

# One Individual, Two Identities: Frame Switching among Biculturals

DAVID LUNA  
TORSTEN RINGBERG  
LAURA A. PERACCHIO\*

Bicultural bilingual individuals have incorporated two cultures within themselves and speak the languages of those cultures. When cued by a particular language, these individuals activate distinct sets of culture-specific concepts, or mental frames, which include aspects of their identities. Three studies show that language-triggered frame switching (i.e., switching from one set of mental frames to another) occurs only with biculturals, not with bilinguals who are not bicultural. The studies uncover frame switching at the within-individual level, and they include both qualitative and experimental evidence. They also provide a methodology to identify the relative activation strength of specific mental frames in different languages.

**B**icultural bilinguals (henceforth called “biculturals”) are those individuals who have internalized two cultures and who speak the languages associated with each of those cultures. Biculturals often report feeling “like a different person” when they speak different languages (LaFromboise, Coleman, and Gerton 1993). This suggests that biculturals may have distinct cognitive frameworks associated with each of their cultures and languages and that those mental frames may consist of different repertoires of values and behaviors as well as separate worldviews and identities (Briley, Morris, and Simonson 2005; Phinney and Devich-Narvarro 1997).

Recent work in psychology supports the presence of this phenomenon among biculturals (e.g., Hong et al. 2000). That is, bicultural individuals with extensive experience in two cultures seem to access different culture-specific cognitive structures, or mental frames, depending on the socio-cultural context. Following recent research, we refer to this switch between culture-specific mental frameworks as “frame switching” (Briley et al. 2005; Hong et al. 2000).

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\*David Luna is associate professor of marketing, Baruch College, New York, NY 10010 (david\_luna@baruch.cuny.edu). Torsten Ringberg is assistant professor of marketing, University of Wisconsin–Milwaukee, Milwaukee, WI 53201 (ringberg@uwm.edu). Laura A. Peracchio is professor of marketing, University of Wisconsin–Milwaukee, Milwaukee, WI 53201 (lperacch@uwm.edu). This research was supported by the University of Wisconsin–Whitewater, Baruch College, and the Graduate School at the University of Wisconsin–Milwaukee. The authors thank the *JCR* editor, associate editor, and reviewers for their helpful input.

*John Deighton served as editor and Jennifer Aaker served as associate editor for this article.*

*Electronically published March 26, 2008*

Such frame switching can result in shifts in sense of self (Verkuyten and Pouliasi 2002, 2006) and has been shown to be moderated by individual differences (Benet-Martínez et al. 2002).

Our article focuses on language-triggered switching of culture-specific identity frames, extending recent research in this incipient but growing area of inquiry (e.g., Briley et al. 2005; Ramírez-Esparza et al. 2006) by providing and validating a theory-based psycholinguistic framework. We explain how language can be a cue that activates different culture-specific frames. Each culture has its own frames (Hong et al. 2000), which are learned and used in conjunction with that culture’s language (Foucault 1972). As a result, words in two different languages that may seem to be exact translations of each other are likely to have different sets of culture-specific conceptual associations (Kroll and De Groot 1997), reflecting the differences in cultural frame content. We use this framework to explain why biculturals experience frame switching but monocultural bilinguals do not.

We report the results of three empirical studies that support our framework and provide a series of contributions to existing research in frame switching. Thus, studies 1 and 2 investigate frame switching at a within-individual level, exposing individuals to similar tasks and stimuli at different times across different languages. Study 1 employs qualitative inquiry to identify frame switching as manifested in consumers’ interpretations of advertisements, providing rich narratives that reflect the distinct mental frames activated by different languages. Study 2 takes a closer look at the psychological structure underlying frame switching and experimentally tests study 1’s findings, measuring the relative activation strength of culture-specific mental frames in dif-

ferent languages. Study 3 finds that some frames are activated more strongly in one language than in another, while other frames are activated equivalently in both languages. The third study also shows that frame switching is a phenomenon unique to biculturals. Bilinguals who are not bicultural (i.e., monocultural bilinguals) do not appear to experience frame switching.

## BICULTURALISM

Before we undertake a systematic inquiry of frame switching, we must define what we mean by culture, biculturalism, and bilingualism. We define culture as the beliefs, values, and norms of a specific sociocultural group (Brumbaugh 2002). Bicultural individuals are those who have internalized two cultures (Lau-Gesk 2003). Accordingly, both of those cultures guide biculturals' thoughts, feelings, and behavior (Hong et al. 2000; LaFromboise et al. 1993; Ramirez-Esparza et al. 2006). Bilingualism, as we define it, is the ability to communicate relatively well—including the ability to speak, understand, read, and write—in two different languages (Luna and Peracchio 2001). In our research, bilingualism is an essential property of being bicultural.

Based on those definitions, several categories of individuals in addition to biculturals can be distinguished. Monocultural bilinguals are those individuals who never internalized the native culture of their second language. Typically, they learned their second language in a classroom environment, without significant exposure to the language's cultural context. This article focuses on biculturals, although we also compare biculturals to monocultural bilinguals and investigate how their respective cognitive structures may differ. Biculturals and monoculturals differ from one another in several respects. Two key differences are important in our article: (1) compared to biculturals (e.g., Mexican American biculturals), the knowledge that monoculturals (e.g., Anglo Americans who have never been fully immersed in a Mexican environment) have of the other culture (i.e., the Mexican culture) is not linked to self-relevant identity constructs. That is, their knowledge of the other culture, even if it stems from their partial or temporary exposure to that culture, does not affect how they view themselves (Brumbaugh 2002). Correspondingly, (2) biculturals and monoculturals differ in the level of complexity of their knowledge about the two cultures in question—biculturals have richer, more complex knowledge about what it means to be a member of each of the two cultures (Benet-Martínez, Lee, and Leu 2006; Brumbaugh 2002). That is, biculturals have two distinct and complete sets of knowledge structures, one for each culture. Monoculturals have only one set of such structures, for their own culture, and then have secondhand knowledge about the other culture.

A mental frame is understood to be “an interpretation which is frequent, well organized, memorable, which can be made from minimal cues, contains one or more prototypic instantiations, and is resistant to change” (D'Andrade 1992, 29). These mental frames, largely transparent to and implicit for the individual, become mediating devices that organize

