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Internet identifiability and beyond: A model of the effects of identifiability on communicative behavior

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Abstract

K.M. Douglas and C. McGarty (in press) demonstrated that being identifiable to an ingroup audience in a computer-mediated communication (CMC) setting leads people to describe anonymous outgroup targets in more abstract, or stereotypical ways. Based on these findings, and on the social identity model of deindividuation effects (SIDE: S.D. Reicher, R. Spears, & T. Postmes, 1995), we aimed to test a model of the effects of identifiability on communicative behavior, in and beyond CMC. Participants in three studies, one CMC and two pen/paper, were asked to write responses to controversial messages. In all three studies, communicators who were identifiable to an ingroup audience used more stereotypical language to describe anonymous outgroup targets. Although Study 1 suggested that this increase in stereotypical language use may be strategic, Studies 2 and 3 suggested instead that it may result from more subtle, or implicit communicative processes. These results are discussed in relation to the revised SIDE model and a final model is proposed.

Internet identifiability and beyond: A model of the effects of identifiability on communicative behavior

Modes of CMC such as e-mail and Internet chat have for many become vital to modern life, and much social psychological research into CMC has focused on the effects of identifiability on communicative behavior. In this paper, we argue that identifiability in CMC strongly influences the language people use to communicate impressions and stereotypes. We test a model of the effects of identifiability in CMC on communicative behavior, and we also compare CMC with a more traditional mode of communication.

Understanding how identifiability affects behavior in CMC has been an important issue for researchers since the mid 1980s (e.g., Dyer, Green, Pitts & Millward, 1995; Joinson, 1998; Lea, O'Shea, Fung & Spears, 1992; Siegel, Dubrovsky, Kiesler & McGuire, 1986; Sproull & Kiesler, 1986). However, little research has directly examined issues of strategic, communicative behavior in a CMC setting. This is surprising considering the potential of CMC for the concealment and selective presentation of identity (see Lea & Spears, 1995).

In a series of studies, both archival and experimental, we have shown that language use in CMC can be strategic (or purposeful) depending on anonymity or identifiability to an audience (Douglas & McGarty, in press). Specifically, we examined the effects of Internet identifiability, defined as identifiability by name and geographical location as typically occurs when people communicate over the Internet. Internet messages such as e-mails and other postings tend to make people identifiable through the presence of personal names and e-mail addresses or other features such as signatures which reveal the country a sender is from. This form of identifiability can be clearly distinguished from the anonymity chosen by many communicators, or the use of pseudonyms. Our research showed that participants who were identifiable in this way to ingroup, but not outgroup audiences, described anonymous outgroup members with more stereotypical language as measured by the linguistic category

model (LCM; e.g., Semin & Fiedler, 1988, 1991). This means that anonymous outgroup members were described through more abstract language, emphasizing their stereotypical qualities. Common examples of this were references to the targets being "narrow-minded" or "bigoted".

This finding is interesting for two reasons. Firstly, language abstraction is associated with the expression, maintenance and transmission of stereotypes (e.g., Karpinski & von Hippel, 1996; Maass, Milesi, Zabbini & Stahlberg, 1995; Maass, Ceccarelli & Rudin, 1996; Wigboldus, Semin & Spears, 2000). Our results therefore suggest that Internet identifiability can enhance and reinforce stereotypes. Secondly, both intuition and deindividuation theory suggest that anonymity, and not identifiability, should enhance the expression of stereotypes (see Deiner, 1980; Zimbardo, 1969). Our approach to understanding these results is based on the SIDE model (Postmes, Spears & Lea, 1998; Reicher et al., 1995; Spears & Lea, 1994), which in turn is based on self-categorization theory (SCT; Turner, Hogg, Oakes, Reicher & Wetherell, 1987). The SIDE model is presented in Figure 1, with our extension in bold.

In brief, this model asserts that behavior under anonymous and identifiable conditions will differ depending not only on anonymity/identifiability, but also on the group memberships of the persons interacting, and the context in which the interaction takes place. SIDE makes different predictions about behavior depending on whether (a) the self is anonymous or identifiable to, or co-present with others, which is said to influence strategic behavior (the strategic SIDE; see Reicher & Levine, 1994 a,b; Reicher, Levine & Gordijn, 1998; Reicher et al., 1995, Spears & Lea, 1994) or (b) whether others are anonymous or identifiable to, or completely isolated from the self, which is said to increase the salience or importance of social categories (the cognitive or self-categorical SIDE; see Postmes, 1997; Postmes et al., 1998; Reicher et al., 1995).

