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Running head: IDENTIFIABILITY IN COMPUTER-MEDIATED  
COMMUNICATION

Identifiability and self-presentation: Computer-mediated communication and  
intergroup interaction

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Uncorrected manuscript

### Abstract

This research investigated the intergroup properties of hostile ‘flaming’ behaviour in computer-mediated communication, and how flaming language is affected by Internet identifiability, or identifiability by name and e-mail address/geographical location as is common to Internet communication. According to the social identity model of deindividuation effects (SIDE; e.g., S.D. Reicher, R. Spears & T. Postmes, 1995) there may be strategic reasons for identifiable group members to act in a more group-normative manner in the presence of an audience, either to gain acceptance from the ingroup, to avoid punishment from the outgroup, or to assert their identity to the outgroup. For these reasons, it was predicted that communicators would produce more stereotype-consistent (group-normative) descriptions of outgroup members’ behaviours when their descriptions were identifiable to an audience. In one archival and three experimental studies it was found that identifiability to an ingroup audience was associated with higher levels of stereotype-consistent language when communicators described anonymous outgroup targets. These results extend the SIDE model and suggest the importance of an ingroup audience for the expression of stereotypical views.

## Identifiability and self-presentation: Computer-mediated communication and intergroup interaction

Computer-mediated communication (CMC) is rapidly growing as a tool for global communication. For example, in 1995 an estimated 26.4 million people were using the Internet (MIDS, 1997) and this figure is estimated to double every year. It was estimated that by 2000, 10% of the world's population would be 'on-line' or connected to the Internet (see McKenna & Bargh, 1998). The use of computers to communicate is therefore naturally a topic of increasing interest to researchers. One of the most interesting issues that CMC has raised for social psychology relates to the effects of identifiability on communicative behaviour.

The effects of identifiability and isolation on behaviour in CMC have interested researchers for many years. Studies of behaviour in CMC have focused on the medium's anonymity and on the hypothesis that communication via computers is somehow changed because of anonymity. This idea has been explored extensively in a variety of settings from work-related behaviour (e.g., Finholt & Sproull, 1990; Sherblom, 1988; Siegel, Dubrovsky, Kiesler & McGuire, 1986; Sproull & Kiesler, 1986), the development of friendships and relationships over the computer (e.g., Lea & Spears, 1995; Parks & Floyd, 1996; Wilkins, 1991; van Gelder, 1985) and the high levels of hostile, uninhibited or flaming behaviour observed in computer networks, which is the focus of the current research (e.g., Chester, 1996; Dyer, Green, Pitts & Millward, 1995; Lea, O'Shea, Fung & Spears, 1992; Kiesler, Siegel & McGuire, 1984; Siegel et al., 1986; Sproull & Kiesler, 1986, 1991). Generally, past research supports the idea that CMC, relative to face-to-face (FtF) communication, is conducive to hostility and negative interactions between individuals.

De-individuation theory, originating with the ideas of LeBon (1895/1947) (e.g., Deiner, 1980; Zimbardo, 1969) has provided a popular explanation for the increased hostility

observed in CMC. People are said to lose a sense of their individual identity when they communicate anonymously via computers. This means that their objective self-awareness (see Duval & Wicklund, 1972; Wicklund, 1975) decreases, they become less likely to monitor their own behaviour, and thus become more likely to act upon impulses that would normally be inhibited. This, it is said, is evidenced in flaming (e.g., Kiesler et al., 1984; Siegel et al., 1986; Sproull & Kiesler, 1986; Sproull & Kiesler, 1991).

The social identity model of deindividuation effects (SIDE; e.g., Postmes, Spears & Lea, 1998; Reicher, Spears & Postmes, 1995; Spears & Lea, 1994) challenges the orthodoxy that anonymity necessarily has negative behavioural consequences. The SIDE model has been directly applied to CMC (e.g., Lea & Spears, 1991; Postmes, 1997; Spears & Lea, 1992; Spears, Lea & Lee, 1990). SIDE predicts that the effects of anonymity depend on the group memberships of the interactants and in what social context the interaction takes place. Drawing on self-categorization theory (SCT; Turner, Hogg, Oakes, Reicher & Wetherell, 1987), the 1995 formulation of SIDE proposes that there are two possible types of deindividuation effects related to group behaviour. These are (a) cognitive or self-categorical effects related to group salience and identity definition, and (b) strategic effects related to identity enactment. Firstly, cognitive or self-categorical effects relate to the effects of deindividuation on the salience of a social category, related to situations where others are anonymous or identifiable to the self. Secondly, strategic effects relate to how deindividuated behaviour might be affected by social category and audience characteristics, related to situations where the self is identifiable to others (Reicher et al., 1995; Spears & Lea, 1994). More recently, it has been proposed that cognitive and strategic factors interact (see Reicher, in press; Reicher Levine & Gordijn, 1998). The present research is concerned primarily with the impact of identifiability on behaviour in CMC: a situation where people choose to make themselves either anonymous or identifiable to others. Therefore, because CMC largely

involves identifiability of self to others rather than others to self, we will focus on the strategic dimension of SIDE rather than the cognitive dimension in this research.