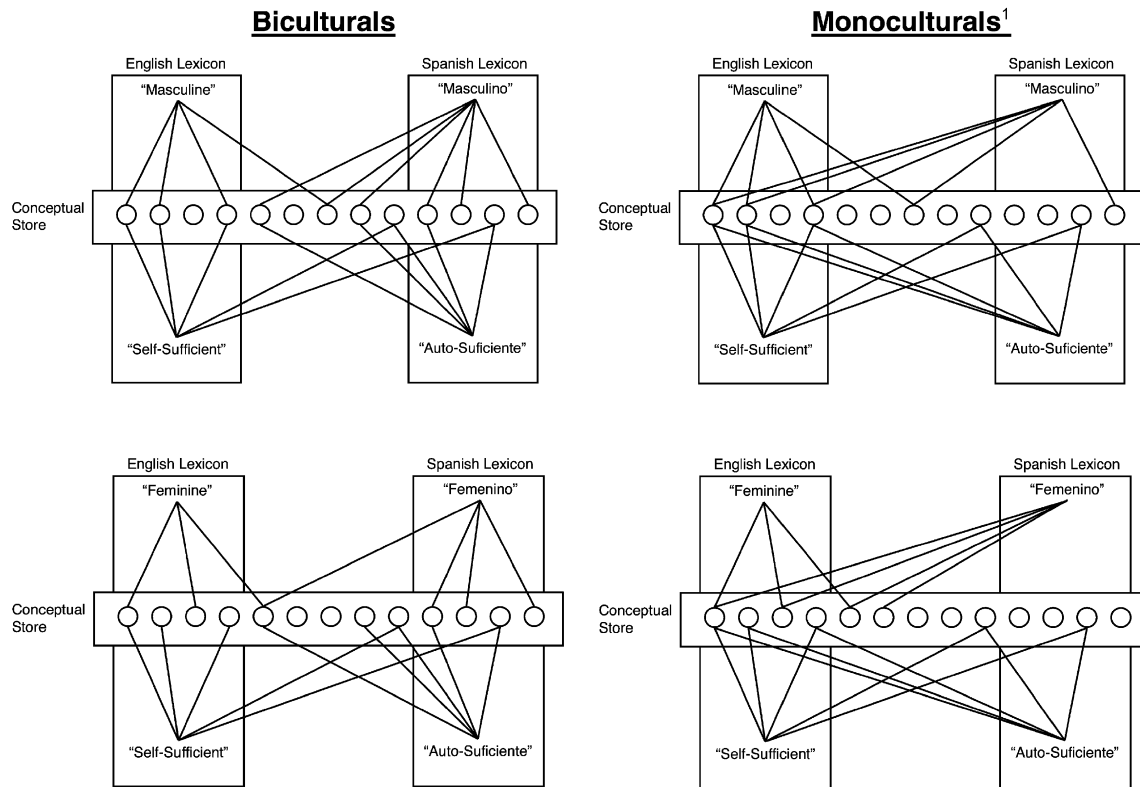
and manage the comprehension of abstract processes (Holland and Quinn 1993; Holland and Valsiner 1988). The content of culture can be seen as a collection of mental frames that are internalized through individuals' socialization and participation in a cultural group (Brumbaugh 2002).

There are two categories of mental frames: the identity-related (or self-relevant) frame and the situational-based frame (Ringberg, Odekerken-Schröder, and Christensen 2007). Our article focuses on the former. Identity-related mental models represent core constructs of self that have been shown to change only gradually across time and even more slowly across context; thus, they are stable across situations for members of a given culture (Syed, Azmitia, and Phinney 2007). For example, research on personality suggests that an individual's identity consists of self-relevant mental frames that tend toward consistency and stability over time (Hogg and McGarty 1990; Wiley and Alexander 1987). That is, identity-related mental frames are formed through an individual's upbringing and socialization and become so deeply anchored in an individual's mind that they are not easily purged or adjusted (Ringberg et al. 2007). These identity-related mental frames stand in contrast to situational-based mental frames, which act as scripts in response to general social expectations and ordinary discourse (Bicchieri 2006). Situational-based mental frames include mental frames elicited by situation-specific environmental inputs and feedbacks.

It follows that biculturals, who by definition are exposed to two cultural value systems (often during upbringing), are likely to have identity constructs related to both cultures, whereas monoculturals have identity constructs related to only one culture. When each of the two different cultures is linked to its own distinct language (as is the case with biculturals), both of the languages are likely to tap into culture-specific identity frames. When bilinguals' languages are not linked to different cultures (as is the case with monoculturals), both languages tap into their respective cultures' situational-based frames but only one of the languages taps into identity-related frames. Following this reasoning, we do not expect to find monocultural identity-related frame switching in the present research. Yet we should emphasize that we do not seek here to explore or experimentally test whether or not monoculturals can experience a change in their identity across situational contexts (e.g., those of a coach, spouse, or manager); our present research focuses on the activation of *culture-specific* identity-related frames among biculturals and monoculturals. Whether identity-related frame switching might be triggered when different roles or situational contexts are made salient we leave to future studies.

Recent research has investigated the bicultural experience and the implications of the relative accessibility of each of the two cultures' frames in the minds of biculturals. In a seminal article, Hong et al. (2000) suggested that biculturals switch from reactions congruent with one culture to reactions congruent with their other culture in response to cues in the sociocultural environment, a process these researchers

FIGURE 1  
MAPPINGS OF WORDS TO CONCEPTS



NOTE.—Words are in quotation marks. Circles represent the conceptual, or semantic, nodes associated with each word. <sup>1</sup>This column represents Anglo monoculturals who are proficient in Spanish.

referred to as frame switching. In consumer research, Lau-Gesk (2003) also speaks to this phenomenon, examining how biculturals respond to different types of persuasion appeals. That work argued that the differential accessibility of one versus the other culture in biculturals' minds affects how they see themselves and, thus, how they respond to advertising. We now describe a cognitive framework that accounts for how culture-specific mental frames can be activated by the language associated with them.

### A COGNITIVE FRAMEWORK

Research in psycholinguistics has examined the notion of the differential activation of concepts from a cognitive perspective. For example, the Conceptual Feature Model, or CFM (Kroll and De Groot 1997), suggests that a word's translation is likely to have an interpretation different from that of the original. According to the CFM, words in each language known by a bicultural activate a series of conceptual features. Words are connected to a number of these features that represent the subjective interpretation of the word for each individual. Those conceptual features, if unified under a theme or category, could be considered distinct

frames. Hence, biculturals may possess two different culture-specific mental frames, each of which is connected, in its respective language, to a word that appears to be the same in the two different languages (translation-equivalent words).

Figure 1 depicts a hypothetical scenario derived from the CFM. The left side represents bicultural individuals, and the right side represents monoculturals. The upper panels for both biculturals and monoculturals show the mappings between two words, "masculine" and "self-sufficient," and the identity-related concepts they represent. The two words are contained in a language-specific memory store—the English lexicon. Their respective translation-equivalent words, "masculino" and "auto-suficiente," are stored in the Spanish lexicon. The four words are linked to conceptual features that determine their meaning and are retained in a single conceptual store that is common to both languages. Each translation-equivalent word is linked to different concepts. The lower panels of figure 1 depict the conceptual mappings between "feminine" and "self-sufficient"—and their translation equivalents, "femenino" and "auto-suficiente"—for biculturals and monoculturals.

Figure 1 presents the conceptual overlap of two words as

the number of shared conceptual associations. For example, for biculturals, the conceptual overlap of “feminine” and “self-sufficient” is smaller than the overlap of “femenino” and “auto-suficiente.” The figure suggests a lack of symmetry between the two languages regarding the conceptual associations that each word elicits. For instance, when biculturals are processing information in English, certain conceptual features are activated, themselves priming other conceptual features and the words associated with them. Those conceptual associations form the mental frames that will influence biculturals’ self- and other-interpretations and subsequent behavior. When biculturals express themselves and perform identical tasks in different languages, the conceptual features that are activated are not necessarily the same. Thus, for biculturals, the two languages may be linked to different identity-related frames.

The extent of the conceptual overlap of two words within a language determines the strength of the association between those words in tasks involving semantic processing (e.g., categorization tasks). For instance, for biculturals in figure 1, the English words “masculine” and “self-sufficient” have three conceptual features in common, but the words “feminine” and “self-sufficient” have only one. This greater number of common conceptual features means that in English the word “self-sufficient” is linked more strongly to the word “masculine” than to the word “feminine.” This should be manifested experimentally in faster response times in semantically mediated tasks in English when the words “masculine” and “self-sufficient” are paired together than in tasks in which “feminine” and “self-sufficient” are paired together, as evidenced in our second study.

The right side of figure 1 represents Anglo monocultural bilingual individuals. In this case, the words in the Spanish lexicon are linked to the same identity-related concepts as the words in the English lexicon, so the same frames would be activated in English and in Spanish. This is because Anglo monocultural individuals have not internalized the Spanish-language culture, so there is only one set of identity frames—plus, perhaps, some spurious associations to concepts in their second language. As monoculturals learn their second language, they map new words to the existing concepts and frames of their native culture. Differences between biculturals and monoculturals will be examined in study 3.

