Attitude change and the public-private attitude distinction Geoff MacDonald; Paul R Nail

The British Journal of Social Psychology; Mar 2005; 44, 1; Health & Medical Complete pg. 15

British Journal of Social Psychology (2005), 44, 15–28 © 2005 The British Psychological Society



www.bpsjournals.co.uk

Attitude change and the public-private attitude distinction

Geoff MacDonald¹* and Paul R. Nail²

¹University of Queensland, Australia ²Southwestern Oklahoma State University, USA

In this paper, we highlight the importance of the distinction between public and private attitudes in research on attitude change. First, we clarify the definitions of public and private attitudes by locating the researcher as a potential source of influence. In a test of this definition, we compare participant reports of potentially embarrassing behaviour and the study's importance between participants responding when a researcher has potential access to their reports (public condition), and participants whose reports the researcher has no potential access to (private condition). Participants high in public self-focus or low in defensive self-presentation reported the study to be more important in the public condition than the private condition. Further, participants in the public condition reported less frequency of engaging in embarrassing behaviours than those in the private condition, an effect not moderated by individual differences. We conclude that the public-private distinction is an essential element in attitude change theory.

Esse quam videri - Motto of St. Patrick's High School, Sarnia, Ontario, Canada

As a high school student, the first author of this paper thought that his school's motto, translated as, 'To be rather than to seem', was an odd choice.¹ For one thing, it was in Latin. Although it *seemed* especially important, the fact that the motto was in Latin made it very difficult for it to *be* understood by high school students. More importantly, even at that young age he was acutely aware that the pithy phrase did not track his surrounding reality. He and everybody else in that school were extremely focused on how they appeared to others. Indeed, it is probably easy for most people to recall times from early education or other experiences when they contradicted their privately held beliefs with some public display meant to protect or enhance their reputations.

¹ Ironically, this is also the motto of North Carolina, where I (GM) recently lived. I will let readers draw their own conclusions about its applicability in that locale.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.

DOI:10.1348/014466604X23437

15

^{*} Correspondence should be addressed to Geoff MacDonald, School of Psychology, University of Queensland, St Lucia, QLD 4072, Australia (e-mail: geoff@psy.uq.edu.au).

More generally, it appears to be clear that public appearances do not always mesh with private realities, especially when it comes to attitude expression. People frequently express attitudes during social interaction on a wide range of subjects, such as political views, evaluations of other people, or artistic preferences. Expression of these attitudes occurs in the presence of audiences that may be supportive, unsupportive, or whose support is unclear. Further, the audience's opinion may be valued, not valued, or disdained. Thus, day-to-day interaction often generates public expression of attitudes that may be different from an individual's privately held position. Given recent evidence that social exclusion leads to the same painful affective states experienced during physical injury (Eisenberger, Lieberman, & Williams, 2003; MacDonald & Leary, in press), it is understandable why individuals would alter public attitude reports to meet social goals and avoid the adversity of exclusion. Attitude researchers have investigated and documented a wide array of phenomena in which people's private attitudes do not match their public expressions in those same attitude domains. Examples of areas in which discrepancies between public and private attitudes figure prominently include everyday lies (e.g. DePaulo, Kashy, Kirkendol, Wver, & Epstein, 1996), cognitive dissonance (e.g. Festinger, 1957), self-perception (e.g. Bem, 1967), self-presentation (e.g. Schlenker & Weigold, 1990), reactance (e.g. Nail, Van Leeuwen, & Powell, 1996). modern racism and sexism (e.g. Gaertner & Dovidio, 1986), disinhibitory contagion (e.g. Levy & Nail, 1993), various compliance techniques (e.g. Cialdini, 2001), bystander non-intervention (e.g. Darley & Latané, 1968), cultural norms (e.g. Nisbett & Cohen, 1996), pluralistic ignorance (e.g. Prentice & Miller, 1996), and politeness (Brown and Levinson, 1978).

However, attitude change researchers have recently raised valid questions about the usefulness of the public-private attitude distinction for their work. Traditionally, the public-private dimension has been used as a tool for estimating the extent to which attitude change occurs based on accuracy (informational influence) or belongingness (normative influence) motives (Wood, 2000). Change in both public and private attitudes was taken as a sign of change based on the informational value of an influence source's position, whereas change only in public attitudes was thought to indicate change based on social pressure. However, this application of the publicprivate distinction falls short on two counts. First, research has shown that social pressure (i.e. normative influence) often leads to internalized change, or change in both public and private attitudes (Wood, 2000). Clearly, private change is not just a result of motivation to be objectively accurate. Second, in the traditional view, what motives would be ascribed to change occurring at the private level, but not at the public level? Reasonable arguments can be made for informational, normative, or both motives. As a result of the failure of the public-private distinction to deliver meaningful information about motives for attitude change, Wood (2000) suggested that, 'Theoretical perspectives need to progress beyond the simple distinction between public and private attitude expression and consider whether the features of social pressure that are relevant to attitude change are stable across settings (p, 543).

