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THESIS

**The moderating impact of socially desirable responding on  
the relationship between attitudes and behaviour**

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To date, there has been little research on the relationship between implicit and explicit attitudes and their relation with actual behaviour. The goal of this research was to examine the influence of the moderating variable socially desirable responding on the relationship between implicit and explicit measures of attitudes and condom use. We conducted a cross-sectional study among sexually active males in which men completed an implicit attitude measure, SC-IAT (Karpinski & Steinman, 2006); an explicit attitude measure (Marsh, Johnson & Scott-Sheldon, 2001) and a socially desirable responding scale (Rudmin, 1999). We predicted and found that socially desirable responding moderates the relation between implicit as well as explicit attitudes and condom behaviour. Our results suggest that explicit attitudes regarding condom use have less predictive value when socially desirable responding is high and implicit attitudes regarding condom use are a better predictor of condom use when socially desirable responding is high. This study also provides evidence that there are differences in implicit and explicit attitudes regarding condom use between steady and casual partners. We found that socially desirable responding may have a stronger effect on the predictive validity of explicit attitudes regarding condom use with casual partner compared to steady partners. Our findings not only confirm that motivational concerns, such as SDR, affect the correlation between implicit and explicit attitudes (Fazio & Olson, 2003), but also moderate their association with actual behaviour.

Frequently our actual behaviour differs from our intentions. This can be seen in all kinds of behaviour in everyday life, in more as well as less important behaviours. For example, eating a chocolate bar while dieting or not using a condom while supporting safer sex. Social psychology has a long history of research on explaining behaviour, especially on the relationship between explicit attitudes and behaviour. However, some decades ago, attitude-behaviour research began to notice that explicit attitudes could not always predict behaviour. Therefore, researchers started to be more critical towards the relation between explicit attitudes and behaviour, and began to realize that people may be influenced by factors that are in consciousness. This resulted that the focus changed to the possible dual nature of attitudinal processes; explicit (deliberate) attitudes and implicit (automatic) attitudes. Researchers became interested in the relation between implicit and explicit attitudes and to which extend both types of attitudes can explain behaviour. The present research examined the influence of the moderating variable socially desirable responding on the relationship between implicit and explicit measures of attitudes and measures of behaviour.

The social psychological definition of attitudes has evolved substantially, starting with Allport's (1935) declaration that an attitude is 'social psychology's most indispensable concept'. At that time, definitions of attitudes focused on how attitudes were constructed and towards which objects, situations and activities people have an attitude (Lundberg, 1929; Thurstone, 1931). A couple of decades later, definitions of attitudes also included the difference in valence (positive or negative) of attitudes. For example, in a more recent definition Eagly and Chaiken (1993) describe attitudes as 'a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour.' With the evolution of the definition of attitudes, the basic assumptions of attitudes have changed as well. One of the classic assumptions is the idea that attitudes predict and explain behaviour (Albarracín, Johnson, & Zanna, 2005). Researchers thought that changes in attitudes would influence behaviour (e.g., Festinger, 1964), but studies based on these assumptions gave discouraging results (Wicker, 1969). Wicker (1969) challenged the assumptions and drew attention to the theoretical and measurement issues that affect the relationship between attitudes and behaviour. More specifically, the low correlations between attitudes and behaviour suggested, according to Wicker (1969), that there is a failure of general attitudes to predict a given behaviour. This made researchers realize that the way attitudes were

measured was flawed. Researchers began to understand that general attitudes were poor predictors of single behaviour but relatively good predictions could be achieved if they designed their measures of attitudes and behaviours at the same level of specificity (e.g., Fishbein & Ajzen, 1975). In other words, proximal attitudes towards behaviour proved to be a better predictor of specific actions than more distal attitudes towards objects.

This new line of thinking shifted the attention to identifying determinants of specific behaviour. The theories of reasoned action (Fishbein & Ajzen, 1975) and planned behaviour (Ajzen, 1985) played a key role in guiding this research. These theories recognized that attitudes were only one of the determinants of behaviour. According to the theory of reasoned action, behaviour follows from intentions to behave and these intentions, in turn, are based on attitudes as well as subjective norms. Subjective norms are the perceptions of what others are doing and the perception of what others think one should do. Besides attitudes and subjective norms, the theory of planned behaviour also adds perceived behavioural control (the ability to perform certain behaviour) as a predictor of intentions as well as behaviour. Despite this shift in attention, some investigators continued to be interested in broad attitudinal dispositions and their possible effects on specific behaviours. Fazio's (1990) MODE-model (Motivation and Opportunity as Determinants model) has been a leading theory in this line of thinking (Eagly & Chaiken, 1993). The MODE-model (Fazio, 1990) posits that attitudes can be activated in one of two ways; in a controlled (deliberate) fashion or in an automatic (spontaneous) fashion. More specifically, on one hand there is the more controlled process, where a general attitude is activated and this results in attitude-consistent behaviour. On the other hand there is the more automatic process, when an attitude is strong. If the automatic attitude is accessible, it results in attitude-consistent behaviour. If the automatic attitude is not accessible, the attitude is not activated and this results in behaviour unrelated to the attitude. In other words, Fazio (1990) argues that attitudes vary in their accessibility in memory. Highly accessible, strong attitudes are automatically activated in the presence of an attitude object and guide target-relevant behaviour, unless one has the motivation and opportunity to retrieve a different attitude from memory. Motivation and opportunity determine whether attitudinal influences on behaviour follow the spontaneous mode or the more deliberative mode.

### **Implicit and explicit attitudes**

The MODE-model pointed out that attitudes can be activated in a more controlled or automatic fashions (Fazio, 1990). Not only the MODE-model, but also other theories and studies began to notice and propose that people may be influenced by factors that do not result from consciously processes. This led to a new line of thinking, which focused on more unconscious, automatic or implicit processes that influence behaviour. Since the early 1990s, attention began to focus on the possible dual nature of attitudinal processes; which distinguished explicit (deliberate) attitudes and implicit (automatic) attitudes. This recognition of the possible dual nature of attitudinal processes also had consequences for the way of measuring attitudes. Explicit attitudes are seen as deliberate evaluations that are open to introspection and are under conscious control (Ottaway, Hayden, & Oaks, 2001). Explicit measures of attitudes are based on respondents self-reports of their attitudes. In contrast, implicit attitudes are seen as automatic evaluations that occur without conscious reflection and are not necessarily available for introspection or control and can exert an unconscious influence on behaviour (Fazio, 1990). The concept of implicit attitudes made the limitations of self-report measures more apparent; people might not be aware of their attitudes and may thus be unable to explicitly report an attitude. Therefore, researchers have developed implicit measures to complement the traditional, explicit measures of attitudes. Implicit measures of attitudes are assumed to assess automatic evaluations associated with attitude objects that perceivers may not necessarily be aware of (Fazio & Olson, 2003; Greenwald & Banaji, 1995; Greenwald et al., 2002; Greenwald, McGhee, & Schwartz, 1998; Wilson, Lindsey, & Schooler, 2000).

### **Low correspondence between implicit and explicit attitudes**

The development of implicit attitude measures provided research with an opportunity to study the possible roles of implicit and explicit attitudes in determining behaviour (Fazio & Olson, 2003; Strack & Deutsch, 2004; Wilson et al., 2000). The distinction between implicit and explicit attitude measures (Brauer, Wasel, & Niedenthal, 2000), suggested that implicit and explicit attitudes may be independent constructs and that these constructs do not necessarily correspond to each other (Devine, 1989). A meta-analysis by Nosek (2005) led to the conclusion that a relation between implicit and explicit attitudes does exist, but varies as a function of the assessed object and this

relation between implicit and explicit attitudes can be moderated by for example evaluative strength.

