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BACKWARD AND FORWARD CONTINUITY AS A PREDICTOR
OF WELLBEING AMONG MEXICAN
AMERICAN RESPONDENTS:
SCALE DEVELOPMENT

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Psychology:
General Experimental

by
Jennifer Joy Wacan

June 2013

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ABSTRACT

The following investigation examines the psychological benefits derived from perceiving one's social group as having historical and temporal endurance (i.e., backward and forward continuity). This work extends past research that shows self-evaluations of social identities are an important psychological resource that helps reduce threats to self-esteem that result from actual experiences such as discrimination or reminders of human fragility, such as the awareness of one's mortality. As the first step in testing this proposition, we developed a set of scales that assess the extent to which individuals perceive that one of their important social group identities (i.e., ethnic group) has maintained historical endurance and temporal permanence (has existed and will continue to exist over time). These scales focus on perceptions of ethnic identity from the perspective of people with Mexican heritage. In the second phase, we conducted a large-scale survey study with Mexican American students that included the Backward and Forward Continuity (BFC) scale and several well-established measures of ethnic group conceptualizations. The results suggest that group identity "means more" than a sense of attachment to other in-group members, in that it also

provides a sense of connection to the past and future. We found that Mexican Americans who perceive their group as having cultural perseverance not only derive psychological benefits (i.e., enhanced individual and collective self-esteem), but these beliefs can have even greater psychological benefits than other forms of ethnic identification. When multiple measures of group identification were "pitted" against each other in a single analysis, beliefs about cultural temporal endurance emerged as the only factor that consistently predicted individual (e.g., "On the whole, I am satisfied with myself") and collective self-esteem (e.g., "I am a worthy member" and "I value my ethnic group"). The development of the BFC scale is the first step in demonstrating that perceiving one's social group as having historical and future endurance is psychologically beneficial.

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DEDICATION

I dedicate this thesis to my grandfathers, Trinidad Vega and Luis Arciniega, and my grandmothers, Emelia Robles de Vega and Dolores Rodriguez de Arciniega. Thank you for being the first teachers to show me the value and beauty of my heritage through the use of two languages and two cultures. You enriched my life by sharing your personal stories, family traditions, and histories from Mexico to the United States. These teachings will remain with me forever. Over the years, I have enjoyed sharing your stories with my children; And, I look forward to the day when my children will pass along this heritage to their own children. May you live forever!

With all my heart,

Jennifer Joy

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CHAPTER ONE

INTRODUCTION

Social identities (e.g., social, familial, cultural and national groups) are central to people's self-concept (Tajfel & Turner, 1986). Feeling psychologically attached to and valuing group memberships (i.e., experiencing collective self-esteem) can have many psychological benefits, especially for members of socially devalued groups such as ethnic minorities. Some of these psychological benefits include enhanced individual self-esteem (Nosek, Banaji, and Greenwald, 2002a) and collective self-esteem (Twenge & Crocker, 2002). Although a great deal of research has demonstrated the benefits of collective self-esteem for ethnic minority groups (Luhtanen & Crocker, 1992; Porter & Washington, 1979), little research has examined the factors that might contribute to variations in people's sense of collective self-regard. One possibility is that people are more likely to derive self-esteem from groups that they also perceive as having temporal permanence, or an extensive cultural and historical past. To test this proposition, we developed a measure of "backward and forward continuity" and assessed the

potential impact that these perceptions have on the wellbeing (i.e., individual and collective self-esteem) of the members of one ethnic minority group in the USA: Mexican Americans.

Social Identity

Typically, people's self-concept is explained in terms of two distinct levels: personal and social identity. Both these levels of identity are thought to contribute equally to the overall individual psychological experience of "self" (Tajfel & Turner, 1986). Although personal and social identities both comprise the totality of one's self-concept, they do so uniquely by defining the individual through a two-fold process. According to social identity theory, people's self-concept includes dual self-evaluations of their individual attributes (i.e., personal identity; The "I") and their important social identities (the "We") in terms of gender, ethnicity, sexuality, etc. (Tajfel & Turner, 1986). In the case of personal identity, individuals define themselves in terms of their own personal idiosyncrasies that distinguish them from other people. On the other hand, social identity refers to the

process by which individuals self-define based on common traits shared with other members of social categories.

Individuals integrate both personal and social types of evaluations into their overall sense of self, or self-concept (i.e., "Who I am"). Because this is a cumulative self-construction process, it is important that the sum of these evaluations and categorizations result in an overall positive (versus negative) self-appraisal for the individual person (Tajfel, 1969; 1972). In the case of social identity, theorists (see Treppe, 2006) posit that a positive self-appraisal is achieved by individuals attaching subjective meaning and emotional value to their individual memberships within certain social groups. As such, people are motivated to maintain positive beliefs about their various group memberships in order to develop and subsequently maintain an overall positive social identity.

Once an overall positive social identity is achieved, it can be utilized as a psychological resource that provides self-image enhancement and leads to increased levels of self-efficacy and self-esteem (Abrams & Hogg, 1998), both of which are associated with many positive outcomes in life (Banaji & Prentice, 1994; Turner,

Reynolds, Haslam, & Veenstra, 2006). In order to achieve the benefits of high self-esteem and self-efficacy, people are intrinsically motivated to protect and enhance their self-image. As a result, people employ various self-enhancing cognitive strategies (to varying degrees) in order to improve and maintain positive beliefs about the value and worth of the groups to which they belong (e.g., gender, ethnicity, socio-economic status, and nationality). These beliefs are often achieved through in-group affirmation of values and beliefs (i.e., group solidarity: Franks & Marolla, 1976), group interest protection (Garcia, Desmarais, Branscombe, & Gee, 2005), out-group derogation (Abrams & Hogg, 1988), and social comparison with relevant out-groups (Tajfel & Turner, 1979; Festinger, 1954). The latter mechanisms (i.e., out-group derogation and social comparison with relevant out-groups) for maintaining positive group appraisals is achieved through a process of intergroup comparison.

Absolute standards for self-evaluation are seldom available; consequently, people depend on relative standards in order to evaluate their social group memberships. That is, positive group appraisals are acquired through social comparisons. Individuals will

derive positive self-esteem from membership in a group if they perceive their group as being "positively" distinct from other groups. As such, these types of comparative evaluations cause inter-group status distinctions and competition. These social distinctions between groups result in social stratifications, with certain groups being perceived as having more or less status than other groups (Tajfel & Turner, 1979). In terms of competition, these social distinctions highlight an asymmetrical allocation of finite resources (i.e., power, prestige, and wealth) among groups (1979).

Due to the imbalance of status among groups and the drive to maintain a positive self-concept when a group's status is unfavorable, individual members will either be motivated to leave their existing group or "improve" the status of their group (Tajfel & Turner, 1985). In the former case, leaving is only possible when group boundaries are permeable, which allows certain individual group members to move from a lower status group to one with higher status. Social mobility (i.e., the ability to move from a lower status group to a higher status group), however, is neither always possible nor desirable (Tajfel & Turner, 1979). In combination, systemic factors (e.g., the

rigidity of social stratifications) and human factors (e.g., permanence of certain traits: gender, ethnicity, and language) often block intergroup mobility. Even when group mobility is possible at the between-group level, individual members will face moral and ideological barriers that prevent them from leaving their group in favor of a group with higher status (Tajfel & Turner, 1979). Because of these internal pressures, individual members often remain in their groups to avoid "betraying" their group and being perceived as a "traitor."

When social mobility is not an option for individual members of comparatively lower status groups, they might either adopt cognitive alternatives to enhance their own personal perceptions about their group membership or seek to improve the collective self-appraisal of the group as a whole (Tajfel & Turner, 1979; 1985). Because group status is the result of intergroup comparisons, individuals from low status groups might engage in a process of "social creativity" in which they redefine or alter the comparative intergroup qualities used to determine their respective superiority or subordinacy (1979). For example, group members may use certain dimensions or characteristics in which their group excels or has positive associations as

points of comparisons with other out-groups. Because men are perceived as having stronger quantitative rather than verbal skills relative to women, they can maintain a positive social identity by fostering comparisons with women in terms of quantitative abilities, but avoiding comparisons in terms of verbal abilities. Group members may also change the value of group characteristics previously viewed as negative into positive qualities (Peabody, 1968). The "Black is beautiful" movement during the Civil Rights era in the U. S. is an example of a group working to change a previously viewed negative quality into a positive quality (O'Brien & Major, 2005).

The process of social creativity is an important means by which members of socially devalued groups can maintain a positive social identity, and hence a positive self-concept. In fact, if these types of cognitive alternatives are not employed then members of comparatively lower status group will suffer a loss of self-esteem at both the personal and collective level (Tajfel & Turner, 1979). Due to the fact that certain group memberships may be uncontrollable and apparent (as with ethnic group membership), individuals from these groups may have no other choice than to engage in social creativity (i.e.,

develop positive cognitive alternatives about their group membership) when their group is socially devalued (O'Brien & Major, 2005). Although this strategy seems limited and restrictive, research suggests that members of devalued groups can successfully employ creativity strategies in order to achieve a positive group identity and overall self-concept (Crocker & Major, 1989).

The use of esteem-enhancing and protective strategies has led to an interesting pattern of individual self-esteem, collective self-esteem, and group identification across ethnic minority groups in the U.S. Because, they occupy a lower status in the social hierarchy, ethnic minorities are subject to negative stereotypes, prejudice, and discrimination from the socially dominant group (Cartwright, 1950; Clark & Clark, 1947; Crocker & Major, 1989). Consequently, ethnic minority groups such as African and Latino Americans experience more negative interpersonal and economic outcomes (Crandall & Eshleman, 2003; Sidanius & Pratto, 1999). In theory, such social and economic devaluation should produce declines in feelings of self-worth, self-efficacy, and self-esteem among members of devalued groups (Allport, 1954; 1979; Cartwright, 1950; Franks & Marolla, 1976; Twenge & Crocker, 2002). Plausibly,

chronic exposure to social devaluation would not only be threatening to one's social identity, but also would result in feelings of helplessness and lack of control and mastery over one's environment (Gecas & Schwalbe, 1983; White, 1959). These feelings should erode the integrity of the self-concept and impair self-esteem (Allport, 1954; 1979; Cartwright, 1950; Erikson, 1956; Festinger, 1954; Tajfel & Turner, 1986).

Individuals who hold devalued group identities, such as ethnicity or gender, that are stable aspects of self (Schmitt & Branscombe, 2002a) should be especially vulnerable to low self-esteem. However, despite the social environmental stressors encountered by members of American ethnic groups (e.g., African and Latino Americans), research shows their self-esteem levels are equal (Rosenberg & Simmons, 1971) or greater (Harris & Stokes, 1978) to the self-esteem levels of the dominant social group (i.e., White Americans; Hoelter, 1983; Porter & Washington, 1979; Wylie, 1979). Moreover, the degree to which ethnic minorities in the U. S. value their ethnic group memberships (i.e., possess collective self-esteem) also tends to be greater than that of Whites (O'Brien & Major, 2005).

Ethnicity and Self-Esteem

A preponderance of evidence suggests that among ethnic groups in the U.S. the relationship between ascribed group social status (i.e., belonging to a valued versus devalued group) and individual self-esteem, whether measured explicitly or implicitly, is counterintuitive (Crocker & Major, 1989; Jensen, White, & Galliher, 1982; O'Brien & Major, 2005). Explicit self-esteem is typically measured through answers to direct questions about personal feelings of self-worth (e.g., I am a worthwhile person; Rosenberg, 1965). Implicit self-esteem is often measured through the degree of associations between the "self" and positive or negative stimuli (Greenwald & Farnham, 2000). In both cases, self-esteem refers to a sense of personal self-worth or worthiness (Rosenberg, 1965). In regards to explicit (i.e., self-reported) levels of individual self-esteem (ISE), Crocker, Luhtanen, Blaine, & Broadnax (1994) found that the groups with the most socially ascribed value (i.e., Whites and Asian Americans) reported lower levels of self-esteem than did less socially valued groups (i.e., African and Latino Americans). A meta-analysis of ethnic differences on explicit measures of ISE (Twenge & Crocker, 2002) indicated that African Americans had higher levels of

explicit self-esteem than did White Americans; whereas, White Americans had higher levels of explicit ISE than did Latino Americans. Latino Americans, on the other hand, had higher levels of explicit ISE than did Asian Americans and Native Americans (2002). In a study that measured implicit levels of individual self-esteem, Nosek, Banaji, and Greewald (2002a) found that the highest levels of self-esteem were exhibited among African Americans. Latino Americans had slightly lower levels of implicit self-esteem relative to African Americans, but slightly higher levels of implicit self-esteem relative to White and Asian Americans. Although there are some inconsistencies between implicit and explicit measures, overall ethnic minority groups tend not to show lowered individual self-esteem as a function of their social devaluation. A similar pattern emerges when examining self-esteem at the collective level.