We agree with Wood that exclusive reliance on the traditional form of the public-private attitude distinction is a poor strategy for determining the causes of attitude change. Further, we also believe that a more sophisticated conceptualization of public and private attitudes is needed to aid in the progression of attitude change theory. In determining motives for attitude change, it is important to know whether that change is internalized or not. It is also important to know the conditions under which change is feigned or hidden for the benefit of others. We assert that the public-private distinction

is essential to obtaining this knowledge. We believe, as Wood stated, that the power of the public-private distinction to help explain reasons for attitude change is greatest when this distinction is considered in concert with other important factors. However, the public-private attitude distinction is a key, albeit often ignored, piece in the puzzle. Indeed, little attention has been given to differences between an influence target's public and private attitudes, especially these positions before social influence attempts (Nail, MacDonald, & Levy, 2000). Further, we believe that the most commonly used definitions of public and private attitudes have led researchers to discriminate inadequately between the two.

Defining public and private attitudes

Traditionally, participants in social influence studies have been said to be reporting public attitudes when they believe that the source of the appeal or members of their experimental group have surveillance over their responses, whereas in private settings, (they) believe that these others are unaware of their judgments' (Wood, 2000, p. 542). This traditional conceptualization has an important shortcoming - it does not account for the experimenter as a potential source of influence. For example, in a meta-analytic review of the influence of public and private responding on minority influence. Wood and colleagues described the measures of private attitudes in their review as those that were administered without surveillance of the influence source, although they were typically public to the experimenter' (Wood, Lundgren, Ouellette, Busceme, & Blackstone, 1994, p. 328). Numerous studies have demonstrated that experimenters can exert a powerful influence on research participants (Baumeister, 1982; Forsyth, Riess, & Schlenker, 1977; Joseph, Gaes, Tedeschi, & Cunningham, 1979; Marlowe & Crowne, 1961; Rosenfeld, Melburg, & Tedeschi, 1981). For example, Forsyth et al. (1977) found that participants' evaluations of a boring task conformed to the expressed opinions of a researcher who presented herself in a socially desirable fashion (as experimenters in most studies do). In fact, Harkins (2001) has shown that participants can be more concerned about an experimenter's evaluation than about their own self-evaluation. Thus, social influence researchers, in many cases, may have misapplied the label of 'private' attitudes to participants who have modified reports of their attitudes because of an experimenter's evaluation. As a result, some researchers have potentially drawn incorrect conclusions about the nature of public attitudes and the ways they differ from privately held attitudes.

In contrast to the traditional definition, we conceptualize *private attitudes* as attitudes that are consciously recognizable, controllable, and that the attitude holder believes are not directly accessible to anyone other than him or herself. By consciously recognizable, we mean that the attitude can be deliberately brought into consciousness (unlike implicit attitudes). By controllable, we mean that the individual has the ability to maintain that attitude or change it, at least temporarily. We conceptualize *public attitudes* as verbal or non-verbal expressions related to an attitude domain that are made with the belief that one or more other people are able to learn of that expression and attribute it to the attitude holder. Importantly, this definition includes researchers as a potential audience. Like private attitudes, public attitudes are controllable in that they can be maintained or changed by the attitude holder. Overall, the most important distinction between public and private attitudes, as we have defined them here, is that private attitudes are believed to be solely available to the attitude holder but public

attitudes are believed to be, at least potentially, available to others, whether they are the source of influence or an audience.

The social response context model

Demonstrating the viability of the public-private attitude distinction is of particular importance for social influence research. The notion that public and private attitudes can diverge after exposure to social influence is hardly new. However, the idea that these attitudes can also differ before influence occurs has been considered less in attitude change research (Nail *et al.*, 2000). Efforts to be 'politically correct,' to hide one's sexuality, or to mask dislike for an employer are common examples of situations in which an individual publicly expresses attitudes that are not held privately. If we are correct that researchers can unwittingly apply pressure to participants to modify public attitude reports, it is possible that many studies of attitude change actually begin with participants in a state of public-private attitude mismatch. That is, participants in these studies would experience public-private divergence before an influence attempt.

