Biculturalism and Group Identification: The Mediating Role of Identification in Cultural Frame Switching
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BICULTURALISM AND GROUP IDENTIFICATION
The Mediating Role of Identification in Cultural Frame Switching

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This article discusses a study that examined cultural frame switching among bicultural Greek participants living in the Netherlands. The research demonstrated that self-evaluations, self-stereotypes, and attitudes toward family integrity and friendship were affected by cultural framing. Experimentally primed bicultural participants and monocultural comparison groups in the Netherlands and Greece were used. Activating Greek culture especially, in comparison to activating Dutch culture, led to a less positive evaluation of the personal self, stronger Greek self-stereotyping, and stronger endorsement of family integrity and friendship. Similar differences were found when comparing monocultural Dutch and monocultural Greek participants. In addition, cultural priming affected group identification, which was found to be associated with perceptions and attitudes. The pattern of results suggests that group identification, in part, mediates the relationship between cultural framing and perceptual and evaluative responses. It is concluded that social identity principles are important for understanding the experiences of bicultural individuals.

Keywords: biculturalism; group identification; frame switching

In many countries around the world, the number of individuals who have internalized more than one culture is substantive and can be expected to increase in future years. Biculturalism raises all kinds of psychological questions, about psychological well-being, coping skills, the organization of knowledge, and identity development (LaFromboise, Coleman, & Gerton, 1993), among others. Another question raised is how and why individuals shift between their different cultural frameworks: What are the processes involved in cultural frame switching, and what are the consequences? Cultural frame switching can be approached by applying the principles derived about knowledge activation by social cognition research (e.g., Morris & Fu, 2001). It is also possible to use social psychological ideas about (dual) group identity and comparative group context (e.g., Verkuyten & De Wolf, 2002). Our aim with this study was to combine these approaches in an attempt to show that group identification can mediate, in part, the relationship between cultural frames and perceptions and attitudes. In doing so, we wished to extend the existing experimental work on biculturalism that predominantly draws its inspiration from cognitive psychology.

Hong, Morris, Chiu, and Benet-Martínez (2000) presented a dynamic constructivist approach to understanding frame switching in bicultural individuals. A first premise of the model is that culture is not internalized in the form of an integrated structure but rather as domain-specific knowledge, such as implicit social theories and private and collective self-cognitions (Trafimow, Triandis, & Goto, 1991). Furthermore, individuals are thought to be
able to acquire more than one cultural frame even if these contain conflicting elements. However, these frames are not thought to guide thinking simultaneously. Using cognitive psychological ideas about knowledge activation, the approach tries to account for the dynamics of cultural frame switching. Cognitive accessibility of constructs and contextual applicability are the concepts used to explain how different cultural knowledge becomes operative in particular situations (Higgins, 1996; Hong, Benet-Martínez, Chiu, & Morris, 2003). Culturally specific knowledge is thought to guide perception and behavior only when the relevant meaning systems are cognitively accessible and fit contextually.

In their experimental research, Hong et al. (2000, 2003; see also Benet-Martínez, Leu, Lee, & Morris, 2002) examined cultural frame switching in response to contextual cues that cause different cultural frames to become salient. In particular, when using attribution tasks, they found that Westernized Chinese students in Hong Kong were more likely to give situational explanations when their Chinese cultural knowledge was activated than when an American cultural priming condition was. The same results were found among Chinese American students in California. Other studies have reported similar results, not only for attributions but also for self-evaluations and attitudes (e.g., Verkuyten & Pouliasi, 2002). These findings indicate that cultural frame switching occurs in response to contextual cues that make different cultural frames salient. When a given cultural frame is salient, culturally specific beliefs, theories, norms, and standards govern people’s thinking and acting.

The ideas and principles of the dynamic constructivist approach are quite similar to the social identity perspective developed in European social psychology and to self-categorization theory (SCT) in particular (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987: Turner, Oakes, Haslam, & McGarty, 1994). The social identity perspective argues that our sense of who we are is partly informed by the groups or categories to which we belong. Central to SCT is the idea that different forms of perception and behavior arise from different categorical definitions of the self. In particular, it is argued that, through the activation of a group identity, people tend to view themselves as interchangeable exemplars of the particular group and self-stereotype themselves in terms of what characterizes the group. Self-identification as a group member “systematically biases self-perception and behavior to render it more closely in accordance with stereotypic in-group characteristics and norms” (Hogg & Turner, 1987, p. 326). Hence, depending on the particular group identity that is cognitively activated, people will view themselves and the world differently. SCT argues that group identities are actively generated in contexts depending on the interaction between cognitive accessibility (or perceiver readiness) and (comparative and normative) contextual fit.

Many studies have supported ideas and principles of SCT (see Oakes, Haslam, & Turner, 1994; Turner, 1999), including studies that have focused on cultural constructs. For example, a study by Jetten, Postmes, and McAuliffe (2002) demonstrated that, somewhat paradoxically, individualism can be a function of group identification. They found that, in North America, those who identify highly with their national group tended to be more individualist than low identifiers. In contrast, in Indonesia, high identifiers were more collectivist and less individualist than low identifiers. In addition, low identifiers in Indonesia were more individualist compared to high identifiers in North America and also less collectivist. Thus, in agreement with the social identity perspective, identity salience was found to lead to perceptions consistent with the appropriate cultural norms. When a group identity is salient, people will shift toward whatever values and beliefs the group defines.

