

Expanding the Boundaries of Community: Toward Measuring a Solely *Psychological*
Sense of Community

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Dedication

Dedico questa tesi di dottorato alla mia famiglia, senza di cui non sarei arrivata fin qui.

Abstract

Research on psychological sense of community (PSOC) has documented its importance and connection to many varied factors (e.g., health, volunteerism). However, three gaps in the literature remain. First, there is a lack of consensus in how PSOC is conceptualized. Second, researchers have failed to consider that sense of community could be defined in solely *psychological* terms. Third, there is little insight into what comprises a solely psychological sense of community and how it manifests itself (i.e., its correlates). The three studies presented here address these gaps by (a) better elucidating the structure of a PSOC defined in solely psychological terms and its cross-cultural applicability (Study 1); (b) providing insight into how PSOC manifests itself (i.e., its correlates) and how these manifestations are similar or different across cultures (Study 2); and (c) presenting evidence for the role of PSOC in predicting and influencing prosocial action (Study 3). Results shape a concrete conceptualization of the PSOC construct, including a well-documented understanding of its composition, what it relates to, and its cross-cultural variability. Findings also support the idea that PSOC is not only a theoretically-relevant construct, but that it also has ties to many key aspects of our daily lives, enriching both theory and real-world applications.

Table of Contents

List of Tables	.....	v
List of Figures	.....	vi
Introduction	.....	1
Study 1	.....	15
<i>Method</i>	.....	15
<i>Results</i>	.....	18
<i>Discussion</i>	.....	35
Study 2	.....	36
<i>Method</i>	.....	37
<i>Results</i>	.....	52
<i>Discussion</i>	.....	77
Study 3	.....	81
<i>Method</i>	.....	82
<i>Results</i>	.....	92
<i>Discussion</i>	.....	99
General Discussion	.....	100
References	.....	118
Appendices	.....	137

List of Tables

Table 1	.....	20
	<i>Items in Identification and Action Factors based on initial Factor Analysis</i>	
Table 2	.....	29
	<i>Nested Model Comparisons for Tests of Multigroup Invariance</i>	
Table 3	.....	34
	<i>Nested Model Comparisons for Tests of Multigroup Invariance – Cross-validation Sample</i>	
Table 4	.....	54
	<i>Summary of Correlations between Correlate Scores and PSOC, Identification, and Action Scores in the United States and Italy</i>	
Table 5	.....	94
	<i>Predictors of Prosocial Action in the United States</i>	
Table 6	.....	95
	<i>Predictors of Prosocial Action in Italy</i>	
Table 7	.....	98
	<i>Summary of Mean Differences between Experimental and Control Groups in Prosocial Action Variables</i>	

List of Figures

Figure 1	11
<i>Hypothesized three-factor structure of a psychological sense of community, defined in solely psychological terms, including the factors of knowledge, identification, and action</i>	
Figure 2	23
<i>Initial PSOC model (Model A) that emerged from the exploratory factor analysis, illustrating the hypothesis that psychological sense of community is a two-dimensional construct composed of two factors, identification and action</i>	
Figure 3	26
<i>Respecified PSOC model (Model B) resulting from structural equation modeling analyses; includes the same two factors as previous models, identification and action, but fewer items represent each factor</i>	
Figure 4	33
<i>Final PSOC model (Model C)</i>	
Figure 5	37
<i>Summary of correlates examined</i>	
Figure 6	56
<i>Country as a moderator of the path between extraversion and identification</i>	
Figure 7	60
<i>Country as a moderator of the path between openness to new ideas and identification</i>	
Figure 8	63
<i>Country as a moderator of the path between empathic concern and PSOC</i>	
Figure 9	69
<i>Country as a moderator of the path between community involvement and identification</i>	
Figure 10	72
<i>Country as a moderator of the path between social well-being and PSOC</i>	
Figure 11	74
<i>Country as a moderator of the path between empowerment and PSOC</i>	
Figure 12	76
<i>Country as a moderator of the path between social capital and identification</i>	

Current and past research has examined what is termed *psychological sense of community*. Researchers have succeeded in documenting that a sense of community exists, both defined as place or including reference to social connections, and that it relates to many varied factors (e.g., personality, life satisfaction, health, participation, community involvement). However, as will be detailed below, three clear gaps and challenges in this literature remain. First, there is a lack of consensus in how the psychological sense of community construct is conceptualized. Debate centers on whether it is a behavior, a cognition, an affective state, a characteristic of the environment, or even a spiritual construct (Chipuer & Pretty, 1999), making it difficult to address theoretically or empirically. Second, of all the definitions that have been proposed, researchers have failed to consider that sense of community could be defined in solely psychological terms, extending beyond the physical space that often defines it. Last, because literature has not yet addressed a psychologically-focused sense of community, we have little insight into what comprises it and how it manifests itself (e.g., social capital, participation). As a result, little is known about how it may vary in scope based on each individual and on the surrounding cultural context.