## STUDY 1

This study explores frame switching by taking primarily a qualitative approach. A series of interpretive tasks probes bicultural female informants for their in-depth explanations of several ads, to determine if the presence of underlying mental frames is thereby revealed. We investigate whether or not the activation of specific mental frames depends on the language in which the ad-interpretation task is conducted. Only female informants were selected, to minimize gender effects in a domain in which gender effects are likely to be found—perceptions of self and others (Meyers-Levy and Maheswaran 1991).

We anticipate, based on the following research findings,

that bicultural women will experience frame switching on one dimension of self-construal: self-sufficiency and other-dependence. Traditionally, popular stereotypes of the Hispanic and the Anglo cultures might lead to the assumption that the Spanish language would cue bicultural females to register as other-dependent and that the English language would cue them to register as self-sufficient (Martínez 1995; Vega 1990). However, some researchers suggest a recent and significant shift within the cultural fabric of Anglo and Hispanic female subcultures (see Martínez 1995; Vega 1990). Hispanic females have begun to express more self-sufficiency and Anglo females more other-dependence. Thus, while remnants of a machismo-based interaction are still present in various Hispanic social subgroups, these are increasingly considered a facade (Webster 1994). In fact, a large ethnographic study on gender and participatory democracy among urban Hispanics in California found that an overwhelming majority (84%) of Hispanic women support feminist goals (Takash 1993). Hispanic women are frequently and actively involved at the grassroots level, fighting for equal rights (Hardy-Fanta 1993; Takash 1993). It is noteworthy that independence and assertiveness seem to be dominant values emerging in the discourse of some female Hispanic groups (Farr 2005). In contrast, the social trend among Anglo women appears to have reverted toward traditionalism (e.g., moms as homemakers; Chandler 1999; Luttrell 1989; Ovadia 2001).

Those studies lead us to expect that a frame switch could take the opposite direction from that suggested by popular stereotypes; that is, the use of Spanish, rather than English, would result in greater activation of the self-sufficient aspect of the self. Thus, when bicultural females use Spanish (vs. English) to communicate, their words should be more strongly connected to concepts that indicate self-sufficiency than to concepts that indicate other-dependence. That pattern of conceptual activation would then influence the interpretations of self-relevant ads.

## Method

To find evidence of frame switching in ad interpretations, we used semistructured in-depth interviews, which encourage informants to provide “self-revealing records that intentionally or unintentionally yield information regarding structure, dynamics, and functioning of the author’s mental life” (Shaw 1980, 229). Accordingly, this method is particularly useful to investigate frame switching, especially with regard to identity-related concepts.

*Informants.* Fourteen female informants participated in two language-specific sessions set apart by 6 months. Only bicultural female informants were included, to eliminate potential differences based on gender and to enable us to focus on any language-triggered differences in our findings (Meyers-Levy and Maheswaran 1991). Informants were first- or second-generation Hispanic Americans, 24–59 years of age, and living in a Midwestern city. All informants were fluent in Spanish and English, as measured on Luna and Perac-

chio's (2001) scale, included in the appendix. Informants held professional positions in a variety of organizations. Their education level ranged from completion of high school to graduation from college. We measured the degree of their identification with Hispanic culture with a five-item, seven-point scale: "I do not identify strongly with my ethnic group" (reverse coded); "I enjoy celebrating Hispanic/Latino cultural events"; "I think it's important to support activities that maintain our cultural heritage"; "If I had children, I would make sure they learn their cultural tradition"; and "In terms of your affiliation to the Anglo/Latino culture, how do you view yourself?" (very Latino/very Anglo; reverse coded). Higher scores denoted a higher identification with Hispanic culture. Scores ranged in the high end of the scale, between 5 and 7. Table 1 provides details on the informants.

*Procedure and Materials.* Each session was conducted exclusively in one language. Informants were not told that they would be invited to a second session until they had finished the first session. Informants confirmed at the second-round debriefing that they had no recall of the stimuli material used in the first session. Half of the informants were interviewed in Spanish in the first session and in English in the second, while the other half were interviewed in English in the first session and in Spanish in the second. Three male interviewers of similar age (25–35) were employed, two of whom were biculturals. The interviewers alternated between English and Spanish interviews.

Each session began with small talk, to engage informants in the language of the study. This was followed by a demographic questionnaire (administered only during the first session). Next, informants were asked to interpret four target advertisements containing fictitious brands and copy and images of women as well as several filler ads. Only two of these target ads are described in the discussion of the findings below, due to space limitations; results for the two other ads are available from the authors. The text of the ads was either in Spanish or in English, depending on the

language of the interview. To ensure that all interviews were conducted in a similar fashion, interviewers were given a standard list of questions that were to be asked during the sessions. Informants were probed, first with open-ended questions such as "Please tell me about your thoughts and feelings about this ad," followed by questions such as "What is the woman in the ad doing? How does she feel? What do you think might have happened before and after this snapshot in this woman's life?" and, finally, "Try to imagine yourself in this ad. Where would you be? What would you do? And what would you feel?" Verbal protocols from the interviews were tape-recorded and later transcribed by a bicultural assistant. Finally, informants completed the reduced Bem inventory, described below.

*Bem Inventory.* To help investigate possible frame switching between English and Spanish as manifested in the activation of a self-sufficient versus other-dependent view of the self, informants completed a reduced version of the Bem inventory (Bem 1979). This scale was used because our conceptualization of self-sufficiency/other-dependence and the sociological trends among Hispanic women described above are more closely aligned with the items of the Bem inventory (e.g., regarding assertiveness) than with other scales that might measure similar constructs such as individualism/collectivism. Each informant completed the Bem scale twice, once in each session. The inventory is a 20-item scale including 10 "other-dependent" characteristics and 10 "self-sufficient" characteristics. Informants were asked to report whether those characteristics applied to them on a seven-point scale (1 = never or almost never true, and 7 = always or almost always true). Scores were added to form self-sufficiency and other-dependence indexes for each individual. Other-dependent (self-sufficient) characteristics suggest a more (less) traditional perception of a woman's role in the world. Composite scores were obtained by subtracting the other-dependent from the self-sufficient scores (Bem 1979).

TABLE 1

STUDY 1: INFORMANTS

| Pseudonym  | Age | Occupation                 | Education         | National origin | First-session language | Second-session language |
|------------|-----|----------------------------|-------------------|-----------------|------------------------|-------------------------|
| Rose       | 24  | Resource specialist        | Some college      | Mexican         | English                | Spanish                 |
| Louise     | 33  | Receptionist               | Some college      | Mexican         | Spanish                | English                 |
| Monica     | 29  | Case manager               | Some college      | Puerto Rican    | Spanish                | English                 |
| Silvia     | 32  | Office manager             |                   | Mexican         | English                | Spanish                 |
| Montserrat | 49  | Personal caregiver         | Community college | Mexican         | English                | Spanish                 |
| Linda      | 46  | Supervisor                 | Some college      | Mexican         | Spanish                | English                 |
| Maria      | 37  | Receptionist               | High school       | Mexican         | Spanish                | English                 |
| Sonia      | 53  | Domestic violence advocate | Community college | Mexican         | Spanish                | English                 |
| Josephine  | 59  | Home health care provider  |                   | Mexican         | English                | Spanish                 |
| Esperanza  | 30  | Housing advocate           | Community college | Mexican         | Spanish                | English                 |
| Lina       | 32  | Housing specialist         | Some college      | Puerto Rican    | English                | Spanish                 |
| Carmen     | 32  | Receptionist               | High school       | Mexican         | English                | Spanish                 |
| Sara       | 32  | Secretary                  | Some college      | Puerto Rican    | Spanish                | English                 |
| Ana        | 31  | Case manager               | High school       | Mexican         | English                | Spanish                 |

## Analysis and Findings

The analysis of the narratives followed an emergent (open-ended) theory-building process (Strauss and Corbin 1990) through which each meaning unit, or concept, in the narrative is identified by the researcher. The majority of the concepts in our informants' narratives were captured by either of two mental frames, self-sufficiency or other-dependence.