The previous discussion indicates that there are many similarities between the dynamic constructivist approach of cultural frame switching and SCT. However, there are also some important differences. For example, whereas the dynamic constructivist approach focuses on
the activation of domain specific cultural knowledge structures, SCT argues for the central role of variable self-definitions. In their experiments among bicultural people, Hong and colleagues (2000) use North American and Chinese cultural icons as primes. These icons are supposed to activate different networks of cultural constructs that subsequently guide perceptions and behavior. However, following SCT, it could be argued that these icons also activate different group identities. Iconic images like the national flag, national buildings (e.g., White House, Forbidden City), and national figures (e.g., George Washington) will activate not only cultural knowledge networks but also group identification processes. This was shown by Briley and Wyer (2002), who in two experiments used Hong et al.’s (2000) procedure and found that the cultural icons increased feelings of group membership, which led to group-level concerns and responses. Group identification, in turn, can lead to different forms of self-stereotyping, attitudes, and attributions. In other words, group identification may have a mediating role in linking cultural frames and perceptions and behaviors. For example, a Chinese American may express collectivist attitudes because her Chinese identity is salient, and this identity is salient because it has been activated by Chinese icons. The existence of such a mediating role for group identification would help us to further understand how exactly, or the psychological mechanism by which, cultural constructs affect perceptions and behaviors.

This article discusses a study that examined this mediating hypothesis among bicultural individuals of Greek descent living in the Netherlands. Following SCT, it was expected that group identification would mediate the relationship between cultural frames and perceptions and behaviors. Cultural frame switching and group identification were examined in relation to phenomena that have been found to be affected by the cultural context in cross-cultural comparative research and by social-identity processes in intergroup research. First, we examined biculturalism in relation to self-evaluations. In collectivist cultures, people have been found to make fewer self-enhancing statements (Heine, Lehman, Markus, & Kitayama, 1999), but that does not mean that self-evaluation motives are necessarily absent in these cultures. Members of these cultures are more likely to evaluate their social self (“we”) favorably, whereas in individualist cultures, it is the personal self (“I”) that tends to be evaluated positively (Hetts, Sakuma, & Pelham, 1999; Pelham & Hetts, 1999). In the present study, both personal and social self were measured. Bicultural participants were expected to evaluate themselves and their group differently depending on the cultural frame: Greek or Dutch. Whenever the Greek cultural frame was salient, a more positive evaluation of the social self was expected, whereas the personal self was expected to be rated more positively whenever the Dutch cultural frame was salient.

Second, we examined self-descriptions by asking participants to rate trait adjectives in terms of how strongly they typified themselves. It was expected that self-descriptions would differ between the two bicultural groups. Particularly in the Greek context, we expected the use of traits that are more familiar or more commonly seen as stereotypical for the Greeks, whereas in the Dutch context, we expected Dutch stereotypes to be used for self-description (Oakes et al., 1994). In other words, in the Greek context, participants were expected to describe themselves, for example, as being more emotionally expressive and traditional and as less individualist than they would in the Dutch context.

Third, as the attitudes and values endorsed in collectivist and individualist cultures differ substantially, we expected family integrity and friendship to be endorsed more strongly by bicultural participants when a Greek cultural frame was activated. The focus on issues of family integrity and the importance of friendship arises because these are two dimensions that have been highlighted in cross-cultural work (e.g., Lay et al., 1998; Triandis,
McCusker, & Hui, 1990). For example, in collectivist cultures, values of family harmony, friendship connection, and duty are stressed, whereas in individualist cultures, more emphasis is placed on autonomy and equality.

These effects for cultural frame switching were all expected to be mediated, in part, by group identification. That is, cultural framing was expected to affect ethnic group identification, and identification, in turn, was expected to affect self-evaluation, self-stereotyping, and attitudes toward family integrity and friendship.

When testing the predictions for cultural frame switching among bicultural participants living in the Netherlands, a group of monocultural Dutch participants in the Netherlands and a group of monocultural Greek participants in Greece were included. There were two reasons for doing so. One of these was so that we could examine whether there are indeed cultural differences between the participants of both societies. Greek culture has been found to put a relatively stronger emphasis on collectivist values than Dutch culture (Hofstede, 1980, 1991; Triandis et al., 1986), especially in relation to extended family life, family values, and friendship (Georgas, Berry, Shaw, Christakopoulu, & Mylonas, 1996; Georgas et al., 1997). However, through the years extensive individualization of Greek society has taken place (Georgas, 1989). The inclusion of two monocultural groups allows us to examine whether samples from these societies differ on the various measures.

The second reason is that differences in, for example, self-evaluations between Greek and Dutch identity priming conditions do not necessarily have to reflect cultural frame switching. One alternative interpretation for a more positive social self-evaluation in the Greek condition may be that the minority position of the in-group in the Netherlands is made salient. When this happens, people may respond by accentuating positive in-group distinctiveness (Tajfel & Turner, 1986). An interpretation in terms of minority position salience is less convincing if the result for Greek framing among bicultural participants is similar to that of Greek participants in Greece and the result for Dutch framing is similar to that of Dutch participants in the Netherlands.

