468) describe the typical IAT procedure in this way:

In the IAT a subject responds to a series of items that are to be classified onto four categories – typically, two representing a concept discrimination such as *flowers* versus *insects* and two representing an attribute discrimination such as *pleasant* versus

unpleasant valence. Subjects are asked to respond as rapidly with a right-hand key press to items representing one concept and one attribute (e.g., *insects* and *unpleasant*), and with a left-hand key press to items from the remaining two categories (e.g., *flowers* and *unpleasant*). Subjects then perform a second task in which the key assignments for one of the is switched (such that *flowers* and *unpleasant* share a response, likewise *insects* and *unpleasant*). The IAT produces measures derived from latencies of responses to these two tasks. These measures are interpreted in terms of association strengths by assuming that the subjects respond more rapidly when the concept and attribute mapped onto the same response are strongly associated (e.g., *flowers* and *pleasant*) than when they are weakly associated (e.g., *insects* and *unpleasant*).

In a study particularly relevant to my current research concerns, Brunel et al. (2004) sought to understand consumer attitudes, especially in a case where consumers were unable or unwilling to identify the source of their decisions to purchase certain brands (Apple Macintosh) over others (Microsoft Windows). Data showed a convergence of implicit and explicit attitudes towards different brands: IAT measures of brand attitude and brand relationship were strongly correlated with explicit measures of brand attitude, ownership and usage. Most importantly, IAT measures effectively identified consumers who reported more favourable explicit attitudes toward ownership and usage of one brand versus another. The findings of this study demonstrated the usefulness of the IAT in measuring the degree to which brands are a part of a consumer's self-concept (Brunel et al., 2004).

Even more germane to the purposes of the current research, Czopp, Lynam, Monteith, and Zimmerman (2004) conducted a study using the IAT to measure risky sexual behavior amongst students. The explicit behavior of the participants was related to their implicit attitudes toward condom usage. That is to say, judgments of risky sexual behavior had subsequent automatic implications to uncompromisingly make use of condoms. Participants were presented with a realistic social situation where they had to imagine an event wherein they had a sexual encounter with either a casual partner or a steady partner. Having listened to audio descriptions of the two scenarios, participants completed measures of implicit and explicit attitudes towards condoms as well as questions regarding condom usage. The social situations presented to the participants involved "high cue" scenarios where the participants would spend a period of time with a coworker and, ultimately, the meeting would lead to a

sexual encounter. The “low cue” scenario was one wherein the participant and their steady companion enjoyed a meal and movie and then both willingly engaged in a sexual encounter. After presentations of each scenario, the researchers measured, on a scale of 1 to 4 points, the likelihood that participants would use a condom in each of the occasions. Also, the likelihood that the participants would have had intercourse was measured on a scale of 0 to 100.

The most important findings of the Czopp et al., (2004) study, that pertain to this current research paper, are the contrast of implicit and explicit attitudes to condom use, depending on whether one has sexual interaction with a casual partner or a regular partner. Because this earlier study implies that different sexual scenarios prompt different attitudes towards condom use. In my study, I will most importantly aim to understand the relationship between people’s implicit attitudes to use of condom luxury brands with casual partners, in relation to the use of generic condoms in long-term relationships with a familiar partner.

In another condom-use study that employed the IAT, Marsh, Johnson, and Scott Sheldon (2001) studied whether explicit and implicit measures of attitudes would differently predict deliberate versus spontaneous behaviour in condom use. Explicit attitudes towards condoms were tested using questionnaires. Implicit measures were tested using attitude priming (Greenwald, 1998) and IAT procedures. Attitude priming in this context captured the degree to which condoms automatically activate positive and negative responses.

The IAT section of the study measure, involved 5 block of trials .Each single trial block had twenty trials and each dual task block had 40 trials. In block 1, participants categorised 10 positive and 10 negative scenes as either good or bad using the z and m keys. In Block 2 participants used these keys to categorise new condom and non condom images as to whether they were condoms or nor. I Block 3 , these tasks were combined randomly intermingling the scenes with condom and non condom objects, requiring students to use the same key press to indicate both “condom or good” as well as “condom or bad”. For Block 4 and 5, the key associated with condom or/ was reversed, and the tasks in Block 2 and 3 were repeated. The primary blocks of interest (Block 3 and 5) involved dual categorisation task.