The social response context model (SRCM) was developed to describe and organize the vast range of responses to social influence that are documented in the literature by acknowledging the distinction between public and private attitudes both before and after social influence (MacDonald, Nail, & Levy, 2004; Nail et al., 2000; see Fig. 1). In effect, the dimensions of the SRCM can be accessed by asking the following four questions. (1) What is a person's public position relative to an eventual influence source before exposure to influence (pre-exposure, public agreement/disagreement)? (2) What is that person's private position before influence (pre-exposure, private agreement/disagreement)? (3) What is that person's public response relative to an influence source after exposure to influence (post-exposure, public agreement/disagreement)? (4) What is that person's private response after influence (post-exposure, private agreement/disagreement)? Answering all four questions and crossing the resulting four factors yields 16 basic responses to influence. For purposes of exposition and communication, the 16 have been numbered and given a four-letter descriptor. The letters represent either agreement (A) or disagreement (D) on each relevant dimension. The first letter represents the public dimension before influence; the second letter represents the private dimension before influence. The third and fourth letters represent the public and private dimensions, respectively, after influence. For example, compliance (displayed by 'distortion of action' participants in Asch's 1956 study who conformed to others' judgments publicly, even though they did not perceive those judgments to be correct privately) is defined by the model as pre-influence public and private disagreement with the influence source, post-influence public agreement and post-influence private disagreement. In short, we refer to it as #14-compliance (DD/AD). The SRCM is the most comprehensive descriptive model of response to social influence yet developed. (MacDonald et al., 2004; Nail et al., 2000). Thus, the SRCM suggests that the publicprivate attitude dimension is not just important, but fundamental to understanding social influence processes. Of particular relevance to the present research, the model also suggests that influence dynamics may be affected by pre-influence public-private attitude mismatches spurred by the presence of a researcher as a public audience.

The current study

Our definition of private attitudes raises an interesting methodological question; if private attitudes are only directly available to the attitude holder, how can researchers

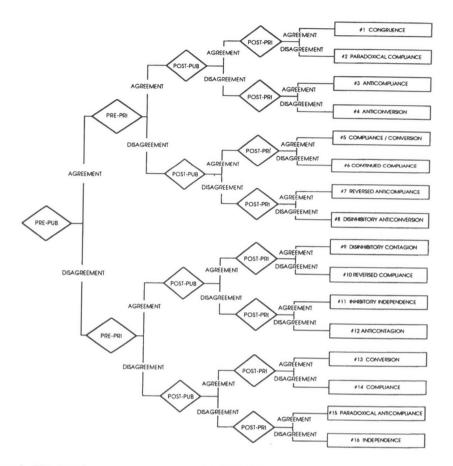


Figure 1. The Social response context model. PRE-PUB is the influencee's pre-exposure, public position relative to the influence source; PRE-PRI is the pre-exposure private position; POST-PUB is the post-exposure public position; POST-PRI is the post-exposure private position. From 'Proposal of a Four-Dimensional Model of Social Response' by Paul R. Nail, Geoff MacDonald, and David A. Levy, 2000, Psychological Bulletin, 126, p. 459. Copyright 2000 by American Psychological Association. Used with permission.

study such attitudes? The key here is that private attitudes may not be directly accessible to researchers, but, because they are consciously available to the attitude holder, they can be reported accurately by participants. What is essential, however, is that measurement of private attitudes is conducted under conditions of complete anonymity. Thus, for the present study, we constructed a privacy protocol designed to provide the strongest assurance of anonymity possible. First, participants were seated far apart and not facing each other. Second, the researcher faced away from participants during the study. Third, participants placed their questionnaires in sealed envelopes without any identifying information. Fourth, participants placed their envelopes randomly in a pile of other envelopes. Thus, the participant could feel secure that the researcher could pair their answers neither with their name nor with their face. As a control group, another set of participants was studied using a relatively standard procedure, with participants completing questionnaires that were circulated and collected by a researcher who had access to their reports. We refer to this condition as our 'public condition', although it would have been classified as 'private' by Wood *et al.* (1994) and others. The dependent measures consisted of a set of potentially embarrassing questions, and a measure of participants' attitudes about the importance of the study, both of which we believed could yield different responses under public and private response conditions.

Along with the public-private manipulation, we were also interested in testing the influence of a number of personality variables on responses to our dependent measures. Specifically, we tested a number of variables that we believed might affect responding differently in public and private response conditions – public self-focus, private self-focus, self-monitoring, and self-esteem. First, public self-consciousness (Fenigstein, Scheier, & Buss, 1975) may have implications for attitude expression between public and private contexts. People high in public self-consciousness are characterized as being acutely aware of their social environment. Not surprisingly, then, public self-consciousness has been shown to be related to conformity, and more specifically, #14-compliance (DD/AD; Breckler & Greenwald, 1986; Schlenker & Weigold, 1990). Because of their attention to social cues, people high in public self-consciousness may be more likely to present public attitudes that diverge from private attitudes than people low in public self-consciousness.