Bassili and Brown (2005) did research on possible moderators that could influence the relation between implicit and explicit attitudes. Their research shows that the strength of the relation between implicit and explicit attitudes varies depending on factors that occupy the working memory and thereby affect conscious deliberation of attitude expression. There are many important factors that can occupy the working memory but the most notable factors are related to motivational concerns, such as self-presentation, consistency motivation and socially desirable responding. A study by Fazio and Towels-Schwen (1999) looked at motivational concerns as a factor that could influence the relation between implicit and explicit attitudes. This study expected to explain the low correspondence between implicit and explicit attitudes by differences in scores on motivational concerns. The results of this study confirmed this; low motivational concerns showed indeed a higher correspondence between implicit and explicit attitudes than when participants had high motivational concerns. Research on prejudice support the idea that the relation between implicit and explicit attitudes can be moderated by motivational concerns as well (e.g., Fazio & Olson, 2003; Rudman, Phelan & Heppen, 2007). This type of research considered socially desirable responding as an important factor of motivational concerns and did quite some research on the moderating effect of socially desirable responding on the relation between implicit and explicit attitudes. For example, research by Fazio, Williams and Sanbonmatsu (1990) focused on implicit and explicit attitudes towards a variety of attitude objects, ranging from mundane (e.g., snakes, dentists) to more sensitive issues (e.g., pornography, African Americans). Non-controversial issues were not particularly susceptible to socially desirable responding pressures and showed a higher correspondence between implicit and explicit attitudes. By contrast, lower correlations between implicit and explicit attitudes were found for more controversial issues. In summary, both studies by Fazio and colleagues (1990) and Fazio and Towels-Schwen (1999) support the same idea, that correspondence between measures of implicit and explicit attitudes decrease as motivational concerns are activated by the attitude object and the social context.

### **Socially desirable responding**

As noted previously, an important factor that is related to motivational concerns is socially desirable responding. Socially desirable responding is a common response bias that has been widely viewed as the tendency for people to present themselves favourably according to current cultural norms when answering researchers' questions (Albarracín et al., 2005; Catania, Gibson, Chitwood, & Coates, 1990; Crowne & Marlowe, 1960; Paulhus, 1991; Vogt, 1993). According to Nederhof (1985) between 10% and 75% of the variance in participants' responses can be explained by socially desirable responding. Socially desirable responding can confound relationships among the variables of interest by suppressing or obscuring relationships among variables or producing artificial relationships between them (e.g., Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989; King & Brunner, 2000). Studies of attitudes attempt to control for socially desirable responding because it affects the validity of a measurements (Huang, Liao, & Chang, 1998) as an instrument is valid if it accurately measures what it aims to measure. As previously noticed, research has shown that socially desirable responding often influences explicit attitudes (e.g., Difranceisco, McAuliffe, & Sikkema, 1998; Meston, Heiman, Trapnell, & Paulhus, 1998; Mick, 1996; Nederhof, 1985). This means that explicit attitudes can be based on socially desirable responding. In relation to behaviour, earlier studies show that the socially desirable responding bias has an influence on explicit attitudes and behaviour, especially with sensitive topics. The socially desirable responding bias is particularly likely to occur with sensitive topics because with sensitive topics respondents are unable or unwilling to report accurately (Fisher, 1993; King & Brunner 2000). Research by Agnew and Loving (1998) confirms this by showing the effect of socially desirable responding on explicit attitudes towards the sensitive topic of condom use. Males with a high score on socially desirable responding were more likely to report a positive attitude regarding condom use and had a stronger intention to use a condom than men low in this tendency. The influence of socially desirable responding became more evident when anonymity was stressed; males self-reported attitudes and intentions concerning condom use became more negative. In the present research we are equally interested in the moderating effect of socially desirable responding on the relation of implicit and explicit attitudes with behaviour. Implicit measures attempt to assess what is automatically activated in response to a person or object and the major appeal of implicit measures is that these indirect estimates are



likely to be free of social desirability concerns (e.g., Fazio & Olson, 2003). In other words, it is expected that socially desirable responding bias has no or less influence on implicit attitudes compared to explicit attitudes. However, research of the effect of socially desirable responding on implicit attitudes and behaviour is limited.

In the present study we want to shed more light on the relation of implicit and explicit attitudes with behaviour. As previously noted, research has shown that explicit attitudes can explain behaviour (e.g., Agnew & Loving, 1998), but research has also shown limited correlations between explicit attitudes and behaviour (e.g., Albarracín, Johnson, Fishbein, & Muellerleile, 2001). Current theorizing recognizes that actual behaviour is the result of joint automatic and deliberate processes that complement each other (Strack & Deutsch, 2004). This makes us expect that implicit attitudes also can make a contribution towards explaining over and above explicit attitudes, especially if socially desirable responding is high. The tendency to respond in a socially desirable way may particularly occur when respondents are unable or unwilling to report accurately on sensitive topics (Fisher, 1993; King, & Brunner 2000). That is why the behaviour focused on in this study is condom use behaviour. There also has been quite some research on the differences in condom use and attitudes regarding condom use (i.e., Misovich, Fisher, & Fisher, 1997). Another reason to use this behaviour is because we expected to find considerable individual variation in condom use and this might reflect differences in both implicit and explicit attitudes as people may have different considerations to use condoms and evaluate benefits and disadvantages differently (Conley & Collins, 2005). While people may generally have a positive attitude towards condom use (Agnew & Loving, 1998), they are also aware of social expectations that favour condom use and their explicit attitudes may reflect different levels of social desirability (Fisher, 1993; King & Brunner, 2000). In relation to the contributing value of a study with condom behaviour, it can contribute to the formulation of insightful and more specific theoretical models about attitudes. In addition, it can also have implications for the construction of campaigns about condom use (Helweg-Larsen & Collins, 1994).

Concerning the main question in our research, we first want to take look at the moderating effect of socially desirable responding on the relationship between explicit and implicit attitudes. Based on other studies (e.g., Fazio & Towels-Schwen, 1999;

Fazio et al., 1990) we expect to find a decrease in correspondence between measures of implicit and explicit attitudes when socially desirable responding is high. Secondly, we are interested in the moderating effect of socially desirable responding on the relation between implicit as well as explicit attitudes and behaviour. Based on studies that found that variance is shared between explicit attitude measures and measures of socially desirable responding (e.g., Difranceisco et al., 1998; Meston et al., 1998; Mick, 1996; Nederhof, 1985), we expect that the explicit attitude reflects socially desirable responding bias, while we expect that implicit attitudes are less influenced by socially desirable responding (Fazio and Olson, 2003). We thus expect that among people with a high score on socially desirable responding the predictive value of explicit attitudes would be lower, while the predictive value of implicit attitudes would be higher. Furthermore, it is a common belief that condom use is less important for sex with a steady partner than with casual partners (e.g., Britton et al., 1998; Castaneda & Collins, 1998; Misovich, Fisher, & Fisher, 1997; Pilkington, Kern & Indest, 1994). Based on the previous studies we hence expect a difference in attitudes towards condom use and actual condom use with steady and casual partners (Misovich, Fisher, & Fisher, 1997). More specifically, we expect that attitudes regarding condom use with casual partners are more sensitive to socially desirable responding, which results in a more positive explicit attitude regarding condoms with casual than steady partners. It also means that it is more acceptable for people to not use a condom with a steady partner. This would mean that explicit attitudes regarding condom use would be more strongly related to condom use with steady than with casual partners, in particular when socially desirable responding is high.