The IAT also determined the order effects of the IAT so as to focus on the response speeds of how participants develop associations of condom use with casual partners. The study found that condom use with main partners was predicted by explicit measures but not by implicit

measures. Condom use with main partners better predicted amounts of negative thoughts towards condoms (i.e., participants would not immediately think of using condoms with a main partner). On the contrary, implicit measures better predicted the positive and prevention-related thoughts towards condoms with casual partners. Again, the study by Marsh et al. (2001) was a significant study which has implications for HIV/AIDS and the spread of other sexually transmitted diseases. The results of the research by Marsh et al. (2001) were congruent with those by Czopp et al. (2004), the main difference being that the latter used a neutral category to capture implicit evaluation of a single target attitude object.

RESEARCH QUESTION AND HYPOTHESIS

As noted above, there is a dearth of experimental studies of attitudes toward condom use and condom choice in South Africa. Such studies are may be useful in illuminating the question of why, despite increased distribution and availability and aggressive social marketing of condoms, the HIV infection rate continues to climb (UNAIDS, 2006).

Using the IAT in such an experimental study will provide an exploration of the relationship between implicit and explicit attitudes to condom choice, and will also offer the possibility of investigating potential moderators that relate to the social marketing of condoms. My study will, however, focus not only on the use of condoms for HIV-protection but also for prophylactic purposes, and in particular will examine self and partner perceptions in condom choice in the domain of casual sex and long-term romance. Moreover, of the limited number of IAT studies that have focused on condom use (Czopp et al., 2004; Marsh et al., 2001), none have purposefully researched attitudes towards the choice of one condom brand over another. Finally, those previous IAT studies did not focus on psychological principles underlying condom choice, particularly as those principles relate to unique cultural variables found in the South African context.

The research will focus on individuals from HIV/AIDS high-risk populations (i.e., individuals aged 18-24 years). My specific hypotheses are: (a) in casual sexual encounters, participants will show stronger preference for brand condoms over generic condoms; (b) in sexual encounters that take place in the course of long-term romantic relationships, participants will show less preference for brand condoms over generic condoms; and (c) there

will be a strong positive correlation between implicit and explicit attitudes to condom choice, regardless of sexual context.

METHODS

Participants

Participants were 57 female and 35 male single heterosexual and homosexual undergraduate students between the ages of 18 and 24 years ($M = 20.32$, $SD = 1.87$). They were recruited through the Student Research Participation Programme (SRPP) of the Department of Psychology at the University of Cape Town, and received psychology course credits in exchange for their participation. All experimental procedures were approved by the Department of Psychology's Ethics Committee.

Design

This is a true experiment. Participants were pseudo-randomly assigned¹ to either the casual sex (CS) group or the long-term romance (LTR) group. Demographic characteristics of the participants in each group are shown in Table 1.

Material and Apparatus

Demographic Questionnaire (Appendix A): This questionnaire sought to obtain information about the participants' race, age, gender, level of education, quality of high school education, and socio-economic status (SES).

Priming Materials: The priming materials for the CS group are shown in Appendix B. The priming materials for the LTR group are shown in Appendix C.

Word Recognition Test (WRT). The word recognition test was adapted from the work of Graf, Squire, & Mandler (1984) who used the technique to measure the level of information that amnesic patients could recall after a given "distract period". The researcher used the same format and procedures used by these authors to measure the recall of either CS words or LTR words. Participants were first presented with a set of words to remember, then they were

asked to play an air hockey match for two minutes (distract period). The aim of the (WRT) was to assess whether participants were adequately primed for their condition. After the distract period, participants were again presented with a selected number of words that appeared before they played the hockey match. The reaction time (measured in milliseconds) of how quickly participants recognized words related to their prime (pressing the *left shift key* if they realized the word, and pressing the *right shift key* if they did not realize the word) was the most integral component measure, to assess if participants were adequately primed for their experimental condition. (Please see Appendix D).