As informants described their thoughts and feelings about the ads under the two language scenarios, differences in mental frameworks emerged across the two languages. In the Spanish-language sessions, informants perceived females as more self-sufficient and extroverted. This frame did not emerge as often in the English-language sessions. In fact, when interviews were conducted in English, informants evinced a more traditional other-dependent and family-oriented view of women. The frame switching occurred across all ads. All informants showed evidence of frame switching across multiple ads. We have included exemplary quotes that convey the nexus of assumptions, concerns, values, and meanings that systematically emerged for the majority of the informants. We begin by presenting the analysis of informants' interpretations of women depicted in the ads (i.e., sense of others). We then present the analysis of the Bem inventory (i.e., sense of self).

*Nature Ad.* In this ad, a woman is sitting alone atop a hill overlooking a lagoon. The advertisement is for a resort hotel and the major headline states, "For those who rarely find themselves at a loss for words, prepare to be left speechless." The ad declares that the scenery is "too unbelievable to describe," with pristine beaches, towering mountains, and peaceful deserts. Here are two informants' responses from the Spanish-language interviews:

This is my favorite. It looks beautiful. The woman looks very tranquil. She takes time for herself. She went for a walk after a long day at work. It is very beautiful landscaping, and she sits down to think. She is alone with her thoughts. I think she is a positive person who takes risks—she can express herself; she is independent. The fact that she is alone indicates that she knows how to take time for herself. Perhaps at home she left her mate. She knows how to take a few minutes for herself. (Sara/Spanish)

I think that she is strong. A woman likes to go out and travel. Women who are more feminine like to go to a nice hotel and have their nails done, and all that. There are other women who like to travel to places where they will have nice drinks, dance, and all those things, and then there are other women who like the fresh air, outside, camping—they like to go to other countries like Africa. She is a strong woman who does not like titles, who does not like to be told what a woman should be. She wants to be outside, likes to sleep outdoors, so she looks strong. (Esperanza/Spanish)

The nature ad does not contain any explicit indication of the mental state of the woman depicted in the ad. It may

be deduced from the headline, "prepare to be left speechless," that the woman enjoys a breathtaking view. Nonetheless, in the Spanish-language sessions, informants interpreted the woman's being by herself as demonstrating that she is a risk taker, independent, and looking for time for herself. For Esperanza, being in nature involves the challenges of the outdoors (camping, Africa), implying that this woman must be strong and not likely to accept direction from others.

The English-language interviews illustrate an interesting difference in the informants' framing of the same ad. In English, a perspective of other-dependence and a feeling of hopelessness are associated with the woman depicted in the ad:

She's by herself on her own. But she feels, she looks, hopeless. It looks like she's going through something, that she needs to get away from everything and go here and think and just let it all out. If it was just a yell—scream, nobody could hear her. But there is just, just that feeling of being alone, nobody to bother you. You could think and not let something bother that thinking. She looks lonely too, and she looks very disturbed, confused, like she's got something on her mind. She's trying to figure out the answer for it. She looks confused and uncertain—I think that's why she went here to find answers. (Sara/English)

Sara's English-language description of the female character on the hilltop as insecure, worrying, hopeless, and confused stands in contrast to her Spanish-language description of the same female as positive, a risk taker, expressive, and independent. Tellingly, across informants in the Spanish-language sessions "being by yourself in nature" is associated with having strength either physically (e.g., "she likes to rough it"; she "does not like to be told what a woman should be") or spiritually ("she is taking time to nurture herself and for personal growth"). Conversely, in the English-language sessions, the woman on the hilltop is seen as weak ("wanting to escape a world of problems and concerns"). Esperanza's brief remark speaks to the latter:

The woman in this ad is uptight and not really relaxed. She is hardworking, trying to survive. She needs to see what's next. She went there to sort out her problems. (Esperanza/English)

*Café Ad.* This ad portrays a man and a dark-haired woman, casually dressed, sitting outdoors in the sun at a southern European café. The man appears to be talking to the woman, while the woman is looking ahead. The headline, "Enjoy Culture," is followed by text in smaller print asserting that "Only one airline in the world captures the warmth and style of Europe. Enjoy culture with Avica." Here are excerpts from the Spanish-language interviews:

She is very real. She carries herself well. Very independent. She knows who she is, and she does not try to use the image of another person; she is honest with herself. She is the dominant person. The way she looks. She has a very, perhaps

not aggressive, gesture—but she will not be taken advantage of. To me, he is passive. (Rose/Spanish)

She looks dominant. She looks independent. She looks like she can just get up and go whenever she wants. She does not look like she has any problems. She looks happy, and she looks like a supervisor—like she has worked a lot, now it is vacation time, and it is time to be free and happy by herself. She dominates the relationship. She looks like she has no boss, no husband, no boyfriend, no one to tell her anything. (Louise/Spanish)

The scene in the café ad depicts few, if any, outward cues about the woman's status. She is smiling and appears relaxed. The caption in the ad focuses on traveling and experiencing the warmth and style of Europe, yet the informants largely attributed dominant traits to the woman in the ad when asked about her attributes (e.g., independence, a manager of her own life, aggression, not a person to be taken advantage of). The informants justified such characterizations by referring to the way the woman looks, sits, and dresses, the smile on the man's face, his rubbing of his hands, and so forth, not providing a consistent clue as to any particular source cue. This view instantiates a strong focus on self-sufficiency. Rose's description of the female model in the Spanish-language session reflects a woman who "carries herself well. Very independent. She knows who she is." This contrasts with her English-language perception, in which the role of the man was reversed—more an equal, if not a strong-minded, partner:

I would say this represents a man and a woman who both are very gentle, wanting to get away and relax. They are able to express their feelings to one another. Although he looks very strong-minded in his beliefs and things like that, I see them as a couple. (Rose/English)

Louise's English-language interview provides yet another example of this difference in mental framing, as the female is now regarded as much more complacent, gentle, and nurturing:

I see two people having coffee, conversing. They look like they are comfortable with each other, and the woman is a caring and sensitive person. I think females are more understanding and nurturing as far as dealing with other people with problems or talking to other people who need somebody to confide in. (Louise/English)

**Bem Inventory.** An analysis of the Bem scale supported the qualitative findings that the Spanish language cued the self-sufficient self while English language cued the other-dependent self. A within-subjects comparison across the two sessions illustrates that the composite score was lower (more other-dependent) in English (denoted by subscript "E") than in Spanish (denoted by subscript "S") ( $M_E = -.54$  vs.  $M_S = -.19$ ;  $F(1, 13) = 5.37, p < .05$ ). This analysis of the

Bem scale suggests that for our informants Spanish (English) activates a more self-sufficient (other-dependent) model of self.

## Discussion

The informants maintained their culture-specific mental frames across ads within each language session. Female models were perceived as self-sufficient (strong, intelligent, industrious, and ambitious) in the Spanish session, but this view of the women in the ads was not as strong in the English session. Instead, the contrasting view of women as other-dependent emerged more intensely in the English interviews than in the Spanish interviews. Hence, study 1 provides qualitative evidence for frame switching triggered by sociocultural cues—in this case, by language. The direction of the switch observed in this study confirms recent research that has investigated the values of women in the Hispanic and Anglo subcultures in contemporary U.S. society (e.g., Chandler 1999; Hardy-Fanta 1993; Luttrell 1989; Ovadia 2001; Takash 1993). It also suggests that informants were not merely activating surface stereotypes of a culture—for example, Hispanic women stereotyped as family-oriented and other-dependent—because our results follow the opposite pattern.

