Fluidity in the self-concept: the shift from personal to social identity

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Abstract

Dominant personality models of the self-concept (e.g. self-schema theory) conceive of the self as a relatively stable cognitive representation or schema. The self-schema controls how we process self-relevant information across a myriad of situations. Conversely, self-categorization theory argues that self-perception is highly variable and context-dependent. It was hypothesized in two studies (N = 114 and 200) that the effect of personal self-schemas on information-processing would be eliminated when the context makes a conflicting higher-order identity salient. Results largely supported self-categorization theory. Across various dependent measures (trait endorsements, response latencies, and confidence in self-descriptions), participants generally responded in line with the salient identity, even if this pattern of responding directly contradicted their personal self-schema. Implications for dominant personality models of the self-concept are examined. Copyright © 2004 John Wiley & Sons, Ltd.

This paper examines the nature of the self-concept, in particular whether the self is a fluid or stable entity. The fluidity issue is addressed by comparing and contrasting two influential theories of the self, namely self-schema theory (Markus, 1977, 1990) and self-categorization theory (Turner, 1999; Turner, Oakes, Haslam, & McGarty, 1994). On the one hand, self-schema theory and social cognition models more generally ascribe a great deal of stability to the self-system. On the other hand, self-categorization theory conceptualizes the self as a highly dynamic process. The present research extends previous work in both research traditions. In two related studies we test whether self-perception is a context-dependent process, or the manifestation of enduring personality traits or self-schemas.

SELF-SCHEMA THEORY

Self-schema theory maintains that the core self comprises our self-schemas—‘knowledge structures developed by individuals to understand and explain their own social experiences’ (Markus & Sentis,
1982, p. 45). It is assumed that we develop these self-structures for our most centrally-defining attributes. For one person independence may be a centrally-defining attribute, while for another creativity or extroversion may be central (Markus, 1977; Markus & Sentis, 1982). Self-schemas are stable self-representations; they facilitate information-processing such that individuals quickly accept congruent information and reject incongruent information (Markus, 1977).

Despite the theory’s initial emphasis on stability, self-schema theorists later sought to render the model more dynamic by introducing the concept of a working self-concept (Markus & Nurius, 1986; Markus & Wurf, 1987). The working self was conceived as a temporary structure that contains one’s currently active self-aspect. Moreover, the malleability of the self-system was attributed to the varying accessibility of self-aspects that surround the core elements (Markus & Kunda, 1986). Thus the revised model retained the idea that self-schemas are stable structures: ‘Core aspects of self (one’s self-schemas) may be relatively unresponsive to changes in one’s social circumstances’ (Markus & Wurf, 1987, p. 306). Self-schemas were now further characterized as chronically accessible given their propensity to be activated in the working self-concept: ‘The working self-concept thus consists of the core self-conceptions embedded in a context of more tentative self-conceptions that are tied to the prevailing circumstances’ (Markus & Wurf, 1987, p. 306).

In the dominant paradigm, a pretest questionnaire is used to identify individuals assumed to have self-schemas in a particular domain—schematics—and those assumed to be without schemas—aschematics. A timed ‘me/not me’ self-rating task is subsequently administered. In short, ‘The assumption of these studies is that differences in the response characteristics of schematics and aschematics should allow inferences about the nature of the cognitive structure mediating the processing’ (Markus & Sentis, 1982, p. 50, emphasis added).

A study of personal self-schemas for independence and dependence reported by Markus (1977) is most directly relevant to the present research. In this study three groups were identified at pretest. Independent Schematics were those who rated independence as highly self-descriptive and important, while Dependent Schematics were those who rated dependence as highly self-descriptive and important. Aschematics were those who reported moderate levels of self-perceived independence, and rated the independence–dependence dimension as moderate to low in importance. At a subsequent session, participants completed a ‘me/not me’ self-rating task in which response times for self-ratings were recorded. It was predicted first, that Schematics would respond in a schema-consistent way, and second, that they would make schema-consistent responses rapidly. Aschematics, in contrast, should not display differential processing for independent or dependent words (Markus, 1977).

As predicted, Dependent Schematics endorsed more dependent than independent words as self-descriptive. Unexpectedly though, Independent Schematics endorsed just as many independent and dependent words, and Aschematics (who should look neutral) endorsed more dependent than independent words. Also as predicted, Dependents were faster to say ‘me’ to dependent than independent words, Independents were faster to say ‘me’ to independent than dependent words, and Aschematics had similar processing times for the two sets of words. However, all groups appeared to be slower to reject dependent than independent words (although relevant significance tests were not reported). This finding contradicts self-schema theory, which predicts that schematics will be fast to make schema-consistent responses (i.e. ‘me’ responses to schema-consistent words and ‘not me’ responses to schema-inconsistent words) and slow to make schema-inconsistent responses (i.e. ‘me’ responses to schema-inconsistent words and ‘not me’ responses to schema-consistent words).

Along similar lines, Markus, Crane, Bernstein, and Siladi (1982) identified four groups, on the basis of pretest measures of personal, self-perceived masculinity and femininity. Some key findings were that Feminine Schematics endorsed more feminine than masculine words as self-descriptive, were faster to respond ‘me’ to feminine than masculine words, and were more confident that feminine rather than masculine words applied to them. A similar pattern of results was obtained for Masculine
Schematics, for masculine words. Conversely, the pattern of responding displayed by High Androgynous participants led to the inference that they were equally schematic for masculinity and femininity, while Low Androgynous participants were deemed to be aschematic for gender (Markus et al., 1982).

Besides these studies of independence–dependence and masculinity–femininity, the self-schema construct has been applied to numerous domains, including problem-solving, assertiveness, depression, body image, exercise, athleticism, sexuality, and the Type A/B trait (e.g. Andersen & Cyranowski, 1994; Bruch, Kaflowitz, & Berger, 1988; Cross & Markus, 1994; Kendzierski, 1990; Kuiper, MacDonald, & Derry, 1983; Markus, Hamill, & Sentis, 1987; Strube et al., 1986; Taylor & Boggiano, 1987). Combined, these studies provide much converging evidence in support of self-schema theory. However, trait endorsements have not always been found to be schema-consistent, leading investigators to suggest initially that response times may be a more sensitive indicator of the underlying schema (see Markus, 1977, p. 69; Markus & Kunda, 1986, p. 861). This position was later revised however, in light of evidence that schematics sometimes respond more slowly than aschematics when making judgments about the self (e.g. Markus et al., 1987; see also Fiske & Taylor, 1991; Mueller, Thompson, & Dugan, 1986).

Two limitations of this work (the first relatively minor, the second more substantial) warrant comment. First, it should be noted that the two-tiered classification system used at pretest by Markus (1977) has not been applied consistently across all studies. For instance, Markus et al. (1982) took extremity of self-descriptions into account, but dropped the importance criterion, when classifying participants into schematic and aschematic groups. Second, in order to be classifiable into preconceived categories (schematics vs aschematics), one must exhibit a high level of consistency in self-descriptions at pretest. Several research reports reveal difficulties in identifying consistent respondents, despite wide sampling. This was apparent in Markus’ (1977) original experiment, where only 47.5% of the original sample \((N = 101)\) was utilized. Similarly, in a study of body-weight self-schemas as much as 83.2% of the original sample \((N = 250)\) was left unclassified (Markus et al., 1987).