Implicit Associations Test (IAT). The IAT procedures used in this study were modeled on those of Marsh et al. (2001). The IAT administration proceeded as follows: On the computer monitor screen, participants read a brief and general overview of what the IAT is and what it measures. Attribute stimuli in the IAT were positively (pleasant words such as; love, joy and wonderful) and negatively (unpleasant words such as; agony, nasty and awful) valence adjectives taken from Greenwald et al. (1998). Target stimuli were visual representations of generic condoms (GC) and brand condoms (BC) taken from the internet. All stimuli were presented against a black background. Instructions informed participants that images would appear one by one on the computer screen. They were asked to press the *Q* key or the *P* key on the computer keyboard depending on the category (pleasant, unpleasant, brand, generic condom) of the picture or words. The key assignments varied across different phases, but the category labels printed at the left and right corner of the screen always indicated the correct key assignment during a particular phase. Participants were instructed to respond as quickly as possible without making too many mistakes. The aim of the IAT was to illustrate the general relationship between brand condoms and generic condoms (two contrasted attitude-object concepts). In particular, the overall purpose of the IAT was to measure the relative strength of the automatic association (in terms of speed) between brand condoms, versus generic condoms, and their association with valence adjectives and nouns, after the prime.

The IAT started with target stimuli practice phase of 18 trials (Block 1) during which each of the three brand condoms and the three generic condoms were presented three times. This was followed by an attribute practice phase of 20 trials in which each attribute represented as either pleasant or unpleasant valence (Block 2). These two tasks were then combined in two test blocks of 20 trials each where the association between brand condom (BC) and pleasant valence and generic condom (GC) and unpleasant valence was measured (Block 3). During

each test block, each target and attribute stimuli was presented twice. In a fourth phase (Block 4); participants received a second target practice block of 20 trials. Finally, the two test blocks of phase 3 were repeated, but now with the reversed key assignments for the target categories (Block 5). In accordance with standard IAT procedures as developed by Greenwald et al. (1998), the order of the trials was determined randomly for each block, but was the same for each participant. On each trial, the stimulus was presented in the centre of the screen until a response was registered. If the response was incorrect, a red X appeared in the middle screen for 400ms. The next trial started 400ms after the correct response was registered or after the red X disappeared.

As a summary of the IAT measures: Before each block, instructions were given about the upcoming task. All participants pressed the left key (Q) for pleasant words and the right key (P) for unpleasant words in all the phases of the task. In phase 2 and 3, all participants pressed the left key for brand condoms and the right key for generic condoms. In phase 4 and 5, participants then performed a new combined categorization task in which the categorization of generic or pleasant was done with the *P* key, and the categorization of brand or unpleasant was done with the *Q* key.

The Explicit Attitudes Towards Condoms (EAT-C) Questionnaire. After the IAT, a questionnaire that measured explicit attitudes towards condom use and condom choice in different sexual contexts was administered. Similar to standard IAT procedures that measure explicit attitudes, participants were asked to indicate how cold/unfavourable (0 degrees) to warm/favourable (100 degrees), they feel about using condoms, by means of a thermometer score. The increase in temperature scores (degrees), indicated positive attitudes towards using condoms. All items assessing condom choice were presented as statements that needed to be rated on a 5 point Likert scale. On the EAT-C Questionnaire, participants had to rate different condoms images [brand or generic] that were used in the IAT, on a 5 point Likert scale using different stems such as ; “Condom “A” (which was a brand condom; however participants were not informed) is: 1 *unsatisfactory* to 5 *satisfactory* . The same measuring stems were also applied for Condom “B” (generic: participants were not informed it was a generic condom). Moreover, the same EAT-C Questionnaire was used for the CS and LTR condition. (Appendix E)

Procedure

All participants were tested independently, following the same procedures. At times, two participants were tested simultaneously on two different computers in the same laboratory.

Participants were met at the ACSENT laboratory in the Department of Psychology. Upon arrival, each participant was directed to be seated at a desk, which was equipped with a desktop computer, and presented with a consent form. After reading and signing the form, participants were immediately allocated to either the CS group or the LTR group. They then completed the following tasks, all of which were computer-based and administered via dedicated software on a Microsoft desktop computer.

Participants first completed the Demographic Questionnaire and then either the Casual Sex Questionnaire or the Romance Questionnaire. They then read either the Casual Sex Scenario or the Romance Scenario. They were then administered the group-appropriate word list learning task, including the recognition trial. They then completed the IAT protocol, as described above. Finally, they were administered the EAT-C questionnaire.