Despite their devalued group statuses, African Americans, Latino Americans, and Asian Americans value their ethnic memberships more than do White Americans (in respect to their own in-group evaluations). As such, African Americans, Latino Americans, and Asian Americans demonstrate higher levels of collective self-esteem (CSE) than do White Americans. Collective self-esteem is distinct

from individual self-esteem (Luhtanen & Crocker, 1992; Porter & Washington, 1979), in that it operates through different mechanisms: ISE, contributes to one's self-concept via positive individual attributes (e.g., "I have much to be proud of"); whereas, CSE contributes to self-esteem via positive group attributes (e.g., "My group is worthwhile). In regards to the overall concept of self, high (i.e., positive) CSE enhances one's social identity, which in turn strengthens the integrity of the self-concept (Luhtanen & Crocker, 1992). Conceptually speaking, collective self-esteem is divided into four distinct components (Luhtanen & Crocker, 1992). Membership esteem is derived from beliefs that one is a good or worthy member of the group (e.g., "I am a cooperative participant in my ethnic group"). Private collective self-esteem relates to self-evaluation about the positive value of one's social group (e.g., "In general, I'm glad to be a member of my ethnic group"). Public collective self-esteem refers to perceptions about how others evaluate one's social group (e.g., "Overall, my ethnic group is considered good by others"). Identity esteem (or centrality) is the importance of one's group to one's self-concept (e.g., "My ethnic group is an important reflection of who I am"). As a scale,

the four components of CSE together measure the general levels of self-esteem tied to one's group membership. However, the CSE scale is often used as a measure of group identification, or the degree of psychological attachment individuals feel toward their group in terms of gender, ethnicity, sexual orientation, etc.

Group Identification Versus Dis-Identification

Group identification, similar to the concept of collective self-esteem, is explained in terms of the value, importance or centrality of one's group membership to the self-concept (Tropp & Wright, 2001). Increased group identification is associated with positive psychological outcomes (Allport, 1954). Group identity is important for psychological wellbeing because groups provide individual members with emotional, situational, and instrumental support (Crocker & Major, 1989; O'Brien & Major, 2005). Moreover, groups serve as a source of social consensus and validation for one's beliefs, attitudes, and perceptions (O'Brien & Major, 2005). Most importantly, social groups provide individuals with a sense of belonging (i.e., "You are not alone"; Leary, Tambor, Terdal, & Downs, 1995). Among members of devalued groups (e.g., African and Latino

Americans), high group identification is associated with positive self-esteem (e.g., Bat-Chava, 1994; Rowley et al., 1998). Branscombe and colleagues (1999) speculate that increased group identity among ethnic minority group members is likely utilized as a coping strategy to manage the identity threat associated with their devalued social status. By becoming more attached to their in-group, ethnic minorities can feel they have a social support network to help them deal with the devaluation from the higher status out-group.

The Buffering Effects of Ethnic Identification

Research supports the argument that group identification can be used as a psychological tool to protect one's self-concept from the harmful effects of social devaluation. Heightened ethnic group identification among ethnic minority group members can occur as a result of experiences with discrimination (Zarate & Garza, 2002). An increase in ethnic group identification will also occur if discrimination is made salient to individual members (Schmitt & Branscombe, 2002a). Overall, several studies report a positive correlation between perceptions of prejudice among members of devalued groups and group

identification (e.g., Branscombe, Schmitt, & Harvey, 1999; Crosby, Pufall, Snyder, O'Connell, & Whalen, 1989).

Discrimination Awareness and Self-Esteem

The fact that discrimination awareness should be deleterious to the self-concept but is not, suggests that members of U.S. ethnic groups may be deriving the positive benefits (i.e., increased individual and collective self-esteem) associated with their ethnic memberships through an alternative mechanism. In a theoretical paper, Crocker and Major (1989) proposed that being targeted by discrimination could actually enhance the self-esteem of ethnic minority group members. Although at first glance the possibility that discrimination could benefit self-esteem seems counterintuitive, Crocker and Major reasoned that ethnic minority group members could protect self-esteem by making external rather than internal attributions for personal failures (e.g., "My negative life outcomes are the result of discrimination rather than personal inadequacies"). In support of Crocker and Major's controversial suggestions, Jensen, White, and Galliher (1982) showed that in discrete cases of perceived discrimination, members of ethnic groups who could make external attributions about negative

outcomes (i.e., blame their poor evaluations on discrimination) had higher levels of self-esteem than did those who were unable to make external attributions (i.e., had to accept personal responsibility for poor evaluations).

Schmitt and Branscombe (2002a) suggest that externality of attributions made to discrimination is not sufficient to explain the psychological benefits derived from ethnic group membership. In fact, most people regard their group memberships as an internal aspect of self; thus, attributing a failure to discrimination on the basis of group membership is not entirely external. Although attributing a single negative outcome to a discrete incident of discrimination might temporarily protect self-esteem, a reverse effect is observed if individuals perceive discrimination to be a pervasive and oppressive reality faced by their given social group (Lachman & Weaver, 1998). Further, if group members are primed to believe their ethnic group is defined by their status as a target of discrimination then their feelings of self-worth and esteem drop (Branscombe et al., 1999).

Given the above findings, why then do members of devalued groups not have lower self-esteem overall? One

possibility is that although awareness of social devaluation might diminish perceptions of public regard (Public CSE), individuals can minimize the impact of that negative effect by increasing the value of the private, identification, and membership components of CSE. This argument parallels the central tenets of the rejection-identification model initially proposed (and supported) by Branscombe and colleagues (1999). In their first test of the model, the researchers found that for African Americans, perceptions that their group was targeted by discrimination were not associated with increased negative affect (e.g., depression or helplessness), reduced ISE or CSE (Private, Membership, and Identification components) because increased group identification occurred in response to perceiving discrimination. In other words, perceiving discrimination led to an increase in group identification, which in turn buffered the otherwise harmful effects of perceiving discrimination on personal and collective wellbeing. This model has been supported across many dimensions of group identity, including ethnicity, gender, sexuality, and people with body modifications (see Schmitt & Branscombe, 2002b).

When understanding group identification as a substitute for collective self-esteem, research findings supporting the rejection-identification model require a slightly different interpretation. From a CSE perspective, the research suggests that perceiving one's group or self as a target of social devaluation causes increases in individuals' level of CSE, at least in terms of one component: centrality to self (as in Branscombe et al., 1999). This finding implies that threats to self can lead to an increase rather than a decrease in self-esteem. Although one might expect the opposite effect, this response is actually an adaptive strategy that can protect the self-concept. When members of devalued groups become aware of rejection or devaluation from the dominant out-group, they can reduce the importance of those negative evaluations by increasing their reliance on, and attachment to, their in-group, from which they can expect to receive validation and acceptance.

An alternate strategy in response to perceived discrimination against one's in-group would be to distance from the group itself, or reduce the importance of the social identify to the self-concept (Tajfel & Turner, 1979). This strategy would be more available to certain

individuals than others, based on their ability to "pass" or visually assimilate into the socially-constructed prototype of the dominant group (e.g., "Whiteness") as a means to avoid devaluation. It is important to note that although the ability to pass is necessary, it is not a sufficient predictor of whether or not people will use that strategy. Rather, ultimately the decision to use the strategy depends on the individual's motivations. Even when it is available, there are those who will never deny their group membership and assimilate into the dominant social group (Tajfel & Turner, 1979). Variations, however, in the ability to pass might create greater variability in levels of group identification and self-esteem among various ethnic minority groups, such as Latino Americans. Although passing might provide temporary protection against social devaluation, overall it is associated with greater stress and lower self-esteem (Phinney, 1989; 1990). The opportunity to pass might explain why African Americans, but not Latino Americans, generally have personal self-esteem levels equal to or greater than Whites (O'Brien & Major, 2005). Latino Americans who attempt to fully acculturate into the dominant White culture, might gain temporary relief from some incidents of social devaluation,

but consequently become more vulnerable to rejection from their in-group for "betraying the group" (Tajfel, 1982; Tajfel & Turner, 1985). This group rejection has greater deleterious consequences on psychological wellbeing than does out-group rejection (see Garcia, Schmitt, Branscombe, & Ellemers, 2010; Schmitt, Postmes, & Branscombe, 2003).

Latino Ethnic Identification

There is evidence that Latino Americans vary in their levels of identification with their respective in-groups (Rivas-Drake, 2011), and these levels of identification predict how Latinos respond to identity threats. McCoy and Major (2003) found that based on their overall levels of identification, Latino Americans respond in a dichotomous pattern when they perceive their group as being the target of pervasive discrimination. Latino Americans who initially reported low levels of ethnic identification identified even less with their ethnic group after reading about pervasive discrimination towards their ethnic group. On the other hand, highly identified Latino Americans identified even more strongly with their ethnic group. This pattern of responding is consistent with Ellemers, Spears, and Doosje (2002), in which highly identified group members responded

to threats to the group by increasing their identification with the group, whereas members who were low in identification coped by further decreasing their identification. Given that increased identification buffers the effects of perceiving discrimination on wellbeing, further distancing likely produces long-term psychological harm to individuals who employ this strategy. Consequently, it is important to understand what factors influence people's trait levels of group identification, or collective self-esteem. Because of their variability in CSE, Latino Americans might especially provide interesting insights into the formation of CSE.

Among the ethnic groups categorized as Latinos (e.g., Cuban Americans, Mexican Americans, Puerto Rican American) there are differences in overall levels of ethnic identification, which are thought to be due to levels of acculturation, generational issues, and status distinctions based on U.S. ascribed social-political designations for these groups. The term "Latino" encompasses a broad range of cultural groups, which could lead to a wider range of variability among each of the various subgroups in terms of their levels of ethnic identification and coping strategies (in response to such stressors as discrimination). Among

Mexican Americans (which is the largest U.S. Latino group), there are differential levels of personal and collective self-esteem (Iturbide, Raffaelli, & Carlo, 2009), as well as transmission of ethnic group identification (Chavez-Reyes, 2010).

History as a Component of Identity Among Mexican Americans

Mexican American identity is characterized by temporal endurance (i.e., an extensive historical past). In fact, history and the transmission of history (i.e., from parent to child or instructor to student) is an integral part of Mexican identity and experience (Knight et al., 2011). This transmission of history is particularly notable given the fact that previous research has shown that the perceived past longevity of the in-group's history and culture impact levels of collective and individual self-esteem (Sani, Herrera, & Bowe, 2009). It is reasonable to assume that knowledge of a group's past (i.e., history and culture) would facilitate perceptions of ethnic group "endurance," which in turn may positively impact wellbeing (i.e., individual and collective self-esteem). Historical knowledge of one's ethnic group seems to be an important

component of identity construction among Mexican Americans; however, it only partially explains perceptions of group endurance.

Social Group Endurance

As a construct, group endurance is composed of both a group's persistence over the course of time (i.e., history) and temporal permanence (i.e., the likelihood of an extended future existence). Perceiving one's important social group as having an extensive past and future produces a sense of backward and forward continuity in regards to one's group membership (Sani et al., 2007). This sense of backward and forward continuity ultimately offers individual members a sense of death transcendence (Solomon, Greenberg, & Pyszczynski, 1991a; Sani et al., 2007; Sani, Herrera, & Bowe, 2009). Thus, in addition to providing members with a connection to the past, group memberships might also offer a connection to the future (despite the temporary existence of individual members).