To summarize, in the present research, cultural frame switching among bicultural participants was examined by activating either the Dutch or the Greek cultural frames. It was expected that in the Greek condition, participants would evaluate their personal self less positively and their social self more positively, would more strongly describe themselves in Greek stereotypical terms, and would endorse more strongly the importance of family integrity and friendship. In addition, similar differences were expected to be found between monocultural Dutch participants and monocultural Greek participants. Furthermore, the effects for cultural frame switching among the bicultural participants were expected to be mediated by group identification.

**METHOD**

**PARTICIPANTS**

The study was conducted among adults between 18 and 70 years of age; the mean age was 38.2 years (SD = 12.3). Fifty-one percent of the total group of participants were male and 49% were female. The sample included 92 monocultural Dutch participants in the Netherlands and 110 monocultural Greeks in Greece. In addition, there were 211 bicultural participants of Greek descent living in the Netherlands. Participants of this latter group had lived at least 5 years in the Netherlands, and the mean number of years living in this country
was 27.3 (SD = 13.3). In addition, these participants, on average, reported high levels of Greek- (M = 6.13, SD = 1.01, on a 7-point Likert-type scale) and Dutch-language proficiency (M = 5.87, SD = 1.05).

DESIGN AND MEASURES

An experimental questionnaire study was carried out. There were two versions of the questionnaire. For priming Dutch and Greek cultural identity, iconic cultural symbols and language were used. Similar to other studies (e.g., Hong et al., 2000, 2003; Verkuyten & Pouliasi, 2002), the participants were presented with pictures of either Dutch icons (national flag, a windmill, and a person in traditional clothing) or Greek icons (national flag, the Acropolis, and a person in traditional clothing). In addition, the questionnaires were presented in the Dutch and Greek languages, respectively. Thus, the whole study was introduced and conducted in one or the other language. The combination of icons and language (see Krauss & Chiu, 1998) was considered an effective means of activating the two different cultural frames.

The group of monocultural Dutch participants completed the Dutch version of the questionnaire, and the monocultural Greek participants in Greece completed the Greek version. Also, because we wanted to have four groups more or less equal in terms of demand load, a between-subjects design rather than a within-subjects design was used. Hence, the bicultural participants were presented randomly with either the Dutch or the Greek version of the questionnaire. For our present purposes, we will refer to the former group of bicultural participants as the Dutch-Greek group and the latter group as the Greek-Dutch group.

There was one set of mediating variables and three sets of dependent variables. Each of the variables was presented with cultural icons printed in the corners of each page. To examine the possible mediating role of group identification in cultural frame switching, the two groups of bicultural participants were asked to indicate their level of Greek identification as well as Dutch identification. To assess the degree of group identification, two items with 7-point scales were used. The participants were asked to what extent they, internally (in Dutch, van binnen), felt really Greek and the extent to which they felt really Dutch.

To attain more indirect measures of personal and collective self-evaluations and to maintain similarity with a previous study (Verkuyten & Pouliasi, 2002), the participants were asked about their feelings toward the words “I” and “we.” Experiments have demonstrated that these pronouns carry clear evaluative significance (Hetts et al., 1999; Perdue, Dovidio, Gurtman, & Tyler, 1990). The participants were asked to indicate their spontaneous, affective reactions toward the two words. Both questions were rated on a 7-point Likert-type scale ranging from 1 (strongly negative) to 7 (strongly positive), with neutral in the middle.

To measure self-stereotyping, the participants were presented with eight trait adjectives. These adjectives were presented together with other characterizations that were used as fillers. The choice of the trait adjectives was based on previous research on Greek stereotypes (Hopkins, Regan, & Abell, 1997) and on our discussions with Greek people living in the Netherlands. The eight self-stereotyping adjectives were as follows: individualist, modern, hedonist, disciplined, modest, lively, dependent, and emotionally expressive. The first four traits were considered to be more typical of Dutch people, whereas the latter four were considered more typical of Greek people. The participants were required to indicate, on 7-point scales, to what extent each of the traits applied to themselves.

To measure attitudes toward family integrity and friendship, the participants were presented with eight questions (using 7-point scales) on cultural values. The questions were based on our discussions with Greek people and partly taken from Triandis et al. (1990).
Principal components analysis showed that four items loaded on a first factor (36.9% explained variance). All four items had a high load (> .61) on the first factor (and < .27 on the second factor). The items were “It is best when children live with their parents until they marry,” “You should take care of your aging parents,” “You have to be prepared to fight for your family’s honor,” and “It is not good to sell the house you were born in to strangers.” Reliability analysis for these four questions yielded an alpha of .75. This scale was labeled Family Integrity.

Four other questions loaded (> .66) on the second factor (20.8% explained variance and < .26 on the first factor). The four items were “You should never betray your friends,” “You can’t live without real good friends,” “You should love your friends with all their failings,” and “Criticism by your friends indicates that they are really interested in you.” Reliability analysis for the four items yielded an alpha of .71. This scale was labeled Friendship.