Upon completion of the experimental protocol, participants were presented with credit slips as proof of their participation and as needed for Due Performance (DP) requirements in the UCT Department of Psychology. Before dismissing the participants, I provided total debriefing and answered any questions they had with regard to the study.

RESULTS

Priming Check

I subtracted the reaction time for primed words from the reaction time for distractor words; the larger the positive result from this arithmetic operation, the larger the priming effect. Using this difference score as a dependent variable, I then conducted two separate one-way ANOVAs, one for the CS group and the other for the LTR group. This was a simple measure to assess whether the priming was successful. The results revealed that the priming for my study was not successful; for the CS group prime, $F(1.48) = 0.11$; $p = 0.741$; for the LTR prime, $F(1, 42) = 1.478$; $p = 0.231$.

The Implicit Associations Test

Following the guidelines of Greenwald et al. (2003), I calculated for each participant a D600 IAT score. Following this calculation, positive scores on the statistic signified a preference for brand condoms over generic condoms.² A one-way ANOVA was used to investigate between-group differences in the D600 IAT score. Results were not statistically significant, $F(1, 88) = 1.17; p = 0.281$.

Explicit Attitudes Measures

I calculated explicit attitudes towards brand condoms and generic by averaging all condom choice ratings on the EAT-C for Condom A (brand condom) and Condom B (generic condom). A one-way ANOVA revealed significant between-group differences on this measure, $F(1, 43) = 159.237.49, p < 0.01$. The CS group showed a greater preference and a high mean score Condom A (brand condom) than the LTR group. On the other hand the LTR had a moderately greater preference for Condom B (generic) than the CS group. (Please Table 2 for explicit scores of brand and generic condoms)

Correlations between Implicit and Explicit Measures

Following the guidelines of Greenwald et al., (2003), I correlated the D600 IAT (implicit) score with an EAT-C (explicit) measure. To derive the latter, I took the individual's preference rating for Condom A (brand) and subtracted from it the preference rating for Condom B (generic); the product was a general condom choice attitude score. There was no statistically significant correlation between implicit and explicit measures, $r = 0.04$.

DISCUSSION

As stated, South Africa has one of the highest HIV/AIDS prevalence rates in the world. The effects of the virus, such as economic hardships and high mortality rates' are not exclusive to South Africa, but are also present in the rest of the Sub Saharan region (UNAIDS, 2006). Although HIV/AIDS and the prevention of its spread was central to this study, this research did not focus on HIV/AIDS per se, although the aims of the study are intricately connected to the broader domains of HIV/AIDS and other STDs. The emphasis and purpose of this

research was an in-depth study of implicit and explicit attitudes toward condom choice and their associations with self-concept and self-esteem.

These data provide some insights into people's attitudes towards condom choice, as it pertains to different sexual scenarios. Although priming for different sexual contexts was not successful, the results of this study support the notion that explicit and implicit measures of attitudes may reflect different phenomena. The results are particularly consistent with the view that implicit and explicit measures may reflect dual attitudes that can, to some extent, be dissociated (Brauer et al., 2000; Rudman & Kilianski, 2000) rather than reflecting a single underlying construct, such as implicitly associating with brand condoms, as was the case in the current study. The dissociated dual attitudes between implicit and explicit attitudes that are present in this study, are also documented in other IAT studies (e.g., Banse, Seise and Zerbes' (2001) study on implicit and explicit attitudes toward homosexuality).

In the case of the current study, I hypothesised that people primed for casual sex may want to please their partner, and present a positive self-image to their once of partner, thus choosing to associate more with brand condoms than generic condoms; people primed for long-term romance would, I hypothesized, show no such preferences. Despite the apparent lack of a priming effect, there was a trend toward confirming this prediction. As was also hypothesised, people primed for long term romance, assuming one is in a relationship with a main partner, showed less association with brand condoms. This weaker association may be attributed to less need to impress one's partner in a long-term romance scenario.