People high in private self-consciousness are characterized as being more inwardly directed, and as being concerned with autonomy or integrity. The integrity focus of those high in private self-consciousness could result in a higher likelihood of holding consistent public and private attitudes compared to those low in this trait. However, Schlenker and Weigold (1990) showed that even privately self-conscious people selfpresent via #3-anti-compliance (AA/DA) in order to project a sense of autonomy. In other words, when their public image of independence was threatened, people high in private self-consciousness altered their public attitude expressions in order to reestablish that image by appearing different from others. However, private selfconsciousness does not appear to be a unitary construct. Numerous researchers have shown that the Private self-consciousness scale consists of two factors that have been labelled 'internal state awareness' and 'self-reflectiveness' (Anderson, Bohon, & Berrigan, 1996; Burnkrant & Page, 1984; Cramer, 2000; Creed & Funder, 1998). Internal state awareness appears to represent a form of self-focus in which people are especially attentive to their inner workings, such as their thoughts, emotions, and sensations. Self-reflectiveness, on the other hand, appears to represent a form of selffocus in which people are engaged in cognitive processing with the purpose of examining themselves. In the present study, these two constructs were tested separately.

Self-related variables may also influence responding. People who are high in selfmonitoring (Snyder, 1974) tend to be highly skilled in self-presentation, and, thus, can be expected to display more complex, situation-dependent public attitudes. People high in self-monitoring appear to be relatively comfortable with public-private attitude discrepancies (Paulhus, 1982; Snyder & Tanke, 1976). They seem to recognize that such discrepancies are a sort of 'cost of doing business' for successful selfpresentation. Low self-monitors, on the other hand, are more uncomfortable with such differential responding in public and private contexts. Thus, those high in selfmonitoring may be more likely to demonstrate different attitude reports under public and private response conditions, relative to those low in self-monitoring. Lennox (1988) has argued that the self-monitoring scale actually consists of two subscales; one measuring pursuit of acceptance, and the other measuring avoidance of rejection. These two constructs are tested separately in the present study. Low self-esteem has been linked to a tendency to exhibit ± 1.4 -compliance (DD/AD; Romer, 1981). This tendency to comply appears to be a protective public strategy designed to garner acceptance from others (Leary & MacDonald, 2003). Individuals lower in self-esteem, then, may be more likely to respond differently in public and private contexts, compared with those higher in self-esteem.

Thus, in the present study, participants were randomly assigned to a public or private response condition. The study began with participants completing measures of public self-focus, private self-focus, self-reflectiveness, self-monitoring, and self-esteem. For our dependent measures, we first asked participants to respond to a number of questions about the frequency with which they engaged in a number of potentially embarrassing behaviours, such as bowel movements. Second, we asked participants to report how important they felt the study was. This strategy was chosen so as to provide dependent measures on which one could reasonably expect participants' answers to be responsive to public versus private response conditions. We predicted that participants would respond in a more socially desirable fashion (i.e. with answers that would create less embarrassment, such as a lower frequency of bowel movements and a stronger endorsement of the study's importance) in a public, as opposed to a private, response context.

Method

Participants

Sixty-two students enrolled in introductory psychology classes at the University of Queensland participated in exchange for course credit².

Procedure

Participants came to the lab in groups of up to four for a study on their personal habits. In the *public condition* (N = 31), the researcher began by informing participants that they would be filling out two sets of questionnaires. Participants' were then given an informed consent form containing the following assurance of anonymity:

Your name will not be associated in any way with your questionnaires, and will instead be replaced with a code number in order to protect your anonymity. To ensure your confidentiality, please do not write your name or any other identifying information on the questionnaire booklet. Your data will be kept in a locked cabinet, and will not be available to anyone other than the researchers. Be aware, however, that during the study session, the researcher may need to look at your answers.

This information was designed to make the public condition consistent with attitude research in which researchers have access to participants' responses. However, this method still assured participants that nobody besides the researcher would be able to identify them. Further, it allowed us to create a more ethical public condition, in which the researcher did not actually have to look at participant responses. After signing the consent form, participants completed an initial set of questionnaires containing the individual difference measures. When all participants were finished, the researcher

² Due to clerical error, participant gender was not recorded.

collected the booklets, and handed out a second questionnaire containing the questions about potentially embarrassing aspects of participants' daily lives and the study importance ratings.