RESULTS

Preliminary analyses indicated no gender difference between the four groups of participants. Thus, data were collapsed across gender. However, there was a significant difference for educational level, $F(3, 411) = 5.15, p < .01$, and for age, $F(3, 411) = 4.71, p < .01$. Post hoc tests indicated that the mean educational level of the Greek-Dutch participants was significantly lower than that of the Dutch and the Greek participants. The educational level of the two bicultural groups did not differ significantly.

Post hoc tests indicated that the Dutch participants were significantly older ($M = 42.20, SD = 12.4$) than the Dutch-Greek ($M = 37.36, SD = 12.2$) and the Greek participants ($M = 36.83, SD = 11.1$) but not significantly older than the Greek-Dutch participants ($M = 40.83, SD = 12.8$). The differences in age between the two bicultural groups and the Greeks were not significant.

The mean number of years that the bicultural participants had been living in the Netherlands was $20.72 (SD = 10.9)$. The two bicultural groups did not differ significantly on this. However, the combination of age and length of residence showed that the two bicultural groups differed in their mean age of immigration, $t(210) = 3.52, p < .01$. The Greek-Dutch group had immigrated at a somewhat older age ($M = 21.34, SD = 12.3$) than the Dutch-Greek group ($M = 15.18, SD = 12.8$).

SELF-EVALUATIONS

The evaluations of “I” and “we” were positively correlated with $r = .22, p < .001$. The two evaluations were analyzed as multiple dependent variables using MANCOVA. Participant group was included as a predictor, and age and level of education were covariates. The multivariate effect (Pillai’s) for participant group was significant, $F(6, 410) = 5.02, p < .001$. Thus, the evaluations made differed between the four groups of participants. The mean scores for the evaluations together with the univariate results are presented in the first two rows in Table 1. For the evaluation of “I,” post hoc tests showed a clear distinction between the Dutch and the Dutch-Greek participants, on one hand, and the Greek-Dutch and Greek participants on the other. As expected, the former two groups had a more positive, personal self-evaluation than the latter two groups. However, in contrast to our expectations, there was no significant group difference for the evaluation of “we.”
We expected the four groups of participants to differ in their self-descriptions. In particular, the Dutch and the Dutch-Greek participants were expected to self-stereotype more strongly on the traits considered more typical for Dutch people than the Greek-Dutch and Greek participants. In contrast, the latter two groups were expected to self-stereotype more strongly on the traits more typical for Greek people. To examine these predictions, the eight trait adjectives were analyzed as multiple variables using MANCOVA. Participant group was included as a predictor, and age and educational level were the covariates. The multivariate effect for participant group was significant, \( F(24, 406) = 6.55, p < .001 \). Thus, self-stereotyping differed between the four groups of participants.

The mean scores together with the univariate results and the effect size estimates are presented in Table 1. Univariate analyses indicated significant effects for all traits, except for dependence. Post hoc tests showed that, as predicted, the Dutch participants described themselves as being more individualistic, modern, hedonistic, and disciplined than the Greek participants as well as less modest, lively, and emotionally expressive. Hence, there were clear monocultural group differences. In addition, for all adjectives (except “dependence”), the mean scores for the Dutch-Greek were similar to those for the Dutch, whereas the scores for the Greek-Dutch were closer to those of the Greek participants. For four of these adjectives, the difference between the two bicultural groups was significant.2