The interpretive methodology of study 1 allowed us to find that frame switching is manifested in ad interpretations, suggesting that frame switching is a relevant phenomenon. However, the study cannot address the question of how strongly each frame is associated with each of the two languages and, thus, with each of the two cultures. For instance, the rich narratives obtained from informants in this study show that the self-sufficient view of women was more intense in the Spanish interviews, but we do not yet have a precise indication of the strength of self-sufficient associations versus other-dependent associations to key English and Spanish identity-related terms, respectively. Study 2 is designed to provide such an indication and to confirm that, compared to English-language words, Spanish-language words lead to greater accessibility of self-sufficient (vs. other-dependent) associations.

## STUDY 2

Study 2 examines experimentally the difference in activation strength of the self-sufficient versus other-dependent identity frames in Spanish and in English, respectively. We expect bicultural Hispanic female respondents to switch frames when they change the language in which they process information—that is, when they switch from English to Spanish, and vice versa. According to our findings in study 1, the link between the words "feminine" and "self-sufficient" should be stronger in Spanish than it is in English relative to the link between the words "masculine" and "self-sufficient" (see fig. 1).

A broader goal of study 2 is to validate the model in figure 1. That model offers very specific, testable predictions about the differences in response times for tasks that require

pairing certain words in a semantically mediated task such as categorization (see our previous discussion). Further, we conceptualize frame switching as a largely automatic process (Anderson 1983; Holland and Quinn 1993), emergent in such semantically mediated tasks. Therefore, this study utilizes the Implicit Association Test, or IAT (Brunel, Tietje, and Greenwald 2004; Greenwald, McGhee, and Schwartz 1998). The IAT has become one of the main measures of implicit attitudes and conceptual associations. Significantly, the IAT is based on a classification task in which respondents are asked to categorize words into two possible groups.

In this study, we are interested in investigating the strength of the association between the words in the pairs masculine/self-sufficient, masculine/other-dependent, feminine/self-sufficient, and feminine/other-dependent, both in English and in Spanish. We compare those strengths of association across languages, using four target words (“masculine,” “feminine,” “self-sufficient,” and “other-dependent”) and two languages of presentation. After a series of practice trials, respondents were presented with the first of two categorization tasks. Task order was counterbalanced. In one of the tasks, stimuli representing one of the four words were displayed (see table 2 for the lists of stimuli), and respondents were instructed to press one key if the stimulus exemplified the categories “masculine or self-sufficient,” and another key if the stimulus represented the categories “feminine or other-dependent.” We call this the *traditional task* because it fits the traditional way of thinking about masculinity and femininity.

Next, respondents completed the second categorization task, beginning with a set of practice trials. In this task, the categories “feminine or self-sufficient” shared the same key, and the categories “masculine or other-dependent” shared another key. We call this the *nontraditional task*, because it does not fit the stereotypical perceptions of masculinity and femininity. Note that in study 1, this configuration of associations between concepts was more frequent in the Hispanic frame than in the Anglo frame.

If respondents associated “masculine” with “self-sufficient” more strongly than with “other-dependent,” they should find the traditional task to be easier than the nontraditional task. Therefore, they should be faster at classifying “masculine” and “self-sufficient” exemplars when both categories share the same response key (and “feminine” and “other-dependent” share the other response key) than when the key assignments are reversed. The IAT effect is a function of the difference between respondents’ average response time in the nontraditional task and their average response time in the traditional task. The IAT effect is the key dependent variable in the study 2. Its magnitude and arithmetic sign can be interpreted as a measure of the relative automatic association between “self-sufficient” and “masculine” versus “self-sufficient” and “feminine” (Brunel et al. 2004). In particular, we expect that, when respondents complete the tasks in English, the IAT effect (i.e., the nontraditional task mean response time minus the traditional task mean response time, adjusted according to Greenwald,

TABLE 2

## STUDY 2: STIMULI TO BE CATEGORIZED IN THE IAT

| Masculine | Feminine  | Self-sufficient     | Other-dependent |
|-----------|-----------|---------------------|-----------------|
| Charles   | Ann       | Leadership          | Gentle          |
| Peter     | Sarah     | Assertive           | Tender          |
| David     | Natalie   | Dominant            | Compassionate   |
| George    | Mary      | Strong              | Warm            |
| Stephen   | Sylvia    | Forceful            | Sympathetic     |
| Mark      | Laura     | Aggressive          | Sensitive       |
| Albert    | Rose      | Take a stand        | Soothing        |
| Paul      | Christine | Independent         | Understanding   |
|           |           | Defends own beliefs | Affectionate    |
|           |           | Risk taker          | Loves children  |

NOTE.—Stimuli were presented in random order to respondents. All words, including the persons’ names, were translated into Spanish for the Spanish IAT.

Nosek, and Banaji [2003]) will be greater than when they complete the tasks in Spanish.

Thus, frame switching should be manifested in a significant difference between the Spanish IAT effect and the English IAT effect within individuals. If we find the predicted difference in the size of the IAT effects across languages, it would suggest that when respondents were processing in Spanish, there was greater conceptual overlap between the words “masculine” and “other-dependent” (and “feminine” and “self-sufficient”) than when they were processing in English.

**H1:** The IAT effect, a function of the nontraditional task response times minus the traditional task response times, will be greater in English than in Spanish.

## Method

**Materials.** Four lists of stimulus words to be categorized were shown randomly to respondents, one word at a time. The words included the 20 “self-sufficient” and “other-dependent” items from the Bem inventory used in study 1, one list of eight male names (e.g., Charles, Peter) and one list of eight female names (e.g., Ann, Christine). Thus, a total of 36 words had to be categorized in each of the two tasks—the traditional task and the nontraditional task. Consistent with standard IAT procedures, the category labels in the two tasks were, respectively, (1) “masculine or self-sufficient” or “feminine or other-dependent” and (2) “masculine or other-dependent” or “feminine or self-sufficient.” These labels were derived from our findings in study 1. For the Spanish IAT, all stimuli and instructions were translated into Spanish, using the method of back translation. Names were chosen for the participants in the study if they could be translated effectively into Spanish (e.g., Charles is Carlos in Spanish). Note that the English and Spanish versions of the stimuli are not equivalent in word length. Overall, the Spanish stimuli are 135 syllables long, and the English stimuli are 86 syllables long. Therefore, we cannot make a direct comparison of the response times across languages. How-



ever, recall that the intention of this study was not to compare response times across languages but, rather, *within* language, to obtain one IAT effect for each language, which then would be compared across languages.

**Procedure.** Respondents completed two identical IATs, one in Spanish and the other in English. Half the respondents completed the Spanish IAT first, and the other half completed the English IAT first. Within each IAT, the order of the tasks was varied randomly—they completed first either the traditional task or the nontraditional task. The order of the target trials was the same for any given respondent in both the Spanish and the English IATs.

The experiment took place in a university lab. Respondents were instructed that both speed and accuracy were important in this study. To ensure that the mental frames associated with each language were activated, respondents in the English IAT–first (Spanish IAT–first) condition were exposed to an unrelated newspaper article in English (Spanish) and asked to complete an unrelated scale in English (Spanish) before completing the first IAT. After completing the English (Spanish) IAT, respondents were told that they were going to help the researchers evaluate an article in Spanish (English) and validate a questionnaire also in Spanish (English). After being exposed to those unrelated materials, designed to help activate the corresponding culture-specific frames, they completed the second IAT. Finally, respondents were debriefed and asked if they could guess the purpose of the experiment. None of them correctly identified our objective.