The notion of a core self, containing one’s most stable self-representations, is not an outdated view. Researchers continue to advocate that self-schemas are ‘monuments of stability. They remain stable across time . . . and across situations’ (Gaertner, Sedikides, & Graetz, 1999, p. 5). Thus the notion of a stable core self warrants further investigation.

**SELF-CATEGORIZATION THEORY**

An alternative view is found in self-categorization theory (Turner, 1982, 1984; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; Turner et al., 1994). This theory argues that the self should not be equated with enduring personality structure because the self is not always experienced in terms of personality or individual differences. Self-categorization theory draws a distinction between personal identity (the personal self) and social identity (the collective self). Personal identity refers to ‘me’ versus ‘not me’ categorizations—all the attributes that come to the fore when the perceiver makes interpersonal comparisons with other ingroup members. Social identity, on the other hand, refers to ‘us’ versus ‘them’ categorizations—all the attributes that come to the fore when the perceiver compares his or her group (as a collective) to a psychologically relevant outgroup.

In the self-categorization analysis, personal identity is said to reflect interpersonal differentiation in terms of a shared higher-order identity (e.g. we women, we Australians). Self-categorization theory does not deny the existence of long-term knowledge in memory (either of the world or oneself), or that
such knowledge has a role to play in self-categorization; it does, however, reject the view that a particular store of long-term knowledge can be equated directly with the self-concept or some specific subset of self-concepts (Turner et al., 1994). In short, the self-concept, or one’s current self-category, is conceived as a context-dependent cognitive representation.

The idea that social identities, or identifications based on group membership, are as much expressions of self as personal identity is also central to self-categorization theory. Consistent with this view, much research demonstrates that social identities feature in people’s spontaneous self-descriptions; in fact they often precede references to the personal self (e.g. Kuhn & McPartland, 1954; McGuire & McGuire, 1988).

Self-categorization theory predicts that the salience of personal identity will be inhibited to the degree that social identity is made salient and vice versa. Moreover, self-categorization theory argues that ‘social identity may on occasion function nearly to the exclusion of personal identity’ (Turner, 1982, p. 19; see also Turner, 1984). In support of this hypothesis, there is ample evidence that self-stereotyping—the ascription of ingroup-defining traits to the self—is the outcome of a salient social identity (e.g. Haslam, Oakes, Reynolds, & Mein, 1999; Haslam, Oakes, Reynolds, & Turner, 1999; Hogg & Turner, 1987; Lorenzi-Cioldi, 1991; Simon & Hamilton, 1994; Spears, 2001). Thus research has shown more self-stereotyping in intergroup contexts (which make for social identity salience) than in intragroup contexts (which make for personal identity salience). For instance, Hogg and Turner (1987) found that female and male participants applied gender-stereotypic traits to the self more strongly in an intergroup context (where a same-sex dyad debated with an opposite-sex dyad) than in an intragroup context (where two same-sex individuals expressed conflicting views).

**THE PRESENT RESEARCH**

The present research seeks to re-examine a common assumption within the self-schema approach (e.g. Kihlstrom & Cantor, 1984; Linville & Carlston, 1994; Nasby, 1989). Specifically, we question the assumption that personal self-schemas always functionally control how we process self-relevant information and thus govern self-conception in the schema-relevant domain. Following self-categorization theory, we argue that knowledge about the personal self can influence self-conception, but it should do so only under certain conditions. Specifically, under personal identity instructions (e.g. ‘describe yourself as an individual’) it makes sense to draw on one’s long-term knowledge and theories about what one is personally like. On the other hand, when people are asked to rate themselves at the social level (e.g. ‘describe yourself as a woman in contrast to men’), personal self-knowledge becomes less relevant. Under social identity instructions, individuals should self-stereotype in terms of the attributes that differentiate ‘us’ from ‘them’.

Our aim is to examine whether in some situations social identity has a more powerful effect on information-processing than personal self-aspects. One obvious way to proceed is to consider the situation where one’s social identity conflicts with a personal self-schema. This occurs for example in the Independent Schematic female, where her social identity as a woman (e.g. see Antill, Cunningham, Russell, & Thompson, 1981) contradicts her personal self-schema for independence. The Dependent Schematic male encounters a similar conflict; in this case his social identity as a man (e.g. see Antill et al., 1981) contradicts his personal self-schema for dependence. The question then becomes: will the information-processing consequences of personal self-schemas be attenuated or perhaps eliminated when a conflicting higher-order identity is made salient? This question was addressed in Study 1.
STUDY 1

Overview

Previous research has established (a) that the independence–dependence dimension can successfully be used to differentiate people into schematic and non-schematic groups (Markus, 1977), and (b) that men and women are typically differentiated in terms of the independence–dependence dimension, with men being perceived as relatively independent and women being perceived as relatively dependent (Antill et al., 1981; Bem, 1974). We reasoned that all males (including those who are personally schematic for dependence) would respond in line with their social identity as men (i.e. behave like independents) when gender identity is made salient. Likewise, all females (including those who are personally schematic for independence) should respond in line with their social identity as women (i.e. behave like dependents) when gender identity is salient.

More specifically, we predicted that males would endorse more independent than dependent words, and that they would make responses that are consistent with an independent self-concept quickly and confidently, when gender identity is salient; moreover, this should occur irrespective of their personal schematicity for independence–dependence. Conversely, females should endorse more dependent than independent words, and they should make responses that are consistent with dependence quickly and confidently, when gender identity is salient, irrespective of their personal schematicity. Masculine and feminine words were also included, with the expectation being that males would appear masculine across the dependent measures, and females would appear feminine, when gender identity is salient.

In Study 1 we adapted Markus’ (1977) classification scheme to identify individuals who were schematic for either independence or dependence, or non-schematic for both traits. At a subsequent session, gender identity was initially primed in the laboratory. Individuals then completed a modified version of Markus’ (1977) information-processing paradigm. Specifically, the personal response frame—the ‘me/not me’ self-rating task—was replaced with a social response frame—an ‘us/them’ self-rating task, where ‘us’ referred to the self-inclusive category ‘women’ for female participants and ‘men’ for males.

Method

Participants

A total of 195 (95 males, 100 females) introductory psychology students at the Australian National University (ANU) completed the initial questionnaire, and 114 of these individuals subsequently participated in the main experiment, in exchange for course credit.

Design

The basic design was a 2 (Gender) × 4 (Personal Self-schema) between subjects factorial, with self-schema types including Independent Schematics (defined as those with a self-schema for independence), Dependent Schematics (defined as those with a self-schema for dependence), Aschematics (defined as neutral with respect to independence–dependence), and Unclassified participants (individuals who could not be classified as falling into any of the preceding groups). Dependent measures (gathered in the main experiment) included trait endorsements, response latencies and confidence in self-descriptions.
Initial Questionnaire

Following Markus (1977), individuals were asked to rate themselves on the Adjective Check List (ACL) (Gough & Heilbrun, 1983) and on ten 11-point bipolar scales related to various behavioural domains. Participants were also asked to rate the importance of each dimension on an 11-point scale ranging from 1 (not important) to 11 (important).