Our extension to the SIDE model asserts that identifiability influences language use through strategic behavior towards the ingroup. Study 3 of Douglas and McGarty's (in press) research showed that the propensity for identifiable communicators to describe outgroup targets abstractly was mediated by an interaction between feeling accountable or responsible for what they say (accountability) and low strength of feeling about the issue of opposing racism. Those who felt accountable to their ingroup audience but not strongly about the issue, used more abstract language to describe the anonymous outgroup target than those who felt strongly about the issue, regardless of their feelings of accountability. This supports other research (Barreto & Ellemers, 2000) showing that accountability and group identification influence behavior. Our explanation was that this might be related to feelings of obligation, or duty to the ingroup audience (see also McGarty, Taylor, & Douglas, in press). That is, being accountable to an audience, but not feeling strongly committed to the issue under discussion, perhaps led communicators to 'go along' with the ingroup norm out of a sense of duty. We believe that obligation is a separate phenomenon related to the claiming of ingroup identity, different to coercion or compliance. Indeed, this distinction between obligation and coercion or compliance has been made previously (e.g., Hornik, 1988; Yagil, 1998). Complying with a particular request or persuasive attempt is different to feeling a moral obligation to do so.

Our initial aim in the present research was to examine this issue further by directly testing the revised SIDE model. In doing so, we aimed to establish what factors influence the effects of Internet identifiability on the expression of stereotypical norms. Also, we aimed to examine whether our model of Internet identifiability is restricted to CMC, and is therefore purely a model of how people behave in CMC, or is also able to explain the effects of identifiability to ingroup audiences on communicative behavior more generally.

Study 1

Following on from Douglas and McGarty's (in press, Study 3) research, we attempted to show that identifiability to an ingroup audience increases the abstraction used to describe anonymous outgroup targets. We also aimed to demonstrate that this effect is driven by feelings of obligation (high accountability and low strength of feeling) to the ingroup audience. As accountability is directly manipulated by identifiability (see Douglas & McGarty, in press, Study 3), here we sought to manipulate strength of feeling by giving participants varied feedback about their commitment to the issue. We argue that commitment to, and strength of feeling about an issue are the same phenomenon. In Study 1, half of the participants were placed in a 'high commitment' condition while the remaining participants were in a control condition. As in Douglas and McGarty's (in press, Studies 2 and 3) research, anonymous or identifiable participants were then asked to type a response to a white-power group member's Internet message. Their responses were to be viewed by an audience of people who are opposed to white-power groups (i.e., an ingroup audience).

Method

Participants and design

Participants were 43 male and female undergraduate psychology students from the Australian National University. The design was a 2 (participant: anonymous/identifiable) x 2 (commitment: control/high) between-participants design.

Materials and Procedure

Participants were informed that they would be reading a white-power group Internet message. At this point, participants in the high commitment condition were asked to complete a questionnaire that we had designed to make them think about their commitment to opposing racism. The questionnaire contained a series of 13 questions such as: 'If you were walking past a peaceful 'stop racism' rally on campus, how likely would you be to stop and listen?' Each question contained a scale from one 'very unlikely' to nine 'very likely'.

After completion, the experimenter collected the questionnaires and gave participants a filler (sentence completion) task. Participants were informed that the experimenter was preparing feedback related to their levels of commitment to opposing racism. After 10 minutes, participants were given their personalized feedback, where on a sheet of paper each participant was informed that he/she was high in commitment to opposing racism (a score of 7.5/10). Control participants did not complete the questionnaire, nor obtain any feedback.

Next, all participants were asked to indicate whether they were opposed or not opposed to white-power groups. Only the data from participants who were opposed to white-power groups were analyzed, and based on our previous research, we knew that only a very small portion of our student participants would not be opposed to white-power groups. Only one participant (from an original total of 44) was eliminated from the analysis according to this criterion. Participants were then asked to write a response to the author of a white-power message who had chosen to be anonymous. Participants were informed that their responses to the message would be sent to a mailing list of people who had indicated their opposition to white-power groups (i.e., an ingroup audience). In fact, no messages were forwarded to any third party. Identifiable participants were asked to enter their full name and their country of residence. Anonymous participants were asked to type 'anonymous'.