In the *private condition* (N = 31), the researcher began the study with the following statement:

Thanks for coming today. I'll be asking you to fill out two sets of questionnaires. As you'll see on the consent form, your confidentiality and anonymity are our primary concerns. To ensure that I can't pair your name or face with your questionnaires, I will sit facing away from you as you complete them. When you are done both questionnaires, please place them in the envelope on your desk, then place your envelope randomly in the pile of completed questionnaires. Because another researcher will open the envelopes but won't see the consent forms, nobody will be able to pair your answers with you in any way. Be assured that all your answers today will be kept completely private. Because I won't be watching you during the session, though, I will need to ask you to let me know when you're all done the first questionnaire so I can band out the second.

Thus, both the explanation and the procedure were designed to assure participants that they could not be identified with their answers. Further, participants' informed consent forms contained the following assurance of confidentiality in bold print:

Your confidentiality and anonymity are our primary concern. Your name will not be associated in any way with your questionnaires. Instead, you will be asked to seal your questionnaires in an unmarked envelope and place them randomly in a pile of other envelopes containing completed questionnaires. When the data is entered (by a research assistant other than the researcher for today's session, guaranteeing your answers cannot be matched to you individually by anybody) your questionnaire will be given a code number. To completely ensure your confidentiality, please do not write your name or any other identifying information on the questionnaire booklet. Your data will be kept in a locked cabinet, and will not be available to anyone other than the research supervisor.

After signing the consent form, participants completed both sets of questionnaires as per the instructions described above. After completing both questionnaires, participants were thanked and debriefed. Further, participants in both the public and private conditions were asked to hand in their questionnaires as per the private condition instructions. That is, we provided maximum anonymity to participants in both conditions due to the sensitive nature of the dependent measure.

Measures

Public self-focus

The Public self-focus scale (Cronbach's $\alpha = .81$; Fenigstein *et al.*, 1975) consists of seven items measuring individuals' focus on how they are presenting themselves to others (e.g. 'Tm concerned about what other people think of me'), with answers given on a 9-point scale (1 = *extremely uncharacteristic* to 9 = *extremely characteristic*).

Internal state awareness

The Internal state awareness scale (Cronbach's $\alpha = .85$; MacDonald & Ostini, 2003) consists of 21 items measuring individuals' awareness of their thoughts and feelings (e.g. 'I'm alert to changes in my mood', 'I pay a lot of attention to how I think about things'), with answers given on a 9-point scale (1 = extremely uncharacteristic to 9 = extremely characteristic).

Self-reflectiveness

The Self-reflectiveness scale (Cronbach's $\alpha = .71$; Burnkrant & Page, 1984) is a subscale of the Private self-consciousness scale (Fenigstein *et al.*, 1975). It consists of five items measuring individuals' tendencies to think about themselves (e.g. 'I'm always trying to figure myself out'), with answers given on a 9-point scale (1 = *extremely uncharacteristic* to 9 = *extremely characteristic*).

Self-monitoring

The Self-monitoring scale (Snyder, 1974) consists of 25 questions tapping the skill with which people regulate their behaviour in front of others, with answers given as *true* or *false*. Based on the work of Lennox (1988), two subscales were calculated. The acquisitive self-presentation subscale consisted of 14 items (Cronbach's $\alpha = .68$) measuring the active pursuit of social status (e.g. 'I guess I put on a show to impress or entertain people'). The defensive self-presentation subscale consisted of social rejection (e.g. 'At parties and social gatherings, I do not attempt to do or say things that others will like').

Self-esteem

The Rosenberg (1979) self-esteem scale (Cronbach's $\alpha = .90$) consists of 10 questions (e.g. 'I take a positive attitude toward myself') measuring individuals' summary self-evaluation, with answers given on a 9-point scale (1 = very strongly disagree to 9 = very strongly agree).

Study importance

Participants were asked. How important do you think this research study is? with answers given on an 8-point scale (1 = extremely unimportant to 8 = extremely important).

Personal habits questionnaire

The personal habits measure consisted of six items designed to assess the frequency of a number of behaviours of potential embarrassment to participants ('How often do you have sexual fantasies?; How often do you watch television?; How often do you have bowel movements?; How often do you pick your nose?; How often do you masturbate?; How often do you exercise?'; Cronbach's $\alpha = .55$). Responses were given on 9-point scales relevant to each behaviour (e.g. for the bowel movement question, 1 = less than once per week to 9 = 10 or more times per day). The scale was scored such that higher numbers represent more socially desirable responses.

Results

Analyses were conducted using hierarchical multiple regression, with experimental condition dummy coded, and all individual difference measures zero-centred before analysis. All main effects were entered in Step 1. In the second step, the cross-product of experimental condition, and of each individual difference variable was entered. This method was used in order to test the unique contribution of each interactive effect.