Past work (Mannino & Snyder, 2011; Mannino, Snyder, & Marta, 2011) provides evidence that communities, defined in solely psychological terms, are salient for individuals, and that both physical and psychological communities influence behavior. In addition, this research suggests that notions of community vary depending on cultural context. The three studies presented here build upon this previous work and (1) better elucidate what comprises a psychological sense of community (PSOC), defined in only

psychological terms, (2) provide insight into whether PSOC's structure may be universally applicable across cultures, and (3) present evidence for how PSOC manifests itself (e.g., links with social capital and prosocial action/participation), and the similarities and differences in its manifestations across cultures. This research continues the work of addressing the biggest challenges and gaps facing PSOC literature today, and supporting PSOC as a construct.

Evolution of a Psychological Sense of Community – Community as Place

The evolution of a psychological sense of community has its roots in environmental psychology, which focuses on community as place. "Place," in this sense, is used narrowly to reference a house in which one lives, the immediate surrounding neighborhood, one's place of employment, or other relevant physical surroundings. The focus is on places that individuals can experience and that are meaningful to them. The concrete experiences people have in a place then assume symbolic significance (Lalli, 1992).

Place attachment refers to the meaning and connection that people often feel to a physical location that, for them, elicits an emotion; for example, the place where people were born or where they now live and work (Knez, 2005). Current research in environmental psychology has studied place attachment as it relates to a particular climate or environment (Knez, 2005), to recreational settings (Kyle, Graefe, & Manning, 2005; Kyle, Graefe, Manning, & Bacon, 2004), and to sacred places and religion (Mazumdar & Mazumdar, 2004). Results of these studies indicate that the development of place attachment can be influenced by a variety of factors, such as religion (Mazumdar

& Mazumdar, 2004), and that it can have important effects, shaping people's

preferences, self-esteem, and self-efficacy. Knez (2005), for instance, found that participants who were highly attached to their urban neighborhood preferred to live in other urban environments with a similar climate, felt a stronger sense of togetherness with other city dwellers, and indicated that the city gave them more positive feelings about themselves and that urban environments helped to facilitate their daily life.

Attachments to and bonds with a physical environment also have implications for identity. The longer individuals stay in a particular place, the stronger the emotional bond they form and the more a part of their place-related identity the place becomes (Knez, 2005). *Place identity* has been defined as a cognitive system, comprised of individuals' positive and negative cognitions about their physical world (Krupat, 1983; Lalli, 1992; Proshansky, Fabian, & Kaminoff, 1983). These cognitions include information about the particular characteristics of places that have been instrumental in satisfying the individual's biological, social, psychological, and cultural needs. They also reflect the cultural norms of a setting that may influence individual behavior. Just as people develop personal identities by distinguishing themselves from others, so too do they develop an identity tied to objects, places and settings (Proshansky et al., 1983).

Studies that have examined *place identity* document its links both to attitudes and behavior. Uzzell, Pol, and Badenas's (2002) results suggest, for example, that strong place identity is related to a high sense of commitment to sustainable environmental behaviors, acts that might have a direct return benefit to the place itself. Moreover, historic places, and the feelings and values associated with them are critical components

Wright & Lyons, 1997).

The links to self and self-esteem manifested in place attachment are also documented in relation to place identity. Place identity allows individuals to recognize familiarity in aspects of a physical environment, to link various settings over the course of time, and to develop a consistent identity. When place and environment change in some way, there is a subsequent removal of all that is familiar and an attack on the self results (Krupat, 1983; Proshansky et al., 1983). Dixon and Durrheim (2004) explored the effects of an environmental change, desegregation, on the relationship between self and place. They found that white vacationers on a newly multiracial beach (formerly white) in South Africa felt a strong loss of place, place belonging, attachment, and familiarity. No longer did they feel that the beach could restore their sense of self as it had previously done (Dixon & Durrheim, 2004).

The concept of place identity provides an important link between individual and environment, and illustrates the idea that external factors, such as a physical setting, can become part of the self. Place identity is most often measured with questionnaires that reference the particular environment under examination. Sample items include: "This part of the town reminds me of the environment of my childhood;" "I feel good when I am in this part of town" (Knez, 2005); "This town is very familiar with me indeed;" and "I would like to stay in this town indefinitely" (Lalli, 1992).