Future Component of Group Endurance

In regards to the importance of a group's perceived future among individual members, there is interesting

research among indigenous groups (i.e., First Nations of Canada and Native Americans). Despite the fact that indigenous groups have undeniably rich cultures and historical narratives, their psychological outcomes tend to be more negative in comparison to Whites and other ethnic groups. Certainly, to draw any definitive conclusions regarding these patterns of negative psychological outcomes for indigenous groups, there are several social, political, and economic issues to address, which are beyond the scope of this investigation. However, there is compelling evidence to show that "cultural loss" among indigenous groups results in a deterioration of community wellbeing (Chandler, Lalonde, Sokol, & Hallett, 2003). Moreover, it is clear that indigenous groups (i.e., Aboriginal bands) that have community level markers of "cultural continuity" (i.e., connection to the past and future), such as control over delivery of education, child protection, self-governance, secure access to traditional lands, the construction of facilities for preserving traditions, and the preservation (as well as the revival) of their native language, have significantly higher rates of wellbeing and lower rates of negative psychological outcomes (particularly with youth suicide and school drop outs). On

the other hand, indigenous bands that have few markers of cultural continuity regularly experience increased rates of youth suicide and school drop outs (Chandler & Lalonde, in press; Chandler et al., 2003). This finding emphasizes the importance of cultural continuity to wellbeing, specifically as it relates to the future of a group. We suggest that the specific role of a "forward" type of cultural continuity, in which members perceive their group as having future commitments, plays a role in wellbeing (Chandler & Lalonde, 1998; Chandler et al., 2003). This sense of continuity in turn offers members individually and collectively a type of death transcendence (Solomon, Greenberg, & Pyszczynski, 1991a; Sani et al. 2007).

In sum, there is an abundance of empirical research and theory that suggest there are psychological benefits to be derived from perceiving one's important social group as having historical and temporal endurance. Moreover, positive self-evaluations of social identities are an important psychological resource that helps maintain wellbeing and reduce threats to self-esteem that result from actual experiences (such as with discrimination; Schmitt & Branscombe, 2002a; 2002b) or reminders of human fragility (such as the awareness of one's mortality;

Greenberg et al., 1986). There is also ample evidence to suggest, that in the U.S. and Canada, some members of devalued groups engage in social creativity, where they develop positive mental constructions and emotional representations of their groups. The construction of continuity representations of their groups (e.g., "My group has an extensive past" and "My group has a long future") may serve as cognitive alternatives that allow members to simultaneously preserve the integrity of their identity and manage the negative social devaluations associated with their ethnic group membership. Therefore, there is converging evidence that highlights the necessity for a measure of backward and forward identity continuity as it relates to the maintenance of wellbeing.

Predictions

Previous research has focused on measuring evaluation of group identity in terms of the group's value in the eyes of others (my ethnic group is seen as good by others) or the self (I am proud to be a member of my ethnic group). In contrast, we propose that how individuals perceive their group in terms of its persistence over time can also have psychological consequences and has a bearing on people's

collective self-esteem (or group identification). As the first step in testing this proposition, we developed a scale in order to measure perceptions of one's self-concept as it relates to an ethnic group's historical endurance and temporal permanence. We are specifically interested in measuring individual perceptions of "backward and forward" (BFC) group collective continuity as it pertains to one's membership in an ethnic group.

Group continuity has previously been measured in terms of collective continuity (Sani et al. 2007), which has been defined as the perception of individual members that their group is an entity that moves through time. The implication of this group perception among members is that they (the individual members) are part of an endless temporal chain that not only defies time, but also space. Sani and colleagues speculated and demonstrated that this type of group perception would be most likely to occur among members of ethnic and national groups. According to Sani et al., ethnic and national groups are most likely to generate these types of beliefs about temporal continuity, because they are generally the largest groups in which individuals

would classify themselves as being part of, and as such are usually the longest lasting groups available to an individual person.

Ethnic and national groups also encompass a broad social framework of beliefs, values and traditions in which individual members subscribe, transmit, and are defined by the degree to which they uphold these core group standards. Perceived collective continuity (PCC) has been described as a two dimensional construct by which a group (e.g., ethnic or national group) is perceived as having deep cultural traits that have been transmitted across generations and the perception that historical events and different periods of the group are linked and form a coherent narrative.

Similar to the concept of perceived collective continuity, ethno-historical consciousness (EHC) and vicarious experience (VE) are two constructs that measure ethno-cultural identity and the associated social representations of ethnic history among individual members. Lamy, Liu, & Ward (2011) demonstrated these measures (i.e., EHC and VE) were not only positively related with perceived collective continuity, but as the levels of ethno-cultural identity and ethno-historical representations increased, so did collective self-esteem.

Lamy, Liu, & Ward also measured perceived group entitativity (which is the perception of one's group as an entity or cohesive whole) and used it as a measure to validate the EHC and VE scales. Perceived group entitativity was shown to be positively associated with ethno-historical representations. Moreover, Sani et al speculated that perceived group entitativity was more likely to co-occur among individuals that already perceive their important social group as having temporal continuity.

Overall, these social constructions of ethnic, cultural, and national groups and their corresponding measures (i.e., PCC, VE, PGE, and EHC) are related in terms of their underlying construct and their individual impact on perceptions among members of group endurance and value. The relationships between the PCC, VE, PGE, and EHC scales indicate that there is conceptual overlap among the construct of perceived collective continuity, perceived group entitativity, ethno-historical consciousness, and vicarious experience. We speculate that each of these constructs (i.e., PCC, VE, PGE, and EHC) share to some extent two important components, which are past and future temporal continuity. In order to determine if in fact past and future continuity are essential components of social

group identity construction, we are interested in directly measuring members' perceptions of past (i.e., backward) and future (i.e., forward) continuity in regards to their ethnic group.

As such, for the first stage of our research we developed the BFC scale that assesses the extent to which individuals perceive that their ethnic group has maintained temporal endurance (has existed and will continue to exist over time).

In the second phase, we conducted a large-scale survey study with Mexican Americans that included the BFC scale and five well-established measures of ethnic group conceptualizations (e.g., group as entity and historical awareness). We piloted the BFC scale and tested its psychometric validity by comparing outcomes with previous scales that measure ethnic group members' perceptions of perceived collective continuity (PCC), vicarious experience (VE), perceived group entitativity (PGE), trans-generational entity (TGE), and ethno-historical consciousness (EHC). We also examined how the level of "backward and forward" group collective continuity correlated with measures of wellbeing (i.e., individual self-esteem, collective self-esteem, and positive and

negative affect) and discrimination (i.e., discrimination items from the ethno-historical consciousness scale).

We expected that the "backward and forward" collective continuity scale would moderately correlate with previous scales that assess the degree to which individual members conceptualize their groups in terms of "permanent" social constructions (i.e., PCC, VE, PGE, TGE, and EHC). These correlations will help us establish both the convergent and divergent validity of the BFC scale. We also expected that the BFC would uniquely (over and above the five other scales of group continuity) be positively associated with awareness of discrimination and predict higher levels of wellbeing (i.e., ISE, CSE, and affect). This prediction follows from terror management theory (Greenberg, Pyszczynski, & Solomon, 1986; Greenberg et al., 1992), which posits the extent to which a self-representation includes a backward and forward temporal component determines one's ability to cope with threats to self and the robustness of wellbeing (Sani, Herrera, & Bowe, 2009). These correlations will help establish the predictive validity of the BFC and show that the relationships between the other measures of continuity with awareness of

discrimination and wellbeing are because they all contribute to an overall sense of continuity, as measured by the BFC.

CHAPTER TWO

METHOD

Participants

Altogether, 258 adult students of Mexican heritage at California State University, San Bernardino were recruited from the Psychology Department Research Pool to participate in this study for extra course credit (see Appendix A for recruitment information).

Backward and Forward Continuity Item Development

We included two major subsets of items, each addressing one of the two dimensions of group backward and forward continuity (i.e., past and future) previously discussed. Each of these subsets of past and future also contained two minor subsets related to the group (i.e., the group has an extensive past and future) and the culture of the group (i.e., the values, beliefs, and traditions of the group extend into the past and future). Initially we generated a total of 10 items referring to the past and future endurance of an ethnic group and we submitted them to a focus group composed of 14 students (see Appendix B). Items were evaluated for clarity and relevancy. Certain items (i.e., items 6, 7, and 9) were double-barreled

containing positively and negatively worded components. Therefore, these items were later divided into two separate components (based on content) and rewritten into positively and negatively worded (i.e., reverse keyed) items. Also, Items 4, 5, 11, and 13 were reworded for content and clarity. With these changes, we produced a 13-item "backward and forward continuity" scale that included eight items related to the past and five items related to the future endurance of an ethnic group (see Appendix C).

Procedure and Measures

After signing up for the Mexican Heritage Identification Study on the SONA system, participants were given a link to the Qualtrics web-based survey system to complete an anonymous online survey. After participants consented to take the survey (see Appendix D), they were asked to verify their Mexican heritage. They were only able to continue with the study if they indicated they were of Mexican descent. Participants were then informed that they would answer a series of questionnaires regarding their personal knowledge of and feelings for their ethnic identity and history. They were then instructed to carefully read the statements in each scale, indicate their agreement, and answer as honestly as possible (see Appendix

E). A short description and set of instructions were also contained at the beginning of each scale, which participants completed in the following order: Perceived Collective Continuity (Sani et al., 2007: see Appendix F), Vicarious Experience (Lamy, Liu, & Ward, 2011: see Appendix G), Perceived Group Entitativity scale (PGE: Castano, Sacchi, & Gries, 2003: see Appendix H), Tran-Generational Entity (Kahn & Klar, 2011: see Appendix I), Ethno-Historical Consciousness (Lamy, Liu, & Ward, 2011: see Appendix J), Backward and Forward Continuity (Wacan, Gomez, & Garcia, 2012: see Appendix K), Ethno-Historical Consciousness Discrimination Items (Lamy et al., 2011: see Appendix L), Collective Self-esteem scale (Luhtanen & Crocker, 1992: see Appendix M), Individual Self-Esteem scale (Rosenberg, 1965: see Appendix N), Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988: see Appendix O). Each of these scales is described in further detail below.

Perceived Collective Continuity. The Perceived Collective Continuity (PCC: Sani et al, 2007) scale has two dimensions, which measure perceptions that group values, beliefs, traditions, and mentalities are transmitted across generations and the perception that different time periods

and events in the history of a group are connected in a meaningful sequence. There are 12 items total ($\alpha = .80$ in Sani et al., 2007), with six statements related to culture and six statements related to history. In the present study, the items were modified from the original use of "Italian people" and "Italian history" to "Mexican people" and "Mexican history." Participants specified their level of agreement with each statement on 7-point scales, ranging from strongly disagree to strongly agree.

Vicarious Experience. The Vicarious Experience (VE: Lamy, Liu, & Ward, 2011) scale is a measure comprised of seven items ($\alpha = .78$ in Lamy et al., 2011) related to ethnic history and affective attachment between self and group ancestors. Items in the present study were modified from the original use of "Jewish ancestors/people" to "Mexican ancestors/people". Participants specified their level of disagreement or agreement with each statement on a 7-point scale, ranging from strongly disagree to strongly agree.

Perceived Group Entitativity. The Perceived Group Entitativity (PGE: Castano, Sacchi, & Gries, 2003) scale is a shorter version of a previously developed entitativity scale (Castano, Yzerbyt, and Bourguignon, 1999), which

includes items capturing common fate and group-similarity and -distinctiveness. In the current study, items were modified to include statements related to "Mexican Americans" instead of "Europeans" and the "European Union". There are a total of 10 items ($\alpha = .77$ in Castano et al., 2003), in which participants specified their level of disagreement or agreement with each statement on a 7-point scale, ranging from strongly agree to strongly disagree.

Trans-Generational Entity. The Trans-Generational (TGE: Kahn & Klar, 2011) scale measures the extent to which individuals perceive their in-group as including all past and future generations of the group and share a common identity with these generations. Individual items were adapted to use the term "ethnic group" instead of "national group" There were 5 items ($\alpha = .84$ according to Kahn & Klar, 2011) to which participants indicated their level of disagreement or agreement on a 7-point scale, ranging from strongly disagree to strongly agree.