**Respondents.** Twenty-eight Hispanic female students at a large urban university participated in this study. The average age of respondents was 22 years. All respondents were highly proficient in both Spanish and English, as indicated by their scores on the language proficiency scales used in study 1. Level of acculturation was measured by an adapted version of Mendoza's Cultural Life Style Inventory (CLSI; 1989). This 10-item scale measures to what degree respondents have a greater affinity for either Anglo or Hispanic culture. The scale has five possible answers to a series of questions. For instance, one question asks to what extent respondents watch Spanish-language or English-language TV (1 = only Spanish; 2 = mostly Spanish; 3 = Spanish and English about equally; 4 = mostly English; 5 = only English). Another question asks about the ethnicity of the respondent's friends (1 = only Hispanic; 2 = mostly Hispanic; 3 = Hispanic and Anglo about equally; 4 = mostly Anglo; 5 = only Anglo). Thus, the midpoint of the scale represents bicultural status, and the endpoints represent monocultural status. The mean acculturation score was  $M = 3.04$ , with a standard deviation of  $SD = .54$ ; thus, respondents scored around the midpoint, suggesting that they were indeed biculturals. The CLSI differs from study 1's ethnic identification measure in that the CLSI considers respondents' affinity for their Hispanic heritage as well as their affinity for Anglo culture. The CLSI is, therefore, a more complete measure.

## Results and Discussion

Response times to the target trials were analyzed following Greenwald et al.'s (2003) procedures. The main measures were the IAT effects in English and Spanish. As the IAT was administered in both English and Spanish, we had an English IAT effect and a Spanish IAT effect. We submitted the two IAT effects to a repeated measures analysis of variance with one within-subjects factor—language. We expected that in English, classification times for the traditional task would be faster than for the nontraditional task, resulting in a larger IAT effect. In Spanish, however, this difference should not be as great, resulting in a smaller IAT effect.

The results supported hypothesis 1. In English, the average response time to the traditional task was  $M = 858.50$  milliseconds, and the average response time to the nontraditional task was  $M = 1,025.83$ . In Spanish, the average response time to the traditional task was  $M = 866.82$ , and the average response time to the nontraditional task was  $M = 993.60$ . Therefore, the difference in response times was 167.33 in English and 126.78 in Spanish, and the corresponding IAT effects, after the transformations recommended by Greenwald et al. (2003), were  $IAT_E = .46$ , and  $IAT_S = .34$  ( $F(1, 27) = 5.16, p < .05$ ). No effects were found for the order in which the tasks were administered. These findings provide evidence that the associations masculine/other-dependent and feminine/self-sufficient are stronger in Spanish than in English, relative to the associations masculine/self-sufficient and feminine/other-dependent.

The results of this study show that respondents frame switch, even within the same experimental session, when languages are switched. That is, if we think of the associations activated by English (Spanish) as part of the Anglo (Hispanic) frame, it appears that for bicultural females, the Hispanic identity frame is more self-sufficient than the Anglo frame—in the Hispanic identity frame, compared to other-dependent associations, there are more self-sufficient associations. In addition, these results provide further evidence for the direction of the frame switch identified in study 1.

However, as mentioned above, we cannot make direct comparisons between Spanish and English response times, because of the difference in the length of the stimuli across languages. As can be observed in the mean response times, it seems that traditional associations are similarly strong in both Spanish and English (i.e., in both the Hispanic and the Anglo identity frames). One of the aims of study 3 is to directly compare the strengths of traditional and nontraditional associations across cultures. In study 3, we do not rely on response times, which may be influenced by stimuli length. Rather, we utilize the outcome of a categorization task.

Another goal of study 3 is to compare biculturals to monoculturals who have achieved a high degree of proficiency in a second language. Studies 1 and 2 utilized bicultural participants. In study 3, we argue that frame switching will occur only in bicultural populations, not in monocultural populations, as suggested in figure 1.

### STUDY 3

Hypothesis 2 relates to the main finding across our studies: that biculturals experience frame switching and that these phenomena are manifested along the self-sufficiency/other-dependence dimension. This hypothesis also compares biculturals to monoculturals. For monoculturals, their second language is learned without direct experience of that language's cultural context; consequently, we expect that no frame switching will occur, because there is no second-language cultural frame to switch to (Brumbaugh 2002). As depicted in figure 1, although monoculturals can have two sets of lexicons, they do not possess different culture-specific frames connected to translation-equivalent words. Our study includes two groups of monoculturals: monocultural Anglos and monocultural Hispanics. We expect, therefore, that consistent with studies 1 and 2:

- H2a:** Bicultural women surveyed in Spanish will perceive themselves as more self-sufficient than will bicultural women surveyed in English.
- H2b:** Neither monocultural Anglo nor monocultural Hispanic women will experience any differences in self-perception across languages.

Traditional perceptions of women in most cultures include views of women as more caring, sensitive, and other-dependent than men typically are (Di Dio et al. 1996). Therefore, we also aim to show that for biculturals traditional associations (i.e., self-sufficient/masculine and other-dependent/feminine) are accessible in both English and Spanish. Nontraditional associations (i.e., self-sufficient/feminine and other-dependent/masculine), however, we expect are more accessible for biculturals in Spanish than in English. This pattern of results would be consistent with study 2. We expect no differences in activation across languages for monoculturals.

A word categorization task was administered to explore the relative levels of accessibility of the two frames across languages. The task consisted of having respondents categorize (as masculine, feminine, or both) the Bem scale terms used in studies 1 and 2. We expected that in English and Spanish alike, "self-sufficient" terms should be classified frequently as masculine and "other dependent" terms should be classified frequently as feminine. Those are the traditional associations. However, we expected that in Spanish, respondents should make categorizations according to nontraditional associations more often than in English. That is, "other-dependent" terms should be classified as masculine or as both masculine and feminine more often in Spanish than in English. By the same token, "self-sufficient" terms should be classified as feminine or as both feminine and masculine more often in Spanish than in English.

- H3a:** Bicultural women will categorize self-sufficient and other-dependent terms according to traditional associations equally as often in Spanish as in English.

- H3b:** Bicultural women will categorize self-sufficient and other-dependent terms according to nontraditional associations more often in Spanish than in English.

- H3c:** Neither monocultural Anglo nor monocultural Hispanic women will display any differences across languages.

In summary, this explicit categorization task complements the implicit task in study 2, provides evidence that the type of frame switching we address occurs only with biculturals, not monoculturals, and suggests that traditional associations are dominant, ubiquitous across both cultures, but that the key difference across cultures and languages is in the relative accessibility of nontraditional associations.

Finally, this study seeks to help define the terms "self-sufficiency" and "other-dependence." To this end, we examine an additional construct across languages, assertiveness (Goldberg et al. 2006). We expect assertiveness to be a construct similar to self-sufficiency, as conceptualized in this article. Therefore, biculturals should experience a frame switch in their responses to assertiveness similar to that found in their responses to self-sufficiency/other-dependence.

### Method

A 2 (language: Spanish vs. English)  $\times$  3 (sociolinguistic group: monocultural Anglos, monocultural Hispanics, biculturals) between-subjects experiment was designed. Language was manipulated by varying the language of the questionnaires to which respondents were exposed. We measured sociolinguistic group using the same version of the CLSI we used in study 2 (Mendoza 1989). We assigned individuals who had average scores between 2 and 4 to the bicultural group, and individuals whose average score was smaller than 2 or greater than 4 to the monocultural Hispanic or the monocultural Anglo group, respectively. A total of 93 fluent Spanish-English bilingual females participated in this study. The average age was 22 years. Respondents held a variety of occupations, ranging from office managers to students. There was also a variety of national origins represented in our sample (e.g., Mexican, Puerto Rican).