For the study importance measure, no significant main effects were found. A significant interaction between experimental condition and public self-focus was found, t(48) = 2.39, p = .02, $\Delta R^2 = .088$. In order to determine the pattern of this interaction, conditional regression lines were calculated separately for participants whose public self-focus scores fell between -1 and +1 standard deviations from the mean (see Fig. 1). Simple slopes tests revealed that participants high in public self-focus evaluated the study as significantly more important in the public than the private condition, t(48) = 2.27, p < .05. Participants low in public self-focus did not significantly differ across conditions, I(48) = 1.53, ns. A significant interaction was also found between experimental condition and defensive self-presentation, t(48) = 2.20, p = .03, $\Delta R^2 = .075$. In order to determine the pattern of this interaction, conditional regression lines were calculated separately for participants whose defensive self-presentation scores fell between -1 and +1 standard deviations from the mean (see Fig. 2). Simple slopes analysis revealed that participants low in defensive self-presentation evaluated the study as significantly more important in the public, than the private, condition, t(48) = 2.05, p < .05. Participants high in defensive self-presentation did not significantly differ across conditions, t(48) = 1.28, ns.

The behavioural report analyses revealed a marginal main effect of experimental condition (Fig. 3), such that participants in the public condition reported engaging in the embarrassing behaviours less frequently than participants in the private condition, t(55) = 1.91, p = .06, $\Delta R^2 = .060$. None of the individual difference measures was a significant predictor, and no interactions reached significance.

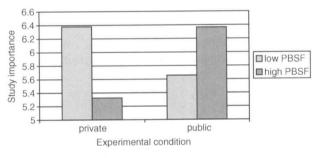


Figure 2. Study importance ratings as a function of experimental condition and public self-focus (PBSF).

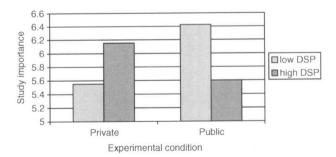


Figure 3. Study importance ratings as a function of experimental condition and defensive self-presentation (DSP).

Discussion

The results support the notion that a researcher can be a subtle and important source of social influence, and, thus, that studies investigating attitudes at the private level need to account for this potential influence. Specifically, participants either high in public self-focus or low in defensive self-presentation were significantly more likely to report finding the study interesting if they were randomly assigned to report their attitudes in the public, rather than the private, condition. Further, participants randomly assigned to the public condition reported engaging in embarrassing behaviours less frequently than did participants in the private condition, an effect unqualified by individual differences. This result suggests that as questions become more socially awkward, the pressure to alter public presentations becomes stronger and begins to cut across individual differences. Overall, these findings validate our definition of private attitudes as those to which attitude holders believe they have sole access. That is, attitude and behaviour reports appeared to change due to the influence of the researcher, despite the fact that past research has considered such reports to be private (e.g. Wood *et al.*, 1994).

Although past research has demonstrated the importance of the researcher as an influence source (e.g. Harkins, 2001), the present results are important because the differences between the public and private conditions were relatively subtle, with the public condition mirroring methodology often used to assess 'private' attitudes. In the study's public condition, the researcher made no overt influence attempts, and did not directly monitor participants' responses. In fact, participants in the public condition were given a standard guarantee of anonymity. The only (overt) pressure came from the possibility that the researcher could have examined participants' responses, even though he did not actually do so. However, this subtle pressure was enough to influence participants' responses relative to the private condition, in which participants were certain they could not be identified with their responses at any time.

Interestingly, only two of the six individual difference measures tested interacted with the public-private manipulation significantly to predict attitude reports. First, participants higher in public self-focus, or the tendency to be mindful of others' evaluations, reported the study to be more interesting in the public, than the private, condition. This finding appears relatively straightforward, with those concerned about the researcher's evaluation reporting more positive attitudes toward the study. Second, participants lower in defensive self-presentation, or those with relatively weak motivation to avoid rejection, also reported the study to be more interesting in the public, than the private, condition. This finding is less straightforward. One interpretation involves the notion that lower defensive self-presentation may be associated with finding the personal questions posed in our survey less threatening. Those higher in defensive self-presentation may have been more uncomfortable reporting on highly personal behaviours, as this would leave them less able to guard the secrets they may feel help ward off rejection. Thus, those high in defensiveness may have disparaged the study in public in order to save face, while those without such defensive motivation may have felt pressure to endorse the study in the public condition. Of course, it should be noted that the difference across conditions was only significant for those low in defensiveness.