In order to select participants for the main study, a new score, which is a summary measure of how participants rated themselves on the three critical bipolar scales (independent–dependent, individualist–conformist and leader–follower) and the associated importance ratings, was computed for each individual. Participants’ original self-ratings were adjusted so that a rating on the middle of the scale would score a zero. Similarly, a low self-rating assumed a negative value, and a high self-rating became positive. The new self-rating scores were then multiplied by their respective importance ratings and an aggregate score (referred to herein as SELFIMP) was derived by summing the three separate indices. Participants’ scores on the Autonomy Scale of the ACL were retained as another indicator of their self-schemas about independence (Markus, 1977). The classification scheme used in the present study can therefore be stipulated as follows:

- **Independents.** Individuals who fell in the top 33% on the new aggregate measure (SELFIMP), and who fell in the top 33% on the Autonomy Scale of the ACL were termed Independents.
- **Dependents.** Individuals who fell in the bottom 33% on the new aggregate measure (SELFIMP), and who fell in the bottom 33% on the Autonomy Scale of the ACL were termed Dependents.
- **Aschematics.** Individuals who fell in the middle range on the new aggregate measure (SELFIMP), and who fell in the middle range on the Autonomy Scale of the ACL were termed Aschematics.

This categorization resulted in 16 male Independents, 15 female Independents, 15 male Dependents, 16 female Dependents, six male Aschematics, and nine female Aschematics, leaving 118 screened individuals (out of 195) unclassified in terms of self-schema theory. A random sample of 18 Unclassified females and 19 Unclassified males was drawn from this group and included in the main experiment for exploratory reasons.

Main Experiment

Participants were brought back to the laboratory for what was ostensibly a separate study in groups of three, on average. They were not informed of a connection between this session and the initial questionnaire, and the second study was introduced under a different title (Markus, 1977). Participants were told that the study comprised a mixture of computer and paper-and-pencil tasks, the first task being a group discussion. At each session a face-to-face discussion group was formed, comprising same-sex individuals who had been classified the same way (e.g. three male Independents).

Group Prime Manipulation. Male discussion groups were asked to reach consensus on the degree to which the traits independent, dominant and aggressive were more typical of men than women, and female discussion groups were asked to reach consensus on the degree to which the traits tactful, cautious and dependent were more typical of women than men. These specific traits were selected because they are a part of the gender stereotype for men and women, respectively (Antill et al., 1981; Bem, 1974; Drinkwater, 1979), and are related to independence and dependence, respectively (Markus, 1977). These traits could therefore be used to prime group identities, in the normative (i.e. stereotypic) direction immediately prior to the individual self-rating task. Group ratings were made on 11-point scales.
Content and Latency of Social Identity. Each participant then individually completed a modified version of Markus' (1977) response latency task on a Macintosh computer. Computer instructions for this task read as follows for female [or male] participants:

We want you to think of yourself as a woman [man], and we want you to think about the characteristics you have as a woman [man] compared to men [women]. We are going to give you a list of characteristics and want you to tell us whether you think you as a woman [man] have them or not. Each characteristic will be presented one at a time on the computer screen. If you think you have each characteristic compared to men [women], please respond by pressing the US key. If you think men [women] have each characteristic in contrast to you, please press the THEM key.

Participants were presented with 47 trait adjectives, one at a time on the computer screen. Stimulus words were presented following two practice trials. They included 27 critical words (eight independent words, seven dependent words, six masculine words, six feminine words), and 20 control words. The independent and dependent words (e.g. assertive, conforming) were all taken from Markus (1977, p. 67). The masculine and feminine words (e.g. boastful, sensitive) were taken from various sex-role scales; most were drawn from the Australian Sex Role Scale (ASRS) (Antill et al., 1981; see also Bem, 1974). The control words were unrelated to gender and independence–dependence (e.g. relaxed, inefficient). To ensure that these words were in fact neutral with respect to gender, they were drawn as far as possible from the (gender-neutral) social desirability scale of the ASRS. Within each set of words, roughly half were positive and half were negative (Anderson, 1968).

Each adjective was displayed on the computer screen for two seconds, or until the participant responded, whichever came first. Two keys on the keyboard were labelled ‘us’ and ‘them’. Both the response and the response latency were recorded (although participants were not aware that latencies were being measured). Each judgment was followed by a confidence rating on a 6-point scale ranging from 1 (not at all confident) to 6 (very confident). The order of presentation of words was randomly determined separately for each participant.

Results and Discussion

Preliminary Analyses

Group Prime Manipulation. Discussion groups were asked to rate (on 11-point scales) the degree to which three assigned traits were more descriptive of their own than the opposite gender. Higher scores indicated that the traits were perceived to be more descriptive of one’s own group. A mean rating for the three items was calculated for each discussion group, and mean scores were then analysed in a two-way ANOVA with Gender and Personal Self-schema as between subjects factors. The only significant effect was a Gender main effect, \( F(1, 32) = 5.68, p < 0.05 \). On average, male discussion groups endorsed ingroup-defining traits more strongly \((M = 8.03)\) than did female discussion groups \((M = 7.40)\). This is not altogether surprising given that independence is more socially desirable than dependence (e.g. see Gough & Heilbrun, 1983, p. 101). More importantly, the small group discussion task did appear to have primed norms associated with gender identity.

According to Kenny and Judd (1986), non-independence of observations due to groups may arise if the members of groups interact during the course of the experimental session, as was the case when the group prime manipulation was implemented. It was therefore necessary to assess whether the independence assumption in the analysis of variance was violated prior to conducting the main analyses. Non-independence due to groups was assessed by a series of one-way ANOVAs performed.
on a subset of dependent measures, in which ‘discussion group’ served as the between subjects factor. There was no evidence to suggest that individuals from the same discussion group subsequently responded more similarly than individuals from different discussion groups. Thus the assumption of independent observations was upheld.

Main Analyses

The question was whether personal self-schemas or social identities better predict performance on a range of dependent measures (i.e. trait endorsements, response latencies, confidence in self-descriptions). The first set of analyses was performed to establish whether males self-stereotyped on independent relative to dependent words, while females displayed the opposite pattern of responding. Given the small number of Aschematics, this group was omitted from the main analyses. Data were thus analysed by means of a 2 (Gender) × 3 (Personal Self-schema) × 2 (Word Type: independent, dependent) mixed-model ANOVA, with repeated measures on the last factor. Self-categorization theory predicts a Gender × Word Type interaction, while self-schema theory predicts a Personal Self-schema × Word Type interaction. All significant interactions will be reported but main effects will not be reported (in the interests of brevity).

Independent and Dependent Words

Trait Endorsements. A three-way ANOVA performed on the mean proportion of independent and dependent words endorsed as self-descriptive revealed a significant Gender × Word Type interaction, \( F(1, 93) = 174.76, p < 0.001 \). As predicted, males endorsed significantly more independent (\( M = 0.74 \)) than dependent words (\( M = 0.30 \)), \( t(93) = 9.19, p < 0.05 \), and females endorsed significantly more dependent (\( M = 0.80 \)) than independent words (\( M = 0.33 \)), \( t(93) = 9.59, p < 0.05 \). There were no main or interactive effects involving personal self-schemas. Instead, when social identity was made salient individuals ascribed ingroup-relevant traits to the self. Irrespective of their personal self-schemas, both male and female participants responded in line with the salient social identity.