As in study 2, the experimental session in study 3 began with an unrelated task to help activate the appropriate frame. This task consisted of having respondents provide their opinion about an ad either in English or in Spanish, depending on the language condition to which they were assigned. Respondents were asked to write down any thoughts that came to mind about the ad and the ad's character. After completing this task, respondents filled out the target materials, including the dependent variables, an acculturation scale, and demographic questions.

Key dependent variables included (a) the Bem inventory; (b) a categorization of the items in the Bem inventory as "masculine," "feminine," or "both"; and (c) a scale to measure respondents' assertiveness (Goldberg et al. 2006)—which included the following items: Express myself easily; Try to lead

others; Automatically take charge; Know how to convince others; Am the first to act; Take control of things; Wait for others to lead the way (R [reverse scored]); Let others make the decisions (R); Am not highly motivated to succeed (R); Can't come up with new ideas (R)—in which 1 = never or almost never true; 7 = always or almost always true.

**Results and Discussion**

Hypothesis 2a proposed that bicultural women surveyed in Spanish (English) would be more likely to activate their self-sufficient (other-dependent) self than their other-dependent (self-sufficient) self. Hypothesis 2b proposed that monocultural women should not experience any differences in activation across languages. Hypotheses 2a and 2b were confirmed by an analysis of respondents' answers to the Bem inventory. Composite scores for the scale were obtained by subtracting the other-dependent scores from the self-sufficient scores (Bem 1979), thereby representing the strength of activation of the self-sufficient self relative to the other-dependent self. We found a significant interaction of sociolinguistic group by language ( $F(2, 87) = 3.29, p < .05$ ). Biculturals' scores revealed that the Spanish group's average composite score was higher than the English group's ( $M_S = .16$  vs.  $M_E = -.48; F(1, 87) = 4.65, p < .05$ ). This suggests that respondents in the Spanish condition considered themselves more self-sufficient than respondents in the English condition. Hypothesis 2b predicts a null effect. To perform a conservative test, we considered a *p*-value above .20 as supportive of this hypothesis (and, later, of hypothesis 3b). As we expected, monoculturals' scores did not vary by language (monocultural Anglos:  $M_S = -.40$  vs.  $M_E = -.07; F < 1$ ; monocultural Hispanics:  $M_S = -.80$  vs.  $M_E = -.35; F(1, 87) = 1.28, p > .25$ ).

We now turn to hypothesis 3, which refers to the categorization of the terms in the Bem inventory. We had respondents indicate whether they thought each item was masculine, feminine, or, if it could be, both. We hypothesized that biculturals would associate the Bem terms to the traditional categories similarly in English and in Spanish; but we expected that when biculturals performed the task in Spanish, they would more often associate the terms to nontraditional categories. For instance, biculturals would be more inclined to categorize the term "assertive" as feminine (or as both masculine and feminine) in Spanish than in English. Monoculturals would, we hypothesized, not display any differences across languages.

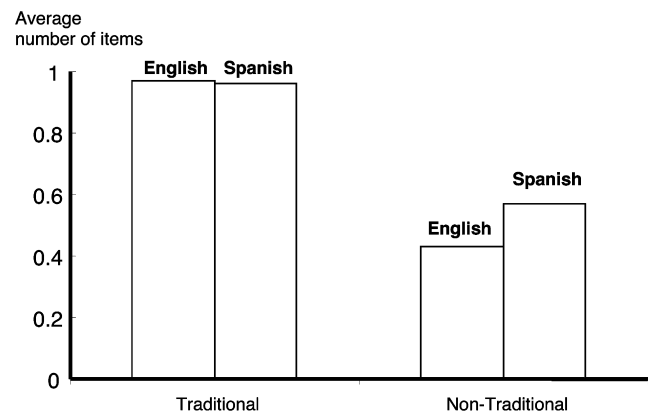
We developed two measures for each respondent: the traditional score and the nontraditional score. The traditional measure is the average number of items categorized in the traditional pairings of associations (self-sufficient/masculine or other-dependent/feminine). The nontraditional measure is the average number of items categorized in the nontraditional pairings. Note that respondents could categorize each item as both masculine and feminine, in which case their answer was scored as 1 for both the traditional and the nontraditional measures.

We obtained the expected pattern of results, as indi-

cated in figure 2. There was a main effect of categorization measure (traditional vs. nontraditional) such that, in general, more items were categorized according to the traditional pairing than according to the nontraditional pairing ( $F(1, 87) = 284.94, p < .001$ ). This main effect suggests the traditional pairing is the most accessible in both languages, due to its ubiquity in Western societies. It also lends validity to study 2's IAT results, which found a similar effect. However, the main effect was qualified by a significant three-way interaction between categorization measure (traditional vs. nontraditional), language, and sociolinguistic group ( $F(2, 87) = 3.25, p < .05$ ).

Bicultural respondents in both the English and Spanish groups demonstrated a high accessibility of the traditional pairings, resulting in high traditional measure scores for both groups ( $M_S = .96$  vs.  $M_E = .97; F < 1$ ). However, the bicultural Spanish group categorized more items following nontraditional pairings than the bicultural English group ( $M_S = .57$  vs.  $M_E = .43; F(1, 87) = 6.73, p < .01$ ). Monocultural respondents displayed no language effects in either the traditional measure (monocultural Anglos:  $M_S = .96$  vs.  $M_E = .99; F(1, 87) = 1.49, p > .20$ ; monocultural Hispanics:  $M_S = .88$  vs.  $M_E = .84; F < 1$ ) or the nontraditional measure (monocultural Anglos:  $M_S = .53$  vs.  $M_E = .58; F < 1$ ; monocultural Hispanics:  $M_S = .52$  vs.  $M_E = .60; F < 1$ ). These results suggest that, for biculturals only, traditional associations (i.e., self-sufficient-masculine and other-dependent-feminine) are accessible in both Spanish and English, but nontraditional associations are more accessible in Spanish than in English. This is the basis for the frame switching observed in studies 1 and 2. We can conclude that the Anglo frame (that activated by English words)

**FIGURE 2**  
STUDY 3: BICULTURAL RESPONDENTS' ITEM CATEGORIZATION



NOTE.—“Traditional” means the average number of self-sufficient items categorized as masculine and the average of other-dependent items categorized as feminine. “Nontraditional” means the average number of self-sufficient items categorized as feminine and the average number of other-dependent items categorized as masculine. Items could be categorized as both masculine and feminine; in that case, they were noted in both the traditional and the nontraditional measures. Scores on each measure could range from 0 to 1.

contains fewer nontraditional associations than the Hispanic frame.

Finally, our measure of assertiveness echoed the Bem inventory results. Thus, a significant interaction of sociolinguistic group by language emerged for assertiveness ( $F(2, 87) = 3.21, p < .05$ ). Similar to the Bem inventory, biculturals' scores showed a higher assertiveness in Spanish than in English ( $M_S = 5.55$  vs.  $M_E = 4.91$ ;  $F(1, 87) = 9.17, p < .001$ ). Monoculturals' scores, however, did not vary by language (monocultural Anglos:  $M_S = 4.92$  vs.  $M_E = 4.94$ ;  $F < 1$ ; monocultural Hispanics:  $M_S = 4.61$  vs.  $M_E = 4.84$ ;  $F < 1$ ). Analogous results in these similar constructs, self-sufficiency (Bem inventory) and assertiveness, enhance the validity of our results for the Bem inventory.