Participants were then asked to read the white-power message. The message itself was very hostile towards racial groups other than whites, stating that whites ought not feel guilty for their "forefathers'" actions because white people are the superior race. The message was also utilized by Douglas and McGarty (in press, Studies 2 and 3), and was taken from a white-power Internet website that is no longer active. It was approximately 650 words long. After all participants had read the message, they were informed that they would have 10 minutes to comment on the behavior and opinions of the white-power group member. All participants began the task at the same time and were asked to cease typing after 10 minutes.

Afterwards, participants were asked to complete a manipulation check that we designed to tap their feelings of commitment to opposing racism ('when you were composing your message, how strongly committed did you feel to opposing racism?'). Next, we asked a direct question related to participants' feelings of accountability ('How personally accountable did you feel for what you had written in your response to the message?'). These were answered on a nine-point scale from one 'not at all' to nine 'very much'. Four other less direct measures of commitment and accountability were taken, measuring how much participants thought it important to oppose racism and express anti-racist views generally, and for them personally. These did not yield significant differences across conditions and will therefore not be discussed. Participants were also asked whether or not their message reflected what they thought was right and whether their message reflected what they thought their audience wanted to read. We did this in an aim to distinguish between obligation or doing what they thought was the 'right' thing to do, and compliance respectively. All participants were assured that their questionnaire responses would be anonymous. Finally, participants were debriefed and thanked.

Language abstraction

To measure the level of language abstraction of the messages, we utilized the LCM's four categories of abstraction, which were weighted as prescribed by Semin and Fiedler (1989). Descriptive action verbs (DAV, e.g., 'writes'), describe isolated episodes and were weighted as '1'. Interpretative action verbs (IAV, e.g., 'insults'), refer to a more general class of behavior, and were weighted as '2'. State verbs (SV, e.g., 'hates'), refer to emotions, feelings and thought processes and were weighted as '3', and finally, adjectives (ADJ, e.g., 'racist'), describe enduring attributes and were weighted as '4'. Only the sections of a message referring to specific attributes or behaviors were analyzed. For example, "He is

racist" would be coded, whereas "racism sucks" would not. The overall measure of language abstraction was calculated using the following formula:

Abstraction = (DAVx1 + IAVx2 + SVx3 + ADJx4)/(DAV + IAV + SV+ ADJ).

(DAV, IAV, SV and ADJ represent the numbers of occurrences in each of these categories. The formula yields a value between one and four).

The experimenter coded the responses in a random order, and was therefore blind to the experimental conditions during coding. A randomly selected sample of one third of the responses was taken and these were coded by a second independent rater. Inter-rater reliability was high (.87).

Results

Our manipulation of commitment was successful. Participants in the high commitment condition felt more committed to the issue of opposing racism (M=8.09) than those in the control condition (M=7.29), one-tailed $t(41)=1.96$, $p<.05$.

As hypothesized, language abstraction was higher in the identifiable condition (M=2.73), than in the anonymous condition (M=2.41), $F(1,42)=5.17$, $p<.05$. However, contrary to predictions, there was no difference in language abstraction between participants in the high commitment condition (M=2.60) and control participants (M=2.53), $F(1,42)<1$, ns. Also, the interaction between identifiability and commitment was not significant, $F(1,42)<1$, ns. Therefore, it is unlikely that commitment affected abstraction.

There was no correlation between obligation (accountability/commitment) and language abstraction, $r(42)=.02$, ns. However, there was a significant negative correlation between responses to the compliance item: 'My response to the message reflected what I thought the people reading the message would like to read' and language abstraction, $r(42)=-.40$, $p<.01$. This variable was entered as a possible mediator and was found to be significant: identifiability predicted scores on the compliance item, $\beta=-0.40$, $p<.01$, identifiability

predicted language abstraction, β=0.34, p<.05, scores on the compliance item predicted language abstraction, β=-0.48, p<.01, and identifiability no longer predicted language abstraction with scores on the compliance item accounted for, β=0.18, ns. Therefore, unexpectedly, communicators who denied that their messages reflected what others would like to read used higher levels of language abstraction than those who did not, and this mediated the effect of identifiability on abstraction.

Discussion

The results of Study 1 revealed a significant difference in language abstraction between anonymous and identifiable communicators such that, as hypothesized, identifiable communicators used more abstract language than anonymous communicators to describe the anonymous white-power target. This replicates the results obtained by Douglas and McGarty (in press). However, we did not replicate the mediation of the effect by obligation, and found instead that rejection of compliance mediated the effect.