Ethno-Historical Consciousness. The Ethno-Historical Consciousness (EHC: Lamy et al., 2011) scale is culture-general and developed to measure explicit knowledge of ethnic history across group members. In the present study we adapted the scale to use the term "ethnic group" instead

of "Jewish people" and included only eight of the 12 original items ($\alpha = .88$ in Lamy et al., 2007; 4 of the items related specifically to knowledge of group discrimination were presented separately to participants). Participants indicated their level of disagreement or agreement with each statement on a 7-point scale, ranging from strongly disagree to strongly agree.

Backward and Forward Continuity. The Backward and Forward Continuity (BFC: Wacan, Gomez, & Garcia, 2012) scale is intended to measure group members' perceptions about their in-group's temporal continuity and the extent to which it extends into the past and projects into the future. This idea of "backward and forward" collective continuity is based on the assertions and findings posited by Sani, Herrera, and Bowe (2009). This measure included 13 items and participants indicated their disagreement or agreement with each statement on a 7-point scale, ranging from strongly disagree to strongly agree.

Ethno-Historical Consciousness-Discrimination Items. The four Ethno-Historical Consciousness-Discrimination (EHC-DI: Lamy et al., 2011) items were taken from the Ethno-Historical Consciousness scale and specifically tap into knowledge of discrimination against one's ethnic group

over the course of history. Participants indicated their level of disagreement or agreement with each statement on a 7-point scale, ranging from strongly disagree to strongly agree.

Collective Self-Esteem. The Collective Self-esteem (CSE: Luhtanen & Crocker, 1992) scale is comprised of four dimensions related to collective self-esteem and include the four subscales of CSE: Membership, Private, Public, and Identity. There are four items per subscale (16 items total) that assess the degree to which members: value belonging to their group; feel positive about their in-group; perceive the out-group perceives their in-group favorably; and connect their in-group membership to their individual identity. Participants indicated their level of disagreement or agreement with each statement on a 7-point scale, ranging from strongly disagree to strongly agree.

Individual Self-Esteem. The Individual Self-esteem (ISE: Rosenberg, 1965) scale is a unit that assesses personal trait self-esteem. For this 10-item scale, participants indicated their level of disagreement or agreement with each statement on a 7-point scale ranging from strongly disagree to strongly agree.

Positive and Negative Affect Schedule. The Positive and Negative Affect Schedule (PANAS: Watson, Clark, & Tellegen, 1988) assesses current feelings and predispositions by measuring the extent to which an individual experiences feelings of positive and negative affect. There are 20 items total, which include a range of positive and negative emotions (i.e., 10 positive and 10 negative). Participants were directed to indicate the degree to which they were currently experiencing (or had recently experienced) these emotions on 5-point scales from 1 (Very slightly or Not at all) to 5 (Extremely).

After completing the scales, participants provided demographic information (see Appendix P). Once the participants completed the demographic section they finished the survey and were thanked for their participation.

CHAPTER THREE
RESULTS AND DISCUSSION

Data Screening

A series of descriptive tests were run on all measures to identify potential outliers for all measures and to determine whether assumptions of normality were met for the BFC. To identify potential univariate outliers, we examined the frequency distributions and histograms. To identify potential multivariate outliers, we examined the scatter plots between the BFC and all measures and ran casewise diagnostics on these relationships. Because we identified no outliers, we retained the data for all participants. We next assessed the distribution of the BFC by examining the descriptives, histograms and Q-Q plot for this measure. The distribution for the BFC showed a slight negative skew, with skewness of -0.58 ($SE = 0.15$) and kurtosis of 0.04 ($SE = .30$). Despite the slight skew, we determined that the BFC followed approximately a normal distribution and that the assumption of normality was met. The minimum and maximum values, means, standard deviations, and coefficient alphas

of the backward and forward continuity (BFC) as well as the five other continuity scales and all measures of wellbeing are reported in Table 1.

Table 1

Coefficient Alphas, Means, Standard Deviations, and Minimum and Maximum values of Continuity and Wellbeing Scales

| Measure | No. of Items | Mean | SD | α | Min | Max |
|--------------------|--------------|------|------|----------|-----|-----|
| BFC | 13 | 5.82 | .721 | .88 | 3.9 | 7.0 |
| PCC | 12 | 5.36 | .705 | .82 | 3.4 | 7.0 |
| VE | 7 | 5.12 | 1.19 | .88 | 2.1 | 7.0 |
| PGE | 10 | 5.09 | .812 | .74 | 2.7 | 7.0 |
| TGE | 5 | 5.37 | .892 | .89 | 2.8 | 7.0 |
| EHC | 8 | 4.67 | 1.17 | .89 | 1.8 | 7.0 |
| ISE | 10 | 5.65 | .989 | .89 | 2.5 | 7.0 |
| CSE-Private | 4 | 6.16 | .898 | .83 | 3.0 | 7.0 |
| CSE-Identification | 4 | 4.99 | 1.33 | .84 | 1.0 | 7.0 |
| CSE-Membership | 4 | 5.45 | 1.07 | .82 | 2.5 | 7.0 |
| CSE-Public | 4 | 4.22 | 1.08 | .71 | 1.0 | 7.0 |
| DI-EHC | 4 | 5.75 | 1.02 | .78 | 2.5 | 7.0 |

Note. BFC = Backward and Forward Continuity, PCC = Perceived Collective Continuity, VE = Vicarious Experience, PGE = Perceived Group Entitativity, TGE = Trans-Generational Entity, and EHC = Ethno-Historical Consciousness scales, ISE = Individual Self-esteem, CSE = Collective Self-esteem scales and DI-EHC = Discrimination items-EHC.

N = 258

Exploratory Factor Analysis of the Backward and Forward Continuity Scale

In order to determine the structure of the BFC scale, we performed an exploratory factor analysis using principal axis factoring as the extraction method and direct Oblimin as the rotation method with Kaiser Normalization. Oblimin (oblique) rotation permits factors to be correlated, which is a more appropriate assumption than is the complete independence associated with varimax (orthogonal) rotation (Preacher & MacCallum, 2003). We forced a single factor solution that was supported. The extraction of the single factor provided a solution with an eigenvalue of 5.64 and accounting for 43.42 percent of the total variance. All 13 items loaded onto the single factor with factor values equal to or greater than $\pm .42$, which suggests reasonable factorability (Table 2 presents the factor matrix for the single factor). Moreover, the Kaiser-Meyer-Olkin measure of sampling adequacy was .87, which is above the recommended value of .60, and Bartlett's test of sphericity was significant ($p < .05$). Based on these tests, the factor matrix and the eigenvalues, we determined that a single factor solution to the BFC captures majority large part of the variance; thus all 13 items "fit" on a single scale.

Table 2

*Exploratory Factor Analysis (Single Factor Solution):
Backward and Forward Continuity*

| | Item Loading |
|---|-----------------|
| 1. My ethnic group will continue to exist for a long time in the future | .769 |
| 2. My ethnic group has existed for a long time | .726 |
| 3. The values, beliefs, and traditions of my ethnic group will exist long after I am gone | .716 |
| 4. My ethnic group has a history that extends far into the past | .674 |
| 5. My ethnic group has long-lasting beliefs, values, and traditions | .670 |
| 6. The values, beliefs, and traditions have existed long before I was ever born | .669 |
| 7. In the future, I think it is likely my ethnic group will exist as a people for an endless number of generations | .644 |
| 8. My ethnic group does NOT have a long history in comparison to other ethnic groups | -.577 |
| 9. I think that the beliefs, values, and traditions of my ethnic group will ensure that my ethnic group will have a long future | .635 |
| 10. I believe that my ethnic group has a long history relative to other ethnic groups | .546 |
| 11. I do not think my ethnic group will continue to exist long after this present generation | -.492 |
| 12. Compared to other ethnic groups, my ethnic group does NOT have long-lasting beliefs, values, and traditions | -.469 |
| 13. As a people, my ethnic group has existed through many generations until the present | .419 |
| Eigen Value | 5.64 |
| Percentage of variance | 43.42% |

Although, our single factor solution is a good "fit" (as indicated by the inter-item matrix correlations and eigen-values) we also found that the BFC scale shows a four-factor substructure (see Table 3) as indicated by the four-factor pattern matrix and eigen-values that range from 1.01 to 5.64. However, the interpretation regarding the four-factor solution substructure is pending following further investigation of the four dimensions. More specifically, we must determine if each item is tapping into distinctive constructs or if these dimensions are artifactual due to ambiguous or unclear item interpretation on the part of participants.

Internal Consistency of the Backward and Forward Continuity Scale

Our reliability analyses indicated that the 13-item scale showed good internal consistency ($\alpha = .88$). Item-total correlations also indicated that all items were moderately to highly correlated with the total of the other scale items. The highest and lowest item-total correlations were .70 and .38 respectively.

Table 3

*Exploratory Factor Analysis (Four Factor Solution):
Backward and Forward Continuity*

| | Factor | | | |
|--|--------|-------|-------|-------|
| | 1 | 2 | 3 | 4 |
| My ethnic group has a history that extends far into the past | .698 | -.028 | .103 | .208 |
| My ethnic group has existed for a long time | .652 | -.026 | -.180 | .042 |
| As a people, my ethnic group has existed through many generations until the present | .543 | -.028 | .004 | -.049 |
| The values, beliefs, and traditions of my ethnic group have existed long before I was ever born | .523 | -.014 | -.220 | .064 |
| Compared to other ethnic groups, my ethnic group does NOT have long-lasting beliefs, values, and traditions | .032 | .857 | -.049 | -.011 |
| My ethnic group does NOT have a long history in comparison to other ethnic groups | -.144 | .774 | -.020 | .002 |
| I do not think my ethnic group will continue to exist long after this present generation | .071 | .371 | .316 | -.074 |
| In the future, I think it is likely my ethnic group will exist as a people for an endless number of generations | .035 | .021 | -.812 | .021 |
| The values, beliefs, and traditions of my ethnic group will exist long after I am gone | .111 | -.059 | -.685 | .069 |
| My ethnic group will continue to exist for a long time in the future | .274 | -.023 | -.506 | .150 |
| My ethnic group has long-lasting beliefs, values, and traditions | .090 | -.019 | .082 | .783 |
| I think that the beliefs, values, and traditions of my ethnic group will ensure that my ethnic group will have a long future | .001 | -.023 | .013 | .755 |
| I believe that my ethnic group has a long history relative to other ethnic groups | -.043 | .011 | -.110 | .596 |

Extraction Method: Principal Axis Factoring

Rotation Method: Oblimin with Kaiser Normalization

Construct Validity of the Backward and Forward Continuity Scale

Convergent and Divergent Validity of the Backward and Forward Continuity Scale

We predicted the BFC would moderately correlate with other measures of collective continuity, such that r would fall between .30 and .50 (see Cohen, 1992). To test this prediction, we assessed zero-order correlations between the BFC and the Perceived Collective Continuity, Vicarious Experience, Perceived Group Entitativity, Trans-Generational Entity, and Ethno-Historical Consciousness scales. All measures had good internal consistency and were positively correlated with each other (see Table 4).

Of particular interest were the positive correlations between BFC and Perceived Collective Continuity ($r = .471$, $p < .001$), Vicarious Experience ($r = .521$, $p < .001$), Perceived Group Entitativity ($r = .515$, $p < .001$), Trans-Generational Entity ($r = .505$, $p < .001$), and Ethno-Historical Consciousness ($r = .413$, $p < .001$). The moderately-high positive correlations between the BFC and the other continuity measures establish the convergent validity of the BFC. Although some of these correlations were slightly outside the upper boundary that defines a moderate correlation, the pattern of the relationships

Table 4

Zero-Order Correlations for Backward and Forward Continuity and Comparative Scales

| | PCC | VE | PGE | TGE | EHC |
|-----|--------|--------|--------|--------|--------|
| BFC | .471** | .521** | .515** | .505** | .413** |
| PCC | 1.00 | .393** | .440** | .410** | .332** |
| VE | .393** | 1.00 | .460** | .529* | .717** |
| PGE | .440** | .460** | 1.00 | .556** | .406** |
| TGE | .410** | .529** | .556** | 1.00 | .524** |
| EHC | .332** | .717** | .406** | .524** | 1.00 |

Note. BFC = Backward and Forward Continuity, PCC = Perceived Collective Continuity, VE = Vicarious Experience, PGE = Perceived Group Entitativity, TGE = Trans-Generational Entity, and EHC = Ethno-Historical Consciousness scales.