Regardless of the basis for the divergent public and private attitude reports, the results reported here strongly suggest that care must be taken in defining and measuring private

attitudes. Perhaps the most important point made by the SRCM is that individuals will often hold divergent public and private attitudes, even before an influence attempt, and that the dynamics of influence may be different when the two levels are mismatched rather than matched (MacDonald et al., 2004; Nail et al., 2000). The present results suggest that studies of attitude change may inadvertently promote pre-influence publicprivate mismatches when participants complete pre-influence measures under conditions where the researcher can access their responses. For example, in the current study, participants may have been more susceptible to an influence source advocating the study as uninteresting, as this could allow them to express their private attitudes publicly (i.e. #9 disinhibitory contagion; AD/DD). Further, the fact that such a subtle manipulation produced divergent public-private attitude reports suggests that public-private mismatches may be relatively common in daily life where the pressure to alter public presentations is more overt and more meaningful. This suggestion highlights the need for more research investigating the effect public-private mismatches can have on response to social influence. The current study provides one possible paradigm for investigating such effects.

There is one main limitation of the current findings that should be considered. A plausible alternative explanation for our results is that demand characteristics led individuals in the private condition to assume that they would normally under-report their attitudes and behaviours. This could potentially result in participants in the private condition underestimating their interest in the study, and overestimating the frequency with which they engaged in the behaviours. Although we cannot rule this possibility out, this interpretation does not adequately explain the individual difference results. Specifically, attitude reports across the public and private conditions were moderated by public self-focus, but not by either of the measures of private self-focus. Thus, it was those most attentive to the social situation, rather than their private beliefs, that were influenced by the public reporting conditions. This suggests that public reporting, rather than demand characteristics in the private condition, were driving the attitude effects. However, future research could better account for the possibility of demand characteristics by including a direct measure of social desirability.

Although more research on the topic is needed, we believe that our results point to the need to reconsider the role of private responding to social influence. Because of the centrality of the public-private distinction to social influence (MacDonald *et al.*, 2004; Nail *et al.*, 2000), we believe this is an issue of great importance. Further, we believe that our study has provided an easily implemented paradigm to explore the potential influence of the researcher in studies of social influence. This procedure was found to produce less socially desirable results than those provided by standard means of measuring 'private' attitudes, suggesting that our privacy paradigm may more accurately reflect the private attitudes of participants. Our hope is that this paradigm will aid researchers in better understanding the dialectic between private, inner experience, and the need to connect that experience with our social worlds.

Acknowledgements

Thanks go to Graham Jamieson for his help in conducting the research. We also thank Mark Leary and Mark Zanna for their insightful comments on previous drafts of this paper. Work on this article was supported in part by a Social Sciences and Humanities Research Council of Canada

Post-Doctoral Fellowship awarded to the first author. I (G.M.) am extremely grateful for the opportunities provided for me by the Canadian government via this fellowship.

References

- Anderson, E. M., Bohon, L. M., & Berrigan, L. P. (1996). Factor structure of the private selfconsciousness scale. *Journal of Personality Assessment*, 66, 144–152.
- Asch. S. (1956). Studies of independence and conformity. I. A minority of one against a unanimous majority. *Psychological Monographs*, 70 (9, Whole No. 416).
- Baumeister, R. E. (1982). A self-presentational view of social phenomena. *Psychological Bulletin*, 91, 3–26.
- Bem, D. J. (1967). Self-perception: An alternative interpretation of cognitive dissonance phenomena. *Psychological Review*, 74, 183-200.
- Breckler, S. J., & Greenwald, A. G. (1986). Motivational facets of the self. In R. Sorrentino & E. T. Higgins (Eds.). *Handbook of motivation and cognition: Foundations of social behavior* (pp. 145–164). New York: Guilford Press.
- Brown, P., & Levinson, S. (1978). Universals in language usage: Politeness phenomenon. In E. Goody (Ed.). *Questions and politeness* (pp. 56-89). Cambridge: Cambridge University Press.
- Burnkrant, R. E., & Page, T. J. (1984). A modification of the Fenigstein. Scheier, and Buss selfconsciousness scale. *Journal of Personality Assessment*, 48, 629–637.
- Gialdini, R. B. (2001). Influence. Boston: Allyn and Bacon.
- Cramer, K. M. (2000). Comparing the relative fit of various factor models of the self-consciousness scale in two independent samples. *Journal of Personality Assessment*, 75, 295-307.
- Creed, A. T., & Funder, D. C. (1998). The two faces of private self-consciousness: Self report, peerreport, and behavioral correlates. *European Journal of Personality*, 12, 411–431.
- Darley, J. M., & Latané, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8, 377–383.
- DePaulo, B. M., Kashy, D. A., Kirkendol, S. E., Wyer, M. M., & Epstein, J. A. (1996). Lying in everyday life. *Journal of Personality and Social Psychology*, "0, 979–995.
- Eisenberger, N. L. Lieberman, M. D., & Williams, K. D. (2003). Does rejection hurt? An fMRI study of social exclusion. *Science*, 302, 290–292.
- Fenigstein, A., Scheier, M. E. & Buss, A. H. (1975). Public and private self-consciousness, mirror presence, and audience presence. *Journal of Personality and Social Psychology*, 43, 522-527.
- Festinger, L. (1957). A theory of cognitive dissonance. Stanford, California: Stanford University Press.
- Forsyth, D. R., Riess, M., & Schlenker, B. R. (1977). Impression management concerns governing reactions to a faulty decision. *Representative Research in Social Psychology*, 8, 12–22.
- Gaertner, S. L., & Dovidio, J. E (1986). The aversive form of racism. In J. E Dovidio (Ed.). *Prejudice*. *discrimination and racism* (pp. 61–86). Orlando: Academic Press.
- Harkins, S. G. (2001). Social influence effects on task performance: The ascendancy of social evaluation over self-evaluation. In J. P. Forgas & K. D. Williams (Eds.), *Social influence: Direct* and indirect processes (pp. 2⁻1–292). Philadelphia: Psychology Press/Taylor & Francis.
- Joseph, J. M., Gaes, G. G., Tedeschi, J. T., & Cunningham, M. R. (1979). Impression management effects in the forced compliance situation. *Journal of Social Psychology*, 107, 89–98.
- Leary, M. R., & MacDonald, G. (2003). Individual differences in trait self-esteem: A theoretical integration. In M. Leary & J. Tangney (Eds.). *Handbook of self and identity* (pp. 401–418). New York: Guildford Publications.
- Lennox, R. (1988). The problem with self-monitoring: A two-sided scale and a one-sided theory. *Journal of Personality Assessment*, 52, 58–73.