Spears and Lea (1994) proposed that anonymity of the self to a powerful audience may be liberating, reduce inhibitions and also reduce feelings of accountability to the audience. Anonymous communicators need not feel pressured to conform to the norms and expectations of the powerful group, whereas those who are identifiable may feel pressured to conform. In line with this proposal Reicher and Levine (1994 a,b) found that expressed support for students' attitudes and behaviours that were punishable by an outgroup audience (in this case academic staff) decreased with identifiability to the outgroup. In contrast, when no punishment was expected from the outgroup, students were more likely to express their views when they were identifiable to the outgroup. This finding suggests that if people do not fear outgroup punishment, identifiability to an outgroup audience provides an opportunity for people to distance themselves from an undesirable group by asserting their identity.

Spears and Lea (1994) also made reference to the potential support that co-presence with and identifiability to the ingroup might produce in an intergroup context. That is, being with the ingroup and being identifiable to them might create a sense of solidarity and enable ingroup members to overcome outgroup sanctions. Reicher et al. (1998) found evidence for the idea that being co-present with ingroup members (e.g., students) increased the ability of ingroup members to express those aspects of ingroup identity which might attract outgroup (e.g., staff) sanction.

SIDE research testing the effects of visibility of self to others has therefore focused upon identifiability to outgroup audiences and effects of outgroup power on behaviour (e.g., Reicher & Levine, 1994 a,b) or the supportive nature of being co-present with an ingroup audience for resisting the outgroup (Reicher et al., 1998). So, research to this point examining identifiability to an ingroup audience has focused only on resisting powerful

outgroups. The present research therefore attempts to extend our understanding of other strategic effects of identifiability to the ingroup. We focus on issues of acceptance by the ingroup and the claiming of group membership through the expression of group-normative attitudes.

It is possible to make predictions regarding the effects of identifiability to ingroup audiences from the results of some related literature on self-presentation. Noel, Wann and Branscombe (1995) found that 'peripheral' ingroup members were more likely to exhibit outgroup derogation than 'core' ingroup members under public conditions. It was concluded that public outgroup derogation may serve to enhance the status of group members who are 'on the fringes' of a desirable ingroup. This finding was reinforced by the work of Barreto and Ellemers (in press), who found that group members' choices to work on group improvement strategies increased under conditions of identifiability to the ingroup. However, this was only the case when low identifying group members were identifiable. These studies show that people are motivated to act in a manner that is consistent with group norms when they are identifiable to an ingroup audience. It appears that individuals act strategically so that they may achieve positive evaluation by the ingroup, particularly when they are on the periphery of a group, or do not identify strongly with it.

Combining these findings with the SIDE research to date makes it possible to test a general model of the effects of identifiability to ingroup and outgroup audiences on group-normative behaviour. In particular, we are interested in the effects of identifiability on the expression of stereotypes about groups. The expression of stereotypes, or shared norms about the relations between particular social groups (e.g., Leyens, Yzerbyt & Schadron, 1994; Oakes, Haslam & Turner, 1994; Sherif, Harvey, White, Hood & Sherif, 1961; Tajfel, 1981) is normative group behaviour. It is therefore reasonable to assume that the expression of

stereotypes will be affected by the group to whom communicators are identifiable, and communicators' concerns about the evaluation of that group.

The linguistic category model (LCM; e.g., Semin, 1994; Semin & Fiedler, 1988, 1991) provides a way of measuring the expression of stereotypes in written language. The LCM measures the type of verbs and adjectives in people's descriptions of others' behaviour to calculate an index of language abstraction. This ranges from low (concrete) to high (abstract) and indicates the stereotypicality of the description. The more abstract a description is, the more the behaviour is described as a stereotypical or expected behaviour. This is supported by research on the linguistic intergroup bias (LIB; Maass, Salvi, Arcuri & Semin, 1989) which shows that expectancy-consistent or stereotype-consistent behaviours are described using more abstract language than stereotype-inconsistent behaviours (e.g., Arcuri, Maass & Portelli, 1993; Maass & Arcuri, 1992; Maass, Ceccarelli & Rudin, 1996; Maass, Milesi, Zabbini & Stahlberg, 1995; Rubini & Semin, 1994). Linguistic abstraction is therefore proposed to be a measure of the need to express and therefore perpetuate group stereotypes and expectancies (see also Karpinski & von Hippel, 1996).

In the literature, there is a growing debate regarding the issue of volitional control over linguistic biases. This issue is pertinent to the present research, as we predict that strategic factors related to identifiability can affect stereotypical language use. Franco and Maass (1996, 1999) suggest that the LIB cannot be intentionally attenuated. They compared linguistic abstraction with more traditional measures of stereotyping and prejudice and found that whilst people could attenuate their stereotyping on traditional measures, they could not attenuate language abstraction. However, other research suggests that the LIB can be affected by motivational concerns such as ingroup threat and need-for-closure (e.g., Maass et al., 1995, 1996; Webster, Kruglanski & Pattison, 1997). That is, whilst people may be unaware



of the language choices they make, their language abstraction is nevertheless influenced by various motivations.

Drawing these ideas together, this paper reports the results of four studies. The first study was an archival examination of the effects of identifiability on stereotypic expression. Secondly, we report two empirical studies where we investigated how audience group membership influences the effects of identifiability on the expression of stereotypes. Finally, the fourth study examined the processes that influence the effects of identifiability on stereotypic expression.