Response Latencies. To reduce skewness in the latency data, a logarithmic (base 10) transformation (Fazio, 1990) was applied to mean latencies for ‘us’ and ‘them’ responses to independent and dependent words.\(^1\) Two new measures were computed. The first measure yields the mean latency for all responses that are consistent with an independent self-concept; it was obtained by averaging latencies for ‘us’ responses to independent words and ‘them’ responses to dependent words. This measure will be referred to as \textit{consistent(independent)}. The second measure yields the mean latency for all responses that are consistent with a dependent self-concept; it was obtained by averaging latencies for ‘us’ responses to dependent words and ‘them’ responses to independent words. This measure will be referred to as \textit{consistent(dependent)}. Data were screened for extreme outliers, following Tabachnick and Fidell (1989, pp. 67–68). No outliers were detected.

When Pattern of Responding (consistent(independent) or (dependent)) was entered as a repeated-measures factor in a three-way ANOVA, the predicted Gender × Pattern of Responding interaction was obtained, \( F(1, 89) = 14.38, p < 0.001 \). Males were significantly faster to respond in an independent (\( M = 3.49 \) log-ms) than in a dependent manner (\( M = 3.58 \) log-ms), \( t(89) = 3.23, p < 0.05 \), and

\(^1\)The same results were obtained when non-transformed data were analysed.
females were significantly faster to respond in a dependent \((M = 3.44 \log\text{-ms})\) than in an independent manner \((M = 3.49 \log\text{-ms})\), \(t(89) = 2.12, p < 0.05\). Irrespective of their personal schematicity, males were faster to respond in a manner that implied independence, and females were faster to respond in a manner that implied dependence, under conditions of a salient social identity. Again, there were no main or interactive effects involving personal self-schemas.

**Confidence.** Confidence ratings were analysed similarly, yielding a significant Gender \(\times\) Pattern of Responding interaction, \(F(1, 89) = 8.37, p < 0.01\). As predicted, males were significantly more confident when responding in an independent \((M = 3.79)\) than in a dependent manner \((M = 3.45)\), \(t(89) = 3.17, p < 0.05\). Conversely, females were marginally but not significantly more confident when responding in a dependent \((M = 4.08)\) than in an independent manner \((M = 3.99)\), \(t(89) < 1, ns\).

**Masculine and Feminine Words**

The second set of analyses was performed to establish whether males self-stereotyped on masculine relative to feminine words, while females displayed the opposite pattern of responding. Data were analysed by means of a 2 (Gender) \(\times\) 3 (Personal Self-schema) \(\times\) 2 (Word Type: masculine, feminine) mixed-model ANOVA.

**Trait Endorsements.** The predicted Gender \(\times\) Word Type interaction was obtained, \(F(1, 93) = 405.63, p < 0.001\). Males endorsed significantly more masculine \((M = 0.84)\) than feminine words \((M = 0.33)\), \(t(93) = 12.82, p < 0.05\), and females endorsed significantly more feminine \((M = 0.81)\) than masculine words \((M = 0.17)\), \(t(93) = 15.78, p < 0.05\). There were no main or interactive effects involving personal self-schemas.

Self-schema theory does not predict how Independent and Dependent Schematics will perform when presented with words that are conceptually linked to their personal self-schema. However, it seems reasonable to suppose that the personality model would be supported by the finding that Independent Schematics endorse masculine but reject feminine words, while the opposite pattern emerges for Dependent Schematics. This expectation assumes a conceptual link exists between independence and masculinity, and between dependence and femininity. Contrariwise, the results lend support to self-categorization theory. Specifically, social identity salience produced self-stereotyping on ingroup-defining attributes. Irrespective of their personal self-schemas, male participants endorsed more masculine than feminine traits as self-descriptive, and female participants endorsed more feminine than masculine traits.

**Response Latencies.** The measure consistent(masculine) was derived by averaging transformed latencies for ‘us’ responses to masculine words and ‘them’ responses to feminine words. Likewise, the measure consistent(feminine) was derived by averaging transformed latencies for ‘us’ responses to feminine words and ‘them’ responses to masculine words. Data screening revealed three outliers with extremely high \(z\)-scores (>3; see Tabachnick & Fidell, 1989, pp. 67–68). These cases were deleted.

Pattern of Responding was entered as a repeated-measures factor in a three-way ANOVA, revealing a significant Gender \(\times\) Pattern of Responding interaction, \(F(1, 83) = 15.95, p < 0.001\). Females were significantly faster to respond in a feminine \((M = 3.41 \log\text{-ms})\) than in a masculine way \((M = 3.53 \log\text{-ms})\), \(t(83) = 3.82, p < 0.05\), while males were marginally but not significantly faster to respond in a
masculine ($M = 3.46 \log$-ms) than in a feminine way ($M = 3.52 \log$-ms), $t(83) = 1.90$, $p > 0.05$. Thus, irrespective of their schematicity, females were faster to respond in a manner that implied femininity. Once again there were no main or interactive effects involving personal self-schemas.

**Confidence.** For confidence, a significant Gender × Pattern of Responding interaction emerged, $F(1, 85) = 34.81$, $p < 0.001$. Males were significantly more confident when responding in a masculine ($M = 4.00$) than in a feminine way ($M = 3.51$), $t(85) = 3.93$, $p < 0.05$, and females were significantly more confident when responding in a feminine ($M = 4.46$) than in a masculine way ($M = 3.90$), $t(85) = 4.47$, $p < 0.05$.

To summarize the results so far, there was no effect of personal self-schemas on the processing of schema-relevant words. These results support the self-categorization analysis, but are difficult to reconcile with self-schema theory. In particular, this study demonstrates that social identity can sometimes wipe out the effects of personal identity. Independent Schematic females and Dependent Schematic males exhibited self-concepts diametrically opposed to their personal self-schema when the context evoked a self-categorization in terms of their respective social identities.

Equally interesting is the observation that even participants left unclassified in terms of self-schema theory displayed social identity-consistent responding, which mirrored the schema effects expected from schematic individuals. Specifically, under conditions of a salient social identity, Unclassified female participants behave like all other women—as though they have a self-schema for dependence (and indeed, femininity), while Unclassified male participants behave as though they have a self-schema for independence (and indeed, masculinity). By definition such individuals do not have self-schemas for independence or dependence, yet their performance on a range of cognitive tasks was suggestive of self-schemas. These results have at least two important implications. First, they indicate that social identities can function like personal self-schemas in that they have similar information-processing consequences. Second, they suggest that schema-type effects may be produced on the spot, rather than being the product of stored knowledge structures.

**STUDY 2**

**Overview**

Study 1 produced preliminary evidence that there is variation in the content of self-conceptions as a function of level of self-categorization, and evidence that self-category content can come to reflect collectively shared attributes rather than personal self-schemas when social identity is made salient. Study 1 illustrated the relevance of the self-stereotyping phenomenon for the dominant information-processing paradigm. However, three aspects of the first study will be refined and examined further in Study 2, using an all-female sample.