In addition to factors such as time spent in a physical place and the emotions elicited by that place, there is evidence that another critical element influences the

development of place attachment and place identity. In their examination of attachment to the Appalachian Trail, Kyle and colleagues (2005) concluded that the social-bonding and meaningful relationships that occur in specific settings are an important component of human-place connection. Similarly, Hay (1998) found that social ties were influential in determining the strength of his participants' attachment to their rural New Zealand community. Thus, social relationships and feelings of connection to others appear to influence how strongly individuals feel attachment to and identify with a particular geographic region.

Beginnings of a Psychological Sense of Community

The important contribution of social connectedness to place identity forms the basis for a broader sense of community and marks the next step in the evolution of a psychological sense of community. Over the last two decades, community psychologists have been interested in community identity and the related *psychological sense of community* (Colombo & Senatore, 2005), a concept first introduced by Sarason (1974). Broadly defined, psychological sense of community refers to a feeling of belonging and being able to depend on a larger community. It is typically thought of as including four components: a sense of membership and belonging; a feeling that an individual makes a difference in the community and that the community is important to its members; a sense that the community can meet the needs of its members; and the presence of a shared emotional connection among members, who will share experiences and a history together (Colombo, Mosso, & De Piccoli, 2001; Kim & Kaplan, 2004; Peterson, Speer, & Hughey, 2006; Prezza & Costantini, 1998; Proescholdbell, Roosa, & Nemeroff, 2006;

Puddifoot, 2003). Obst, Smith, and Zinkiewicz (2002) also suggest the presence of a fifth dimension, that of consciously identifying with the community.

Current notions of PSOC have retained ideas of physical space from the community-as-place literature, but added and placed more focus on components of social connectedness. This approach to PSOC is illustrated best in the Sense of Community Index, the most commonly used measure to assess psychological sense of community (SCI; Chavis & Pretty, 1999; Perkins, Florin, Rich, Wandersman, & Chavis, 1990). Items include: “Very few of my neighbors know me”; “I expect to live on this block a long time”; “My neighbors and I want the same things from the block”; and “If there is a problem on this block people who live here can get it solved” (Chavis & Pretty, 1999).

Many studies, both nationally and internationally, have explored psychological sense of community (Bishop, Colquhoun, & Johnson, 2006; Hill, 1996; Kim & Kaplan, 2004; Puddifoot, 2003; Tartaglia, 2006). This work has revealed that a higher sense of community is related to, for example, greater life satisfaction (Prezza & Costantini, 1998), greater in-group ties (Obst & White, 2005), greater openness to experience, extraversion, and agreeableness (Lounsbury, Loveland, & Gibson, 2003), more emotional and instrumental support provided to neighbors (Unger & Wandersman, 1982, 1983, 1985), more communication about neighborhood resources (McGuire, 1997), greater levels of psychological health (Davidson & Cotter, 1991), more engagement in behaviors to help the community (Mashek, Cannaday, & Tangney, 2007), and more participation in the political process and collaboration with neighbors to address common public problems (Chavis & Wandersman, 1990; Davidson & Cotter, 1989, 1993). Thus, PSOC’s

influences can be seen in everything from personality, life satisfaction, and health to participation and community involvement.

Current State of Affairs

The notion that a sense of community exists, whether simply defined as place or including reference to social connections, and that it has wide ranging influences is not in doubt. Past research has done well to explore the many varied factors to which sense of community may relate. However, there are three clear gaps and challenges that current research in this area has thus far failed to adequately address: 1) a lack of consensus in how the PSOC construct is conceptualized; 2) a failure to consider sense of community as defined in solely psychological terms, without reference to physical community; and 3) a lack of insight into what comprises a solely *psychological* sense of community and how it manifests itself (e.g., correlates such as prosocial action), and the similarities and differences in structure and manifestations across cultures.

Conceptualization. Current literature lacks a clear consensus on how psychological sense of community is defined, of which factors it is comprised, and how it should be measured. Researchers have debated as to whether PSOC should be considered a behavior, a cognition, an affective state, a characteristic of the environment, or even a spiritual construct (Chipuer & Pretty, 1999). Cantillona, Davidson, and Schweitzer (2003), for example, list twenty-five studies that all deal with sense of community, each with a slightly different focus, interpretation, and results that point to varied underlying factors (e.g., social embeddedness, fear of crime). Consequently, it is difficult to deduce agreement on the core factors that comprise PSOC or on how best to define it. It is

difficult if not impossible, after all, to address – either theoretically or empirically – a construct that is defined differently for different people.