Therefore, the first study described in this paper was designed to examine the effects of identifiability on the abstraction of descriptions about outgroups. We examined a naturalistic setting mixed with anonymous and identifiable communicators from a vast selection of ingroups and outgroups. In this archival or field study, samples of flaming communication from Internet-based newsgroups or discussion groups were analysed. These were messages posted by anonymous or identifiable communicators about anonymous or identifiable outgroups. In typical newsgroup environments, communicators are either identifiable (by name and e-mail address/geographical location) or anonymous (no details supplied, or a 'nickname' supplied) to both ingroup and outgroup members. We call identifiability by name and e-mail address or geographical location Internet identifiability because it is the most common way in which people can be identifiable when they communicate on the Internet (see also Douglas & McGarty, 2000).

In this initial study, it was therefore important to consider how identifiability would impact upon strategic behaviour where the audience consists of both ingroup and outgroup members at the same time. Firstly, if identifiable communicators are concerned about being positively evaluated by the ingroup members of their audience (e.g., Barreto & Ellemers, in press; Noel et al., 1995) then they should express more stereotypical views about outgroup

members. Expressing stereotypical views is normative group behaviour and will possibly gain acceptance by the ingroup for marginal members because it helps them to claim and validate their group membership. Therefore, under these conditions identifiable communicators should use higher levels of stereotypical language than anonymous communicators. Also, unless punishment from the outgroup is expected, group-normative behaviour should increase with identifiability to the outgroup members of the audience (Reicher & Levine, 1994 a,b). If no punishment is expected, ingroup members will wish to assert their identity to the undesirable outgroup audience. Therefore, communicators (sources) who are identifiable should use higher levels of stereotypical language to describe outgroup targets' behaviours than those who are anonymous (Hypothesis 1).

We also predicted that anonymous outgroup targets would be described in more stereotypical terms than those who have chosen to be identifiable. The absence of individuating features such as their name should increase the propensity for a group member to be stereotyped in relation to group features that are prominent at the time of the communication. In addition to SIDE (Reicher et al., 1995), work by Wilder (1978), the impression formation models of Brewer (1988), Fiske and Neuberg (1990), and also self-categorization theory (Turner et al., 1987) predict a group-based rather than individual response where individuating information is limited. We expected this even though a name and an e-mail address may not provide the same degree of individuation as say, visual identifiability. Therefore, anonymous targets' behaviours should be described more stereotypically than identifiable targets' behaviours (Hypothesis 2). Furthermore, we measured how two independent raters judged the hostility of the flames to assess the relationship between identifiability and hostility.

## Pilot Study and Study 1

This study was an archival, non-reactive study of hostile intergroup communications posted on Internet newsgroups. Newsgroups are asynchronous discussion groups where participants can 'post' contributions to continuing discussions, or create their own discussions to which other people can contribute. There are many newsgroups on the Internet devoted to specific topics. There are also some newsgroups specifically set up for flaming purposes.

### Method

#### Materials and Procedure

The materials for this study consisted of postings to Internet newsgroups. As such, there were no participant demographics available. For a pilot study, 100 flames and 100 non-flames were collected and for the main study, 200 flames were collected.

The flames were collected in the following manner. The data set was collected from postings that had been placed on the Internet newsgroups. We entered words into the 'Deja News' database of newsgroup postings specifically to target flaming communication. Initial observations showed that flaming of racists or perceived racists was prevalent. Therefore, words specifically used for searching were 'flame', 'racist', 'racism', and selected profanities. It should be noted that all flames chosen for analysis constituted hostile communications to outgroup members.

Anonymous sources and targets were those who chose to attach an alias to their Electronic-Mail (e-mail) address (e.g., 'Bozo') and their real identity could not be traced, and also those who chose not to include their e-mail address. Identifiable sources and targets were those who chose to supply their name and e-mail address. We required a dual criterion here because merely supplying an e-mail address does not mean that a person's identity can be traced. Also, if people merely supply their name and no e-mail address, there is no way of knowing if the name is indeed real. All e-mail addresses were checked for validity by using

the directory services function in the Macintosh Eudora e-mail software program. For the pilot study, non-flames were collected using the same general method as used for the collection of flames but instead of inserting specific words we entered random three-letter sequences. However, some of the non-flames obtained using this method were graphics files with no text communication and were discarded.

After collection, we compared the two samples' language abstraction using the LCM. Firstly, descriptive action verbs (DAV, e.g., 'hit'), correspond to isolated episodes and were weighted as '1'. Secondly, interpretative action verbs (IAV, e.g., 'hurt'), still refer to a specific episode but are a more general class of behaviour. These were weighted as '2'. Thirdly, state verbs (SV, e.g., 'hate'), refer to emotions, feelings and thought processes and were weighted as '3', and finally, adjectives (ADJ, e.g., 'aggressive'), describe behaviours of the target group member that are supposedly general to many situations and were weighted as '4'. Weightings were in accordance with Semin and Fiedler (1989). Only the sections of a message referring to specific attributes or behaviours of a group or person were analysed. The overall measure of language abstraction was obtained for each item by using the following formula:

$$\text{Abstraction} = (\text{DAV} \times 1 + \text{IAV} \times 2 + \text{SV} \times 3 + \text{ADJ} \times 4) / (\text{DAV} + \text{IAV} + \text{SV} + \text{ADJ}).$$

(where DAV, IAV, SV and ADJ represent the numbers of occurrences in each of these categories).