## **Methods**

### **Design and participants**

A computer-assisted cross-sectional survey was conducted among 137 sexually active males recruited at the University of New South Wales (UNSW), Sydney, Australia. A participant was considered sexually active if he self-reported to have engaged in at least one instance of sexual intercourse in the last six months. Of the participants 83.2% were students and 16.8% were employed either full-time or part-time. Participants' age ranged from 17 to 40 years ( $M = 22.2$ ;  $SD = 3.73$ ). Of the 137 males who participated, 5.84% reported to be homosexual, 2.91% were bisexual and 91.24% were heterosexual. One participant (0.73%) self-identified as aboriginal; 45.99% as identified Anglo-Australian and 53.28% had another ethnic background. From this 53.28%, more than half of the participants originated from Europe, more or less 18% originated from Asia and a small percentage originated from Latin America and the Middle East. Also none of the participants knew or suspected to be HIV positive and none of the participants were allergic to latex.

### **Procedure**

During one week a stall was placed in a central location of the UNSW campus. Males who passed the stall were given a flyer by one of three female experimenters; this flyer briefly explained the study. Men who were interested in participating presented themselves at the stall where they received a comprehensive information sheet concerning the nature and duration of the study. Participants provided written consent and were directed to a laptop-computer, which was placed at the stall. The laptop computer had adequate privacy; only the participant could read the texts on the computer screen. Participants first completed computer assisted questions regarding their demographic-characteristics. Participants next completed a measure of implicit attitudes towards condoms. Subsequently, participants completed questions that assessed their explicit attitudes toward using condoms, separately for steady and casual sexual partners, as well as a measure of socially desirable responding. Participants also completed a variety of other measures for a separate study. The survey ended with questions regarding men's sexual relationships, frequency of vaginal/anal intercourse and condom use during the preceding six months. After completing all the measures, participants were thoroughly debriefed. The survey took

between 20-30 minutes to complete and participants received no compensation. The study protocol was approved by the Human Research Ethics Committee of the University of New South Wales.

### **Measurement**

*Implicit attitude* The Single Category- Implicit Association Test (SC-IAT), was used as the measure of implicit attitudes (Bluemke & Friese, 2008; Greenwald et al., 1998; Karpinski & Steinman, 2006). The SC-IAT is a measure based on the Implicit Association Test (IAT) a tool that is widely used in social psychological research on implicit attitudes. Karpinski and Steinman (2006) have recently developed the SC-IAT which is a two stage task designed to measure associations with a single category instead of two categories. Both, the IAT and the SC-IAT are designed to measure implicit attitudes by assessing the strength of the association between a target concept and negative and positive attributes (Greenwald et al, 1998). The speed with which an individual categorises stimuli as they appear on a computer screen reflects the compatibility of an association, which is measured in response time. The premise is that response time will be quicker when the same computer key is used for strongly associated concepts. In other words, when two concepts are compatible (i.e., positively and negatively valance) an individual will respond more quickly than when two concepts are incompatible.

The SC-IAT's attribute categories were positive pictures (e.g. kittens, a sunny beach) and negative pictures (e.g. a house on fire, an evil looking dog). The target category contained pictures of condoms. Pictures were adapted from the study of Marsh, Johnson and Scott-Sheldon (2001). The SC-IAT consisted of five steps, with Steps 1, 2, and 4 consisting of practice trials and Steps 3 and 5 containing the critical test phases. Each step was preceded by a set of instructions concerning how visual stimuli had to be categorized and the appropriate key responses. On each trial participants had to categorize the visual stimuli as quickly as possible as either 'good' or 'bad' by using the 'e' and 'i' keys on the keyboard. Each picture appeared centred on the screen and category reminder labels were positioned on the top of the screen. Within each category the pictures were presented without replacement. If a participant gave an incorrect response a red X appeared on the screen and stayed on the screen until the participant pressed the correct response. Step 1 contained 10 trials with only pictures

from the attribute categories; participants categorized 5 positive and 5 negative pictures as good or bad. Step 2 and 4 were the practice components of Step 3 and 5 that consisted of 20 practice trials each. There were 40 trials in each critical test phase (Step 3 and Step 5). In the practice phases, participants categorized exemplar stimuli (good and bad pictures) by pressing either of two buttons (the 'e' and 'i' keys) on the keyboard to indicate to which paired categories the exemplar belongs; each response button was assigned to one of two attribute categories. In the 3rd Step, the target category (condom pictures) and the 'good' attribute category had a shared response key, while in Step 5 this was reversed. In Step 5 the target category (condom pictures) and the 'bad' attribute category were designed a shared response key. The implicit attitude towards condoms was computed as a function of the difference in average response speed between the positive and negative categorisation (Step 3 and 5). After transformation of these aggregated response times, the difference in latencies between the positive and negative categorisation (Step 3 and 5) provided the D measure. The D measure is computed by dividing the difference between the Step 3 and 5 by the standard deviation of the aggregated practice Step latencies (Greenwald et al., 1998). The magnitude of the D-score, whether in the positive or negative direction, is interpreted as the magnitude of the implicit attitude towards condoms. A negative D-score indicates a negative implicit attitude towards condoms whereas a positive D-score indicates a positive implicit attitude towards condoms.

*Explicit attitude* Explicit attitudes towards condom use were assessed separately for intercourse with steady or casual partners, using four semantic differential items (nice/awful, ugly/beautiful, bad/good, and pleasant/unpleasant) derived from Marsh and colleagues (2001). Responses were given on 5-point scales that were (re)coded so that lower scores reflected a more negative attitude while higher scores reflected a more positive attitude. Internal consistency of the four-item scale was good (steady partner,  $Alpha = .92$ , casual partners,  $Alpha = .79$ ).

*Socially desirable responding* The extent to which participants were inclined to respond in socially desirable ways was assessed by the Norwegian short-form of the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), consisting of 10 items developed by Rudmin (1999). For each of the items (e.g. 'No matter who

I'm talking to, I'm always a good listener') a 'true' or 'false' response could be given. Socially desirable responses were summed (range 0-10).

*Sexual behaviour* Sexual intercourse and condom use were assessed separately for steady and casual partners and were used to establish condom use in the preceding six months as well as the last time men had sex with a steady or casual partner. We first established whether in the preceding six months men had had a steady partner (i.e., 'someone you consider yourself to have a relationship with'). Men who responded affirmative were then asked how many times they had had vaginal or anal sex with their steady partner in this period of six months as well as how many times they had used a condom for vaginal or anal intercourse. The proportion of condom use during intercourse with a steady partner in the preceding six months was then calculated by dividing the number of times men reported to have used a condom for vaginal/anal intercourse with their steady partner and the total number of occasions of vaginal/anal intercourse. Men were also asked to indicate whether they used a condom the last time they had vaginal/anal intercourse with their steady partner. We equally established whether men in the preceding six months had casual sexual partners (i.e., 'someone you have had sex with only once or a couple of times, and who you do not consider to be your steady partner'). Men who had had casual partners were asked to report the total number of instances of vaginal/anal intercourse with casual partners as well as the number of instances of vaginal/anal intercourse for which a condom had been used to calculate the proportion of condom use with casual partners. Men who had casual partners were also asked whether they had used a condom the last time they had vaginal/anal intercourse with a casual partner.