Although obligation (Douglas & McGarty, in press, Study 3) and rejected compliance (Study 1) appear to be different phenomena, there is some way that they also may perhaps be related. They may both be examples of a more general phenomenon that we might call sensitivity to the communicative context. Through being identifiable to a CMC audience of ingroup members, communicators may become more explicitly aware of their own motivations for expressing their views to that audience. For example, being identifiable creates the possibility of maintaining ongoing communication as also do pseudonyms or nicknames on the Internet. We explored the role of sensitivity to the communicative context in Study 2.

Study 2

In Study 2, participants were asked to respond to the same white-power Internet message as before. In contrast to Study 1, participants responded to a series of questions

regarding their sensitivity to their ingroup audience before writing their message, but after they were informed of their own anonymity or identifiability. This temporal order eliminated the possibility that participants retrospectively deduced their motivations from their message. Also, Study 2 was a non-CMC questionnaire study. This study also aimed to examine if our findings for Internet identifiability apply beyond CMC.

Method

Participants and design

Participants were 65 male and female undergraduate biology students (34 anonymous and 31 identifiable in a two group design) at the Australian National University. Responses for one participant were omitted from the analysis (from a total of 66) because he/she did not express disagreement with the message.

Materials and Procedure

A cover page informed participants that the experimenter was in the process of setting up a database of responses to a white-power group Internet message. Participants were informed that their response to the message would be available to people who are opposed to white-power groups. The cover page further informed participants that the experimenter was interested in the psychological processes involved in the expression of opinions, and that they would also be completing an anonymous questionnaire. If they agreed to participate, participants were given some brief information about white-power groups and were asked to indicate whether they were opposed or not opposed to such groups.

Also as in Study 1, participants were then informed that the author of the message had chosen to be anonymous. Participants were asked to read the white-power message and turn the page. In this study, the white-power message was shortened to approximately 360 words due to time restrictions, but the overall essence of the message was not changed.

Participants were then informed that they would be writing a response to the message and again that their response would be available to people who are opposed (but not available to those who are not opposed) to white-power groups. At this point, identifiable participants were asked to write their full name and course (e.g., BIOL1001) on a blank response sheet. This was changed from Study 1 because it is more believable that students in a lecture could be personally identified by name and course rather than name and country. Anonymous participants were asked to write 'anonymous' in the spaces for 'name' and 'course'. At this point, all participants were also asked to detach the response sheet so that it would be separate from the questionnaire to assure the anonymity of their questionnaire responses.

In order to strengthen the manipulation of identifiability, participants were further informed: 'your response CAN be LINKED TO YOU PERSONALLY by other people who are opposed to white-power groups. You are IDENTIFIABLE to these people.'. Anonymous participants were informed: 'your response CANNOT be LINKED TO YOU PERSONALLY by other people who are opposed to white-power groups. You are ANONYMOUS to these people.' We made this change because in a pilot study, a weaker manipulation of identifiability was ineffective.

Rather than writing their responses to the white-power group message at this stage as in Study 1, participants were first asked to <u>think</u> about what they would like to say about the white-power group member's message, and were asked to consider how they would describe his/her views. Participants then completed the following manipulation check for identifiability: 'Do you think that your response will be able to be linked to you personally by viewers of the database who are opposed to white-power groups?'. After this, 12 questions followed, which we designed to measure participants' sensitivity to presenting their views to the ingroup audience. These related to how comfortable they were that others would read their responses, how much they were thinking about the audience's perception of their

responses, how strongly they would express their views, how accountable they felt to their audience and for the views they would express, how answerable they felt, how much they were concerned about making a good impression, how much they thought that writing the message would enable them to show opposition to racism, how much they intended to say about their own views, how important they thought it was to take their audience into account when expressing their opinions, how important they thought it was to express a clear response and finally, how seriously they intended to take the task of writing a response. These questions were all answered on a nine point scale from one 'not at all' to five 'somewhat' to nine 'very much'.

The next page asked participants to write their response. They were asked to concentrate specifically on the behaviors and opinions of the white-power group member and to spend 5 minutes on their response. They were also asked to make sure that their name and course (or 'anonymous') were written on the top of the response sheet. After completion of the task, participants were debriefed and thanked for their participation. During the response coding, as in Study 1, a randomly selected sample of one third of the responses was taken and coded by a second independent rater. Inter-rater reliability was again high (.84).