N = 258

**Correlation is significant at the 0.01 level (2-tailed).

between the BFC and other continuity scales helps establish the divergent validity of the BFC. Overall, these findings suggest that the BFC and the other collective continuity scales relate to a common theme and thus measure similar, but divergent underlying constructs.

Predictive Validity of the Backward and Forward Continuity Scale

We predicted that the BFC would correlate with outcomes related to individual self-esteem, collective self-esteem (i.e., membership, identity, and private, but not public), and positive and negative affect. We also expected that the BFC would positively correlate with "discrimination awareness" as it relates to one's ethnic group (see Table 5 for zero-order correlations between BFC and outcome measures).

As expected, the BFC was positively correlated with individual self-esteem ($r = .297, p < .001$). In the case of collective self-esteem, BFC was positively correlated with membership ($r = .506, p < .001$), identity ($r = .447, p < .001$), and private ($r = .578, p < .001$), but not public components of CSE ($r = .084, p > .05$). Backward and forward continuity was also slightly correlated with positive affect ($r = .161, p < .005$), but not with negative affect ($r = -.101, p > .05$).

To demonstrate divergent validity further, we also expected that BFC would uniquely predict individual self-esteem, membership, identity, and the private (but not public)

Table 5

Zero-Order Correlations for Backward and Forward Continuity and Measures of Wellbeing and Discrimination Awareness

| | ISE | CSE- Private | CSE- Membership | CSE- Identity | DI-EHC |
|-----|--------|-----------------|--------------------|------------------|--------|
| BFC | .297** | .578** | .506** | .447** | .482** |
| PCC | .213** | .277** | .298** | .260** | .267** |
| VE | .205** | .462** | .575** | .545** | .470** |
| PGE | .202** | .400** | .344** | .411** | .307** |
| TGE | .333** | .438** | .430** | .437** | .359** |
| EHC | .269** | .430** | .576** | .524** | .471** |

Note. BFC = Backward and Forward Continuity, PCC = Perceived Collective Continuity, VE = Vicarious Experience, PGE = Perceived Group Entitativity, TGE = Trans-Generational Entity, and EHC = Ethno-Historical Consciousness, ISE = Individual Self-esteem, CSE = Collective Self-esteem, and DI-EHC = Discrimination items-EHC.

N = 258

**Correlation is significant at the 0.01 level (2-tailed).

components of collective self-esteem over and above that of the other scales (PCC, VE, PGE, TGE, and EHC).

Finally, we also expected that BFC would explain discrimination awareness above and beyond that of the other scales. To test the first prediction, we regressed BFC along with the other scales (PCC, VE, PGE, TGE, and EHC) on individual self-esteem and found that BFC predicted individual self-esteem above and beyond that of the other

scales, $\beta = .180$, $t(251) = 2.35$, $p = .019$ (see Table 6). Only TGE and EHC were significant in the full model for individual self-esteem $\beta = .227$, $t(251) = 2.88$, $p = .004$ and $\beta = .172$, $t(251) = 1.99$, $p = .048$, (respectively), all other $ps > .05$.

Similarly, BFC predicted above and beyond the other scales on the private, $\beta = .428$, $t(251) = 6.62$, $p = .001$ (see Table 7), identity $\beta = .169$, $t(251) = 2.58$, $p = .01$ (see Table 8), and membership, $\beta = .273$, $t(251) = 4.38$, $p = .001$ (see Table 9) components of collective self-esteem. No other predictor scales remained significant when BFC was entered into the model for the private component of collective self-esteem, all other $ps > .05$. Only EHC also remained significant in the analyses for identity, $\beta = .227$, $t(251) = 3.09$, $p = .002$; whereas, EHC and VE both remained significant in the model for the membership component of CSE $\beta = .309$, $t(251) = 4.41$, $p = .001$, and $\beta = .210$, $t(251) = 2.85$, $p = .005$, all other $ps > .05$. On the other hand, neither BFC nor the other collective continuity scales with the exception of EHC $\beta = .23$, $t(251) = 2.50$, $p = .01$) significantly predicted the public component of collective self-esteem (all $ps > .05$; see Table 10). Although EHC was significant, the overall model for the

Table 6

Results of Multiple Regression Analysis for Individual Self-Esteem

| Predictor Variable | Coefficients | | | | | Adj. R ² | R ² Change | F Change |
|--------------------|--------------|------|-------|-------|------|---------------------|-----------------------|----------|
| | B | SE | β | t | P | | | |
| Model 1 | | | | | | .114 | .131 | 7.60 |
| PCC | .124 | .096 | .088 | 1.30 | .195 | | | |
| VE | -.067 | .074 | -.081 | -.910 | .364 | | | |
| PGE | -.013 | .091 | -.011 | -.141 | .888 | | | |
| TGE | .287 | .087 | .258 | 3.29 | .001 | | | |
| EHC | .142 | .074 | .176 | 1.92 | .056 | | | |
| Model 2 | | | | | | .129 | .019 | 5.53 |
| PCC | .071 | .097 | .051 | .732 | .465 | | | |
| VE | -.107 | .075 | -.130 | -1.43 | .155 | | | |
| PGE | -.060 | .093 | -.049 | -.649 | .517 | | | |
| TGE | .252 | .088 | .227 | 2.88 | .004 | | | |
| EHC | .146 | .073 | .172 | 1.99 | .048 | | | |
| BFC | .248 | .105 | .180 | 2.35 | .019 | | | |

Table 7

*Results of Multiple Regression Analysis for Collective
Self-Esteem Private Component*

| Predictor Variable | Coefficients | | | | | Adj. R ² | R ² Change | F Change |
|-----------------------|--------------|------|---------|-------|------|------------------------|--------------------------|----------|
| | B | SE | β | t | p | | | |
| Model 1 | | | | | | .275 | .289 | 20.52 |
| PCC | .022 | .078 | .018 | .286 | .775 | | | |
| VE | .153 | .061 | .203 | 2.51 | .013 | | | |
| PGE | .167 | .075 | .151 | 2.23 | .026 | | | |
| TGE | .175 | .072 | .174 | 2.44 | .015 | | | |
| EHC | .097 | .061 | .126 | 1.60 | .110 | | | |
| Model 2 | | | | | | .380 | .105 | 43.75 |
| PCC | -.091 | .075 | -.072 | -1.23 | .221 | | | |
| VE | .066 | .058 | .088 | 1.15 | .251 | | | |
| PGE | .066 | .071 | .059 | .924 | .356 | | | |
| TGE | .101 | .067 | .100 | 1.50 | .136 | | | |
| EHC | .106 | .056 | .137 | 1.89 | .060 | | | |
| BFC | .533 | .081 | .428 | 6.62 | .001 | | | |

Table 8

Results of Multiple Regression Analysis for Collective Self-Esteem Identity Component

| Predictor Variable | Coefficients | | | t | p | Adj. R ² | R ² Change | F Change |
|--------------------|--------------|------|---------|-------|------|---------------------|-----------------------|----------|
| | B | SE | β | | | | | |
| Model 1 | | | | | | .352 | .365 | 28.97 |
| PCC | -.057 | .110 | -.030 | -.518 | .605 | | | |
| VE | .303 | .085 | .273 | 3.57 | .001 | | | |
| PGE | .246 | .105 | .151 | 2.35 | .019 | | | |
| TGE | .155 | .100 | .104 | 1.55 | .122 | | | |
| EHC | .254 | .085 | .223 | 2.99 | .003 | | | |
| Model 2 | | | | | | .367 | .016 | 6.67 |
| PCC | -.123 | .111 | -.065 | -1.11 | .270 | | | |
| VE | .253 | .086 | .227 | 2.93 | .004 | | | |
| PGE | .187 | .106 | .114 | 1.76 | .079 | | | |
| TGE | .112 | .100 | .075 | 1.12 | .265 | | | |
| EHC | .259 | .084 | .227 | 3.09 | .002 | | | |
| BFC | .311 | .120 | .169 | 2.58 | .010 | | | |

Table 9

Results of Multiple Regression Analysis for Collective Self-Esteem Membership Component

| Predictor Variable | Coefficients | | | t | p | Adj. R ² | R ² Change | F Change |
|--------------------|--------------|------|---------|-------|------|---------------------|-----------------------|----------|
| | B | SE | β | | | | | |
| Model 1 | | | | | | .384 | .396 | 33.08 |
| PCC | .059 | .086 | .039 | .679 | .498 | | | |
| VE | .255 | .067 | .283 | 3.81 | .001 | | | |
| PGE | .028 | .083 | .021 | .341 | .733 | | | |
| TGE | .114 | .079 | .095 | 1.44 | .150 | | | |
| EHC | .278 | .067 | .302 | 4.16 | .001 | | | |
| Model 2 | | | | | | .426 | .043 | 19.17 |
| PCC | -.028 | .086 | -.018 | -.327 | .744 | | | |
| VE | .189 | .066 | .210 | 2.85 | .005 | | | |
| PGE | -.049 | .082 | -.037 | -.605 | .546 | | | |
| TGE | .057 | .077 | .048 | .740 | .460 | | | |
| EHC | .285 | .065 | .309 | 4.41 | .001 | | | |
| BFC | .406 | .093 | .273 | 4.38 | .001 | | | |

Table 10

Results of Multiple Regression Analysis for Collective Self Esteem Public Component

| Predictor Variable | Coefficients | | | | | Adj. R ² | R ² Change | F Change |
|--------------------|--------------|------|---------|-------|------|---------------------|-----------------------|----------|
| | B | SE | β | t | p | | | |
| Model 1 | | | | | | .016 | .035 | 1.85 |
| PCC | .080 | .110 | .052 | .726 | .468 | | | |
| VE | -.040 | .085 | -.045 | -.475 | .635 | | | |
| PGE | .020 | .105 | .015 | .190 | .850 | | | |
| TGE | -.167 | .100 | -.138 | -1.67 | .096 | | | |
| EHC | .211 | .085 | .228 | 2.48 | .014 | | | |
| Model 2 | | | | | | .017 | .005 | 1.18 |
| PCC | .051 | .113 | .034 | .455 | .650 | | | |
| VE | -.062 | .087 | -.069 | -.709 | .479 | | | |
| PGE | -.005 | .107 | -.004 | -.051 | .959 | | | |
| TGE | -.186 | .102 | -.154 | -1.83 | .068 | | | |
| EHC | .213 | .085 | .230 | 2.51 | .013 | | | |
| BFC | .133 | .122 | .089 | 1.09 | .277 | | | |

public component of collective self-esteem was non-significant, $F(6, 251) = 1.85, p > .05$.

Backward and forward continuity also predicted discrimination awareness $\beta = .322, t(251) = 4.73, p = .001$ over and above the other continuity scales (see Table 11).

EHC was also a significant predictor of discrimination awareness $\beta = .250$, $t(251) = 3.27$, $p = .001$. In sum, although some of the other scales were significant in the regression models, only the BFC scale consistently remained significant across the regressions on all outcome measures.