The only strong predictor of condom choice in the current study was the Explicit Attitudes Towards Condoms (EAT-C) Questionnaire. This explicit measure revealed essential findings that can potentially be of fundamental importance to the current South African HIV/AIDS context. Consistent with previous IAT studies that measured social cognition factors such as self-esteem, as well as consumer behaviour, people in this study displayed a strong self-to-brand association, implying that brand (rather than generic) items are often associated with positive notions of the self (Brunel et al., 2003; Greenwald & Farnham, 2000). The EAT-C Questionnaire illustrated that, regardless of priming conditions, there generally was a stronger explicit preference for brand condoms over generic condoms (Please see Table 2). This explicit preference was consistent with trends in the implicit attitudes data, where, regardless

of priming condition, people associated more strongly with brand condoms than generic condoms.

With regard to the relationship between the IAT and the EAT-C questionnaire, my hypothesis was that implicit and explicit attitudes to condom choice be positively correlated. Results did not confirm that prediction, though. In the context of previous IAT work, this finding is not surprising: Researchers have ascertained that the IAT and self-report explicit measures can capture distinct but correlated constructs (Greenwald and Farnham, 2000), so that although the correlation between the explicit attitudes and IAT scores is sometimes high (e.g., $r = .69$ in a 2002 presidential election IAT; Nosek, Banaji, & Greenwald, 2002), in other cases, as with my study, it can be low and statistically insignificant (Hoffman et al., 2005).

There are a number of reasons that could possibly explain the lack of correlation between implicit and explicit attitudes as witnessed in the current study. Firstly, there may have been method-related factors that could have influenced the correlation between explicit and implicit measures. These factors could be rooted in characteristics of either the explicit or the implicit measures. For instance, randomizing the order trials in the implicit measure may have confounded individual differences in the assessed representations, with individual differences in the particular order of trials. As a result, the correlation to explicit self-reports may be reduced due to the influence of systematic error variance (Gawronski, 2002). Fazio and Olson (2003) also noted that implicit measures are generally unbiased by motivational influences, whereas explicit self-reports may have been influenced by social desirability and deliberate processing.

With regard to future research on the topic of implicit and explicit attitudes to condom choice, a number of possible avenues are suggested. The Word Recognition Test illustrated that the priming effort in this study was not significant. One possible explanation is probable: It is feasible to state that the primes used in the study, i.e., the stories and accompanying questionnaires, were not strong enough. Future research should rectify this by using stronger primes, such as, perhaps, a movie clip from that glorifies casual sex such as *Sex in the City*, and perhaps, a romantic movie such as, *The Notebook*, for the long term romance prime

Another recommendation for future research is that such a study in the future includes a behavioural choice component. After completing the implicit and explicit measures, it might

be instructive to assess whether individuals will choose brand or generic condoms in an actual behavioural choice task, and whether that choice correlates with recorded implicit and explicit data. Additionally, for future research, researchers should also create an IAT that has more trial runs as it is a possibility that the current IAT had few trials from which to get a reliable D600 effect size score. Lastly, in addition to a larger sample, the study should have an equal number of male and female participants in each sexual context prime so as to adequately measure what effect gender has on condom choice.

These findings are fundamental to the South African context in that, although South Africa has a successful social marketing of condoms campaign (Shisana et al., 2005), HIV/AIDS rates remain high and continue to escalate (UNAIDS, 2006). Although condoms are being freely distributed, it is a possibility that people do not use them. One of the reasons that people may not use socially marketed condoms as promoted by the government, may simply be the fact that people prefer brand condoms. This study points to the possibility that secular efforts to improve the social marketing of condoms should either circulate brand condoms, or use innovative packaging means to improve the marketing of condoms.

In summation, the current study sought to assess the effects that one's opposite sexual partner, has on implicit and explicit attitudes towards condom choice. The result of the study point to the finding that people primed for casual sex have a greater inclination to use brand condoms than those primed for long term romance. This study is unique in the sense that it underpins psychological dynamics such as self worth and self esteem that are involved in the domain of sexual relations and condom choice, a domain often neglected by survey studies. It is imperative, that future campaigns that seek to address the HIV/AIDS virus, take into account the simple but, imperative finding that people generally prefer brand condoms over generic condoms. Future means to address the social marketing of condom can keep this in highlight, or alternatively, create more innovative condom packaging ways that appeal to people's sense of self worth and self concept.