First, the pretest questionnaire used in Study 1 was supplemented by additional measures of self-perceived independence in an attempt to derive an even more powerful measure of individual differences. Second, Study 1 did not include Markus’ (1977) baseline condition, which would enable us to compare the information-processing consequences of a personal response frame (i.e. me/not me task) with a social response frame (i.e. us/them task); both conditions were included in Study 2. Third, all participants in the previous study were primed for group membership immediately prior to completing the ‘us/them’ self-rating task. This manipulation was intended to encourage participants to think of themselves in group-based terms. Study 2 will explore the effect of this procedure by varying
the extent to which people are ‘group-primed’. For half the participants, personality will be primed immediately prior to assignment to either the personal or social response frame condition, while for the other half, group membership (i.e. being a woman) will be primed immediately prior to assignment to either the personal or social response frame condition. This manipulation will clarify whether the results of the previous study were a function of social identity in interaction with the group priming procedure.

Building on Study 1, it was predicted that in the social response frame condition, information-processing will reflect the salience of a collectively shared gender identity. Female participants should self-stereotype on ingroup-defining traits (i.e. dependent and feminine words) in this condition. Second, it was predicted that information-processing will reflect individual differences in the personal response frame condition. Here, individuals who are high or low in interpersonal independence should respond in line with their respective personalities. Once again, these hypotheses will be examined using three dependent measures: trait endorsements, response latencies, and confidence in self-descriptions.

Method

Participants and Design

Participants were 203 female students in introductory psychology classes at the ANU, who received course credit for participating. Of the 203 participants to complete pretest measures, 200 individuals subsequently participated in the main experiment. The basic design was a 2 (Personality: Low vs High Independents) × 2 (Prime: Person vs Group-primed) × 2 (Response Frame: Personal vs Social) between subjects factorial.

Initial Questionnaire

In the initial questionnaire, participants rated on 11-point scales (a) the degree to which eight traits applied to them, (b) how important each trait was to them, and (c) how much they varied from situation to situation on each trait. These measures were adapted from Markus’ (1977) original screening questionnaire. Importantly, four of the bipolar scales related to independence; these included three scales used in previous research to divide participants into low and high independence groups (see Markus, 1977; and Study 1). A widely used measure of interpersonal dependency (e.g. see Bornstein, 1994, 1997), the Interpersonal Dependency Inventory or IDI (Hirschfeld et al., 1977) was also administered. This 48-item inventory comprises three sub-scales: Emotional Reliance on Others, Lack of Social Self-confidence, and Assertion of Autonomy.

On obtaining pretest measures, a reliability analysis was performed to determine which combination of items yielded the most powerful indicator of interpersonal independence–dependence. Relevant scales were scored such that higher scores reflected higher independence, importance and stability. The highest Cronbach’s alpha was obtained for a 14-item scale comprising standardized self-ratings, importance and stability ratings for each of the following bipolar scales: self-confident–lacking in self-confidence; independent–dependent; individualist–conformist; leader–follower (12 items in total); and standardized scores on the Lack of Social Self-confidence Scale (reverse scored) and the Assertion of Autonomy Scale. Together these 14 items formed a scale with a

2We are most grateful to Hazel Markus for making her original screening questionnaire available to us.
Cronbach’s alpha of 0.80 (mean inter-item correlation = 0.22). In order to divide the sample into high and low independence groups, we performed a median split on mean scores on the 14-item scale.

The ‘Low Independents’ were individuals who were relatively low on the various independence scales, they said that this trait was not particularly important, and they reported that they vary on this trait. By contrast, the ‘High Independents’ gave very high independence ratings, very high importance ratings, and perceived themselves as very stable on this trait. Although empirically derived, this classification scheme captures the spirit of self-schema theory in that it takes into account the extremity of self-ratings, importance ratings, and perceived stability on the central trait. This individual difference measure captures the degree to which people are independent schematic. High Independents were schematic for independence; they rated themselves as high in independence, saw this trait as important, and reported that they were stable on this trait. Low Independents were individuals who did not fulfil the criterion in a unitary way; they rated themselves as relatively dependent, saw this trait as relatively unimportant, and reported that they varied on this trait. This classification represents the most powerful measure of individual differences attainable for this sample, and has the advantage of capturing the natural variation in the sample.

Main Experiment

Person versus Group-primed Manipulation. Participants assigned to the person-primed condition were brought back to the laboratory in groups of five (on average). Participants sat apart at small tables, and there was no communication or interaction between them. Individuals rated the degree to which each of three traits (tactful, cautious and dependent) was more characteristic of them personally than of the typical woman, on an 11-point scale. They were also asked to elaborate on their rating in a few sentences. This task was expected to prime one’s personal position (relatively high or low) on the dependence dimension. The requirement that participants explain their ratings in a few lines replaced the group discussion aspect of the corresponding task in the group-primed condition.

Participants assigned to the group-primed condition were brought back to the laboratory in groups of three (on average). Groups discussed and then rated on 11-point scales, the degree to which each of three traits (tactful, cautious and dependent) was more typical of women than men. This task was expected to prime their gender group’s ‘position’ (high relative to males) on the dependence dimension.

Content and Latency of Personal versus Social Identity. For the remainder of the experimental session, all participants underwent the same procedure. Each participant individually completed a response latency task on a Macintosh computer, following random assignment to either the personal or social response frame condition. In the personal response frame condition, computer instructions read:

We want you to think of yourself as an individual, and we want you to think about the characteristics you have as an individual compared to other women. We are going to give you a list of characteristics and want you to tell us whether you think you as an individual have them or not. Each characteristic will be presented one at a time on the computer screen. If you think you have each characteristic compared to other women, please respond by pressing the ME key. If you think other women have each characteristic in contrast to you, please press the NOT ME key.

The corresponding instructions for the social response frame condition (where an ‘us/them’ task was used) were identical to those used with female participants in Study 1.

Participants were presented with 84 trait adjectives, one at a time on the computer screen. Stimulus words included 15 independent and 15 dependent words (Markus, 1977), 12 masculine and 12 feminine
words (Antill et al., 1981; Bem, 1974), and 30 control words. Each adjective was displayed on the computer screen for two seconds. Two keys on the keyboard were labelled either ‘me/not me’ or ‘us/them’, depending on the condition. Both the response and the response latency were recorded (although participants were not aware that latencies were being measured). Each judgment was followed by a confidence rating on a 6-point scale ranging from 1 (not at all confident) to 6 (very confident). The order of presentation of words was randomly determined separately for each participant.

Results and Discussion

Preliminary Analyses

Person-primed Condition. One preliminary analysis was performed in the person-primed condition. Specifically, we examined whether there was a difference between Low and High Independents on the three critical self-rating scales designed to prime personal identity. On average, Low and High Independents were equally tactful (overall $M = 6.71$), and cautious (overall $M = 6.55$). However, High Independents rated themselves as significantly less dependent ($M = 3.09$) than Low Independents ($M = 5.04$) on the dependence scale, $F(1, 101) = 24.35, p < 0.001$. This finding suggests that the classification of participants made earlier continued to capture individual differences at the start of the second testing session.