Failure to consider as solely psychological. Although current notions of PSOC have moved beyond community as place to include elements of social connectedness, the link to physical space still remains. What is needed as a next step is to extend the notion of community beyond the physical space that often defines it, to extend the psychological definition of community beyond a bounded geographic region. More broadly, psychological sense of community may involve feelings of belonging and connection to others with shared concerns, but not necessarily shared geographic location. For instance, someone could be member of a community of cancer survivors that spans states and even countries. Individuals could also participate in on-line communities, such as Wikipedia and Facebook, that span geographic distances and render physical boundaries virtually obsolete.

This broader conceptualization seems consistent with the progress of research in this area, but is a step that has not yet been taken. In the many varied conceptualizations of PSOC that currently exist, it is the elements of social connections and human ties that link them all together. Yet these social bonds have never been considered on their own as the basis for a sense of community. Support for this shift in definition also comes from Omoto and Malsch (2005) and Omoto and Snyder (2002), who conclude that most scholars view community as context, as having and being defined by boundaries. Researchers should instead, in their view, focus on community as process and conceive

Running head: EXPANDING THE BOUNDARIES OF COMMUNITY
of community sentiment as a wholly psychological concept, rather than limit their
conceptualizations to a geographically-bounded region (Omoto & Snyder, 2002).

9

Research by Mannino and colleagues (2011) provides preliminary evidence that physical and psychological forms of community are distinct and have differential links to behavioral outcomes, such as prosocial action. A *physical* notion of community was defined as a specific place or geographic location with clear physical boundaries, mirroring the notions of PSOC that currently exist in literature. A *psychological* notion of community was defined as a feeling of belonging and connection with a group of people who have shared concerns. Participants who were shown volunteer message appeals emphasizing physical community expressed significantly greater interest in volunteering to benefit physical community (e.g., raking leaves around the block), controlling for general interest in volunteer activities. Similarly, participants who were shown appeals highlighting psychological community reported significantly more interest in volunteering to enhance psychological community (e.g., tutoring children) (Mannino et al., 2011).

Lack of insight into composition and correlates. Resulting from the failure to consider a PSOC defined in only psychological terms, there is also little insight into what comprises this construct and how it manifests itself (e.g., its correlates, such as prosocial action) and, thus, the idea that it may vary in scope based on each individual and on the surrounding cultural context. It may be that people have varying degrees of connection to psychological community, but that PSOC's underlying structure is the same. For instance, individuals may be aware that a certain community exists and take action for its

benefit, but they do not closely identify with that community. In contrast, other individuals may possess knowledge of a community and identify with it, but do not engage in action. Both groups of individuals, however, have a psychological sense of community comprised of the same three factors: knowledge, identification, and action. Many existing studies (e.g., Obst et al., 2002; Obst & White, 2007) examine the relations between PSOC and its correlates using total PSOC scores, overlooking the role of scores on its individual dimensions. Exploring each dimension separately, as well as together, may help to illuminate which dimension drives relationships with correlates and how PSOC differs for each individual.

The idea that PSOC is comprised of certain dimensions has frequently been researched. These dimensions are believed to work together dynamically to create and maintain an overall sense of community (Obst & White, 2007). I propose that knowledge, identification, and action are the key dimensions that underlie a solely *psychological* sense of community (see Figure 1 for model). *Knowledge* represents the extent to which a person knows and is able to conceptualize the psychological community. *Identification* includes feelings of attachment and belonging to that community, and feelings of similarity to other members. *Action* reflects behaviors aimed at helping others within the community and/or the community as a whole.