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Appendix A

Demographic Questionnaire

Section A. BASIC DEMOGRAPHICS

1. Age: _____
2. Sex (tick one): Male_ Female_
3. Home Language:

4. What is your mother's race? (tick one)
Black/African _ Coloured _ Indian _ White_ Other_
5. What is your father's race? (tick one)
Black/African _ Coloured _ Indian _ White_ Other_
6. What is your race or ethnic background?
White_ African_ Colored_ Asian_ Other (mention) _

Section B. EDUCATION

7. Was most of your school education completed in a rural or urban setting? (tick one)
RURAL_ URBAN_
8. In which language was most of your school education completed?
9. Did you matriculate from a public high school or a private high school (tick one)
PUBLIC_ PRIVATE_
10. What is the name of the school from which you matriculated?
11. Did you attend any other high school(s) before matriculation?
YES_ NO_

If yes, what is the name of that school and where was it situated?

12. Until which grade did you attend that school?_

Section C. GENERAL QUESTIONS

13. In what neighborhood did you grow up in? (Please tick)

Suburban_

Township_

Intermediate_

14. Are you on financial Aid?

YES_

NO_

15. How do you get to campus on a daily basis?

Public transport _

Private transport_

Shuttle_

Section D. DEVELOPMENT

16. Who was/were your primary caregiver(s) during your childhood? (E.g., parents mother, father, grandmother, grandfather, uncle, aunt, etc.)

17. What was the highest level of education that your primary caregiver attained?

(Tick appropriate number)

- (i) Primary schooling only: did not finish_
- (ii) Primary schooling; finished primary school_
- (iii) High school; did not finish Grade 12 (Matric) _
- (iv) High school; finished Grade 12, with matriculation certificate_
- (v) Post-high school technical or technikon training
- (vi) Some university did not finish undergraduate degree_
- (vii) University undergraduate degree_
- (viii) University postgraduate degree_

18. Did your primary caregiver attend university?

YES_

NO_

19. When you were growing up did your parents/primary caregiver:

- a) Own a car YES_ NO_
- b) Own a home YES_ NO_
- c) Own a television YES_ NO_
- d) Own a computer YES_ NO_

21. When you were growing up:

- a) What was the size of your house? Small_ Medium_ Large_
- b) How many rooms were in your house? _
- c) How many people lived in your house? _

22. What is the occupation of your parents/caregiver? (Please mention)

Appendix B

Priming Materials: Questionnaire Casual Sex Group

Casual Sex Questionnaire

(Please tick the relevant response)

1. How many different sexual partners have you had?

0 1 _ 2-5 _ >5 _ >10 or more, please specify _

If you answered '0' to the above question, do not fill out the rest of this questionnaire.

2. What is the number of years since your first experience of sexual intercourse?

0-1 _ 3 _ +3 _

3. With how many different partners have you had sexual intercourse over the past year?

0_ 1_ 2-5_ >5 If more, please specify _

4. Approximately what percentage of your sexual intercourse encounters would you characterize as being casual sex?

5_ 10 _ 20 _ >25 _ 50 _ >50

5. What are your prerequisites for sex?

Being in love _ A few dates _
A few drinks_ Not really dependant on formality_

6. Would you have sex with someone you just met at a night club?

Absolutely not_ Possibly _ Why not _

7. A one-night stand is something you'd:

Try once_ Try again_ Never try_

Casual Sex Scenario

So yes I have had a one night stand...sometimes I not to proud of it yet I laugh my ass off thinking of it. I had just broke up with my boyfriend of three years at the time and decided I was going out. I went to a club, I only brought \$5 with me as my friend did too. so it was planned already in our heads that we would find the cutest men at the bar and we would get free drinks...in a matter of minutes after getting there the night started going just as planned...we went up in between the two guys we thought were the cutest said excused me and started to order a drink. They were like "what are you drinking" bought our drinks and told us the rest of the night our drinks would be on them...and oh man they were...9drinks 6shots later..I was one of those girls you look at and say "what hooch" I was pretty much screwing this guy in the bar..clothes on in all but anyone who has experienced being drunk and dancing with a hot guy...ummm yeah cant say more...So from there we went to a hotel...in the process I had less an earring somewhere, my cell phone...could barely make it to the hotel room...and there we went...although to break it all...in the middle of it all I like spazed "wharves my clothes"..left him totally free balling... got up put my clothes on went in the bathroom and puked all over...LMAO then I left, just left....ocoarse he found me and apoligized for not "realizing" how drunk I was and wanted me to call....Im not going to call someone who obviously got that kind of impression of me on the first night...so this is why I laugh when I think of my one night stand..Id like to say it won't happen again but who knows...anything could...I hope that Im not totally intoxicated though next time...