### **Statistical analyses**

Firstly, we calculated descriptive values of key variables. We also calculated the correlations between implicit and explicit attitudes measures and behaviour. Secondly, multiple linear regressions analyses were used to test our hypotheses regarding the moderation of the relationship between implicit and explicit attitude measures by socially desirable responding. Thirdly, multiple linear and logistic regressions were used to statistically test the hypotheses that concerned condom use behaviour. Multiple linear regression analyses were used for continuous behavioural outcome variables (i.e., proportion of condom use for the preceding six months),

while multiple logistic regression analyses were used for dichotomous outcome variables (i.e., condom use for last intercourse). In both types of analyses of behaviour, we first entered the two measures of attitudes (SC-IAT and explicit attitudes), then added the moderator variable (socially desirable responding), and then entered the interaction terms between each measure of attitudes and the moderator (SC-IAT x socially desirable responding, explicit attitudes x socially desirable responding). For each of these analyses we used the explicit attitude measure that corresponds to the partner type. Simple slopes analyses were subsequently conducted to test whether relations between attitudes and outcomes were statistically different from zero for different values of the moderating variable (i.e., at -1 *SD* below mean and 1 *SD* above mean).

## Results

Of the 137 men who participated in this study more than half had a steady partner in the preceding six months. On average the steady relationships had been going on for 63 weeks ( $M = 62.5$ ,  $SD = 76$ ). Men in a steady relationship had had vaginal/anal intercourse 51 times on average in the preceding six months ( $M = 51.3$ ,  $SD = 53.1$ ). Condoms were used on average for 21 occasions of intercourse with a steady partner ( $M = 21.7$ ,  $SD = 30.3$ ), indicating that men on average used a condom for 53% of occasions of intercourse with a steady partner. The last time they had intercourse with their steady partner 52% of the men in a steady relationship had used a condom. Of the 137 participants, 72 men (54%) had had one or more casual partners in the preceding six months. On average, men who had sex with casual partners had done so with five casual partners ( $M = 4.9$ ,  $SD = 9.8$ ). Men who had sex with casual partners on average reported 12 occasions of vaginal/anal intercourse ( $M = 12.2$ ,  $SD = 20.1$ ) with casual partners in the preceding six months. Condoms were used on average for eight occasions of vaginal/anal intercourse with casual partners ( $M = 8.1$ ,  $SD = 13.9$ ), indicating that men who had sex with casual partners on average used condoms 78% of the times they had intercourse. Of the men who had sex with casual partners in the preceding six months, 72% indicated they had used a condom the last time they had vaginal/anal intercourse with a casual partner (Table 1).

In general, participants' implicit attitudes regarding condoms were slightly positive, SC-IAT. Also the explicit attitudes indicated a slightly positive attitude towards condoms, for men with a steady partner as well as for men with casual partners (Table 1). Examining the correlations between the different attitude measures indicated that the SC-IAT correlated significantly negatively with participants' explicit attitude regarding condom use with a steady partner. The SC-IAT did not correlate significantly with the explicit attitude regarding condom use with casual partners. However, we did obtain a positive correlation between the explicit attitude regarding condom use with a steady partner and the explicit attitude regarding condom use with casual partners. Looking at the correlations between socially desirable responding, we found that this was not associated with the different attitude measures. Furthermore, we also performed regression analyses of explicit attitude measures on the implicit attitude measure and the moderating effect of socially desirable responding for steady



and casual partners separately. For the explicit attitude regarding condom use men with a steady partner we found a significant relation with the implicit attitude measure ( $Beta = -.97, p < .05$ ), but did not find a relation with socially desirable responding ( $Beta = .013, p = ns$ ) nor did we find an interaction effect of the implicit attitude measure and socially desirable responding ( $Beta = -.078, p = ns$ ). For the explicit attitude regarding condom use with casual partners, we did not find a relation with the implicit attitude measure nor with socially desirable responding or the interaction effect of the implicit attitude measure and socially desirable responding.

Table 1. *Bivariate Correlations among Measures Variables*

Variables	1	2	3	4	5	6	7	8
1. Implicit attitude	$M = .21,$ $SD = .41$	-.218**	-.115#	.010ns	-.106ns	-.228*	-.040ns	-.015ns
2. Explicit attitude regarding condom use with a steady partner	$M = 4.18,$ $SD = 1.66$	-	.348 ***	.020ns	.575***	.518***	.295**	.280**
3. Explicit attitude regarding condom use with casual partners	$M = 5.41,$ $SD = 1.26$		-	-.098ns	.164ns	.122ns	.337**	.204*
4. Socially desirable responding	$M = 4.8,$ $SD = 1.95$			-	.123ns	.033ns	.021ns	.091ns
5. Proportion of condom use for men with a steady partner in the preceding six months	$M = .53,$ $SD = .41$				-	.741***	.304*	.341*
6. Proportion of men who used a condom the last time they had a sexual intercourse with a steady partner	$M = .51,$ $SD = .50$					-	.271*	.150ns
7. Proportion of condom use for men with casual partners in the preceding six months	$M = .78,$ $SD = .34$						-	.685***
8. Proportion of men who used a condom the last time they had a sexual intercourse with a casual partner	$M = .72,$ $SD = .45$							-

Note: \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; # =  $p < .10$ ; ns = non-significant

Next we examined the correlations between attitudes and behaviour; first we looked at the correlations between attitudes and the proportion of condom use with a steady partner and with casual partners in the preceding six months (Table 1). For both these measures we obtained positive correlations with explicit attitudes regarding condom use. The SC-IAT did not correlate significantly with the proportion condom use with a steady partner or with casual partners.

We also examined the correlations between attitudes and the proportion of men who used a condom the last time they had sexual intercourse with a steady partner or with casual partners (Table 1). Examining correlations with the explicit attitude measures indicated a significant correlation with the proportion of men who used a condom the last time they had sexual intercourse with a steady partner as well with a casual partner. We did find a correlation between the SC-IAT score and the proportion of men who used a condom the last time they had sexual intercourse with a steady partner, but no significant correlation with the last time men had sex with a casual partner. Looking at the correlations of socially desirable responding, we found that this did not correspond with the different behavioural measures (Table 1).

The results of the multiple linear and logistic regression analyses to assess the independent effects of implicit and explicit attitude measures on behavioural outcomes are presented in Table 2 (Panel A). As can be seen, regarding condom use with a steady partner in both the preceding six months as well as for the last occasion of vaginal/anal intercourse only the explicit attitude was significantly related to the behavioural outcome. Similarly, condom use with casual partners also was only significantly related to men's explicit attitude, with a significant effect obtained for condom use in the preceding six months, while the effect for condom use the last time men had intercourse with a casual partner was marginally significant.