Group-primed Condition. Two preliminary analyses were performed in the group-primed condition. First, we tested for group-level effects in the data (Kenny & Judd, 1986) using a series of one-way ANOVAs on a subset of dependent measures. The assumption of independent observations was upheld. Second, it was necessary to examine whether the discussion groups in fact endorsed the social stereotype that women were more tactful, cautious and dependent than men ($M$s = 7.56, 7.37, 6.07, respectively). One-way ANOVAs performed on each trait in turn revealed that Low and High Independents endorsed the stereotype of dependence for women to a similar (moderate) degree on the priming task.

Main Analyses

Data were analysed by means of a $2$ (Personality) $\times$ $2$ (Prime) $\times$ $2$ (Response Frame) $\times$ $2$ (Word Type) mixed-model ANOVA. Expectations are consistent with a Personality $\times$ Response Frame $\times$ Word Type interaction. The possibility that individual differences may be more pronounced when the ‘person-primed’ condition and personal response frame coincide, and conversely that self-stereotyping on ingroup-defining traits may be more pronounced when the ‘group-primed’ condition and social response frame coincide, will also be explored. All significant interactions will be reported but main effects will not be reported (in the interests of brevity).

Independent and Dependent Words

Trait Endorsements. For the mean proportion of independent and dependent words endorsed as self-descriptive, there was a significant Response Frame $\times$ Word Type interaction, $F(1, 192) = 69.91, p < 0.001$, and a significant Personality $\times$ Word Type interaction, $F(1, 192) = 31.91, p < 0.001$. 

Moreover, the predicted Personality × Response Frame × Word Type interaction was obtained, $F(1, 192) = 7.97, p < 0.01$, as shown in Table 1. First, in the personal response frame condition a very clear cross-over effect emerged, such that High Independents endorsed significantly more independent words than Low Independents, $t(192) = 4.43, p < 0.05$, and Low Independents endorsed significantly more dependent words than High Independents, $t(192) = 3.54, p < 0.05$. Thus the personality variable emerged under appropriate conditions. In direct contrast, in the social response frame condition both groups endorsed significantly more dependent than independent words, $t(192) = 10.16$ and $7.45$, for Low and High Independents respectively, $p < 0.05$. Equally importantly, in this condition, Low and High Independents did not differ in the number of independent words endorsed, or in the number of dependent words endorsed. Thus under conditions of a salient social identity, self-perception is depersonalized and reflects the attributes that one shares with other ingroup members more so than individual differences.

Response Latencies. Latency data were treated as in Study 1. That is, following a logarithmic transformation two new indices were computed. Consistent(independent) was obtained by averaging latencies for ‘yes’ (that is, ‘me’ or ‘us’) responses to independent words and ‘no’ (that is, ‘not me’ or ‘them’) responses to dependent words. Consistent(dependent) was obtained by averaging latencies for ‘yes’ (that is, ‘me’ or ‘us’) responses to dependent words and ‘no’ (that is, ‘not me’ or ‘them’) responses to independent words. Two cases with extremely high $z$-scores ($>3$) were excluded (Tabachnick & Fidell, 1989).

The expected three-way interaction was not obtained. Nor was there any evidence to suggest that personality affected processing times for independent and dependent words. However, the Response Frame × Pattern of Responding interaction did emerge, $F(1, 189) = 11.62, p < 0.001$, yielding partial support for self-categorization theory. In the personal response frame condition, groups did not differ in their speed of processing for consistent(independent) responses ($M = 3.44$ log-ms) and consistent(dependent) responses ($M = 3.43$ log-ms), $t(189) < 1, ns$. This makes sense, since half the participants ought to be quick to respond like an independent person, while the other half ought to be quick to respond like a dependent person, in this condition. In contrast, in the social response frame condition participants were significantly faster to make consistent(dependent) responses ($M = 3.45$ log-ms) than consistent(independent) responses ($M = 3.52$ log-ms), $t(189) = 4.92, p < 0.05$.

Confidence. The predicted three-way interaction was not obtained for confidence ratings, however, the two-way interaction between Response Frame and Pattern of Responding did emerge, $F(1, 191) = 6.04, p < 0.05$. In the personal response frame condition, groups did not differ in their

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Table 1. Study 2: Means (and standard deviations) for the proportion of independent and dependent words endorsed by personality and response frame

<table>
<thead>
<tr>
<th>Response frame</th>
<th>Independent words</th>
<th>Dependent words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Independents</td>
<td>High Independents</td>
</tr>
<tr>
<td>Personal</td>
<td>0.49 (0.20)</td>
<td>0.69 (0.20)</td>
</tr>
<tr>
<td>Social</td>
<td>0.33 (0.20)</td>
<td>0.41 (0.22)</td>
</tr>
</tbody>
</table>

---

3Wherever a two-way interaction emerged instead of the predicted three-way interaction, Sidak’s multiplicative inequality was applied to correct for multiple comparisons. Unless otherwise stated, $\alpha = 0.05$ and $k = 2$. 

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confidence for consistent(independent) responses (M = 4.31) and consistent(dependent) responses (M = 4.28), t(191) < 1, ns. This makes sense, since half the participants ought to be confident in their own independence, and the other half ought to be confident in their dependence, in this condition. In contrast, in the social response frame condition participants were significantly more confident in their consistent(dependent) responses (M = 3.83) than consistent(independent) responses (M = 3.66), t(191) = 3.12, p < 0.05. This pattern supports self-categorization theory.

The analysis further revealed a significant Personality × Pattern of Responding interaction, F(1, 191) = 19.95, p < 0.001. While High Independents were equally confident in their consistent(independent) responses (M = 4.18) and consistent(dependent) responses (M = 4.08), t(191) = 1.83, p > 0.05, Lows were significantly more confident in their consistent(dependent) (M = 4.01) than in their consistent(independent) responses (M = 3.77), t(191) = 4.36, p < 0.05. This makes sense if we take into account that for the Low Independent group only, dependence is consistent with both personal and social identity.

**Masculine and Feminine words**

**Trait Endorsements.** Several significant interactions emerged: Response Frame × Word Type, F(1, 192) = 79.52, p < 0.001, Personality × Word Type, F(1, 192) = 9.83, p < 0.01, and Personality × Prime, F(1, 192) = 4.35, p < 0.05. The Personality × Prime × Response Frame interaction was also significant, F(1, 192) = 5.97, p < 0.05, but as this three-way does not involve Word Type it is theoretically trivial. Moreover, the predicted Personality × Response Frame × Word Type interaction was obtained, F(1, 192) = 4.04, p < 0.05.

This interaction lends further support to the self-categorization analysis. Table 2 shows that differences emerged between Low and High Independents in the personal response frame condition, but not in the social response frame condition, where both groups self-stereotyped on feminine traits. This general pattern is very similar to that previously observed for independent and dependent words. However, the cross-over effect that was observed for independent and dependent words in the personal response frame condition did not emerge as clearly here, on traits that are indirectly linked to the focal personality variable. As might be expected, in the personal response frame condition High Independents endorsed significantly more masculine words than Low Independents, t(192) = 3.71, p < 0.05, however Lows endorsed marginally but not significantly more feminine words than Highs, t(192) = 1.43, p > 0.05.