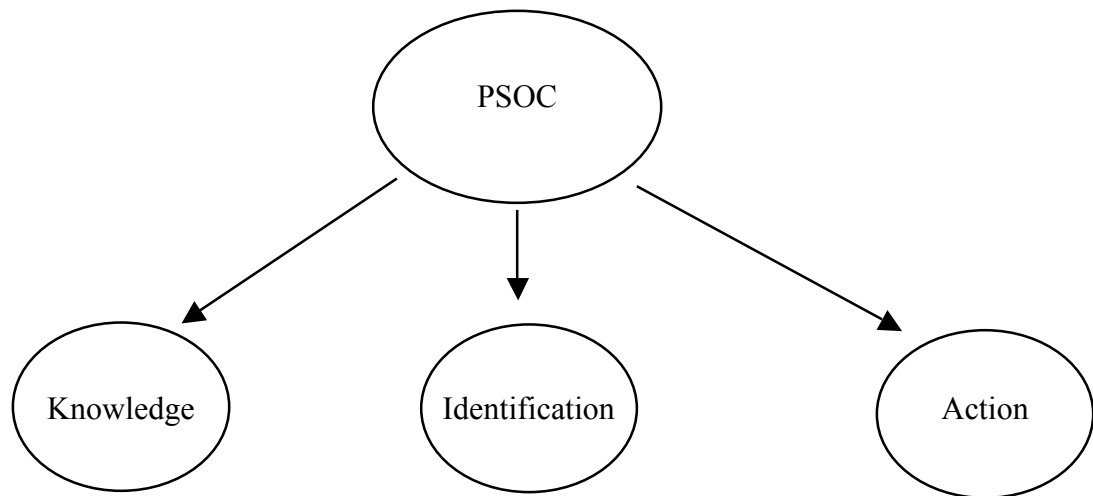


Figure 1. Hypothesized three-factor structure of a psychological sense of community, defined in solely psychological terms, including the factors of *knowledge*, *identification*, and *action*.

Although they have never been examined together in one model, existing literature does provide initial evidence for these three dimensions. Several studies explore PSOC dimensions related to identification with a community, such as integration, fulfillment of needs, and a shared emotional connection (Chavis, Hogge, McMillan, & Wandersman, 1986), attachment to neighborhood (Barnes, 1997), and conscious identification (Obst et al., 2002). Others suggest dimensions related to action, such as supportive acts of neighboring (Skjaeveland, Garling, & Maeland, 1996) and neighborhood-related behavior (Kingston, Mitchell, Florin, & Stevenson, 1999). Knowledge, identification, and action also emerged as principal factors when factor analyzing item responses from a scale designed to tap PSOC dimensions (Mannino & Snyder, 2011).

Role of cultural context. Critical in identifying the underlying structure of the PSOC construct, and many other constructs, is knowledge of its applicability across

cultures. The goal of psychology is often to uncover universals that explain human behavior across people and settings. Important lines of research, however, have highlighted that what are often thought of as universals are actually quite culture-dependent. Work at the intersection of the self and culture (e.g., Markus & Kitayama, 1991, 2003; Triandis, 1989), for example, has shed light on the fundamental ways in which selves may differ across cultures and how the culture-shaped self influences many other aspects of human social behavior, such as emotions, cognition, motivations, and behavior. What were once assumed to be universals, such as a motivation for high self-esteem, are now known to be culturally-dependent. Methods of reasoning (e.g., Nisbett, Peng, Choi, & Norenzayan, 2001) and sources of cognitive dissonance (e.g., Cooper, 2007; Hoshino-Browne et al., 2005) have also been found to vary across cultures, and are not universal as once assumed.

With these lines of research has come greater recognition of culture's role in many social-psychological phenomena, that culture plays a defining role in shaping who we are and how we interact with our world. This awareness has also meant an increased desire to explore cultural variables in so-called social-psychological "culture-free universals" with the knowledge that not all social processes exist or manifest similarly in all cultures. Thus, to develop any construct from its core, it is critical to explore the extent to which that construct's structure and manifestations are universal or culturally-dependent. This knowledge has important implications for how the construct is theoretically defined, researched, and applied in future studies.

The three studies presented here begin to explore the cross-cultural nature of a solely psychological sense of community by investigating the construct in two countries, the United States and Italy. Italy is a particularly relevant cultural context in which to study community. Italian researchers have been key players in developing a European perspective of community psychology, in elaborating theoretical principles related to it, and in creating intervention techniques (Reich, Riemer, Prilleltensky, & Montero, 2007). Their work highlights the critical differences that exist between American and European cultural contexts, for example, differences in broad cultural values, social representations of the world, views of collective struggles and, thus, basic ideas of community, making it difficult to adopt standard community psychology concepts in European contexts (Francescato & Tomai, 2001). Cross-cultural work by Mannino and colleagues (2011) took a first step in examining differences in community between the United States and Italy. Results highlighted the greater salience of psychological community within the Italian context and the greater salience of physical community within the American one, suggesting more broadly that culture is influential in shaping notions of community.