Results

The manipulation check for identifiability was successful. Identifiable participants believed that their responses could be linked to them personally by the audience more (M=5.81) than did anonymous participants (M=1.85), $t(63)=7.36$, $p<.001$. Also, language abstraction was again higher for identifiable (M=2.58) than for anonymous (M=2.02) participants, $t(63)=2.02$, $p<.05$, thus replicating the effect observed in Study 1.

Identifiable participants felt more accountable (M=4.48) than anonymous participants (M=3.18), $t(63)=2.23$, $p<.05$ according to the item: 'Do you feel accountable to the audience who will be reading your message?'. Identifiable participants also believed that writing their

message would enable them to show that they are someone who is opposed to white power groups more (M=6.42) than did anonymous participants (M=5.32), t(63)=2.04, p<.05. Identifiability did not affect any other sensitivity variables. Entering accountability and ability to show opposition into mediational analyses revealed that neither variable significantly mediated the effect of identifiability on language abstraction. In each case, the mediator failed to predict language abstraction, and neither of the potential mediators influenced the relationship between identifiability and language abstraction.

Discussion

In Study 2, we again replicated the language abstraction/identifiability effect. Identifiability therefore increases the language abstraction of descriptions in a CMC setting, and in a more traditional pen/paper setting.

The prediction that sensitivity to the communicative context would be affected by identifiability was partially supported. Accountability increased for identifiable participants, as did the feeling that writing the message would enable them to show their opposition to racism. However, none of the proposed sensitivity variables mediated the effect of identifiability on language abstraction. Instead, language abstraction was affected by identifiability independently of other conscious factors which were also affected by identifiability. Whilst obligation to express the 'right' views (Douglas & McGarty, in press) and rejected compliance (Study 1) are arguably explicit motivations to express stereotypical views, a more plausible possibility based on the present results is that the effect of identifiability on language abstraction is driven by implicit processes (see also Franco & Maass, 1996, 1999). That is, language abstraction could be influenced by identifiability by means that are outside the awareness of the communicator. It is important to note, however, that only a small proportion of our results have gone against the null hypothesis, and it is therefore important to acknowledge that chance may have played a role in our findings. For

this reason, we therefore investigated the role of implicit processes further in Study 3. In addition to this, Study 3 also attempted to extend our findings beyond the emotive issue of racism.

Study 3

In Study 3, participants were asked to respond to a message that had supposedly been written by a member of university staff, related to students' attitudes to work and leisure. Varying the message allowed us to add generality to our findings and afforded direct comparability with other SIDE research which has also examined the effects of identifiability on students' attitudes to work and leisure (Reicher & Levine, 1994 a,b).

Participants and design

Participants were 64 male and female undergraduate psychology students (33 anonymous and 31 identifiable in a two group design) at the Australian National University. Two participants (from a total of 66) were omitted from the analysis for not discussing the designated issue in their messages.

Materials and Procedure

A cover page explained that the experimenter was interested in how different groups of people think and feel about the issues of work and leisure. It was further explained that the experimenter was interested in the differences between academic staff and students regarding these issues. Participants were informed that they would be asked to read a memo written by a member of the academic staff at an Australian university and that most academic staff share the conservative, work-focused views expressed in the message. The cover sheet stated that students were more liberal and carefree, and would disagree with most academics on issues related to work and leisure.

Participants were then asked to read the anonymous message. The message itself expressed concern about the laziness, partying and drinking of students at university.

Statements taken from Reicher and Levine's (1994b) study of physical education students' attitudes to work and leisure were utilized to construct the message. After reading the message, participants were informed that they would be asked to write a response to the message from their position as a student. Participants were also told that the experimenter was interested in how their experience as students affects their views, and that they would be asked to write another message in their final lecture. These responses were supposedly going to be given to members of the student union at their university so they could assess how students' views on work and leisure are affected by studying at university. As such, it was explained that there needed to be a way of linking the two responses. Anonymous participants were asked to write a 'nickname' on the top of their sheet that they would remember when they were asked to write an additional response in their final lecture. Identifiable participants were asked to write their full name on the top of their sheet.