In contrast to the personal response frame condition where individual differences emerged for the endorsement of masculine words, in the social response frame condition Low and High Independents endorsed masculine words to the same degree. Moreover, an even stronger tendency to self-stereotype on feminine relative to masculine words emerged in this condition, for both Low and High Independents; t(192) = 16.33 and 15.16, respectively, p < 0.05. Taken together, these observations support self-categorization theory, which predicts that self-category content will vary systematically

<table>
<thead>
<tr>
<th>Response frame</th>
<th>Masculine words</th>
<th>Feminine words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Independents</td>
<td>High Independents</td>
</tr>
<tr>
<td>Personal</td>
<td>0.45 (0.17)</td>
<td>0.58 (0.21)</td>
</tr>
<tr>
<td>Social</td>
<td>0.31 (0.19)</td>
<td>0.30 (0.22)</td>
</tr>
</tbody>
</table>

Table 2. Study 2: Means (and standard deviations) for the proportion of masculine and feminine words endorsed by personality and response frame
as a function of the level at which the self is categorized, such that self-categorizing can produce individual differences in intragroup contexts, and eliminate them in intergroup contexts.

Response Latencies. One case with an extremely high z-score ($> 3$) was excluded (Tabachnick & Fidell, 1989). Whereas in the treatment of independent and dependent traits, consistent(dependent) responses were taken as an indicator of social identity salience, in the present analysis consistent(feminine) responses indicated self-stereotyping.

A significant Personality/C2 Pattern of Responding interaction emerged, $F(1, 189) = 4.05, p < 0.05$. Moreover, and in contrast to the corresponding analysis for independent and dependent words, where a Response Frame/C2 Pattern of Responding interaction was obtained, in this case the predicted three-way interaction emerged between Personality, Response Frame and Pattern of Responding, $F(1, 189) = 4.34, p < 0.05$. As shown in Table 3, the personal response frame condition revealed some differences in speed of processing between Low and High Independents, while the social response frame condition revealed an attenuation of these differences. As might be expected, in the personal response frame condition High Independents were significantly faster to make consistent(masculine) responses than Low Independents, $t(189) = 2.97, p < 0.05$, however unexpectedly, Lows and Highs were equally fast to make consistent(feminine) responses, $t(189) < 1$, ns. In contrast, in the social response frame condition, both groups were significantly faster to make consistent(feminine) than consistent(masculine) responses, $t(189) = 3.50$ and $3.46$ for Lows and Highs, respectively, $p < 0.05$. This interaction demonstrates the consequences of depersonalization for speed of processing of gender-relevant attributes.

A second interesting interaction to emerge for response times for masculine and feminine words involved the variables Prime, Response Frame and Pattern of Responding, $F(1, 189) = 7.98, p < 0.01$. The relevant means are shown in Table 4. Three interesting observations can be made. First, the group-primed condition paired with a social response frame facilitated consistent(feminine) responses relative to consistent(masculine) responses more so than any other combination of factors, $t(189) = 4.80, p < 0.05$. In contrast, when the group-primed condition was paired with the personal response frame, consistent(feminine) responses were not significantly faster than consistent(masculine) responses, $t(189) < 1$, ns. These observations suggest that although priming group membership prior to eliciting social self-ratings can further enhance the salience of social identity, the priming procedure itself is not driving the depersonalization effect. Second, the person-primed condition paired with the social response frame yielded marginally but not significantly faster consistent(feminine) than consistent(masculine) responses, $t(189) = 2.06, p > 0.05$. Thus it appears that in this case personal priming is working against the ‘us/them’ manipulation, slowing down the speed of consistent(feminine) responses relative to the ‘group-primed and social response frame’ combination. Third, the person-primed condition paired with a personal response frame produced significantly

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### Table 3. Study 2: Mean latencies (log-ms) and standard deviations for each pattern of responding by personality and response frame

<table>
<thead>
<tr>
<th>Response frame</th>
<th>Consistent (masculine) responses</th>
<th>Consistent (feminine) responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low Independents</td>
<td>High Independents</td>
</tr>
<tr>
<td>Personal</td>
<td>3.43 (0.18)</td>
<td>3.37 (0.15)</td>
</tr>
<tr>
<td>Social</td>
<td>3.48 (0.20)</td>
<td>3.44 (0.17)</td>
</tr>
</tbody>
</table>

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4Since the three-way interaction involving Prime was not predicted in advance, Sidak’s multiplicative inequality was applied to correct for multiple comparisons. In this case $\alpha = 0.05$ and $k = 4$. 

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faster consistent(feminine) than consistent(masculine) responses for this female sample, \( t(189) = 3.46, p < 0.05 \). Combined, these observations suggest that femininity is personally as well as socially defining for female participants, but also that social identity-consistent responding will emerge most clearly in the social response frame condition.

In short, on inspecting the three-way interaction involving prime, it appears that the social response frame that follows the prime manipulations is a better predictor of degree of self-stereotyping. It is possible that where the subsequent response frame manipulation is in conflict with the initial prime manipulation, the response frame effectively determines which identity becomes salient for the participant. In so far as this interpretation is correct, this may account for the failure to consistently observe an effect for ‘prime’.

Confidence. Though approaching significance, the predicted Personality \( \times \) Response Frame \( \times \) Pattern of Responding interaction was not obtained for confidence ratings, \( F(1, 190) = 3.53, p = 0.062 \). However, a significant Response Frame \( \times \) Pattern of Responding interaction did emerge, \( F(1, 190) = 17.39, p < 0.001 \). Pairwise comparisons revealed that although participants were significantly less confident in their consistent(masculine) responses (\( M = 4.31 \)) than in their consistent(feminine) responses (\( M = 4.49 \)) in the personal response frame condition, \( t(190) = 2.82, p < 0.05 \), this effect emerged even more strongly in the social response frame condition (\( M_s = 3.51 \) and 4.07 for consistent(masculine) and consistent(feminine) responses, respectively), \( t(190) = 8.85, p < 0.05 \).

The Personality \( \times \) Pattern of Responding interaction was also significant, \( F(1, 190) = 5.24, p < 0.05 \). In short, Low and High Independents were equally confident in their consistent(feminine) responses (\( M_s = 4.26 \) and 4.29, respectively), \( t(190) < 1, ns \); however, Highs were significantly more confident (\( M = 4.02 \)) than Lows (\( M = 3.79 \)) in their consistent(masculine) responses, \( t(190) = 3.62, p < 0.05 \).

**GENERAL DISCUSSION**

Taken together, the results of Study 1 and 2 yield substantial support for self-categorization theory. Study 1 showed that women (including Independent and Unclassified females) rate themselves as dependent when their social identities as women are made salient and men (including Dependent and Unclassified males) rate themselves as independent when their social identities as men are made salient. On several dependent measures the effect of the personality variable was eliminated under conditions of a salient social identity. Study 2 extended these results by showing that individual differences (consistent with the classification into Low and High Independents) did emerge under appropriate conditions.
Previous investigators have argued that centrally-defining self-aspects (those considered important) are the hardest to change (e.g. Markus, 1977; Schlenker & Trudeau, 1990). The present study provides evidence against this view, at least in relation to the phenomenal self, showing that such aspects are not chronically salient across different situations. Indeed, in Study 1, it was the Independent Schematic females and the Dependent Schematic males who provided the critical test of the self-categorization analysis, since Dependent Schematic females and Independent Schematic males would be expected to describe themselves similarly under personal and social identity instructions. Likewise, in Study 2, it was the High Independent females who provided the critical test of self-categorization theory. The observation that these individuals ‘switch’ under appropriate conditions is strong evidence for self-categorization theory. It is also strong evidence of the changeability of the self. In short, these data are problematic for any theory that equates the self with stable individual differences, including self-schema theory. Instead, they support the view that self-categorizing can produce individual differences in some contexts and eliminate them in other contexts.