<table>
<thead>
<tr>
<th></th>
<th>Dutch (n = 92)</th>
<th>Dutch-Greek (n = 106)</th>
<th>Greek-Dutch (n = 105)</th>
<th>Greek (n = 110)</th>
<th>F Value</th>
<th>Eta Square</th>
</tr>
</thead>
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<tr>
<td><strong>Self-evaluation</strong></td>
<td></td>
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</tr>
<tr>
<td>Evaluation “I”</td>
<td>5.19 (1.14)</td>
<td>5.01 (1.43)</td>
<td>4.51 (1.75)</td>
<td>4.23 (1.48)</td>
<td>8.48***</td>
<td>.07</td>
</tr>
<tr>
<td>Evaluation “we”</td>
<td>5.26 (1.06)</td>
<td>5.38 (1.05)</td>
<td>5.30 (1.41)</td>
<td>5.32 (1.16)</td>
<td>.072</td>
<td>.01</td>
</tr>
<tr>
<td><strong>Self-stereotyping</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Individualist</td>
<td>4.60 (1.51)</td>
<td>4.18 (1.58)</td>
<td>3.40 (1.84)</td>
<td>3.15 (1.56)</td>
<td>16.59***</td>
<td>.12</td>
</tr>
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<td>Modern</td>
<td>4.47 (1.61)</td>
<td>3.93 (1.85)</td>
<td>3.62 (1.81)</td>
<td>3.59 (1.74)</td>
<td>3.78*</td>
<td>.03</td>
</tr>
<tr>
<td>Hedonist</td>
<td>5.69 (1.03)</td>
<td>5.80 (1.31)</td>
<td>5.49 (1.44)</td>
<td>5.19 (1.41)</td>
<td>4.54***</td>
<td>.04</td>
</tr>
<tr>
<td>Disciplined</td>
<td>5.65 (1.14)</td>
<td>5.56 (1.46)</td>
<td>5.22 (1.71)</td>
<td>4.99 (1.52)</td>
<td>6.92**</td>
<td>.05</td>
</tr>
<tr>
<td>Modest</td>
<td>4.21 (1.18)</td>
<td>4.61 (1.45)</td>
<td>5.76 (1.31)</td>
<td>5.35 (1.58)</td>
<td>19.43***</td>
<td>.13</td>
</tr>
<tr>
<td>Lively</td>
<td>5.62 (1.05)</td>
<td>5.62 (1.24)</td>
<td>6.08 (1.06)</td>
<td>6.05 (1.29)</td>
<td>4.67**</td>
<td>.04</td>
</tr>
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<td>Dependent</td>
<td>2.54 (1.18)</td>
<td>2.64 (1.73)</td>
<td>2.62 (1.65)</td>
<td>2.26 (1.55)</td>
<td>1.49</td>
<td>.01</td>
</tr>
<tr>
<td>Emotionally expressive</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Cultural values</td>
<td></td>
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<tr>
<td>Family integrity</td>
<td>3.17 (0.94)</td>
<td>4.38 (1.28)</td>
<td>5.31 (1.26)</td>
<td>5.11 (1.16)</td>
<td>59.07***</td>
<td>.32</td>
</tr>
<tr>
<td>Friendship</td>
<td>5.49 (0.81)</td>
<td>5.65 (1.09)</td>
<td>6.09 (0.73)</td>
<td>6.06 (0.73)</td>
<td>11.22***</td>
<td>.08</td>
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<tr>
<td>Group identity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greek identity</td>
<td>5.45 (1.63)</td>
<td>6.39 (0.91)</td>
<td></td>
<td></td>
<td>13.10***</td>
<td>.08</td>
</tr>
<tr>
<td>Dutch identity</td>
<td>3.42 (1.89)</td>
<td>2.21 (1.45)</td>
<td></td>
<td></td>
<td>13.92***</td>
<td>.09</td>
</tr>
</tbody>
</table>

NOTE: Row means with different superscripts represent significant differences. 
* \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \).
ATTITUDES

The measures for attitude toward family integrity and friendship appeared to be correlated positively ($r = .28, p < .001$). The two measures were examined as multiple dependent variables in MANCOVA with participant group as a factor and educational level and age as covariates. There was a significant multivariate effect for participant group, $F(6, 408) = 25.78, p < .001$. Table 1 shows a clear pattern of results. As expected, the monocultural Greek group endorsed the importance of family integrity and friendship more strongly than the Dutch participants. Furthermore, the Greek-Dutch participants had significantly higher scores for both measures than the Dutch-Greek participants. The scores for the Greek-Dutch and Greek participants did not differ. The Dutch and Dutch-Greek participants had similar scores for friendship, but the Greek-Dutch endorsed the importance of family integrity more strongly than the Dutch participants.3

GROUP IDENTIFICATION

The two bicultural groups were asked to indicate how strongly they felt that they were Greek and how strongly they felt that they were Dutch. Both questions appeared to be correlated negatively ($r = -.51, p < .001$). Hence, stronger identification with the one group was associated with a weaker identification with the other group. In addition, a pairwise test of means indicated that Greek identification ($M = 5.97, SD = 1.38$) was stronger than Dutch identification ($M = 2.82, SD = 1.82$), $t(206) = 16.37, p < .001$.

The two measures for group identification were examined as multiple dependent variables in MANCOVA, with bicultural participant group as a between-subjects factor. Educational level and age at immigration were included as covariates. The multivariate effect for bicultural participant group was significant, $F(2, 206) = 8.62, p < .001$. Univariate results indicated significant effects for both identifications. As expected, Table 2 shows that the Greek-Dutch identified significantly more as Greek than the Dutch-Greek participants. In contrast, the former group identified significantly less as Dutch than the latter group. Hence, the experimental manipulation produced the expected effects on Greek and Dutch group identification.4

GROUP IDENTIFICATION, SELF-PERCEPTIONS, AND ATTITUDES

The previous analyses shows that for the bicultural participants, the experimental manipulation affected the responses for the evaluation of the personal self, for self-stereotyping, and for the attitudes toward family integrity and friendship. In addition, the experimental manipulation affected Greek and Dutch group identification. These results meet two preconditions for mediation as outlined by Baron and Kenny (1986) and, therefore, raise the possibility that group identification does indeed mediate the relationship between cultural frame on one hand and self-perceptions and attitudes on the other. A third precondition is that the proposed mediating variable (group identification) must be related to the dependent variable. To examine this precondition, separate regression analyses were conducted for those dependent measures that in previous analyses tended to differ between the two experimental groups. The two group identification measures were the predictor variables. These analyses indicated that Dutch identification was positively related to the evaluation of the personal self (“I”), beta = .17, $t = 2.12, p < .05$. Dutch identification was also significantly related to self-stereotyping as an individualist, beta = .22, $t = 2.79, p < .01$; and to describing oneself as being disciplined, beta = .17, $t = 2.17, p < .05$. 
Greek identification was positively related to describing oneself as modest, $\beta = .33, t = 4.31, p < .001$; as emotionally expressive, $\beta = .17, t = 2.17, p < .05$; as lively, $\beta = .25, t = 2.90, p < .01$; and negatively to describing oneself as modern, $\beta = -.18, t = 2.29, p < .05$. Furthermore, Greek identification was positively related to the attitude toward family integrity, $\beta = .43, t = 5.85, p < .001$, and toward the importance of friendship, $\beta = .16, t = 3.14, p < .01$.