Cross-cultural work is not without its challenges, at the level of theory, methodology, and application. Perhaps the first key question that must be grappled with in any cross-cultural study is whether the construct being studied is, in fact, salient in the countries being sampled. As previous work suggests (Mannino et al., 2011), psychological sense of community is salient in both the United States and Italy, giving credence to its exploration in both contexts. Whether PSOC's structure and manifestations are similar in both countries is a question that this paper will address. A

second issue at the level of methodology is whether any observed differences result from true differences between cultural samples or from methodological concerns (e.g., Bond & Smith, 1996). All comparative analyses in the studies presented here were conducted using cultural samples that matched on key demographic variables, thereby allowing samples to reflect the relevant cultural comparison and not demographic differences. In addition, Study 1 used structural equation modeling to test whether PSOC's structure was valid in both countries and whether scale items designed to measure PSOC were operating equivalently, helping to build an assessment tool for use in Studies 2 and 3 that was appropriate both for the United States and for Italy. Finally, a common problem in cross-cultural research is that a construct comes to be applied in the same way across cultural contexts when it should not be. It is for this reason that, before applying PSOC in Study 3, Studies 1 and 2 focused first on a cross-cultural examination of its structure and manifestations, ensuring it was ultimately applied appropriately.

Next Steps

Results of preliminary work (e.g., Mannino & Snyder, 2011; Mannino et al., 2011) provide evidence that psychological communities do exist, that they are salient in individuals' minds and that knowledge, identification, and action may be the key dimensions of a solely psychological sense of community. In addition, findings suggest that communities, both physically and psychologically conceived, are influential in shaping behaviors. The three studies presented here build upon this previous work and (a) better elucidate the structure of a PSOC defined in solely psychological terms, and its cross-cultural applicability (Study 1); (b) provide insight into how PSOC manifests itself

(i.e., its correlates) and how these manifestations are similar or different across cultures

(Study 2); and (c) present evidence for the role of PSOC in predicting and influencing prosocial action (Study 3). These studies continue the work of addressing the challenges that currently face PSOC literature, namely, a lack of clear conceptualization of the construct, a failure to consider community in a solely psychological light, and a lack of insight into what comprises a solely psychological sense of community and how it manifests itself (i.e., correlates such as prosocial action).

Study 1

Study 1 tested the hypothesized three-factor structure for PSOC (i.e., knowledge, identification, and action, see Figure 1) and examined its cross-cultural applicability in two cultures, the United States and Italy. I predicted that the underlying PSOC structure would remain the same in both the United States and Italy and, thus, that the same model would be valid across both samples.

Method

Participants. Undergraduate students at both the University of Minnesota (265 women, 92 men) and the Università Cattolica del Sacro Cuore in Milan, Italy (332 women, 42 men) participated in exchange for compensation in accordance with their respective university's policies.

Procedure. Participants in both countries completed a questionnaire that included background questions and a measure assessing psychological sense of community. All contents were translated into Italian for administration in Italy using a back-translation procedure with bilingual and native speakers. The psychological community of reference

for this and the other two studies presented here was the university community. As revealed in previous research (Mannino & Snyder, 2011; Mannino et al., 2011), the university community is a very salient and important community for students. Although the university community can have a physical component, it is a strong psychological community in which ties to others extend well beyond the walls of a building or the parameters of a particular campus. To ensure that participants approached their university community in that light, they saw the following prompt before completing the survey (see Appendix A, part 1):

The University of Minnesota community (United States)/Università Cattolica del Sacro Cuore (Italy) community goes beyond a specific building or campus. It is a community where students, faculty, staff and alumni, no matter where they are, feel tied to others who share common experiences and have similar concerns. Please think of the University of Minnesota community/Università Cattolica del Sacro Cuore community in this way as you respond to the following questions.

Then, at the end of the survey, they were asked to indicate whether they felt their university community fit best under a physical or a psychological definition of community, accompanied by the following text (see Appendix A, part 3):

Sometimes community is defined in a *physical* sense, a specific building, a place or geographic location with clear physical boundaries. Other times community can be described as something more *psychological*, going beyond physical boundaries to include the ties someone feels to other people who have similar concerns.

Twenty-one American students (5.88%) and 19 Italian students (5.08%) classified their university community as a physical one and, thus, were omitted from subsequent analyses. The resulting sample included 336 students (251 women, 85 men) from the

Cattolica del Sacro Cuore.

Psychological sense of community. Psychological sense of community was assessed with a 20-item measure that included three subscales designed to tap the hypothesized factors comprising PSOC (see Appendix A, part 1). The subscales were: 1) *knowledge* (5 items; e.g., “There is such a thing as the University of Minnesota community”; “The University of Minnesota community is made up of people with different backgrounds, values, and opinions”); 2) *identification* (8 items; “I feel a sense of attachment and belonging to the University of Minnesota community”; “I don’t identify with the University of Minnesota community”); and 3) *action* (7 items; “The University of Minnesota community becomes stronger when members share their knowledge and resources with one another”; “Members of the University of Minnesota community should work to create a better future for its members”). Items were re-worded for use in Italy to reference the Università Cattolica del Sacro Cuore. Participants in both countries used a seven-point Likert-type scale to indicate their level of agreement with each statement (1 = “strongly disagree”; 7 = “strongly agree”). Negative items were reverse-scaled. This measure was inspired by, and many items modified from, a scale created by Mark Snyder and Allen Omoto to assess psychological sense of community with respect to the HIV/AIDS community (for discussion see Omoto & Snyder, 2010) which, in turn, was influenced by items in existing sense of community measures such as the Sense of Community Index (Chavis et al., 1986), Centrality Subscale (Cameron, 2004),