Table 2. *Linear and Logistic Regressions of Condom use Behaviour with Steady and Casual Partners in the Preceding Six Months and for the Last Occasion of Sexual Intercourse*

	Condom use steady partner		Condom use casual partner(s)	
	Preceding 6 months	Last occasion of sexual intercourse	Preceding 6 months	Last occasion of sexual intercourse
<b>Panel A: Independent effects of implicit and explicit attitudes</b>				
Implicit attitude	$\beta = .02$ (ns)	O.R. = .47 (ns)	$\beta = -.02$ (ns)	O.R. = 1.05 (ns)
Explicit attitude	$\beta = .58$ ***	O.R. = 2.16 ***	$\beta = .34$ **	O.R. = 1.41 (#)
<b>Panel B: Moderator effects of socially desirable responding</b>				
Implicit attitude	$\beta = -.02$ (ns)	O.R. = .34 (#)	$\beta = -.11$ (ns)	O.R. = 1.43 (ns)
Explicit attitude	$\beta = .59$ ***	O.R. = 2.28 ***	$\beta = .41$ ***	O.R. = 1.77 *
Socially desirable responding	$\beta = .14$ (ns)	O.R. = 1.09 (ns)	$\beta = .06$ (ns)	O.R. = 1.07 (ns)
Implicit X Socially desirable responding	$\beta = .18$ *	O.R. = 1.61 (ns)	$\beta = .22$ (#)	O.R. = .73 (ns)
Explicit X Socially desirable responding	$\beta = .07$ (ns)	O.R. = 1.08 (ns)	$\beta = -.36$ ***	O.R. = .62 **

Note: \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ ; # =  $p < .10$ ; ns = non-significant

Table 2 (Panel B) presents the outcomes of the moderator analyses. Again we found significant effects on the behavioural outcomes of men's explicit attitudes, but not of their implicit attitudes, with the exception of a marginally significant effect of men's implicit condom attitude on condom use the last time they had intercourse with their steady partner. Importantly, we found that the interaction between men's explicit attitudes regarding condom use with casual partners and socially desirable responding was significantly related to condom use with casual partners, both in the preceding six months as well as the last time they had intercourse with a casual partner.

We further probed the nature of these interactions by examining the effects of the explicit attitude measures on behaviour at low (1 *SD* below mean) and high (1 *SD* above mean) levels of the moderator variable (socially desirable responding). Figure 1 and 2 show, that for both the proportion of condom use with casual partners in the preceding six months as well as condom use the last time men had intercourse with a casual partner, explicit attitudes were more strongly related to actual condom use under the condition of low socially desirable responding than high socially desirable

responding. More specifically, when men had a low tendency to respond in socially desirable ways, high explicit attitudes towards condom use were related to higher levels of condom use than low explicit attitudes. Simple slope tests showed that the relationship between explicit attitudes and behaviour was significant when socially desirable responding was low ( $t_{preceding\ six\ months} = 3.4, p < .01$ ;  $t_{last\ time\ intercourse} = 3.2, p < .01$ ) but not when socially desirability was high.

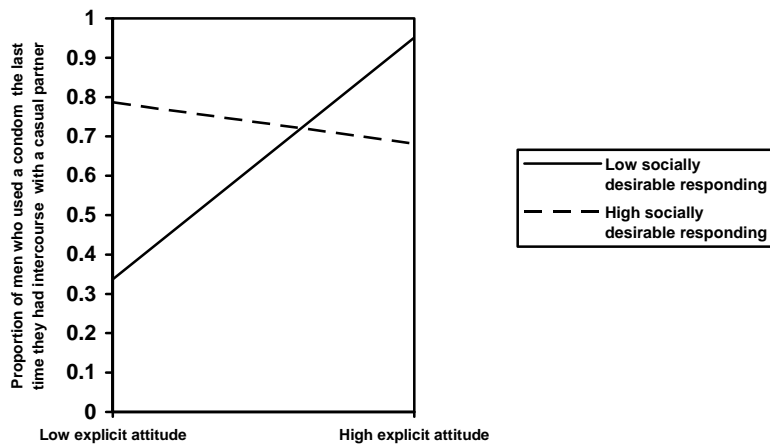


Figure 1: *The proportion of men who used a condom the last time they had intercourse with a casual partner, by a low and high explicit attitude separately for low and high socially desirable responding.*

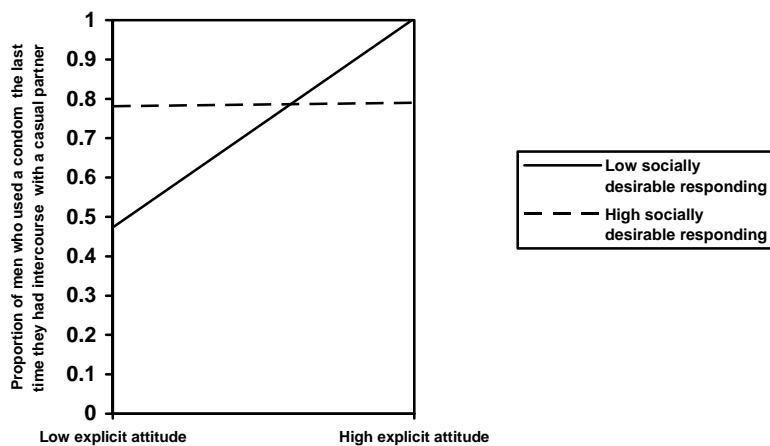


Figure 2. *The proportion of condom use with casual partners in the preceding six months, by a low and high explicit attitude separately for low and high socially desirable responding.*

Also, we found interaction effects between men's implicit attitude and socially desirable responding on condom use with steady partners (significant interaction) and casual partners (marginally significant interaction) in the preceding six months. We

again further probed the nature of these interactions by examining the effects of the implicit attitude measures on the proportion condom use at low (1 SD below mean) and high (1 SD above mean) levels of the moderator variable (socially desirable responding). Figure 3 and 4 show opposite patterns to the interaction effects we found for explicit attitudes (Figure 1 and 2). Figure 3 and 4 show, that when men had a high tendency to respond in socially desirable ways, high implicit attitudes towards condom use were related to higher levels of condom use than low implicit attitudes. When socially desirable responding was low men's implicit attitude regarding condom use was inversely related to condom use. Simple slope tests showed that the relationship between implicit attitudes and behaviour was significant for casual partners only when socially desirable responding was low ( $t = 2.9, p < .01$ ). For condom use with casual partners neither of the regression lines differed significantly from zero.

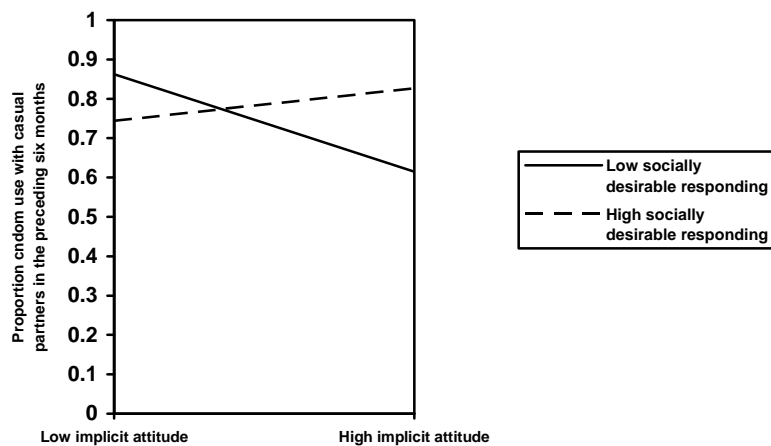


Figure 3. *The proportion of condom use with casual partners in the preceding six months, by a low and high score of implicit attitude separately for low and high socially desirable responding.*