- Levy, D. A., & Nail, P. R. (1993). Contagion: A theoretical and empirical review and reconceptualization. Genetic, Social. and General Psychology Monographs, 119, 233–284.
- MacDonald, G., Leary, M. R. (in press). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin*.
- MacDonald, G., Nail, P. R., Levy, D. A. (2004). Expanding the scope of the social response context model. *Basic and Applied Social Psychology*, 26, 77–92.
- MacDonald, G., Ostini, R. (2003). *Improving the reliability of the internal state awareness scale*. Unpublished manuscript.
- Marlowe, D., & Crowne, D. P. (1961). Social desirability and response to perceived situational demands. *Journal of Consulting Psychology*, 25, 109–115.
- Nail, P. R., MacDonald, G., & Levy, D. A. (2000). Proposal of a four-dimensional model of social response. *Psychological Bulletin*, 126, 454–470.
- Nail, P. R., Van Leeuwen, M. D., & Powell, A. B. (1996). The effectance versus the selfpresentational view of reactance: Are importance ratings influenced by anticipated surveillance? *Journal of Social Bebavior and Personality*. 11, 573–584.
- Nisbett, R. E., & Cohen, D. (1996). Culture of bonor: The psychology of violence in the South. Boulder, Colorado: Westview Press.
- Paulhus, D. (1982). Individual differences, self-presentation, and cognitive dissonance: Their concurrent operation in forced compliance. *Journal of Personality and Social Psychology*, 43, 838–852.
- Prentice, D. A., & Miller, D. T. (1996). Pluralistic ignorance and the perpetuation of social norms by unwitting actors. In M. P. Zanna (Ed.). Advances in experimental social psychology: 28 (pp. 161–209). New York: Academic Press.
- Romer, D. (1981). A person-situation causal analysis of self-reports of attitudes. *Journal of Personality and Social Psychology*, 41, 562-576.
- Rosenberg, M. (1979). Conceiving the self. New York: Basic.
- Rosenfeld, P., Melburg, V., & Tedeschi, J. T. (1981). Forgetting as an impression management strategy in the forced-compliance situation. *Journal of Social Psychology*, 114, 69–74.
- Schlenker, B. R., & Weigold, M. E (1990). Self-consciousness and self-presentation: Being autonomous versus appearing autonomous. *Journal of Personality and Social Psychology*, 59, 820–828.
- Snyder, M. (1974). The self-monitoring of expressive behavior. *Journal of Personality and Social Psychology*, 30, 526–537.
- Snyder, M., & Tanke, E. D. (1976). Behavior and attitude: Some people are more consistent than others. *Journal of Personality*, 44, 501–517.
- Wood, W. (2000). Attitude change: Persuasion and social influence. Annual Review of Psychology, 51, 539–570.
- Wood, W., Lundgren, S., Oucllette, J. A., Busceme, S., & Blackstone, T. (1994). Minority influence: A meta analytic review of social influence processes. *Psychological Bulletin*, 115, 323-345.

Received 30 May 2002; revised version received 1 December 2003