In our pilot investigations, we found that language was more abstract in flaming ( $\underline{M}=2.66$ ) than language in general newsgroup communication ( $\underline{M}=2.24$ ),  $\underline{F}(1,198)=17.26$ ,  $p<.001$ , suggesting that flaming contains higher levels of stereotypical language, as predicted. The LCM is therefore sensitive to linguistic differences between hostile and non-hostile interactions. Thus, we felt it appropriate to use the LCM in subsequent investigations to assess what conditions promote or undermine differences inherent in hostile language.

In addition to LCM analyses, flames in the main study were also rated on a scale from zero-100, according to the hostility of the communication. This was conducted by two raters working independently and this provided acceptable inter-rater reliability ( $r=.74$ ).<sup>1</sup>

### Results

An average measure of language abstraction was obtained for each condition. Language abstraction was a figure from one to four, with higher values indicating higher levels of language abstraction. The results were entered in a 2 (source: anonymous/identifiable) x 2 (target: anonymous/identifiable) between-subjects ANOVA. The results are presented in Figure 1.

<<insert Figure 1 here>>

There was a significant interaction between source and target,  $F(1,196)=5.63$ ,  $p<.05$ . Specifically, when the target was anonymous, sources used more abstract language to describe the target when they themselves were identifiable than when they were anonymous ( $M_s=2.84$  vs.  $2.57$ ),  $t(98)=2.02$ ,  $p<.05$ . No other pairwise comparisons were significant. There was no main effect for either source or target ( $F_s$  both  $<1$ ).

Hostility ratings were no higher when the sources were anonymous ( $M=69.40$ ) than when they were identifiable ( $M=65.35$ ),  $F(1,196)=2.36$ ,  $ns$ . There was also no difference in hostility between the anonymous ( $M=65.88$ ) and identifiable target ( $M=68.88$ ) conditions,  $F(1,196)<1$ ,  $ns$ . The correlation between language abstraction and hostility was  $.10$ ,  $ns$ . Hostility therefore could not have mediated the effect of identifiability on language abstraction (Baron & Kenny, 1986).

### Discussion

Contrary to our hypotheses, there was no main effect on language abstraction for either target or source identifiability. This is inconsistent with the predictions we drew from the strategic aspect of the SIDE model relating to outgroup audiences, other research on self-

presentation towards ingroup audiences, from work on impression formation, SIDE and Wilder's work on deindividuation of the outgroup. However, when the outgroup targets were anonymous there was significantly higher language abstraction when the sources were identifiable than when they were anonymous. Sources were more likely to describe anonymous outgroup members in stereotypical terms when they themselves were identifiable to their mixed audience. This specific finding is partially consistent with the prediction we drew from the strategic SIDE model and from other research on self-presentation.

It was not the case that anonymous communicators were more hostile than communicators who were identifiable, nor was hostility affected by identifiability of the outgroup members. Also, the relationship between hostility and language abstraction was not significant.

Having established the novel interaction between source and target identifiability, we next sought to replicate it under controlled conditions. SIDE and also work on self-presentation (e.g., Noel et al., 1995) predict that the effects of being identifiable to ingroup and outgroup audiences will be different. Being identifiable to an outgroup audience may encourage ingroup-normative behaviour out of a desire to distance oneself from the outgroup (e.g., Reicher & Levine, 1994 a,b). Alternatively, being identifiable to an ingroup audience might encourage group-normative behaviour out of a desire to be positively evaluated and accepted by the ingroup (e.g., Barreto & Ellemers, in press; Noel et al., 1995). In the present study the audience was a mixed audience of both ingroup and outgroup members. This made it impossible to determine whether identifiability to an ingroup or outgroup audience drove the effect. Study 2 tested these possibilities.

## Study 2

Participants were asked to respond via computer to an outgroup member's Internet message. Although it was impossible to set up permanent e-mail addresses for the

participants, we required them to supply their name and country of residence. This allowed us to reproduce the Internet situation as closely as possible because a similar amount of biographical information is available in a person's name and country of residence as is available in an e-mail address. Also, supplying a name should produce similar feelings of accountability as would providing an e-mail address because it is still possible to trace communicators based on this information. If identifiability to an ingroup audience was responsible for the effect observed in Study 1 then we should replicate the interaction between source and target when the audience is composed solely of ingroup members (Study 2a). Alternatively, if identifiability to an outgroup audience is important, then we should replicate the effect when the audience is composed solely of outgroup members (Study 2b).

#### Study 2a

#### Method

##### Participants

Participants were 44 male and female undergraduate psychology students at the Australian National University.

##### Materials and Procedure

The experiment consisted of three phases. In phase one, participants (in sessions of two to five people) were seated in the same room and were asked to complete a questionnaire. They were informed that they would be asked to read a print-out of message that had been placed on the Internet by a member of a white-power group. They were informed that there were many Internet messages written by members and opponents of such groups. Participants were then asked: 'Could you please indicate (by circling the appropriate number), which group you feel you belong to'. Participants were asked to indicate whether they were not opposed or were opposed to white-power groups. No participants chose the first group.<sup>2</sup>

After completion of the initial phase, participants were sent into individual cubicles and were seated in front of a Macintosh computer. The software package 'Teachtext', a basic word-processing program, was loaded so that the computer screen was blank and ready for typing. Participants were then given instructions and a copy of the message that had actually been written and placed on the Internet by a member of a white-power group.