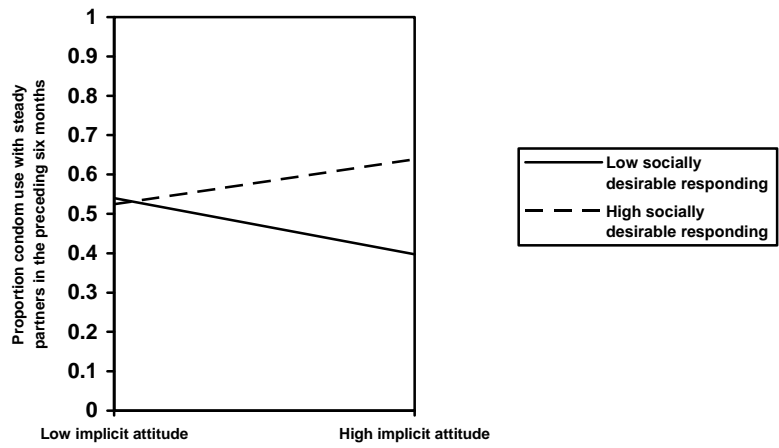


Figure 4. *The proportion of condom use for men with a steady partner in the preceding six months, by a low and high score of implicit attitude separately for low and high socially desirable responding.*

## **Discussion**

In this study, we investigated the relationship between implicit as well as explicit attitudes and condom use. Firstly, we expected that besides explicit attitudes, implicit attitudes would also make a contribution towards explaining this behaviour. Secondly, we predicted that socially desirable responding would moderate the relationship between explicit and implicit attitude measures; we expected a decrease in correspondence between measures of implicit and explicit attitudes when socially desirable responding was high. In relation to behaviour, we expected that socially desirable responding would moderate the effect of implicit and explicit attitudes on condom use. More specifically, we expected that a high score on socially desirable responding would decrease the predictive value of explicit attitudes and would increase the predictive value of implicit attitudes on behaviour. Thirdly, we had separate explicit attitude scores for condom use with steady partners and casual partners. We expected a more positive explicit attitude towards condoms of casual than steady partners. We also expected that explicit attitudes would be more strongly related to condom use with steady than with casual partners, in particular when socially desirable responding is high.

We evaluated these hypotheses and found mixed results. Firstly, we did not find a significant main effect of implicit attitudes. Also we did not find a moderating effect of socially desirable responding on the relationship between explicit and implicit attitudes. Nevertheless, we did find a relation between implicit and explicit measures of attitudes regarding condom use with a steady partner. Looking at the relation between attitudes and behaviour, we did find a moderating effect of socially desirable responding on the relationship between the explicit and implicit attitude measures and condom use. More specifically, we found that explicit attitudes regarding condom use with casual partners were more strongly related to actual condom use when socially desirable responding was low than when socially desirable responding was high. When respondents had a low tendency to respond in socially desirable ways, high explicit attitudes towards condom use with casual partners were related to higher levels of condom use than low explicit attitudes. Furthermore, we also found significant interaction effects of implicit attitudes and socially desirable responding on condom use in the preceding six months with steady as well as casual partners. More

specifically, we found that respondents' high implicit attitudes regarding condom use were related to higher levels of actual condom use with steady and casual partners when socially desirable responding was high rather than low. Furthermore, we found that men's explicit attitudes regarding condom use with casual partners were indeed more positive than their explicit attitudes regarding condom use with a steady partner.

Our findings have several implications. Firstly, the low and partially non significant correlations between implicit and explicit attitude measures further illustrate that the correspondence between implicit and explicit attitudes can indeed be low as Devine (1989) suggested. The study by Karpinski and Steinman (2008) that evaluated the SC-IAT equally found low correlations. As Fazio and Olson (2003) note, this does not mean that we have to cast doubts on either one of the attitude measures. Looking at the measures' predictive validity, in general both implicit and explicit measures are assumed to predict behaviour (Dovidio, Kawakami, Johnson, & Howard, 1997). However, in our study we did not find a main effect of implicit attitudes over and above explicit attitudes. Inspired by the findings of the studies by Fazio and colleagues (Fazio & Towels-Schwen, 1999; Fazio, et al., 1990) it may be more productive to focus on the conditions under which implicit and explicit attitudes predict behaviour.

Our results suggest that socially desirable responding can be such a condition, as we found that socially desirable responding moderated the relation between explicit attitudes and condom use. More specifically, casual partners' explicit attitudes are more strongly related to actual condom use when socially desirable responding is low. Notably, when men had a low tendency to respond in socially desirable ways, high explicit attitudes towards condom use are related to higher levels of condom use. This suggests that explicit attitudes predict behaviour more when socially desirable responding is low. Socially desirable responding also moderated the relationship between implicit attitudes and condom behaviour. More specifically, when men had a high tendency to respond in socially desirable ways, high implicit attitudes towards condom use were related to higher levels of condom use than low implicit attitudes. When socially desirable responding was low men's implicit attitude regarding condom use was inversely related to condom use. This suggests that, as we expected, implicit attitudes better predict condom use when socially desirable responding is



high, although the moderation effects we obtained may also be explained by the reduced predictive validity of implicit attitudes under conditions of low socially desirable responding.

Furthermore, just as the research of Marsh and colleagues (2001) we found that attitudes regarding condom use and actual condom use were different for sexual intercourse with steady and casual partners. Notably, respondents' explicit attitudes towards condom use were more positive for casual partners than for steady partners. This could suggest that men's attitudes regarding condoms with casual partners is indeed more influenced by socially desirable responding, possibly reflecting the belief that it is more acceptable to not use a condom with steady partners than with casual partners (e.g., Misovich et al., 1997; Pilkington et al., 1994). However, correlations between the explicit attitude measures and socially desirable responding were not significant. Nevertheless, we did find more moderating effects of socially desirable responding of the relationship between men's attitudes and condom use with casual partners than with steady partners. More specifically, we found that socially desirable responding moderated the relationship between the explicit attitude regarding condom use with casual partners and condom use with casual partners in the preceding six months as well as the last sexual intercourse. Also the interaction effect of implicit attitudes and socially desirable responding on condom use with casual partners was marginally significant. In contrast, regarding condom use with steady partners only the interaction effect between implicit attitudes and socially desirable responding on condom use in the preceding six months was significant. This suggests that socially desirable responding may have a stronger effect on the predictive validity of explicit attitudes regarding condom use with casual partner, which is consistent with the notion that men's attitudes regarding condom use with a steady partner may be less vulnerable to socially desirable responding.

In addition to understanding the relation between attitudes and condom use behaviour, the current work also gives more understanding of the implications of the used implicit attitude measure; the SC-IAT (Karpinski & Steinman, 2006). The evaluating study of the SC-IAT by Karpinski and Steinman (2008) demonstrates that there was little evidence of a relationship between the SC-IAT and the explicit attitude measure and studies on the IAT found more or less the same results. Like Karpinski and

Steinman (2008) we did not find a correlation between the SC-IAT and the explicit attitude regarding condom use with casual partners. However, we found a significant negative correlation between the SC-IAT and explicit attitudes regarding condom use with steady partners. The lack of (positive) correlation was expected, but the negative correlation was an unexpected result. Although we do not have precise explanations, several factors might have contributed to this result. We observed that participants sometimes took some time to respond on the SC-IAT. Also, after filling in the questionnaire, some of the participants reported that they found SC-IAT the most difficult part of the questionnaire but participants could not give a specific reason for this. Further, the explicit attitude measure referred to attitudes towards condom use, while the SC-IAT measured attitudes towards condoms. Furthermore, Karpinski and Steinman (2008) posit that a limitation of their study is that the study does not include actual behaviour. However, they do suggest that knowing about both implicit and explicit attitudes will lead to greater precision in predicting behaviour. Our study is an extension of research on the SC-IAT and research regarding implicit attitudes and behaviour because it measured actual behaviour and the results indicate that implicit measures of attitudes predict attitude-relevant behaviour at least under some conditions.