### THE MEDIATING ROLE OF GROUP IDENTIFICATION

According to Baron and Kenny (1986), the critical test for mediation is that the relationship between the independent variable (cultural frame) and the dependent variable must be significantly reduced when the mediator variable (group identification) is controlled. Regression analyses were carried out separately for the dependent measures that showed significant differences between the two bicultural experimental groups (see Table 1). The results of these analyses are presented in Table 2.

The previous analyses indicated that cultural frame was significantly related to the evaluation of the personal self (“I”). In addition, Dutch identification was positively related to self-evaluation. In a further analysis, the evaluation of the personal self was regressed onto Dutch identification and cultural frame. In this analysis, cultural frame was not a significant predictor (see Table 2). This pattern of results suggests that Dutch identification mediates the relationship between cultural frame and the evaluation of the personal self. The Sobel (1982) test for mediation showed, however, that the mediational path was only marginally significant with $p = .072$.

The results for the mediation analyses for self-stereotyping as individualist indicated that the mediational path was reliably greater than zero (see Table 2). Thus, Dutch identification

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Mediator</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Sobel Test (z Value)</th>
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</thead>
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<tr>
<td>Evaluation “I”</td>
<td>Dutch identification</td>
<td>.12**</td>
<td>.49**</td>
<td>.35</td>
<td>1.81*</td>
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<tr>
<td>Individualist</td>
<td>Dutch identification</td>
<td>.25†</td>
<td>.84†</td>
<td>.53**</td>
<td>2.44**</td>
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<td>Greek identification</td>
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<td>1.04†</td>
<td>.84***</td>
<td>2.61***</td>
</tr>
<tr>
<td>Emotional expressive</td>
<td>Greek identification</td>
<td>.13**</td>
<td>.39***</td>
<td>.22</td>
<td>1.99**</td>
</tr>
<tr>
<td>Lively</td>
<td>Greek identification</td>
<td>.12**</td>
<td>.31**</td>
<td>.23**</td>
<td>1.94*</td>
</tr>
<tr>
<td>Family integrity</td>
<td>Greek identification</td>
<td>.43†</td>
<td>.90†</td>
<td>.59†</td>
<td>3.72***</td>
</tr>
<tr>
<td>Friendship</td>
<td>Greek identification</td>
<td>.16***</td>
<td>.41†</td>
<td>.29**</td>
<td>2.29**</td>
</tr>
</tbody>
</table>

*p < .07, **p < .05, ***p < .01, †p < .001.

NOTE: 1 = the unstandardized Bs when the dependent variable is regressed on the mediator; 2 = the unstandardized Bs when the dependent variable is regressed on the independent variable (cultural frame); 3 = the unstandardized Bs of the independent variable (cultural frame) when the dependent variable is regressed on both the mediator and the independent variable.
mediated, in part, the relationship between cultural frame and the self-description as being an individualist.

Cultural frame and Greek identification were related to describing oneself as modest, emotionally expressive, and lively. Regression analyses for these three adjectives indicated that Greek identification mediated the relationship between cultural frame and these self-stereotypes (see Table 2). For modesty and emotionally expressive, the Sobel tests were significant, and for lively, the result was marginally significant with $p = .052$.

The pattern of results for the attitude toward family integrity suggests that Greek identification also mediates the relationship between cultural frame and attitude. The Sobel (1982) test for mediation confirmed that the mediational path was reliably greater than zero (see Table 2), and the results of this mediational analysis are shown in Figure 1.

The results for the attitude toward friendship were similar to family integrity. The relationship between cultural frame and friendship attitude was less strong when controlling for Greek identification. The Sobel test was significant (see Table 2).

**DISCUSSION**

Research on biculturalism tends to focus on outcomes and correlates of bicultural attitudes rather than on the processes involved (see LaFromboise et al., 1993). Experimental studies have started, however, to examine the psychological processes in cultural frame switching (e.g., Benet-Martínez et al., 2002; Hong et al., 2000, 2003; Verkuyten & Pouliasi, 2002). By using cultural icons for activating different cultural frames, this research tries to replicate, on the level of bicultural individuals, differences found in cross-cultural comparative research. Theoretically, these studies make use of principles arrived at by social cognition research carried out on knowledge activation. The present examination has tried to extend this theoretical approach by including ideas developed by researchers working from a social identity perspective. In particular, we drew on SCT (Turner et al., 1987) in formulating our arguments for the mediating role of group identification. We expected that cultural framing would affect group identification, which would, in turn, influence self-evaluations, self-descriptions, and cultural attitudes.