As in Study 2, participants were asked to think about what they wanted to say about the behavior and opinions of the staff member and to answer some questions. The questions were the same as those utilized in Study 2, modified for the student/staff issue and the audience of student union members. In addition, participants were asked to complete some questions relating to group salience, as used by Reicher and Levine (1994b). These were each measured on a five point scale and asked how much participants identified with other university students and other salience measures. We expected that there would be no difference in salience across conditions, because identifiability should not influence the salience of social categories (see also Reicher & Levine, 1994b), and as expected, there were no differences in salience across conditions. From this point onwards, the procedure was as in Study 2. During coding, a randomly selected sample of one third of the responses was taken and coded by a second independent rater. Inter-rater reliability was again high (.89).

Results

The manipulation check for identifiability was successful. Identifiable participants believed that their responses could be linked to them personally more (M=4.91) than did anonymous participants (M=1.70), t(62)=7.03, p<.001. Mean language abstraction measured by the LCM was again higher for identifiable (M=3.10) than for anonymous (M=2.62) participants, t(62)=2.40, p<.05, thus replicating the effect observed in Studies 1 and 2, and also Douglas and McGarty's (in press) research.

Identifiable participants again felt more accountable (M=5.06) than anonymous participants (M=3.64), t(62)=2.90, p<.05. Identifiable participants also believed that writing their message would enable them to show that they are opposed to the staff member's views more (M=5.48) than did anonymous participants (M=4.58), t(62)=2.15, p<.05. Identifiable participants also felt less comfortable about their responses being read by others (M=5.64) than anonymous participants (M=7.15), t(62)=3.40, p<.01. Finally, identifiable participants stated that they were thinking more about the audience's perception of their response (M=4.88) than did anonymous participants (M=3.73), t(62)=2.21, p<.05. However, none of these variables significantly mediated the identifiability/language abstraction effect. In each case, the mediator failed to predict language abstraction, and none of the potential mediators influenced the relationship between identifiability and language abstraction.

Discussion

Study 3 again demonstrated the effect of identifiability on language abstraction. This effect has therefore been replicated in an archival CMC setting, asynchronous or 'non real-time' CMC experiments and questionnaire studies in which participants were asked to respond to two different issues (Studies 1, 2 and 3, and Douglas & McGarty, in press). In addition to this, Study 3 indicates that several sensitivity variables are influenced by

identifiability. However, as in Study 2, none of these variables mediated the effect of identifiability on abstraction.

General Discussion

Overall the results of this research indicate that identifiability to an ingroup audience increases the level of stereotypical language people use to describe anonymous outgroup targets. This occurs both in CMC and pen/paper response situations and supports previous research (Douglas & McGarty, in press). In addition to this, the present research shows that identifiability also increases explicit sensitivity to the communicative context. However, perhaps what is most interesting is that the effect of identifiability on language abstraction appears to have little to do with the effects of identifiability on explicit sensitivity. Seemingly, identifiability has two independent effects on communicative behavior: communicative sensitivity which is explicit, and language abstraction which appears to be implicit.

Based on these results, we can now extend the SIDE model further, which now becomes a more general model of the effects of identifiability on communicative behavior. From SIDE, we are now able to predict behavior when: (a) ingroup members are identifiable, (b) people are isolated from ingroup members, (c) people are identifiable to outgroup members, (d) people are co-present with ingroup members, and (e) people are identifiable to ingroup members. We are also able to do so in CMC and other situations. The latter two possibilities are contributed by the present research, and thus our findings extend the original SIDE model.

The key theoretical contributions made possible by our findings are twofold. Firstly, our research suggests that identifiability can have both implicit and explicit effects on communication, which has not been demonstrated before now. It has been assumed that identifiability to an audience will always affect either strategic or self-presentational

motivations and that these explicit processes are responsible for changes in behavior (e.g., Noel, Wann, & Branscombe, 1995; Reicher & Levine, 1994 a,b; Spears & Lea, 1994). However, our research suggests that identifiability also has implicit effects. Language use is influenced by identifiability and this is not due to explicit motivations. The explicit and implicit effects of identifiability appear to be independent of each other.

Secondly, our model presents an interesting dilemma for claims that the social psychology of CMC is inherently different to other media (e.g., Kiesler et al., 1984; Siegel et al., 1986). We obtained a very similar effect of identifiability on language abstraction in both CMC and pen/paper situations. This is not to say that the effects were the same, but in light of these results, it would be interesting to conduct further research to empirically demonstrate similarities and dissociations between psychological processes in CMC and other more traditional forms of communication.