Our explicit attitude measure was derived from a study by Marsh and colleagues (2001). All participants reported their evaluations of using condoms with a steady and casual partner. After finishing the questionnaire participants often reported that it was hard to fill in the questions if the situation was not applicable to them, for example it was hard for a man with a casual partner to fill in the explicit attitude measure as if he had a steady partner. This can not have had an effect on the relation between explicit attitudes and behaviour because only men who had sex with their types of partners were included in the analyses, but it can have had an effect on the relation between explicit and implicit attitudes. The operationalization of the SC-IAT may also explain the relation of explicit and implicit attitudes because positive (e.g., rabbit, flowers) and negative pictures (e.g., a burning house, shark) that were used were random, with no relation to one another other than their valence. It might be possible that this weakened the implicit measure compared to the use of pictures of a unified category; future research efforts should address this issue. Also, some participants indicated that they disagreed with the value attributed to some of the pictures.

There are some additional limitations we want to point out. Firstly, the men who participated in our study were mainly students at the University of New South Wales which may limit the generalizability of findings. Secondly, we conducted a cross-sectional study and acknowledge that this can not address the direction of the causation that might account for observed associations linking condom use to implicit and explicit attitudes.

To date, there has been little research on the relationship between implicit and explicit attitudes and their relation with actual behaviour. Although our findings are limited and mixed regarding our hypotheses, they provide some understanding to the conditions under which implicit and explicit attitudes predict actual behaviour, as we found that socially desirable responding moderated the relation between implicit as well as explicit attitudes and condom use. More specifically, our results suggest that explicit attitudes regarding condom use have less predictive value when socially desirable responding is high. In contrast, implicit attitudes regarding condom use are a better predictor of condom use when socially desirable responding is high. We also found that socially desirable responding may have a stronger effect on the predictive validity of explicit attitudes regarding condom use with casual partner compared to steady partners. These findings hopefully motivate future research the relation between on attitudes and actual behaviour, especially the relation of implicit attitudes and behaviour.

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## Measurement instruments

### Demographics

How old are you? \_\_\_\_ years

What is your gender?

- (a) male
- (b) female
- (c) transgender

Do you think of yourself as

- (a) gay/homosexual
- (b) bisexual
- (c) heterosexual
- (d) transgender

What is your ethnic background?

- (a) Anglo-Australian only
- (b) Aboriginal
- (c) Other (e.g. Dutch, Vietnamese, Lebanese) \_\_\_\_\_

Where do you live?

Postcode: \_\_\_\_\_ and/or Suburb/Town: \_\_\_\_\_

Are you (tick one only)

- (a) employed full-time
- (b) employed part-time
- (c) on pension/ social security
- (d) a student
- (e) unemployed
- (f) other

What is your occupation? (e.g. bartender, teacher, welder, student)

\_\_\_\_\_

What is the highest level of education you have had?

- (a) primary school only
- (b) up to 3 years of high school/ Year 10
- (c) up to Year 12/ Senior Certificate
- (d) Tertiary Diploma or trade certificate
- (e) University

## **Implicit attitude**

The instrument used in this study to assess the implicit attitudes of men towards condom use is the Single Category Implicit Association Test (SC-IAT). As the SC-IAT is conducted on computer, we have described the instrument below.

The SC-IAT is a measure based on the Implicit Association Test (IAT), a tool that is widely used in social psychological research on implicit attitudes. Both instruments are designed to elicit the automatic activation of implicit attitudes by assessing the strength of the association between a target concept and a negative or positive attribute (Greenwald et al, 1998). The speed with which an individual categorizes stimuli as they appear on a computer screen reflects the compatibility of an association, which is measured in response time. The premise is that response time will be quicker when the same computer key is used for strongly associated concepts. Hence when two concepts are compatible an individual will respond more quickly than when two concepts are incompatible. For example, the original IAT was designed to assess racial bias and findings illustrate that white participant's associate white faces and good words ('compatible associations') more quickly than the pairing of black faces and good words ('incompatible associations') (Greenwald et al, 1998).

The IAT is based on comparing the differences in associations between two categories. Karpinski and Steinman (2006) have recently developed the SC-IAT which is a two stage task designed to measure associations with a single category. Single category evaluation is more suitable to the current study that assesses men's attitude towards condom use. Unlike the example of race where black and white can be juxtaposed, there is no opposite category for the attitudes assessed in the current study. Similar to the IAT, the SC-IAT involves using response time to assess the evaluation of a concept. Compatibility between associations is illustrated in a quicker response time when pairing positive words and the target concept, compared to negative words and the target concept. The SC-IAT has been successfully used by The National Centre of HIV Social Research before. Using this formula, the SC-IAT has been modified and will be used in this current study to assess men's implicit attitudes towards condom use.

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## Explicit attitude

In this study we are interested in your sexual attitudes and behaviors. There is no right or wrong answer. We want to know what you think or feel.

When we say "sex" we mean sexual intercourse that is putting the penis in the vagina or putting the penis in the anus (butt).

Throughout this survey, when we refer to a steady partner we mean someone you consider yourself to have a relationship with. With a casual partner we mean someone you have had sex with only once or a couple of times, and who you do not consider to be your steady partner.

Although the questions about steady and casual partners are separate questions, we take account of the possibility of having a steady partner and (a) casual partner(s) at the same time, so if this situation is applicable to you, please answer both the questions that concern a steady partner and (a) casual partner(s).

Please answer the questions by either clicking on a response, filling in a box, or moving a slider to indicate your views and experiences.

For the following pairs of words, please click on the numbered response that best describes your feelings about you personally always using condoms with a steady sex partner. Please complete even if you do not use condoms or have sex.

For me, using condoms with my steady partner would be:

Nice	1	2	3	4	5	6	7	Awful
Ugly	1	2	3	4	5	6	7	Beautiful
Bad	1	2	3	4	5	6	7	Good
Pleasant	1	2	3	4	5	6	7	Unpleasant

For me, using condoms with my casual partners would be:

Nice	1	2	3	4	5	6	7	Awful
Ugly	1	2	3	4	5	6	7	Beautiful
Bad	1	2	3	4	5	6	7	Good
Pleasant	1	2	3	4	5	6	7	Unpleasant

### **Socially desirable responding**

- |  |              |
|--|--------------|
| 1) No matter who I'm talking to, I'm always a good listener.                         | true / false |
| 2) There have been a few occasions when I took advantage of someone.                 | true / false |
| 3) I sometimes try to get even, rather than forgive and forget.                      | true / false |
| 4) When I don't know something, I don't at all mind admitting it.                    | true / false |
| 5) There have been occasions when I felt like smashing things.                       | true / false |
| 6) I never resent being asked to return a favour.                                    | true / false |
| 7) I have almost never felt the urge to tell someone off.                            | true / false |
| 8) I am sometimes irritated by people who ask favours of me.                         | true / false |
| 9) I sometimes think when people have a misfortune they only got what they deserved. | true / false |
| 10) I have never deliberately said something that hurt someone's feelings.           | true / false |

## **Sexual behaviour**

Did you have sex with a steady partner in the last 6 months?

- (a) yes (go to question 2)
- (b) yes, more than 1 (go to question 2)
- (c) no (go to the next page to question 8)

Do you currently have a STEADY partner?

- (a) yes (go to question 4)
- (b) no (go to question 3)

How many WEEKS ago did your last relationship end?

\_\_\_\_\_

How many WEEKS have you been together with your current or last STEADY partner?