Results

Data analysis was divided into two phases. The first focused on examining the factors underlying a psychological sense of community and testing the hypothesized model, first in a single sample and then in a multigroup fashion (i.e., the United States and Italy). The aim of the second phase of analysis was to cross-validate the final PSOC model in a separate, independent sample to provide further evidence for its validity.

Preparing samples. Before analyses began, the data were divided into two separate samples to prepare for cross-validation procedures in Phase 2 (e.g., Cudeck & Browne, 1983). Approximately 50% of cases from the U.S. sample and approximately 50% from the Italian sample were randomly selected and combined to form Sample 1. The remaining cases (approximately 50% from the U.S. and approximately 50% from Italy) were then combined to form Sample 2. Thus, two separate and independent samples resulted, and were comprised of data from both the United States and Italy to allow for subsequent multigroup comparisons. These two samples did not significantly differ either by gender, $\chi^2(3, N = 694) = 1.24, p > .05$, or age, $t(690) = .56, p > .05$ (United States: $M = 20.71, SD = 3.41$; Italy: $M = 20.58, SD = 2.66$). Sample 1 was used in Phase 1 of analysis, and Sample 2 was reserved for Phase 2's cross-validation procedure.

Phase 1 - underlying factors. As a first step in determining the structure of a psychological sense of community, an exploratory factor analysis was conducted. Results of a principal components analysis, with promax rotation, highlighted two primary

factors (see Table 1 for listing of items in each factor and their factor loadings). Eight

items with loading coefficients above .4 on the first dimension reflected an *identification* with the psychological community. Five items with loading coefficients above .4 on the second dimension reflected *action*, joining with other community members to work for the community and its future. The *identification* and *action* factors were positively correlated at .46, suggesting that the two factors are related but not redundant. Six items were not retained because they failed to load cleanly on one factor (i.e., having a primary factor loading of .4 or above and no cross-loading above .3): “There is such a thing as the University of Minnesota community”; “The University of Minnesota is made up of people with different backgrounds, values, and opinions”; “The bonds that connect members of the University of Minnesota community are more important than what set them apart from each other”; “All members of the University of Minnesota community face similar challenges”; “I am similar to other members of the University of Minnesota community”; “It is very important for me to feel connected to the University of Minnesota community”; and “If someone I did not know within the University of Minnesota community had an emergency, I would be willing to help.”

Table 1

Items in Identification and Action Factors based on initial Factor Analysis

Factor	Item	Factor Loading
Identification	• If someone asked, I don't think I could define the University of Minnesota community. (Item 2, reverse-scaled)	.594
	• I feel strong ties to the University of Minnesota community. (Item 8)	.847
	• I don't see myself as being a part of the University of Minnesota community. (Item 10, reverse-scaled)	.835
	• I am invested in the University of Minnesota community. (Item 17)	.723
	• I feel a sense of attachment and belonging to the University of Minnesota community. (Item 6)	.886
	• I don't identify with the University of Minnesota community. (Item 7, reverse-scaled)	.812
	• In general being a member of the University of Minnesota community is an important part of what defines me. (Item 9)	.597
	• I am not usually conscious of the fact that I am a member of the University of Minnesota community. (Item 13, reverse-scaled)	.746
		(continued)

Factor	Item	Factor Loading
Action	• The University of Minnesota community becomes stronger when members share their knowledge and resources with one another. (Item 15)	.662
	• I don't think that members of the University of Minnesota community have an obligation to work together to help other members. (Item 16, reverse-scaled)	.662
	• The success of the University of Minnesota doesn't depend on members working together. (Item 18, reverse-scaled)	.652
	• Through their actions, members of the University of Minnesota community can have a positive effect on the future of their community. (Item 19)	.721
	• Members of the University of Minnesota community should work to create a better future for its members. (Item 20)	.768

Results of this exploratory factor analysis partially supported initial hypotheses, providing evidence for two of the three hypothesized PSOC factors. The *knowledge* factor did not emerge as a separate dimension as predicted. Most items assessing knowledge were not retained because they did not load cleanly on any one factor. One item, however, did load on the *identification* factor (“If someone asked, I don’t think I could define the University of Minnesota community,” reverse-coded). It may be, then, that knowledge is not a separate dimension of a psychological sense of community, but rather, a necessary prerequisite for it. For individuals to have a strong psychological sense of community, they must first know that the community exists and be able to identify it. Thus, results suggested that a two-factor structure, and not a three-factor structure as was hypothesized, is more appropriate to the data.