In conclusion, this research provides an insight into the impact of identifiability on communication in CMC and beyond. We have shown that identifiability to ingroup audiences leads to increased stereotypical language to describe anonymous outgroup targets. This is a reliable effect and has been replicated in CMC, outside CMC and on discussions involving the emotive issue of racism and another issue related to student culture. Further, we have demonstrated that identifiability influences language apparently without conscious awareness, but identifiability also influences explicit processes related to sensitivity. Identifiability appears to have independent explicit and implicit effects on communicative behavior. This combination of results demonstrates the importance of social identity, identifiability and conscious awareness in communication, both on computers and in traditional media.

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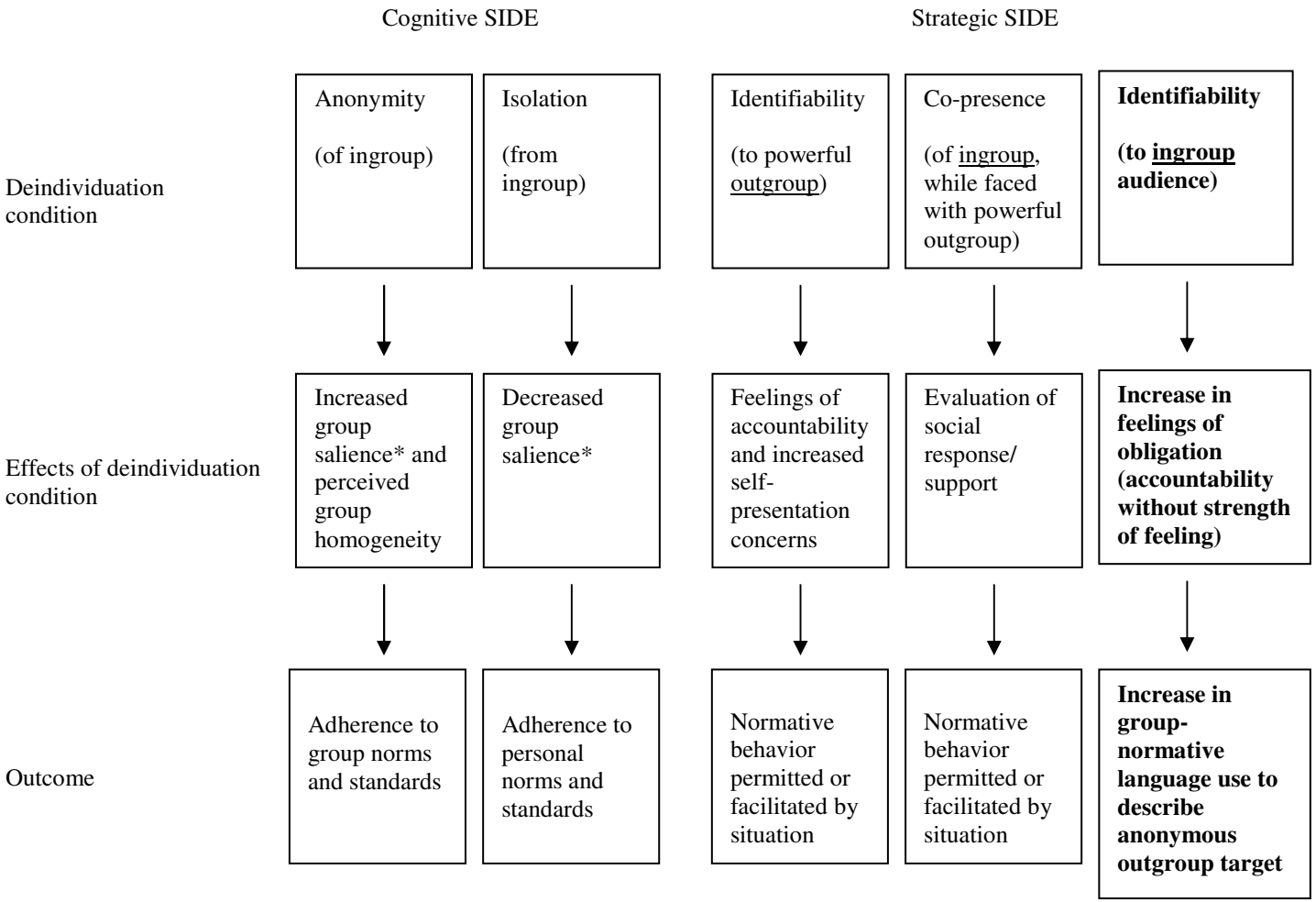

(* if social identity is already salient)

Figure 1. The extended SIDE model.