Table 11

Results of Multiple Regression Analysis for Discrimination Awareness

| Predictor Variable | Coefficients | | | | | Adj. R ² | R ² Change | F Change |
|--------------------|--------------|------|---------|-------|------|---------------------|-----------------------|----------|
| | B | SE | β | t | P | | | |
| Model 1 | | | | | | .255 | .269 | 18.58 |
| PCC | .076 | .091 | .052 | .834 | .405 | | | |
| VE | .187 | .071 | .217 | 2.65 | .009 | | | |
| PGE | .059 | .087 | .047 | .680 | .497 | | | |
| TGE | .081 | .083 | .071 | .978 | .329 | | | |
| EHC | .213 | .070 | .242 | 3.03 | .003 | | | |
| Model 2 | | | | | | .313 | .060 | 22.35 |
| PCC | -.022 | .090 | -.015 | -.248 | .805 | | | |
| VE | .113 | .070 | .131 | 1.62 | .106 | | | |
| PGE | -.029 | .086 | -.023 | -.334 | .738 | | | |
| TGE | .017 | .081 | .015 | .213 | .832 | | | |
| EHC | .221 | .068 | .250 | 3.27 | .001 | | | |
| BFC | .460 | .097 | .322 | 4.73 | .001 | | | |

Discussion

For the proposed study, we sought to demonstrate that how Mexican Americans conceptualize their group in terms of its persistence over time can have psychological consequences. More specifically, the major goal of the proposed research was to examine the psychological benefits that Mexican Americans can derive from perceiving their ethnic group as having historical endurance (has existed) and temporal permanence (will continue to exist) across time. We assessed how Mexican Americans' perceptions of the backward and forward continuity (BFC) component of their ethnic group impacted their wellbeing in terms of self-esteem (individual and collective) and affect (positive and negative). We also tested the association between BFC and discrimination awareness. As the first step in testing the proposition that backward and forward continuity related to wellbeing and discrimination awareness, we developed and subsequently assessed the psychometric validity of the BFC scale.

We conducted principal axis factoring and reliability analyses to assess the value of each BFC item. We expected that the BFC scale would be one-dimensional (i.e., measures a single concept) and have moderate to high inter-item

correlations. We also expected that (as a whole) the BFC scale would moderately correlate with five previous scales that measure similar but distinctive types of ethnic group conceptualizations (i.e. PCC, VE, PGE, TGE, and EHC).

We found that after subjecting the 13-item BFC scale to a principal axis factor analysis, a single-factor solution explained a total of 43.4 percent of the variance. This particular finding is consistent with the assertion by Sani, Herrera, & Bowe (2009) that posits a social group's status is considered "long lasting" is dually dependent upon its extension backward and forward in time. The original 13-item BFC scale had mostly moderately high to high inter-item correlations. The 13-item BFC scale exhibited good reliability and was moderately correlated with the PCC, VE, PGE, TGE, and EHC scales.

The comparatively moderate correlations between the BFC and the other continuity scales establishes the convergent and divergent validity of the BFC scale. The moderate to moderately-high magnitude of the correlations indicates that the sense of backward and forward continuity is a construct similar to those measured by the previous scales (i.e., PCC, VE, PGE, TGE, and EHC). Sani et al. (2007) characterized and demonstrated that perceived

collective continuity (PCC) taps into the perception that a social group has deep cultural traits that have a degree of temporal permanence. PCC is related to the perception that different historical periods of a social group are causally linked to one another and form a coherent narrative of the group. Likewise, BFC also taps into these cultural and historical components of a social group but also includes the idea that these cultural and historical group qualities will promote the given social group into the future. As such, the fact that backward and forward continuity is correlated with PCC further supports Sani's (2007; 2009) assertion that cultural, national, and ethnic groups are perceived as entities that "move through the time line of existence". Additionally, this finding suggests that the Backward and Forward Continuity scale is measuring a type of group continuity. In fact, it has also been previously demonstrated by Haslam, Rothchild, & Ernst (2002) that the perceived continuous existence (i.e., collective continuity) of a group is an antecedent to its perceived entitativity. As such, Sani et al. (2007) previously used the Perceived Group Entitativity (PGE) scale to validate the PCC scale during its initial phase of development. The PCC scale previously moderately correlated with the PGE

scale. Likewise, in the current investigation we found that both the PCC and BFC scale also moderately correlated with the PGE and Trans-Generational Entity (TGE) scale. Overall, the PGE and TGE both measure individuals' perceptions of their social group existing as a symbolic entity over and above individual members; Kahn & Klar, 2011; Castano, Sacchi, & Gries). Therefore, the underlying social identity construct of the BFC scale shares a relationship with the concept of a social group as having an existence that extends beyond its individual members. The BFC scale also moderately correlated with the Ethno-Historical Consciousness (EHC) and Vicarious experience (VE) scales, which respectively measure the endorsements of ethnic group integrity and survival and empathetic involvement in ethnic history. The correlations between the BFC and EHC and the BFC and VE scales indicate that the BFC shares a relationship with constructs related to the cognitive and affective endorsement of historical social representations by group members.

The patterns of moderate to moderately-high correlations between the BFC and comparative scales suggest that although the BFC construct is complimentary to PCC, VE, PGE, TGE, and EHC, it is also tapping into a unique

psychological construct (i.e., backward and forward continuity). The greatest overlap between the BFC and one of the continuity scales (i.e., Vicarious Experience) was $r = .521$. Because BFC shared less than 28 percent of the variance with each of the other continuity measures, it is measuring a different component of group conceptualization, which is distinct from the other previously established constructs.

We also used correlations to determine the relationships between the six ethnic group conceptualization scales (i.e., BFC, PCC, VE, PGE, TGE, and EHC) and measures of both wellbeing (i.e., ISE, CSE, and PANAS) and discrimination awareness. Overall we found that the BFC was moderately correlated with the outcome measures of individual self-esteem and the private, identity, and membership (but not public) components of collective self-esteem. The BFC scale, along with the other predictive scales (i.e., PCC, VE, PGE, TGE, and EHC), was only slightly correlated with positive affect (but unrelated to negative affect). In addition, the BFC was moderately correlated with discrimination awareness. The comparatively moderate correlations between the BFC and the measures of

individual and collective self-esteem and discrimination awareness partially establishes the predictive validity of the BFC scale.

Not only did we expect BFC to correlate with individual levels of wellbeing, we also expected that BFC would predict levels of wellbeing and discrimination awareness above and beyond the other predictive measures (PCC, VE, PGE, TGE, and EHC). We expected that when the BFC and the other measures of ethnic conceptualizations were "pitted" against each other in a single hierarchical regression analysis, the BFC would emerge as one of the only factors to predict individual (e.g., "On the whole I am satisfied with myself") and collective (e.g., "I am a worthy member" and "I value my ethnic group") self-esteem and positive affect (as indicated by the PANAS scale) above and beyond the other comparative measures. Our logic for these expectations were based on the assertions and previous findings by Sani, Herrera, & Bowe (2009) that indicate the extent to which a self-representation includes a backward and forward temporal component determines the robustness of wellbeing.

Consistent with our expectations, we found that overall BFC levels predicted subsequent levels of wellbeing

as measured by the individual self-esteem (ISE) scale and three out of four dimensions of the collective self-esteem (CSE) scale (i.e., Private, membership, and identity, but not public). On the other hand, neither the BFC nor the comparative scales (i.e., PCC, VE, PGE, TGE, and EHC) exhibited predictive validity related to feelings of positive or negative affect as indicated by scores on the PANAS scale. This finding regarding a lack of a relationship between backward and forward continuity (i.e., BFC outcomes) and mood (as indicated via the PANAS scale) is not unusual. Sani, Herrera, & Bowe (2009) had previously indicated that perceptions of group continuity did not meaningfully alter mood states (i.e., positive versus negative affect). Despite the lack of relationship with mood in the regression analyses, our overall patterns of findings regarding the relationships between BFC and ISE/CSE supports the predictive validity of the BFC scale as it relates to wellbeing at both the individual and collective level.

The finding that the BFC scale consistently predicts individual self-esteem above and beyond the other five measures of ethnic group continuity indicates that as expected the BFC scale uniquely taps into an alternative

construction of social identity and, therefore differentially impacts individual self-esteem in a manner distinct from the previous scales (i.e., PCC, VE, PGE, TGE, and EHC). The effect size of the added variance from the BFC scale on individual self-esteem was relatively moderate, which indicates that as a construct, backward and forward continuity might make a distinct psychological contribution to individual members' perceptions of self and hence self-worth. This idea is consistent with the argument posed by Smith (1998) that members' beliefs about their group's longevity in terms of history is important because it affords the group a sense of timelessness, which in turn enhances and glorifies both the group and its members.

In the case of collective self-esteem (private, membership, and identity, but not public dimensions), the BFC also uniquely contributed a substantial amount of additional variance on the CSE private dimension of collective self-esteem. The BFC scale exhibited robust predictive power as it predicted the private component of collective self-esteem and contributed a substantial amount of additional variance (10%) above and beyond the variance explained by the PCC, VE, PGE, TGE, and EHC scales combined. Moreover, when the BFC was "pitted against" the

other scales, it emerged as the only predictor to account for levels of private-CSE. This finding indicates that not only does the BFC scale uniquely and distinctly tap into an alternative construction of social identity (and therefore differentially impacts private-CSE), it more strongly predicts levels of private CSE than do the previous measures. Therefore, backward and forward continuity encompasses an important and previously unmeasured component of social identity that impacts private CSE, which has not been previously measured. Consequently, we can infer that a sense of backward and forward continuity impacts the perceptions of individual members regarding the value and "goodness" of their group (Pyszczynski, Greenberg, Solomon, & Arndt, 2004). The impact of backward and forward continuity on individuals' sense of group "goodness" may be due in part to fact that continuity has been found to boost collective self-esteem in a direct fashion by providing a sense of symbolic immortality.

In terms of individual members' perceptions of the importance of their ethnic group to their self-concept (i.e., CSE-identity) and how good or worthy a member of the group one is (i.e., CSE-membership), we found that overall the previous scales (PCC, VE, PGE, TGE, and EHC) accounted

for a substantial amount of the variance related to CSE-identity and -membership (approximately 40%). When the BFC was added to the model we found that it contributed an additional two percent to the overall model and predicted CSE-identity above and beyond the other scales. Likewise, in the case of CSE-membership, when the BFC was added to the model it contributed an additional four percent of the variance and also predicted CSE-membership above and beyond the other scales. Interestingly, backward and forward continuity also predicted higher levels of discrimination awareness above and beyond the previous scales of social conceptualizations (i.e., PCC, VE, PGE, TGE, and EHC). When the BFC scale was added to the model we found that it contributed an additional six percent to the overall model.

In future research, we intend to more fully explore the relationships among BFC, private and identification components of CSE, and discrimination awareness. Our goal will be to determine whether backwards and forward continuity will exert a suppressing effect on discrimination awareness, such that levels of individual self-esteem will be enhanced (or protected) from the deleterious psychological effects caused by discrimination awareness. Past research supporting the rejection-

identification model (see Schmitt & Branscombe, 2002b) has shown similar "suppression" findings using group identity measures related to group value (similar to private CSE) and centrality (similar to membership CSE). We expect that when pitted against the CSE measures, BFC will uniquely buffer the wellbeing of Mexican Americans when they are confronted by the awareness that their group is a target of discrimination. By conducting higher order analyses between BFC outcomes and outcomes of wellbeing and discrimination awareness, we intend to elucidate the effects backward and forward continuity has on wellbeing.

A possible limitation to the current study is the population from which the sample was drawn. Overall, the Mexican American population is diverse and characterized by ethnic, racial, and social heterogeneity. Therefore, the interpretations of these findings are tentative because we did not incorporate these categorical differences among Mexican American individuals in the current investigation. However, our purpose was to get a preliminary sense of how the concept of backward and forward continuity may apply within a general and unrestricted framework. Moreover, in the United States, Mexican Americans are a broadly labeled group and therefore individuals from diverse backgrounds

assume this label (i.e., Mexican American) at the social level within this national context. In a future investigation, we intend to ask Mexican American participants how they self-label. We expect that the way participants self-label (e.g., Mexican American, Latino American, or Chicano) will provide us with a more clear sense of the differences in our sample related to overall ethnic identification.

Another potential limitation to consider regarding our sample is that our participants were college students and therefore their levels of ethnic group identification as well as cultural and historical knowledge may be qualitatively different from a community sample. This limitation stems from the likelihood that college students are relatively more exposed than is the general population to historical and social concepts relating to identity. College students are also more likely to experience higher levels of dominant group acculturation. The impact of exposure to historical and social concepts and higher levels of dominant group acculturation may differentially impact the degree to which individuals identify with their culture and also perceive their culture as having backward and forward continuity. The direction these influences the

college environment might influence individuals in their degrees of identification, however, and acculturation is speculative and may vary by individual. Therefore, in the future we intend to recruit a community sample to determine if there are in fact, differences in BFC levels between the college population and general population.