\_\_\_\_\_

Did you have sex with your STEADY partner in the LAST 6 MONTHS ?

- (a) yes
- (b) no (go to question 8)

[If yes] How many times did you have vaginal or anal sex with your steady partner in the last 6 months?

\_\_\_\_\_

[If yes] How many times did you use a condom when you had vaginal or anal sex with your steady partner in the last 6 months?

\_\_\_\_\_

Did you use a condom the last time you had sex with your steady partner?

- (a) yes (go to question 10)
- (b) no

Did you have a CASUAL partner in the LAST 6 MONTHS ?

- (a) yes
- (b) no (go to question 15)

[If yes], how many casual partners did you have?

\_\_\_\_\_

Did you have vaginal or anal sex with (a) casual partner(s) in the last 6 months?

- (a) yes

(b) no (if not, go to question 15)

[If yes] How many times did you have vaginal or anal sex with (a) casual partner(s) in the last 6 months?

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[If yes] How many times did you use a condom when you had vaginal or anal sex with (a) casual partner(s) in the last 6 months?

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Did you use a condom the LAST TIME you had sex with (a) CASUAL partner(s)?  
(If you have never had a casual partner, go to question 17)

- (a) yes
- (b) no

Are you allergic to condom material (latex)?

- (a) yes
- (b) no

Have you ever tested for HIV?

- (a) yes
- (b) no

What is your HIV-status?

- (a) HIV-positive
- (b) HIV-negative
- (c) not sure/don't know



## **Stageverslag**

Periode van onderzoek: 19 november 2008 - 12 juni 2009

Begeleider: Prof. J. de Wit

### *Introductie*

In juni 2008 heb ik mijn Bachelor Sociale Psychologie afgerond en vervolgens ben ik in september 2008 gestart met de Master Sociale Psychologie. In deze master opleiding is een stage verplicht; de student kan kiezen voor een interne of externe onderzoeks- of praktijk-stage. Ik wilde graag een externe onderzoeksstage doen in het buitenland. Het leek mij interessant om te zien hoe onderzoek er aan toe gaat bij een andere instelling dan de Universiteit Utrecht. Tijdens een bijeenkomst waarbij verschillende studenten een presentatie gaven over de stages die zij hadden gelopen werd er verteld over een stage in Sydney. Het onderwerp van deze onderzoeksstage sloot aan bij mijn interesse. Daarnaast focust de instelling van de stage niet alleen op psychologisch onderzoek maar ook andere sociaal wetenschappelijke richtingen. Dit maakte voor mij het plaatje compleet, een onderzoeksstage aan The National Centre in HIV Social Research (NCHSR) in Sydney, Australië.

### *Onderzoeksstage*

Onder begeleiding van Prof. J. de Wit heb ik in Sydney onderzoek gedaan. Vooraf hebben mijn begeleider en ik onze verwachtingen aan elkaar afgesteld, dit heeft voor mij een duidelijk beeld geschetst wat er van mij werd verwacht. Wat mij al snel opviel was dat het verschil tussen een bachelor en een master erg groot is. In mijn bachelor onderzoek werd ik nog aan de hand mee genomen terwijl ik in mijn master los gelaten werd. In het begin had ik moeite met deze vrijheid maar naar mate de tijd vorderde kon ik hier steeds beter mee omgaan. Dit leidde ertoe dat ik mij verantwoordelijk voelde het onderzoek en ook minder afhankelijk voelde van mijn begeleider. Mijn zelfstandigheid in onderzoek is erg toegenomen.

Het is een leerzame ervaring geweest om stage te lopen bij The National Centre in HIV Social Research. Het heeft mij doen inzien dat je als je onderzoek doet er eigenlijk alleen voor staat. Want bij het opzetten van mijn onderzoek waren maar weinig mensen betrokken behalve mijn begeleider. Door deze stage heb ik 7 maanden

kunnen proeven van de bedrijfscultuur van The National Centre in HIV Social Research. Ik heb dan ook gezien dat er een erg groot verschil is met de bedrijfscultuur in Nederland en dat als een Nederlander in het buitenland werken een grotere stap is dan dat het lijkt.

Mijn onderzoeksstage bestond eigenlijk uit 3 stappen: het opzetten van het onderzoek, het uitvoeren van het onderzoek en het schrijven van mijn thesis. De eerste stap, het opzetten van mijn onderzoek is voor mij de leerzaamste ervaring geweest. Ik vond het erg moeilijk om te beginnen met vrijwel niets en achtergrondonderzoek te doen. Dit kostte mij dan ook behoorlijk veel tijd maar aan het eind had ik wel echt het gevoel dat ik wist waar ik het over had. Tijdens het schrijven van mijn thesis merkte ik dat ondanks het overzicht dat ik had het erg moeilijk is om dat op papier te zetten. Ik zag nooit zo goed het nut in van het schrijven en herschrijven van teksten, maar na deze ervaring moet ik toegeven dat schrijven en herschrijven een erg belangrijk onderdeel is van onderzoek doen.

Tijdens mijn onderzoek ben ik erg goed begeleid. Op de juiste momenten greep mijn begeleider in. Hij probeerde vaak door een beetje sturing mijzelf tot inzichten te brengen. Dit gaf mij een goed en zelfstandig gevoel. Naast dat mijn begeleider zich bezig hield met de mijn onderzoek was hij ook altijd geïnteresseerd in mijn algemene welzijn.

Ik heb onderzoek gedaan naar de vraag waarom expliciete attitudes vaak gedeeltelijk of niet gerelateerd zijn aan gedrag. Hierbij heb ik gekeken of impliciete attitudes kunnen verklaren waarom expliciete attitudes en gedrag niet tot weinig met elkaar corresponderen. Uit mijn onderzoek is gekomen dat sociale wenselijkheid hierin een rol speelt en gedeeltelijk dit verschil kan verklaren.

### *Sydney*

In een wereldstad als Sydney voor 7 maanden wonen was een erg bijzondere ervaring. Sydney is een fantastische stad om te wonen; er is veel te doen, de mensen zijn erg aardig en gastvrij. Op deze manier heb ik kennis kunnen maken met de bedrijfscultuur en de het sociale leven in Sydney. Dit heeft mij een veel completer beeld gegeven van de cultuur in Australië.

Ik ben al meerdere keren in het buitenland geweest en wederom heb ik mij gerealiseerd dat assertiviteit erg belangrijk is als je in het buitenland woont. Actief dingen ondernemen, afstappen op mensen en aan locale activiteiten mee doen zorgt voor een veel rijkere ervaring. Ik heb veel activiteiten ondernomen, erg veel mensen ontmoet en ook veel van Australië gezien. In Australië is sporten (in mijn geval hockey) een ideale manier om leeftijdsgenoten te ontmoeten en de cultuur van het land te leren kennen. Het was ook erg leuk om via deze manier toch deel te kunnen nemen aan het studenten leven.

### *Conclusie*

Een externe onderzoeksstage in buitenland is een erg leerzame ervaring. In de afgelopen 7 maanden heb ik geleerd om zelfstandig een onderzoek te doen. Het is leuk om achteraf te zien hoe ik mijzelf heb ontwikkeld. Ten eerste heb ik een goed beeld gekregen wat mijn sterke en zwakke punten zijn in het doen van onderzoek. Ten tweede heeft deze stage mij geholpen bij het bedenken van mijn toekomst plannen wat betreft mijn studie. En to slot heeft de stage in het Australië ervoor gezorgd dat ik Australië op een andere en veel intensievere manier heb leren kennen.