The message was very hostile towards racial groups other than whites. The author wrote that white people were the main victims of racism in today's society and that 'blacks' are responsible for this due to Affirmative Action and other means of equalising racial discrepancies in society. The writer asked his readers to stand up for themselves and not let blacks take over; to fight for the same treatment as blacks and fight to preserve what their forefathers have created. He asked them not to feel guilty for the past actions of whites because whites are the superior race.

Participants were told that the white-power group member had either (a) chosen to remain anonymous by not supplying his name and country (these participants were therefore unaware of the target's name or nationality), or (b) chosen to identify himself by supplying his name and country. The name 'Kevin Jackson' and country 'United States of America' were chosen because Internet users are more commonly male and American than they are members of alternative categories.

Participants were given instructions to read the message carefully and after doing so, type a response to the message. They were asked specifically to comment on the behaviour and opinions of the group member who had written the message. Participants were also informed that their response would be seen only by a mailing list of people who are opposed to white-power groups. That is, they were identifiable to an ingroup audience.

Participants were randomly allocated to one of four possible conditions: participants were asked to supply their name and country and were (a) told that the white-power group



member had also chosen to do so (identifiable/identifiable condition), or (b) were told that the white-power group member had chosen not to do so (identifiable/anonymous condition). Alternatively, participants were told that they did not have to supply their name and country but were (c) told that the white-power group member had chosen to do so (anonymous/identifiable condition) or (d) were told that the white-power group member had also chosen not to do so (anonymous/anonymous condition). Participants were given 10 minutes to write their response. <sup>3</sup>

## Results

<<insert Figure 2 here>>

Language abstraction was calculated as in Study 1. Results were entered in to a 2 (source: anonymous/identifiable) x 2 (target: anonymous/identifiable) between-subjects ANOVA and are presented in Figure 2. As hypothesised, the interaction between source and target was significant,  $F(1,40)=5.06$ ,  $p<.05$ . Also, the pairwise comparison in the outgroup anonymous condition was significant,  $t(20)=2.47$ ,  $p<.05$ . Again, language abstraction was higher in the identifiable source condition ( $M=2.83$ ) than the anonymous source ( $M=2.25$ ) condition. No other pairwise contrasts were significant.

There was no main effect for source,  $F(1,40)=3.42$ ,  $p<.07$ , and although this effect approached significance ( $M_s=2.44$  in the anonymous condition versus 2.71 for the identifiable condition), it was substantially qualified by the significant interaction. Also, no main effect for target was found,  $F(1,40)<1$ , ns.

## Study 2b

### Method

#### Participants

Participants were 46 male and female undergraduate psychology students from the Australian National University. One participant was eliminated from the analysis because they indicated that they were 'not opposed to white-power groups'.

### Materials and Procedure

The procedure of Study 2b was identical to that of Study 2a, except that participants were informed that their responses would be read by an audience who were not opposed to white-power groups. That is, they were identifiable to an outgroup audience.

### Results

Results were entered into a 2 (source: anonymous/identifiable) x 2 (target: anonymous/identifiable) between-subjects ANOVA. Contrary to predictions, there was no interaction between source and target,  $F(1,42) < 1$ , ns. There was also no main effect for source,  $F(1,42) < 1$ , ns. and no main effect for target,  $F(1,42) < 1$ , ns.

### Discussion

The results of Study 2a indicate that an ingroup audience is important in producing the effect of identifiability on language abstraction as observed in Study 1. The results of Study 2b however, cast doubt on the role of identifiability to an outgroup audience as a cause of increased language abstraction. When the audience was composed of ingroup members only, language was most abstract when the ingroup sources were identifiable and when the target outgroup member was anonymous. The processes which produce this phenomenon are the focus of the remainder of this report.

As previously mentioned, people who are identifiable to other ingroup members may act in a more group-normative manner for strategic reasons such as a desire to be positively evaluated by the ingroup (e.g., Noel et al., 1995) or because they do not identify with the group (e.g., Barreto & Ellemers, in press). Further, participants who are identifiable may feel more 'pressured' to adhere to the norms of the group because they are accountable for what

they say (e.g., Reicher et al., 1995; Spears & Lea, 1994). Whether or not accountability comes into play when responses are identifiable to an ingroup audience, however, remains to be tested. The common feature of these explanations is that they pose strategic or self-presentational motivations for communicators to use group-normative language.

Study 3 was designed to test these possibilities. One minor limitation we must place on the scope of our results so far is that we have no real explanation of why the effects that we have obtained and explained are only found with anonymous targets. However, it is possible that an identifiable outgroup member might be individuated and thus be perceived as less prototypical of the group. As such, individuation of the target might make conditions interpersonal rather than intergroup conditions, thus making intergroup effects less probable.<sup>4</sup> In this study, we therefore omitted the identifiable target condition.

In addition to writing their messages, participants in Study 3 were given the option to add further points to their descriptions. The rationale was that if identifiable participants are more concerned about their personal evaluation, they will wish to clarify their position as clearly as possible to their audience, meaning that they may add to their original message. We therefore expected an increased sense of accountability, increased stereotypical language use and increased clarifying points under conditions of identifiability to the ingroup. In Study 3 we also employed additional measures of stereotyping in order to examine the relationship between the use of linguistic strategies of stereotyping before an audience and traditional measures of stereotyping taken in the absence of an audience.