A limitation of Study 2 was our failure to specify the comparative context at the time that pretest ratings were obtained. Although an implicit intragroup context was established at pretest, by virtue of the fact that only females were eligible and present at pretest sessions, in future studies it would appear important to create an explicit intragroup context at pretest and to subsequently reinstate the same intragroup context in the personal response frame condition of the main experiment. Under these conditions, the personality variable should emerge even more strongly under appropriate conditions. Furthermore, a replication involving men is a priority for future work. Study 1 showed depersonalization for men in the social response frame condition, but a replication of the personalization effects found in the personal response frame condition of Study 2 is needed, one which extends Markus’ (1977) analysis by illustrating the role of intragroup processes in personal self-definition.

From a self-categorization perspective, the response frame used to evoke social identity in the present studies is appropriate because it evokes intergroup comparisons between the ingroup (us) and a psychologically relevant outgroup (them). The ‘us vs them’ referents are therefore appropriate when operationalizing social identity from a self-categorization theory perspective. ‘Me vs not me’, on the other hand, is an individuating response frame, which will work against the salience of social identity, and hence is more appropriately applied when operationalizing personal (rather than social) identity. Importantly, an ‘us’ response constitutes a self-inclusive judgment. Accordingly, we would argue that the social response frame does tap the self-concept—albeit a qualitatively distinct component to that which is captured by the traditional ‘me/not me’ response frame.

While the use of ‘us/them’ referents in the social response frame condition is justified on theoretical grounds, future studies could examine whether response formats other than the us/them question can likewise detect depersonalized self-conception. For instance, it might be useful to conduct a study in which either a person- or group-prime manipulation (e.g. small group discussion task as in the present studies) precedes a general (non-specific) response frame on the computer task—one that avoids us/them and me/not me as referents, and one that does not necessarily specify a comparison group. In the general response frame condition, computer instructions could read ‘Does this word describe you?’ and a simple ‘yes vs no’ response option could be used. A group-prime manipulation paired with a general (non-specific) response frame might likewise show a shift from the response patterns associated with personal self-schemas, since this relatively non-specific response frame is open to interpretation and therefore could potentially be sensitive enough to detect depersonalized self-conception. On the other hand, the traditional self-references, ‘me vs not me,’ unequivocally represent a personalized response frame and therefore would be expected to tap (reliably) the personal self. Such a design may clarify whether the shifts detected in the present studies can also emerge in the absence of the group-level ‘us/them’ response frame. Additionally, it would seem important to replicate the present findings using a different (person vs group) priming
Some may argue that it is difficult to ascertain the extent to which depersonalization effects of the type detected here actually involve the *assimilation* of ingroup characteristics to the self-concept. For example, proponents of the social projection model (e.g. Clement & Krueger, 2002; Krueger & Stanke, 2001) have recently challenged what they define as the assumption in self-categorization theory that *introjection* underlies depersonalization. Introjection is defined by Krueger (2002) as the process whereby 'people strategically align their own responses with what they perceive to be the majority response' (p. 25, emphasis added) while projection is said to occur when 'people assume that others share their preferences, attitudes, and behaviours' (p. 23, emphasis added). Self-categorization theory has always argued inter alia that under conditions of a salient social identity, the traits of the group *come to be applied to the self*, implying that depersonalization is an introjective effect (see Krueger, 2002, pp. 27–28). The self-stereotyping hypothesis further implies that the perceiver has knowledge of the cultural stereotype associated with the ingroup, and as Krueger (2002) rightly points out, it may well be that ‘perceptions of cultural stereotypes may themselves, in part, be projections from personal knowledge rather than vice versa (Gordijn, Koomen, & Stapel, 2001; Krueger, 1996)’ (p. 28).

However, if this were the case, first, we might expect individual differences to emerge even in the social response frame condition. 5 That is, participants should ‘project’ their own self-perceived independence to their gender group (Krueger & Stanke, 2001), such that Independent Schematics rate their ingroup as more independent than Dependent Schematics. This pattern did not emerge in the present research. Furthermore, the social projection model predicts that individual differences should emerge when the ingroup category is salient but not otherwise (Clement & Krueger, 2002; Krueger & Clement, 1996), implying that effects of interpersonal independence should emerge *more* strongly in the social response frame condition, whereas in the present research the opposite occurred. That said, it is important to bear in mind first, that the present studies were not designed to test whether depersonalization involves introjection or projection, and second, that self-categorization theory does not conceptualize things in this way, seeing both ‘introjection’ and ‘projection’ as aspects of the same process of assigning group-level characteristics to self and others as the ingroup–outgroup level of self-categorization becomes salient. It does not strictly see depersonalizing as changing the personal self by introjecting from the ingroup or changing the ingroup by projecting from the personal self, but shifting the level at which individuals are construed and self-defined such that mutual similarities between self and ingroup others (as defined at the pre-shift personal level) are enhanced.

As this debate unfolds, it is worth remembering that depersonalization entails the accentuation of within-group similarities *and* between-group differences. Accordingly, a host of dependent variables have been developed to measure aspects of depersonalization (e.g. see Haslam, 2001). Some dependent variables may better capture the concept of introjection (e.g. measures involving the ascription of group-stereotypic traits to the self), whilst others may better capture the process of projection (e.g. perceptions of intragroup similarity; consensualization). Future research could seek to clarify whether depersonalization is primarily an introjective or a projective process, or involves both, as self-categorization theory implies. The answer may depend to some degree on how depersonalization is operationalized and the methodological problem of trying to tap the process of perceiving ‘us’ by asking individuals for individual responses which implicitly shift them towards a ‘me’ orientation (Turner & Onorato, 1999).

To conclude, this paper sought to examine whether the self is a fluid or stable entity. The results of two related studies point to the conclusion that self-perception is a context-dependent process, rather

5We wish to thank an anonymous reviewer for bringing to our attention the theoretical implications discussed here.
than the manifestation of enduring personality traits or self-schemas. Traditional information-processing paradigms have stood the test of time. However, effects that have previously been interpreted as evidence of stable psychological structure have been interpreted here as evidence of the dynamic nature of the self. Individuals who do not have self-schemas can exhibit patterns of responding that resemble ‘schematic processing’; and those who do, can sometimes behave as though they are schematic for the opposite trait. We account for these results by arguing that self-concepts can take different forms at different levels of abstraction. The shift from personal to social identity represents an important type of fluidity in the self-concept; and the effect of such a shift is to depersonalize self-conception such that the focus is no longer on ‘me’ and ‘I,’ but on ‘us’ and ‘we’ in contrast to ‘them’.

REFERENCES