Appendix C

Priming Materials: Long-Term Relationship Group

Romance Questionnaire

(Please tick relevant response)

1. What is the longest relationship you have had?

5 months 1 year >1 year (specify) _

2. How many serious romantic relationships have you ever had?

_ (enter 0 if none)

3. Have you ever been deeply in love?

Yes No

4. True love?

Happens immediately _

Grows between two people over time _

Happens when you least expect it _

5. Without trust, you cannot have true love and a relationship is worthless.

Strongly Agree_ Agree_ Disagree_ Strongly Disagree_

6. Ideally would you like to have a romantic relationship?

I don't care much about romantic relationships right now_

I'd like to have a boyfriend/ girlfriend but it is not that important right now_

I would really like to have a boyfriend/girlfriend right now _

7. Do you believe everyone has a soul mate?

Definitely_ When I find mine, I'll believe it_ Not really_

8. What's the most attractive quality for a mate to have?

Intelligence_ Good looks_ Wealth_ Sincerity_

Romance Scenario

My Dear, Sweet Tammy,

My heart is just overflowing with joy this morning. I had the most wonderful time with you. I think that you are an AMAZING woman. Why? Your look warms my heart. Your touch makes it quiver. Being close to you fills my heart with contentment. Touching and caressing you, in completely innocent ways, comforts me and my heart. Feeling your gentle touch on my lips made me feel desired. Feeling you gently touch my face made me feel loved. Gently touching your face filled me with an ever increasing longing for you. Gently touching your lips filled me with an ever increasing passion for you. You have filled my heart with untold joy and happiness. That is why I think that you are AMAZING, because you make me feel AMAZING.

Just like Sunday, I think that last night was the perfect evening at the perfect time. I don't think that it was an accident. I don't think meeting at this time in our lives was an accident. I don't think that we are an accident. I think that someone is looking out for us. I think that we have been brought together at this time in our lives for something very special. I can't wait to explore what life has in store for us.

With warmth & longing,

Tim.

Appendix D

Word Recognition Test: Casual Sex Group

Words Related to Casual Sex	Other Words	Words for Recognition Task
Cheating	Cotton	Player
Infidelity	Picture	Lust
Affair	Plant	Fling
Short-term	Clothing	Affair
Intercourse	Mountain	Casual
Fling	Blacksmith	Affair
Lust	Pollution	Infidelity
Carnal	Season	
Player	Attribute	
Casual	Temerity	

I measured the reaction time (milliseconds), by assessing how quickly participants recognized and responded to the recognition words (last column), after the distract hockey match had been played for two minutes. We measured how fast these words were recognized compared to the random words. These were used to measure and assess recall of the prime words related to the Casual Sex (CS) condition.

Appendix D

Word Recognition Test: Long- term Romance

Words Related to Long Term Romance	Other Words	Words for Recognition Task
Love Romance Soulmate Spouse Marriage Everlasting Devotion Roses Loyalty Commitment	Cotton Picture Plant Clothing Mountain Blacksmith Pollution Season Attribute Temerity	Love Romance Everlasting Soulmate Loyalty Commitment Roses

I measured the reaction time (milliseconds), by assessing how quickly participants recognized and responded to the recognition words (last column), after the distract hockey match had been played for two minutes. We measured how fast these words were recognized compared to the random words. These were used to measure and assess recall of the prime words related to the long term romance (LTR) condition.