Due to the abundance of female participants in our current sample, in the future we intend to recruit more male participants in order to attain a sample with a relatively equal number of male and female participants. Previous research has indicated that males and females within certain ethnic groups exhibit differential levels of ethnic identification. Martinez and Dukes (1997) found that White male Americans were more highly identified with their ethnic group than White female Americans. On the other hand, Black female Americans were more highly identified with their ethnic group than Black male Americans. The reasons for this reverse effect between ethnic groups is unclear, however, this differential pattern of ethnic identification between males and females indicates potential gender differences across groups in terms of perceptions related to ethnic group membership. As such, these potential gender differences in perceptions of ethnic

group membership may also impact the degree to which male and female group members perceive their group as having backward and forward continuity. Therefore, in the future we intend to examine if male and female Mexican Americans differ in their perceptions of their ethnic group's continuity.

Another issue to consider with the study is that because the focus of the current investigation was exploratory, our scales within the overall survey appeared in the same order (i.e., PCC, VE, PGE, TGE, EHC, BFC, DI-EHC, ISE, CSE, and PANAS). Because of this set order, there is the potential for carryover effects, in which the completion of a previous survey may "prime" participants to answer more positively on subsequent scales. In order to control for carryover ("priming") effects, we intend to redistribute the survey among Mexican American participants and randomize the order in which they complete the social conceptualization scales (i.e., PCC, VE, PGE, TGE, EHC, and BFC) and also the order in which they complete the discrimination awareness items and measures of wellbeing (i.e., ISE and CSE).

One final issue with the current research is that we only tested a single sample. In order to assess the overall

reliability and integrity of the BFC scale we intend to collect additional samples (including a community sample). In the next data collection phase, we intend to administer the BFC to the same participants at two different points in time as to establish test-retest reliability. With our future sample, we will also further examine the factor structure of the BFC scale to determine whether a single or four factor solution best captures the underlying concepts (and potential sub-scales) related to ethnic group continuity.

Finally, we are interested in determining how well the BFC scale and the concept of backward and forward continuity will translate into predicting levels of wellbeing for other important social groups. Eventually, we will test the BFC scale on members of other ethnic and national groups (i.e., Americans). We expect that BFC levels will vary according to groups; however, ultimately we seek to determine if increasing perceptions of BFC among members of various groups will have positive psychological outcomes and therefore assist in improving at least in part the quality of life for people at the individual health level.

Once the psychometrics of the BFC are clearly defined and acceptable, it is our intention to utilize the scale as a tool to measure the degree to which people perceive their important social groups (in this case ethnic groups) as having existential continuity. We are interested in the construct of backward and forward continuity, because group identification might provide people with esteem enhancing and anxiety reducing properties (Castano, Yzerbyt, Paladino, & Sacchi, 2002). More specifically, cultural identities, defined as self-identification with a specific ethnic or national group might be the most effective form of terror management (Nisbett, Choi, & Norenzayan, 2001). Terror management is commonly defined as a coping strategy people utilize in order to combat the awareness of their own mortality (Solomon, Greenberg, & Pyszczynski, 1991; 2000). Typically, these coping strategies, which are intended to reduce mortality threat, often take the form embracing a specific cultural world-view and group identity (Pyszczynski, Solomon, & Greenberg, 1999). There is also evidence to suggest that certain cultural world-views group identities are the most effective at buffering against mortality threat, reducing mortality related anxiety, and protecting self-esteem (Castano et al., 2002). Previous

research has supported the idea that members from ethnic groups derive positive psychological outcomes from their group membership because ethnic groups have enduring qualities (i.e., backward and forward continuity; Ryan & Deci, 2004; Sani, Herrera, & Bowe, 2009). Drawing on this previous work, we posit that reminding people of their group's backward and forward continuity might help people manage the fears associated with awareness of human mortality.

In sum, we have initiated the first step in demonstrating that the BFC component of group identity is a similar but unique concept relative to other measures of social identity construction. The development and analysis of this scale will extend theory related to the self-concept and social identity and will initiate a new approach to understanding the psychological benefits of group identification.

APPENDIX A

PARTICIPANT RECRUITMENT INFORMATION

Flyer to be posted around campus (solicitation in classes will use similar wording):

WANT TO EARN SOME EXTRA CREDIT?

Participate in the Mexican Heritage Identification study!

2 units in 45 minutes

Who: Our study is open to all males and females, age 18+, who identify themselves of Mexican heritage.

What: Complete some short surveys that tell us your feelings about your ethnic group and background.

NO prior knowledge is required!

Where: Online study through SONA

Just log onto SONA, find the "Mexican Heritage Identification" study, and get signed up for a timeslot to get the survey link to complete!

APPENDIX B

BACKWARD AND FORWARD CONTINUITY 10-ITEM PILOT SCALE

Developed by Wacan, J. J., Gomez, G. A., & Garcia, D. M.
(2012).

1. My ethnic group has long-lasting beliefs, values, and traditions
2. I believe that my ethnic group has a long history relative to other ethnic groups
3. I think that the beliefs, values, and traditions of my ethnic group will ensure that my ethnic group will have a long future
4. Relative to other ethnic groups, my ethnic group does not have long-lasting beliefs, values, and traditions
5. My ethnic group does not have a long history in comparison to other ethnic groups
6. My ethnic group has existed for a long time and will continue to exist for a long time in the future
7. The values, beliefs, and traditions of my ethnic group have existed long before I was born and will continue long after I am gone
8. In the future, I think it is likely my ethnic group will exist as a people for an infinite number of generations
9. As a people, my ethnic group has endured to the present and has a history that extends far in to the past
10. Although, as a people, my ethnic group has endured to the present, I do not think it will continue to exist long after this present generation

APPENDIX C

BACKWARD AND FORWARD CONTINUITY 13-ITEM SCALE

Developed by Wacan, J. J., Gomez, G. A., & Garcia, D. M.
(2012).

1. My ethnic group has long-lasting beliefs, values, and traditions
2. I believe that my ethnic group has a long history relative to other ethnic groups
3. I think that the beliefs, values, and traditions of my ethnic group will ensure that my ethnic group will have a long future
4. Compared to other ethnic groups, my ethnic group does not have long-lasting beliefs, values, and traditions
5. My ethnic group does NOT have a long history in comparison to other ethnic groups
6. My ethnic group has existed for a long time
7. My ethnic group will continue to exist for a long time in the future
8. The values, beliefs, and traditions of my ethnic group have existed long before I was ever born
9. The values, beliefs, and traditions of my ethnic group will exist long after I am gone
10. In the future, I think it is likely my ethnic group will exist as a people for an infinite number of generations
11. As a people, my ethnic group has traveled through many generations until the present
12. My ethnic group has a history that extends far into the past
13. I do not think my ethnic group will continue to exist long after this present generation

APPENDIX D
CONSENT FORM



College of Social and Behavioral Sciences
Department of Psychology

Informed Consent

Introduction/Purpose: You are invited to participate in a study by Jennifer Wacan and Dr. Donna Garcia of the Department of Psychology at California State University, San Bernardino. The purpose of this research is to examine people's perceptions of their Mexican heritage. This study has been approved by the Department of Psychology Institutional Review Board Sub-Committee of the California State University, San Bernardino, and a copy of the official Psychology IRB stamp of approval should appear on this consent form.

Procedures: You will be first asked to answer questionnaires regarding your personal knowledge of your ethnic identity and history, as well as your feelings about your ethnic identity and history. Following these questionnaires, you will be asked to answer questions about your knowledge of discrimination toward your ethnic group. You will also be asked to answer questions regarding your perceptions of your ethnic group and your own personal perceptions of yourself as an individual. Finally, you will be asked to provide demographic information. The study should take approximately 45 minutes to complete.

Confidentiality: The information that you give us is completely anonymous. Your name will not be associated with your data in any way. Your data will be assigned a code number and your name will not appear on any data reports. Although, you will be asked to provide your email address so we can assign you SONA ID for extra credit points, this information will be stored separately from your survey responses so to protect the anonymity of your responses. All data will be stored in password protected computers and only the researchers will be able to access the data.

Compensation: You will receive 2 units of extra credit as compensation at the end of the session.

Risks and Benefits: Participation in this study poses no risks to participants beyond those normally encountered in daily life or any direct benefits (aside from course credit).

Participant's Rights: We would like to remind you that you do have the right to refuse to participate in this study, refuse to answer any question, or to terminate your participation at any time without penalty (i.e., you will still receive participation credit).

Results: Results from this study will be available from Dr. Donna Garcia after December 31, 2013. The results will be submitted for presentation at scientific conferences and for publication in a scientific journal. The data will be destroyed 5 years after publication.

Finally, if you have any complaints or comments regarding this study, you can contact Dr. Donna Garcia (dmgarcia@csusb.edu) or Jennifer J. Wacan (jwacan@coyote.csusb.edu). Please read the following paragraph:

The California State University:
Bakersfield • Channel Islands • Chico • Dominguez Hills • East Bay • Fresno • Fullerton • Humboldt • Long Beach • Los Angeles • Maritime Academy
Monterey Bay • Northridge • Pomona • Sacramento • San Bernardino • San Diego • San Francisco • San Jose • San Luis Obispo • San Marcos • Sonoma • Stanislaus

By clicking on the "I agree" below, I acknowledge that I have been informed of, and that I understand, the nature and purpose of this study, and I freely consent to participate. I also acknowledge that I am at least 18 years of age.

I AGREE

| | | | |
|---|-----------|------------|---------------------|
| CALIFORNIA STATE UNIVERSITY | | | |
| PSYCHOLOGY INSTITUTIONAL REVIEW BOARD SUB-COMMITTEE | | | |
| APPROVED | 9/17/12 | VOID AFTER | 9/17/13 |
| IRB # | H-1251-07 | CHAIR | <i>John B. Clay</i> |

APPENDIX E
INSTRUCTIONS AND HONESTY AGREEMENT

Please read the below statement carefully before continuing.

It has negative consequences when people participate in research without being truly engaged or honest. When student participants fail to take a research study seriously and not answer honestly, they can harm another student's progress in completing a research requirement or contribute to misinformation being published in scientific journals, reported in the media, and printed in textbooks. If you are unable or unwilling to read the survey questions carefully or respond honestly, please check the "prefer not to participate" option below. We will not know who did or did not complete the study. You will still receive full credit for your participation and will not be penalized in any way. Although we appreciate when people agree to help us by completing our research, it is important to the quality of our research that people give truthful and thoughtful responses. Thank you.

- I agree to read each question seriously and answer as honestly as I can

- I prefer not to participate

APPENDIX F

PERCEIVED COLLECTIVE CONTINUITY SCALE

Sani, F., Bowe, M., Herrera, M., Manna, C., Cossa, T.,
Miao, X., et al. (2007). Perceived collective
continuity: Seeing groups as entities that move
through time. *European Journal of Social Psychology*,
37, 1118-1134.

Instructions:

Please carefully read each of the following statements then indicate the extent to which you agree or disagree with each statement. There is no right or wrong answer, so please answer as honestly as you can.

1=Strongly disagree

2=Disagree

3=Somewhat disagree

4=Neither agree or disagree

5=Somewhat agree

6=Agree

7=Strongly Agree

1. People with Mexican heritage have passed on their traditions across different generations
2. Mexican ethnic history is a sequence of interconnected events
3. Shared values, beliefs and attitudes of people with Mexican heritage have survived across time
4. Major stages in the history of those with Mexican heritage are linked to one another
5. Throughout history, the members of the Mexican American group have maintained their world view
6. There is no connection between past, present, and future events in the experience of people with Mexican heritage
7. People with Mexican heritage will always be defined by specific traditions and beliefs
8. There is a causal link between different events in the history of Mexican-heritage people
9. People with Mexican heritage have preserved their traditions and customs over history
10. The main events in the history of Mexican-heritage people are part of an 'unbroken stream'

11. People with Mexican heritage have maintained their values across time
12. There is no lasting connection between different stages in the history of people with Mexican heritage

APPENDIX G

VICARIOUS EXPERIENCE SCALE

Lamy, M., Liu, J. L., & Ward, C. (2011). Integrating paradigms, methodological implications: Using history to embody Breakwell's (1993) theoretical links between social identity theory and social representations theory. *Papers On Social Representations*, 20, 15.1-15.7.