In a first set of analyses, cultural framing was found to affect these dependent measures. Although not all differences appear to be significant, as a whole, the findings present a
clear pattern that is in agreement with other studies (e.g., Hong et al., 2000; Verkuyten & Pouliasi, 2002). Interestingly, bicultural participants tended to evaluate their personal identity less positively, described themselves more frequently in stereotypical Greek terms, and endorsed the importance of family integrity and friendship to a greater degree when the Greek culture condition was activated than when the Dutch condition was made salient. Also, similar differences were found between the two monocultural (Dutch and Greek) samples. This indicates that despite the extensive individualization of Greek society through the years, Greek culture seems to be still relatively more collectivist than Dutch culture (Hofstede, 1980, 1991; Triandis et al., 1986).

Furthermore, the results for the two monocultural groups are important for interpreting the experimental findings on the bicultural participants. On several measures, the Greek participants and those in the Greek-Dutch condition scored similarly, but their scores differed from those of the Dutch participants and the participants in the Dutch-Greek condition. The scores of the latter two groups were, again, similar. On other measures, there was a linear trend in which the monocultural Dutch scored lowest, followed by the bicultural Dutch-Greek participants, the bicultural Greek-Dutch participants, and the monocultural Greek group. These results suggest that the differences between the two experimental groups of bicultural participants are not related to higher salience of the minority position in the Greek-Dutch condition (Tajfel & Turner, 1986). Rather, in response to culturally iconic cues, bicultural participants seem to shift between interpretive frames rooted in different cultures.

However, it is possible that these effects are mediated by group identification. The cultural icons used for activating specific cultural knowledge structures may affect group identification, which could explain why the evaluation of the collective self was fairly positive for all four groups of participants. Stronger identification will also lead to perceptions and behaviors that are consistent with the particular identity and the appropriate values and norms defining it (Tajfel & Turner, 1986; Turner et al., 1987). Thus, the differences between the two monocultural groups may be because of increased national identity salience (Jetten et al., 2002). Similarly, group identification may be involved in the differences between the two bicultural groups.

For the bicultural participants, the results show that the experimental manipulation did indeed affect Greek and Dutch group identification. Compared to the Dutch-Greek condition, in the Greek-Dutch condition Greek identification was higher and Dutch identification lower. Furthermore, group identification was related to various dependent measures, and the Sobel test for mediation indicated that some of the effects of cultural framing were, in part, mediated by group identification. Thus, the priming conditions seem to have activated group identity (see also Briley & Wyer, 2002), and the level of group identification partly affected some of the self-perceptions and attitudes. These results indicate that group identification is an important psychological mechanism through which cultural framing can affect responses and behaviors.

So the findings suggest that the theoretical frameworks of social identity and self-categorization are of value in explaining cultural influences. Within a cultural explanation, there are various possible theoretical interpretations (Kashima, 2000), but these tend to ignore the importance of social identity processes. A social identity perspective, however, offers the possibility of considering additional variables and processes. For example, Jetten et al. (2002) considered the role of group threat. They find that high, compared to low, group identifiers conform more strongly to group norms and show more self-stereotyping when their group is threatened. This could mean that, to understand biculturalism and frame switching, it is not only important to consider to what extent conflicting cultural values and
beliefs are involved (e.g., Benet-Martínez, et al., 2002) but also the degree to which group identities are seen as oppositional and the nature of the intergroup situation. We have focused on people of Greek descent, and there are no important tensions or conflicts between Greek and Dutch people. However, the situation is quite different for Moroccan and Turkish people living in the Netherlands. These groups are perceived quite negatively, are the least accepted of all ethnic minority groups, and are increasingly urged to assimilate to Dutch society (Hagendoorn, 1995; Verkuyten, 2005). Hence, for these groups, the role of group identification in cultural frame switching can be expected to be of even greater importance. An examination of biculturalism and processes of cultural frame switching should not restrict itself to cognitive mechanisms but should also consider the nature of the intergroup situation and the ideological beliefs involved. The social identity perspective focuses on these latter issues (Tajfel & Turner, 1986).

The present results indicate the importance of considering social identity processes. However, group identification did not account for all the variance explained by cultural framing, indicating that the mediation was partial. There were also significant direct effects of the experimental manipulation on self-perceptions and attitudes. Hence, domain-specific cultural knowledge seems to have become activated and influential in perceptions and attitudes, independently of group identification. From a social identity perspective, it is tempting to assume that priming effects are inherently linked to self-categorizations with their related stereotypes, values, and beliefs. This may be the case in situations in which national or ethnic differences and identities are highly salient. However, there are other bicultural contexts and different types of knowledge activation. For example, Hong et al. (2000) found cultural priming effects among Hong Kong Chinese; U.S. cultural icons moved participants’ interpretive style in the American direction. It is very unlikely that this effect was mediated through participants’ self-identification as American because that is not a relevant social identity in the Hong Kong Chinese context. In addition, cultural priming effects can involve the differential activation of habitual tendencies or implicit knowledge systems that are learned in early acculturation and of which individuals are not typically aware. These tendencies and knowledge are not necessarily linked to specific group identities or part of the conception of what it means to be, for example, Greek or Dutch. The fact that social identity processes can be important for understanding cultural priming effects does not imply that these processes are always relevant and that they account for all forms of knowledge activation. Cultural primes do not only trigger group identities, and identity-specific norms and beliefs are not the only criteria on which people base perceptions and judgments. Likewise, however, cultural primes may not only activate the corresponding cultural knowledge systems but also social identity processes and concerns (Briley & Wyer, 2002).