### Study 3

#### Method

##### Participants

Participants were 34 male and female undergraduate psychology students from the Australian National University.

## Materials and Procedure

Phase one of this experiment was exactly as in Study 2a for an ingroup audience. In phase two, however, all participants were informed that the white-power group member had chosen to remain anonymous and had supplied no personal information. After participants had composed their messages, they were asked to stop and await further instructions. The experimenter went to each cubicle individually and gave each participant a print-out of the response they had just written. The following instructions were given:

Thank you for writing your message. As you know, it will be sent to a mailing list consisting of people who oppose white-power, racist groups. Before it is sent however, I would like to give you a few minutes to add any further points to your message. You may have some additional comments to make. I would like you to read what you have already written and please make any additions to your message on the blank screen in front of you. However, do not type anything until I ask you. Please re-read your message now.

After one minute had elapsed, participants were then informed that they would have a few minutes to type their additional comments. Participants were then asked to begin typing their additional comments and were asked to stop typing after three minutes had elapsed. If they had no further comments to make they were asked to indicate this by typing “no additional comments”.

Participants were then asked to return to their places in the main experimental room where they were asked to complete a final questionnaire that was not to be seen by their audience. The following questions were designed to assess participants’ accountability and other possible related effects. The measures included a direct measure of accountability: “How personally accountable did you feel for what you had written in your response to the

message?”. There were also a variety of other measures relating to the accuracy of the message as a statement of their own views, expected agreement with the ingroup, importance of agreement, importance of the task and how seriously the task was taken. Each participant was asked to respond by indicating on a nine point scale (one being ‘not at all’ and nine being ‘extremely’). We were simply attempting to explore different aspects of participants’ feelings related to the task and how identifiability might impact upon them.

The next series of questions were stereotyping questions, specifically designed to assess the correlation between the strategic use of language to stereotype in front of an audience and more traditional measures of stereotyping in the absence of audience evaluation. The questions involved examining the typicality of the target as a white-power group member, expectations of the outgroup as a whole, consensuality of views about the outgroup as an entity, distinctiveness of the outgroup and also a list of traits (taken from frequently used adjectives to describe the target in Studies 1, 2a and 2b), on which to rate the target outgroup member. The scales were from one to nine, and there were nine questions. Finally, participants were also asked how strongly involved they felt about the issue of racism.

## Results

Results for language abstraction were entered into a two group (source: anonymous/identifiable) between-subjects ANOVA. As hypothesised, there was a significant difference in language abstraction such that abstraction was higher in the identifiable ( $M=2.76$ ) versus the anonymous condition ( $M=2.45$ ),  $t(32)=2.14$ ,  $p<.05$ , thus replicating the effect observed in Studies 1 and 2a.

It was further found that identifiable communicators felt more personally accountable ( $M=7.65$ ) than anonymous communicators ( $M=6.41$ ),  $t(32)=2.40$ ,  $p<.05$ , on the item “how personally accountable did you feel for what you had written in your response to the message?”. None of the other items differed between the two conditions. Anonymous

communicators also felt more strongly about the racism issue ( $\underline{M}=7.29$ ) than those who were identifiable ( $\underline{M}=6.29$ ),  $t(32)=2.51$ ,  $p<.05$  according to measures on the item “when you were composing your message, how strongly involved did you feel regarding the issue of racism?”. Thus, identifiability increased language abstraction and accountability but there was a decrease in participants’ strength of feeling about the issue. However, neither factor mediated the effect. We therefore explored the possibility that the effect of identifiability on language abstraction was mediated by the interaction of feelings of accountability and a lack of strength of feeling about the issue. We constructed the interaction term by dividing accountability by strength of feeling.

There was a significant relationship between identifiability and the proposed mediator,  $\underline{\beta}=.58$ ,  $\underline{SE}_{\underline{\beta}}=.09$   $p<.01$ . There were also significant relationships between identifiability and language abstraction,  $\underline{\beta}=0.35$ ,  $\underline{SE}_{\underline{\beta}}=.14$ ,  $p<.05$ , and between the proposed mediator and language abstraction,  $\underline{\beta}=.36$ ,  $\underline{SE}_{\underline{\beta}}=.23$ ,  $p<.05$ . When the proposed mediator was added to the equation with identifiability the relationship between identifiability and language abstraction was obviated,  $\underline{\beta}=.22$ ,  $\underline{SE}_{\underline{\beta}}=.18$ ,  $p<.3$ . Therefore, an interaction between accountability and lack of strength of feeling about the issue mediated the relationship between identifiability and language abstraction.

It was also found that twice as many additions were made in the identifiable condition ( $\underline{M}=1.18$  additions per person, and 20 additional points overall) than in the anonymous condition ( $\underline{M}=0.59$  additions per person, and 10 additional points made overall). However, this mean difference was not statistically significant,  $t(32)=1.56$ ,  $p<.15$  by  $t$ -test or a range of non-parametric tests. Also, none of the responses to the stereotyping items taken separately correlated significantly with language abstraction and they did not constitute a reliable scale. All correlation coefficients were less than .16.