Appendix E

Explicit Attitudes Towards Condoms (EAT-C) Questionnaire

1. How do you feel about using condoms with a casual partner?

Very good Good Neither Good nor Bad Bad Very Bad

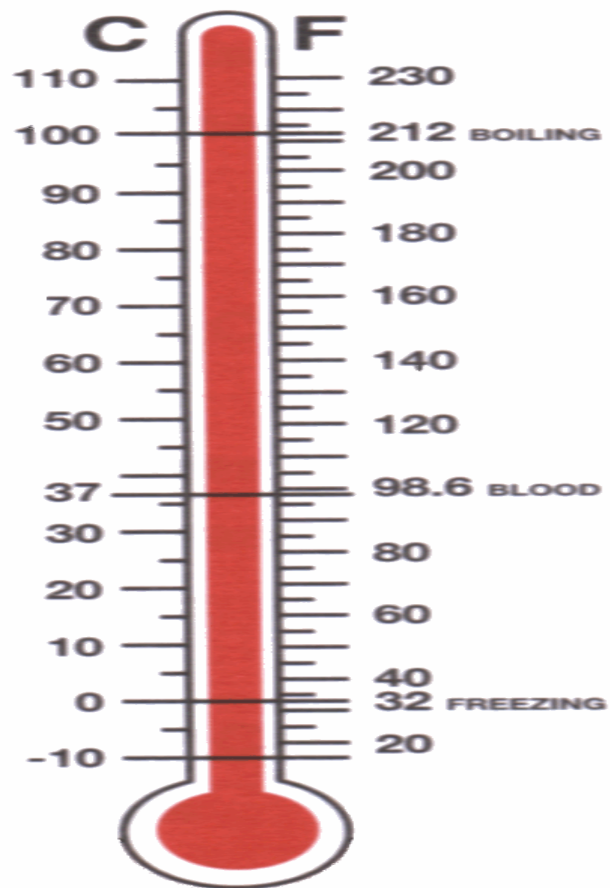
2. How do you feel about using condoms with your main partner?

Very good Good Neither Good nor Bad Bad Very Bad

3. Please indicate how cold/unfavourable/freezing (0 degrees) to warm/favourable/boiling (100 degrees), you feel about using condoms by means of a thermometer score.

Please note: increase in temperature scores (degrees), indicates positive attitudes towards using condoms.

(Thermometer on next page)



0_ 10_ 20_ 30_ 40_ 50_ 60_ 70_ 80_ 90_ 100_

4.

Please fill in the following with respect to this condom (Condom A):



Condom A is:*Bad**Good,*

1_ 2_ 3_ 4_ 5_

*Unpleasant**Pleasant*

1_ 2_ 3_ 4_ 5_

*Inferior –**Superior*

1_ 2_ 3_ 4_ 5_

*Unsatisfactory-**Satisfactory*

1_ 2_ 3_ 4_ 5_

*Unfavourable**Favourable*

1_ 2_ 3_ 4_ 5_

4. Please fill in the following with respect to this condom (Condom B):

**Condom B is:***Bad**Good,*

1_ 2_ 3_ 4_ 5_

Unpleasant

Pleasant

1_ 2_ 3_ 4_ 5_

Inferior –

Superior

1_ 2_ 3_ 4_ 5_

Unsatisfactory-

Satisfactory

1_ 2_ 3_ 4_ 5_

Unfavourable

Favourable

1_ 2_ 3_ 4_ 5_

Footnotes

1. True random assignment was not possible because I attempted to assign equal numbers of males and females to each experimental condition.
2. The IAT effects were calculated as the difference between the average latency for trials in the dual categorisation blocks (brand + pleasant/generic + unpleasant minus the counterbalanced order, brand +unpleasant / generic+ pleasant). Quicker responses as shown by positive numbers, indicated greater associations between the template (brand or generic condoms) and its valence (pleasant and unpleasant).

Table 1

Demographic Characteristics of the Sample

Variable	Experimental Condition	
	CS (n = 49)	LTR (n =43)
Sex		
Male	23	12
Female	26	31
Age	20.38 (1.69)	20.25 (2.01)
Education		
Private:	39	22
Public	18	13
Race:		
White: 47	26	21
Black: 40	21	20
Other: 2		
Missing: 2		
Socio-Economic Status ^a		
Low:	10	7
Medium:	14	8
High:	33	20

Note. CS = group primed for casual sex; LTR = group primed for long-term romance. For age, means are presented with standard deviations in parentheses.

^aSES as measured by parent occupation.

Table 2

Explicit Ratings of Condom Preference on the EAT-C

	Rating	SD
Brand Condom		
Overall	3.93 (0.75)	0.75
CS	4.05 (0.74)	0.74
LTR	3.84 (0.71)	0.71
Generic Condom		
Overall	2.36	0.91
CS	2.25	0.91
LTR	2.45	0.91

Note. Mean ratings are presented with standard deviations in parentheses.