## GENERAL DISCUSSION

Several contributions emerge from these studies. Our results suggest that frame switching occurs only with biculturals, not with bilinguals who are not bicultural (study 3). Also, we uncover frame switching at the within-individual level (studies 1 and 2). In addition, our use of qualitative inquiry (study 1) provides rich narratives that show how identity-based mental frames influence individuals' interpretations of ads. Our studies also provide a methodology for identifying the relative activation strength of specific mental frames in different languages. Another contribution of our work is the theory-based cognitive framework we describe. Although previous research has suggested that frame switching can be triggered by language (e.g., Hong et al. 2000; Ramírez-Esparza et al. 2006), a theoretical model of how that occurs had not yet been put forward. Our framework explains how language is linked to culture-specific frames.

Our results show how language can trigger frame switching, opening a new direction for research into the complex interactions between consumers' identities, language, and behavior. One possibility for further study might be to compare and contrast the distinction between Briley et al.'s (2005) strategic frame switching and the automatic frame switching proposed here. Is the activation of these processes a result of personality factors (i.e., self-awareness) and/or due to varying intensities of environmental cues? Future research could explore this distinction and perhaps find the conditions under which each process is more predominant.

The notion that different populations of biculturals could experience different types of frame switching is also worthy of future investigation. Recent studies in cross-cultural psychology (Benet-Martínez and Haritatos 2005; Benet-Martínez et al. 2002) and consumer research (Lau-Gesk 2003) have identified different types of biculturals. For instance, some biculturals view their two identities as compatible, identifying with both cultures about equally, and integrate both cultures in their everyday lives. These individuals most likely are unaware of their frame switching. In contrast, other biculturals, who view their identities as less compatible and even oppositional, may actively (i.e., strategically) try to

suppress frame switching. The latter biculturals would tend to use extracognitive resources to suppress one identity (the one considered oppositional). Thus, tasks that rely on automatic processing (as in study 2) would capture frame switching even for oppositional biculturals. However, tasks that rely on deliberative processing may not do so.

Our article focuses on bicultural bilinguals, that is, on biculturals who have achieved a relatively high level of fluency in both languages. Bilingualism, however, can be a matter of degree (Zhang and Schmitt 2004), and, correspondingly, some biculturals could be significantly more proficient in one language than in the other. This language imbalance may have an impact on their processing and thus on the activation potential of the two sets of cultural frames. For instance, when the weaker language is processed, its corresponding cultural frames may not be as readily accessible. Future research could attempt to discern whether it is possible for imbalanced bilinguals to be bicultural and, if so, what the impact of language proficiency is on the effects described here.

Neither do we investigate whether or how monoculturals can become biculturals over time. That is, we do not consider the acculturation process. Rather, we focus on two of the possible outcomes of that process: biculturalism versus monoculturalism. According to the acculturation literature, there are several possible results of the acculturation process, depending on the individuals' degree of internalization of each of the two cultures (i.e., the majority culture and the minority culture; Berry and Kim 1988). Hence, the acculturation process can result in a variety of lifestyle patterns rather than in a linear progression toward assimilation into the majority culture. Our conceptualization of biculturalism (see also Aaker and Lee 2001; Lau-Gesk 2003) refers to individuals who have internalized aspects of both cultures' value systems. Those individuals have two sets of mental frames that can be activated, depending on sociocultural cues. However, some individuals may not internalize the majority culture or may inhibit the minority culture frames. For those individuals, the result of the acculturation process is monoculturalism. Our research illuminates the acculturation literature by providing a cognitive framework that describes how language is mapped to concepts for individuals in two of the possible outcomes of the acculturation process. Future studies could compare individuals as they move along the acculturation process, examining how their cultural frames evolve and the degree to which language becomes linked to multiple frames, thus investigating the dynamic nature of acculturation.

From a managerial perspective, marketers interested in the bicultural market should be aware that ad interpretation can differ, depending on the language of the ad and the linguistic context in which it is placed (e.g., whether it is placed in a magazine mostly in English or mostly in Spanish). In general, marketers would benefit from matching the positioning of their brands (using self- and other-attributes) to the language in which customers view or read the ads. For example, a company targeting the Hispanic female

market that wants its brand to be associated with independence and strength may consider conveying their message (in print or TV ads, etc.) in the Spanish language and/or in situations in which bilingual women converse and socialize in Spanish.

Our research has several limitations that are related to the scope of this article. As mentioned in our introductory sections, one of the premises of our research is that identity frames are developed over time and through repeated exposure to a given culture’s beliefs, values, and norms. Therefore, divergent identity-related frames will not be activated in response to the word “feminine” versus “femenino” if the words are not intricately connected to their respective cultural systems. Although this claim is consistent with previous theoretical work (e.g., Ringberg et al. 2007), we do not provide empirical support for it. Thus, future research is needed to explore this important premise.

Because our objective was to investigate frame switching as triggered by language, we did not attempt to incorporate in our theorizing or empirical studies a group of bicultural monolinguals (e.g., Australian Americans). Instead, we focused on bicultural and monocultural bilinguals. Another limitation stems from our using exclusively female samples. Although using only female informants might establish a firm boundary condition for our findings, an advantage of that approach is that it allowed for a more homogeneous sample, minimizing the effect of an extraneous variable on the results (i.e., gender; Meyers-Levy and Maheswaran 1991). There is no reason to think that men would not experience frame switching when using different languages. It is possible, however, that their frame switch could have taken a different turn. For instance, it is possible that the use of Spanish could have led male informants to even greater accessibility of the self-sufficient mental frame than female informants experienced. This could be because of the machismo norms in Hispanic societies. It is also possible that men would not experience frame switching at all along the self-sufficiency versus other-dependence dimension but that, instead, another dimension would be shifted. Our qualitative study helped us discover a dimension that seemed to be prone to frame switching for bicultural U.S. Hispanic women. A similar study could be performed with men and attempt to ascertain what dimensions are affected by language changes for male informants.

**APPENDIX**

**LANGUAGE PROFICIENCY SCALE**

Language proficiency was measured with the following items, which adapted scales from Clark (1981), Liu, Bates, and Li (1992), and McIntyre, Noels, and Clément (1997). The scale was previously used by Luna and Peracchio (2001).

Using a scale of 1 = **very low** to 5 = **like a native speaker**, please **circle** the number that best indicates how

fluent you currently are in each of your languages in both Speaking and Listening:

|         |           |           |
|---------|-----------|-----------|
|         | Speaking  | Listening |
| Spanish | 1 2 3 4 5 | 1 2 3 4 5 |
| English | 1 2 3 4 5 | 1 2 3 4 5 |

Using a scale of 1 = **very bad** to 5 = **very well**, please **circle** the number that best indicates how well you think you can do the following things in English and Spanish.

|  | English   | Spanish   |
|--|-----------|-----------|
| Understand cooking directions, such as those in a recipe.                                      | 1 2 3 4 5 | 1 2 3 4 5 |
| Understand newspaper headlines.  | 1 2 3 4 5 | 1 2 3 4 5 |
| Read personal letters or notes written to you.   | 1 2 3 4 5 | 1 2 3 4 5 |
| Read popular novels without using a dictionary.  | 1 2 3 4 5 | 1 2 3 4 5 |
| Make out a shopping list.  | 1 2 3 4 5 | 1 2 3 4 5 |
| Fill out a job application form requiring information about your interests and qualifications. | 1 2 3 4 5 | 1 2 3 4 5 |
| Write a letter to a friend.  | 1 2 3 4 5 | 1 2 3 4 5 |
| Leave a note for someone explaining where you will be or when you will come home.              | 1 2 3 4 5 | 1 2 3 4 5 |
| Write an advertisement to sell a bicycle.  | 1 2 3 4 5 | 1 2 3 4 5 |

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