## Discussion

The results revealed a significant difference in language abstraction such that, as hypothesised, identifiable communicators used higher levels of stereotypical language to describe the outgroup target than did anonymous communicators. Overall, identifiable communicators felt more accountable about performing the task but less strongly about the issue. A mediational analysis suggested that the interaction between these two variables was responsible for variations in language use. It should be noted here that none of the other measures differed across conditions. We acknowledge that these may have been rather indirect measures.

These findings are therefore in line with general claims made by SIDE about the strategic consequences of identifiability to a group (e.g., Reicher et al., 1995). Based on the findings of the current research, it is clear that there are strategic, self-presentational concerns for communicators if they are identifiable to an audience. This research extends the SIDE model by demonstrating the importance of identifiability to the ingroup not only as a means of resisting the outgroup (Reicher et al., 1998), but also because identifiability brings about heightened feelings of accountability to the ingroup. This accountability teamed with a lack of strength of feeling about the issue encourages behaviour that is normative for the group. The results are also consistent with research by Noel et al. (1995), indicating that self-presentational motivations are affected by the group membership status of participants and that self-presentational motivations appear to drive identifiable participants' increased group-normative behaviour.

Results also showed that there was no relationship between traditional, explicit measures of stereotyping and language abstraction on one hand, and either identifiability or explicit stereotyping measures on the other. It is important to note that in Study 3 the participants' responses on the explicit stereotyping measures were not seen by the ingroup

audience. It may have been that the public presentation of the message attenuated any correlation between language abstraction and traditional stereotyping measures.

However, the lack of any correlation remains interesting, given that language abstraction is strongly linked to stereotypical expectations, both theoretically and empirically (e.g., Arcuri et al., 1993; Maass et al., 1989, 1995, 1996; Wigboldus, Semin & Spears, 2000). The null correlation is nonetheless consistent with recent research suggesting that language abstraction is dissociable from traditional stereotyping measures (e.g. Franco & Maass, 1996, 1999). It also shows that although identifiability affects language with an ingroup audience, it does not affect participants' attitudes expressed in the later and more private communicative context involving only the participant and experimenter.

#### General Discussion

This research has attempted to apply the strategic dimension of the SIDE model to CMC, investigating general group processes and the specific impact of CMC on communication. Overall, the three studies reported in this paper have established and replicated a novel effect of identifiability on behaviour. The results show that ingroup members are more likely to describe anonymous outgroup members abstractly when they themselves are identifiable to an ingroup audience in a CMC setting. This does not occur when they are only identifiable to an outgroup audience. That is, ingroup members describe outgroup members more abstractly, or more in line with their own group norms, when they are identifiable to members of their own group. It is important to note that we have replicated this effect in both an archival setting (Study 1) and empirically (Studies 2a and 3). This is therefore not only a novel finding; it is also a robust finding.

These results extend the SIDE model in that they demonstrate the importance of identifiability to an ingroup audience in the strategic expression of views to that audience. We have shown that being identifiable to an ingroup audience not only enables group



members to resist the outgroup as was demonstrated by Reicher et al. (1998). It also enables group members to enact their identity in order to be accepted and favoured by the group. The language they use reflects these motivations.

This finding is certainly consistent with previous research indicating that strategic motivations affect language abstraction (see Maass et al., 1996; Webster et al., 1997). However, in future research, it would be important to establish if and when this is related to explicit awareness and also if and when abstract language use is the result of explicit strategic processes.

These studies also show that identifiability affects accountability and that identifiability affects language abstraction but that identifiability does not seem to affect explicit stereotyping. Also, explicit stereotyping measures are unrelated to language abstraction. The intriguing question we are left with is: are the effects of identifiability on accountability and language abstraction related? It appears that they are not directly related but they may be related through the interaction of accountability and a lack of strength of feeling about the issue.

It is useful to speculate about what this interaction might mean. Perhaps it can be best explained by the construct we will call obligation (see also McGarty, Taylor & Douglas, in press). It appears that feelings of accountability teamed with low strength of feeling about an issue increases the propensity for communicators to act in line with the appropriate or expected group norm. Feeling obligated to act in line with the norms of an ingroup might therefore be different from feeling committed to the norms. This is not the case here because those acting more in line with group norms did not feel strongly about the issue. It also may be different to feeling compelled to obey the dictates of the group. Turner et al. (1987) argue that this kind of pressure to comply emerges from a powerful outgroup. It is possible to speculate from the results of Study 3 that neither commitment nor compulsion were

responsible for differences in language use, but perhaps a process which involved features of both phenomena occurred.

It is also important not to dismiss the possibility that group relations between participants and experimenters drove some of the effects obtained. According to Reicher et al. (1998) it is possible that participants behave as they do (in this case in an anti-racist manner) because they feel that their responses are identifiable to the experimenters, who were anti-racist, although may be perceived as a powerful outgroup. This point cannot be taken lightly. It is important to note that in Study 1 however, where we initially observed the identifiability/language abstraction effect, there were no experimenters present. Also, group relations between experimenters and participants were constant across Studies 2a, 2b and 3 but the identifiability effect was only present with an ingroup audience. Further, our recent empirical investigations show that where participants are guaranteed that under no circumstances will the experimenter be able to link their responses to them personally, the identifiability effect is still replicated (Douglas & McGarty, 2000). It is therefore unlikely that experimenter/participant relations were responsible for the results outlined in this paper.