1=Strongly disagree

2=Disagree

3=Somewhat disagree

4=Neither agree or disagree

5=Somewhat agree

6=Agree

7=Strongly Agree

1. I can imagine being a part of the journeys my Mexican ancestors made
2. I do NOT have emotional connections to the struggles that my Mexican ancestors have gone through
3. When I look back in history to my Mexican ancestors, I do feel that I am a part of something great
4. It is hard for me to feel linked to the experiences of my Mexican ancestors
5. The historical achievements of my Mexican ancestors have little to do with me on a personal level
6. I feel proud when I learn about the struggles and battles of my Mexican ancestors to keep my heritage alive
7. I do NOT have emotional connections to the struggles that my Mexican ancestors have gone through

APPENDIX H

PERCEIVED GROUP ENTITATIVITY SCALE

Castano, E., Sacchi, S., & Gries, P. H. (2003a). The perception of ``the other'' in international relations: Evidence for the polarizing effect of entitativity. *Political Psychology, 24*, 449-468.

Instructions:

For the following set of statements we use the term
"Mexican American(s)."

When we use this term we are referring to people who are of
Mexican heritage AND living/born in the United States.

1=Strongly disagree

2=Disagree

3=Somewhat disagree

4=Neither agree or disagree

5=Somewhat agree

6=Agree

7=Strongly Agree

1. Mexican Americans have many characteristics in common
2. Mexican Americans share a common past experience
3. Mexican Americans have a shared destiny
4. Mexican American people have a real existence as a group
5. Mexican American as an ethnic group is just a social idea
6. Mexican Americans have a shared nature
7. There are strong similarities among Mexican Americans
8. There is no doubt that Mexican Americans are a unique ethnic group
9. Mexican Americans have specific qualities in common
10. There are strong ties among Mexican Americans

APPENDIX I

TRANS-GENERATIONAL ENTITY SCALE

Kahn, D., & Klar, Y. (2011). For the sake of the eternal group: Perceiving the group as a trans-generational entity and willingness to endure in-group suffering and sacrifice. Tel Aviv University, The Open University.

Instructions:

For the next statements we would like to focus on the way in which people think about their attachment to their ethnic group.

Different people refer to their ethnic group in different ways and call it by different names.

In the following statements, when written "ethnic group," think of what comes to your mind when you think of this group and refer to what your ethnic group represents for YOU.

1=Strongly disagree

2=Disagree

3=Somewhat disagree

4=Neither agree or disagree

5=Somewhat agree

6=Agree

7=Strongly Agree

1. For me my ethnic group includes all the generations of group members who have ever and ever will live
2. When I think of my ethnic group, I don't just think of the current generation, but also of all the generations of group members of the past
3. I don't believe there is an ethnic identity that we carry from generation to generation
4. When I think of my ethnic group, I don't just think of the current generation, but also of all the generations of group members of the future
5. Members of my ethnic group in every generation share a common base that unites each other across the generations

APPENDIX J

ETHNO-HISTORICAL CONSCIOUSNESS SCALE

Lamy, M., Liu, J. L., & Ward, C. (2011). Integrating paradigms, methodological implications: Using history to embody Breakwell's (1993) theoretical links between social identity theory and social representations theory. *Papers On Social Representations, 20*, 15.1-15.7.

1=Strongly disagree

2=Disagree

3=Somewhat disagree

4=Neither agree or disagree

5=Somewhat agree

6=Agree

7=Strongly Agree

1. I celebrate the points in history when my ethnic group fought to keep our culture
2. I have difficulty remembering basic historical events that shaped my ethnic group as a people
3. I do NOT know which events in history gave my ethnic group a common identity
4. I appreciate the historical survival of my ethnic group
5. I remember the founding fathers and mothers of my ethnic group's traditions
6. The survival of my ethnic group throughout history is NOT something I know much about
7. I do NOT know much about the cultural heroes from my ethnic group
8. I celebrate events in history in which my ethnic group has demonstrated resistance to forces from more dominant groups

APPENDIX K

BACKWARD AND FORWARD CONTINUITY SCALE

Developed by Wacan, J. J., Gomez, G. A., & Garcia, D. M.

(2012).

.....

1=Strongly disagree

2=Disagree

3=Somewhat disagree

4=Neither agree or disagree

5=Somewhat agree

6=Agree

7=Strongly Agree

1. My ethnic group has long-lasting beliefs, values, and traditions
2. I believe that my ethnic group has a long history relative to other ethnic groups
3. I think that the beliefs, values, and traditions of my ethnic group will ensure that my ethnic group will have a long future
4. Compared to other ethnic groups, my ethnic group does NOT have long-lasting beliefs, values, and traditions
5. My ethnic group does NOT have a long history in comparison to other ethnic groups
6. My ethnic group has existed for a long time
7. My ethnic group will continue to exist for a long time in the future
8. The values, beliefs, and traditions of my ethnic group have existed long before I was ever born
9. The values, beliefs, and traditions of my ethnic group will exist long after I am gone
10. In the future, I think it is likely my ethnic group will exist as a people for an infinite number of generations
11. As a people, my ethnic group has traveled through many generations until the present
12. My ethnic group has a history that extends far into the past
13. I do not think my ethnic group will continue to exist long after this present generation

APPENDIX L

DISCRIMINATION ITEMS FROM ETHNO-HISTORICAL CONSCIOUSNESS
SCALE

Lamy, M., Liu, J. L., & Ward, C. (2011). Integrating paradigms, methodological implications: Using history to embody Breakwell's (1993) theoretical links between social identity theory and social representations theory. *Papers On Social Representations, 20*, 15.1-15.7.

1=Strongly disagree

2=Disagree

3=Somewhat disagree

4=Neither agree or disagree

5=Somewhat agree

6=Agree

7=Strongly Agree

1. Discrimination against my ethnic group is something I do NOT know much about
2. I'm NOT really aware of my ethnic group being treated differently by the dominant society
3. I remember the injustices that have happened to my ethnic group
4. I remember how my ethnic group has been discriminated against by the dominant society throughout history

APPENDIX M

COLLECTIVE SELF-ESTEEM SCALE

Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18, 302-318.

Instructions:

Thank you! Now we'd like you to focus on how you feel about your ethnic group and how others may feel or perceive your ethnic group. Please specify your level of disagreement or agreement with each statement.

1=Strongly disagree

2=Disagree

3=Somewhat disagree

4=Neither agree or disagree

5=Somewhat agree

6=Agree

7=Strongly Agree

1. I am a worthy member of my ethnic group
2. I feel I don't have much to offer my ethnic group
3. I am a cooperative participant in my ethnic group
4. I often feel I'm a useless member of my ethnic group
5. I often regret that I belong to my ethnic group
6. In general, I'm glad to be a member of my ethnic group
7. Overall, I often feel that my ethnic group is not worthwhile
8. I feel good about my ethnic group
9. Overall my ethnic group is considered good by others
10. Most people consider my ethnic group, on the average, to be ineffective compared to other ethnic groups
11. In general, others respect my ethnic group
12. In general, others think that my ethnic group is unworthy
13. Overall, my ethnic group has very little to do with how I feel about myself
14. My ethnic group is an important reflection of who I am
15. My ethnic group is unimportant to my sense of what kind of person I am
16. In general, belonging to my ethnic group is an important part of my self-image

APPENDIX N

INDIVIDUAL SELF-ESTEEM SCALE

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Instructions:

Now we would like you to focus on how you feel about YOURSELF as an individual.

Please specify your level of disagreement or agreement with each statement.

1=Strongly disagree

2=Disagree

3=Somewhat disagree

4=Neither agree or disagree

5=Somewhat agree

6=Agree

7=Strongly Agree

1. On the whole, I am satisfied with myself
2. At times, I think I am no good at all
3. I feel that I have a number of good qualities
4. I am able to do things as well as most other people
5. I feel I do not have much to be proud of
6. I certainly feel useless at times
7. I feel that I am a person of worth, at least on an equal plane with others
8. I wish I could have more respect for myself
9. All in all, I am inclined to feel that I am a failure
10. I take a positive attitude toward myself

APPENDIX O

POSITIVE AND NEGATIVE AFFECT SCHEDULE

Watson, D., Clark, L. A., & Tellegen, A. (1988).

Development and validation of brief measures

Of positive and negative affect: The PANAS scales.

Journal of Personality and Social Psychology, 54(6),

1063-1070.

Instructions:

This scale consists of a number of words that describe different feelings and emotions. Read each item and then list the number from the scale below next to each word. Indicate to what extent you feel this way right now, that is, at the present moment OR indicate the extent you have felt this way over the past week:

1= Clearly does NOT describe my feelings

2= Mostly does NOT describe my feelings

3= Somewhat describes my feelings

4= Mostly describes my feelings

5= Clearly describes my feelings

- | | | | |
|-------|-----------------|-------|----------------|
| _____ | 1. Interested | _____ | 11. Irritable |
| _____ | 2. Distressed | _____ | 12. Alert |
| _____ | 3. Excited | _____ | 13. Ashamed |
| _____ | 4. Upset | _____ | 14. Inspired |
| _____ | 5. Strong | _____ | 15. Nervous |
| _____ | 6. Guilty | _____ | 16. Determined |
| _____ | 7. Scared | _____ | 17. Attentive |
| _____ | 8. Hostile | _____ | 18. Jittery |
| _____ | 9. Enthusiastic | _____ | 19. Active |
| _____ | 10. Proud | _____ | 20. Afraid |

APPENDIX P

DEMOGRAPHIC INFORMATION

Instructions:

Thank you! Please provide us with some information about you.

What is your current age? _____

Gender:

_____ Male

_____ Female

What is your country of birth? _____

Resident Status:

_____ U. S. Citizen

_____ Permanent Resident

_____ Foreign Exchange Student

_____ Other (please specify)

Are you of Mexican descent and/or heritage?

_____ Yes

_____ No

Please check the box(es) that BEST describe you (check all that apply to you).

_____ American Indian/Alaskan Native

_____ Asian or Pacific Islander

_____ Black, NOT of Hispanic Origin

_____ Hispanic

_____ Hispanic, but NOT of Mexican descent

Specify country: _____

- White, not of Hispanic Origin
- Multi-racial
- Another ethnicity not listed above

College Major:

What is the highest level of education you have completed or the highest degree you have received?

- Not applicable.
- Grade 1-5
- Grade 6-8
- Some high school
- High school graduate
- GED or equivalent
- Some college
- Associate degree
- Bachelor's degree (e.g., BA, AB, BS, BBA)
- Master's degree (e.g., MA, MS, MEng, Med, MBA)
- Professional school degree (e.g., MD, DD, JD)
- Doctoral degree (e.g., PhD, EdD)
- Unknown

What is your FIRST language (i.e., the language you speak most fluently)? _____

If English is not your first language, how long have you been speaking English?

_____ Less than 1 year

_____ 1-4 years

_____ 5-10 years

_____ 11-15 years

_____ More than 15 years

|
|

APPENDIX Q

HUMAN SUBJECTS REVIEW BOARD APPROVAL

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|
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|

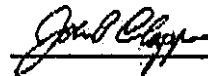
**Human Subjects Review Board
Department of Psychology
California State University,
San Bernardino**

PI: Donna Garcia, Jonnitor Wacan, and Gabrino Gomez.
From: John P. Clappor
Project Title: Mexican Heritage Identification Study
Project ID: H-12SU-07
Date: 8/17/12

Disposition: Administrative Review

Your IRB proposal is approved. This approval is valid until 8/17/2013.

Good luck with your research!



John P. Clappor, Co-Chair
Psychology IRB Sub-Committee

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