In evaluating our results, some qualifications should be considered. One is that it might be argued that language rather than culture is responsible for the cultural priming effects found. Following previous studies (e.g., Hong et al., 2000, 2003), cultural icons and language were used experimentally to activate different frames. Previous studies have found that language serves as a situational cue for the flexible use of cultural self-constroals among bicultural individuals (e.g., Kemmelmeier & Cheng, 2004; Ross, Xin, & Wilson, 2002; Trafimow, Silverman, Fan, & Law, 1997). Furthermore, Ji, Zhang, and Nisbett (2004) have shown that culture can affect categorization processes independent of the testing language. Hence, it is unlikely that the effects found are unrelated to cultural framing.

Another qualification relates to the mediation analyses. These analyses were performed following social identity theory and previous experimental findings (Briley & Wyer, 2002). However, the causal direction of the effects cannot be determined. In principle, it is possible
that, for example, family integrity mediates the relationship between cultural frame and Greek identification. Hence, future studies could try to assess participants’ induced consciousness of their group identity. In addition, group identification was measured with single items. This is not uncommon, and such measures have been found to be valid and reliable instruments to assess the degree of identification (e.g., Tropp & Wright, 2001). Our results for these measures also show a clear pattern. However, more reliable and extensive measures should be considered. Furthermore, it seems important to examine different aspects and dimensions of group identification (Ashmore, Deaux, & McLaughlin-Volpe, 2004; Verkuylten, 2005).

Similar to other studies (e.g., Benet-Martínez et al., 2002; Hong et al, 2000, 2003), a between-subjects design was used, whereas a within-subject design would be more appropriate for examining cultural frame switching. Some of the results were also not as expected, and the reasons for this are not clear. In particular, the evaluation of the collective self (“we”) and the self-description as being independent did not differ between the four groups of participants. Future studies should include additional measures and might also examine clearly divergent domains and judgments, such as physical events and attributions. This will allow us to examine just how broad the scope of the cultural frameworks and identity processes involved in frame switching is. Finally, it seems important to consider the extent and nature of biculturalism and the level of acculturation so that differentiations within the bicultural group can be made (Benet-Martínez et al., 2002; Haritatos & Benet-Martínez, 2002).

In conclusion, we have tried to make a contribution to the literature on biculturalism by examining cultural frame switching through using questions on self-perceptions and the endorsement of cultural values. By studying experimentally primed bicultural participants and by including monocultural comparison groups, we have demonstrated that perceptions and evaluations are affected by cultural framing. Furthermore, our examination of the role of group identity found that group identification is a mechanism through which cultural frames can affect self-perceptions and attitudes. The results suggest that in studying biculturalism, it is important to consider social-identity processes in addition to principles of cultural knowledge activation. The dynamic constructivist approach and the social identity perspective both help to explain how cultural knowledge and cultural identity influence perceptions and behaviors. We have tried to show that combining these can improve our understanding of the psychological processes involved in biculturalism.

NOTES

1. For the covariates, level of education was positively associated ($r = .14$) with the evaluation of the personal self, $F(1, 410) = 5.79, p < .05$; and age was negatively associated ($r = -.13$) with the evaluation of the collective self, $F(1, 410) = 4.72, p < .05$.

2. The multivariate effects for both covariates were significant: for level of education, $F(8, 406) = 3.44, p < .001$; and for age, $F(8, 406) = 4.19, p < .001$. Univariate analyses showed that level of education was significantly and negatively related to self-descriptions of being modest and dependent, and it was positively related to perceiving one’s self as modern. Age turned out to be significantly related to all adjectives, except to individualist, lively, and emotionally expressive. Older participants considered themselves as less hedonistic, less modern, more dependent, more modest, and more disciplined.

3. The multivariate effect for educational level as a covariate was significant, $F(2, 408) = 15.43, p < .001$; but for age, the multivariate effect was not significant, $F(2, 408) = 0.54, p > .10$. Univariate results showed a negative association between ($r = -.27$) education and the attitude toward friendship, $F(1, 408) = 23.69, p < .001$. The effect on family integrity was not significant, $F(1, 408) = 2.82, p > .05$. 
4. For the covariates, there was a significant multivariate effect for age of immigration, $F(2, 206) = 10.15$, $p < .001$. Participants who had immigrated at a younger age indicated a stronger Dutch identification ($r = .32$, $p < .001$) and a weaker Greek identification ($r = -.27$, $p < .001$). The multivariate effect for educational level was marginally significant, $F(2, 206) = 2.59$, $p < .08$. Univariate analysis showed that higher education was associated with a weaker Greek identity ($r = -.14$, $p < .05$).

REFERENCES


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