Overall, the current research has made substantial progress in extending our knowledge of the effects of identifiability on communication in CMC and provides a useful extension to the SIDE model in the realm of Internet identifiability. It also establishes the importance of identifiability to ingroup audiences in the expression of group-normative responses about outgroups. Identifiability to an ingroup audience is not only useful in enabling group members to resist powerful outgroups, but also in encouraging people to claim and enact their identity in order to be accepted by the ingroup.

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## Footnotes

1. Eight participants also completed a brief questionnaire indicating, out of the 36 social groups encountered in the study, how 'permissible' it was to flame them (from A 'it is generally accepted to speak negatively of this group' through C 'neutral' to E 'it is never accepted that this group is spoken of negatively'). Permissibility did not differ across conditions ( $F_s$  both  $< 1$ ). In addition to this, there were no differences in language abstraction between flaming and non-flaming newsgroups,  $F(1,191)=1.53$ , ns.
2. In the initial phase, participants were also asked to indicate how familiar they were with the Internet, how much they identified with the group of their choice and how strongly they were opposed to white-power groups (on scales of one to nine). There were no variations between conditions in any of these pre-test variables which were included as potential covariates and to make the intergroup context salient, and they have therefore not been reported in the results.
3. After completing their response to the message participants were asked to indicate how much they would like to send their message either by indicating yes or no (Study 2a) or on a scale of one to nine (Study 2b). Participants were also asked how much the message was consistent with what they expected from white-power groups (scale of one to nine). There were no differences in these variables across conditions. They were also asked to describe the white-power group member by listing three adjectives to describe them and to describe themselves in the same manner. This was done to obtain one value of positivity/negativity for outgroup members and ingroup members (themselves). A differentiation score was obtained for each participant by subtracting the average positivity of self adjectives from the average positivity of outgroup adjectives. Intergroup differentiation did not mediate the effect as per Baron and Kenny's (1986) criteria.
4. We are grateful to an anonymous reviewer for this suggestion.

## Figures

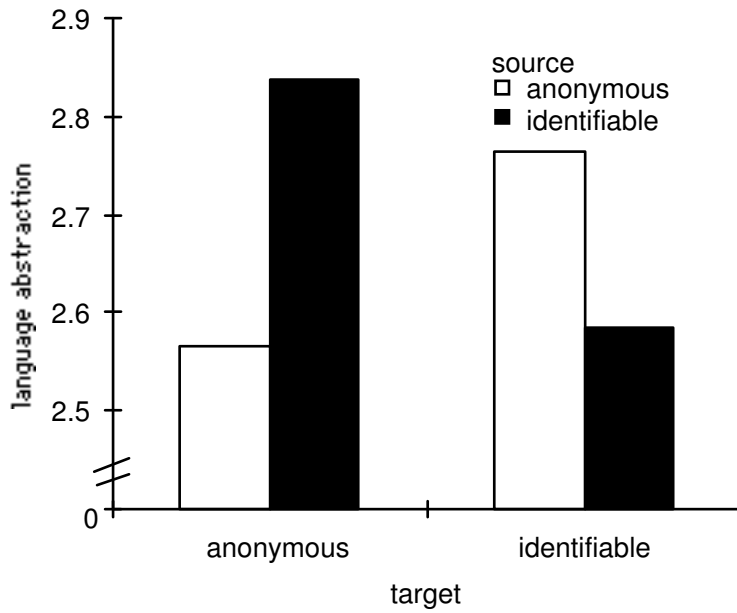


Figure 1. Language abstraction as a function of anonymity/identifiability of source and target - Study 1.

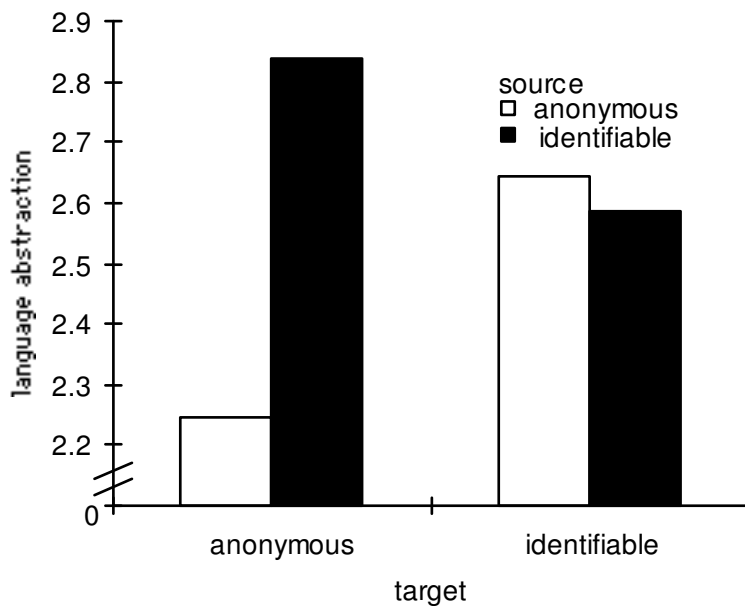


Figure 2. Language abstraction as a function of anonymity/identifiability of source and target when audience is ingroup - Study 2a.