Testing the two-factor model. Next, analyses tested the hypothesis that psychological sense of community is a two-dimensional construct composed of two factors – *identification* (ID) and *action* (ACT) – and that these factors are intercorrelated. The model’s parameter estimates and overall fit were first evaluated in a single-group confirmatory factor analysis using Sample 1 as a whole. Then, once a model was validated, its structure was examined across countries using a multigroup analysis to test for multigroup invariance. Both sets of analyses used structural equation modeling and the AMOS program.

Single-group analysis. Results of a confirmatory factor analysis to evaluate the initial model, Model A (see Figure 2), revealed a significant chi-square value, $\chi^2(64, N = 349) = 162.28, p < .05$, suggesting the observed data were not entirely consistent with the

for a modest fit. In particular, the CFI value of .95 (Hu & Bentler, 1999) and RMSEA value of .07 (Browne & Cudeck, 1993; Hu & Bentler, 1999; MacCallum, Browne, & Sugawara, 1996) indicated that the hypothesized two-factor structure fit the sample data fairly well. GFI (.93) and AGFI (.91) values were also relatively indicative of good fit (Hooper, Coughlan, & Mullen, 2008).

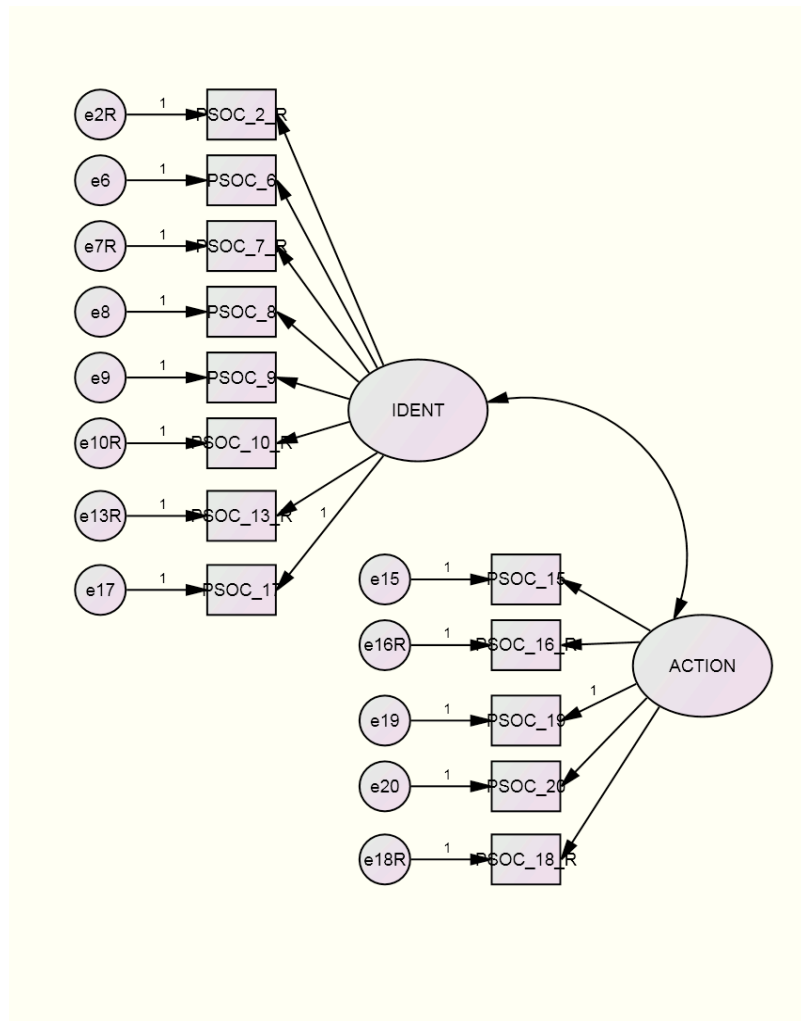


Figure 2. Initial PSOC model (Model A) that emerged from the exploratory factor analysis, illustrating the hypothesis that psychological sense of community is a two-dimensional construct composed of two factors, *identification* and *action*.

As such, analyses proceeded in an exploratory manner to respecify and reestimate the model. The AIC (216.28) value for Model A was larger than the value for the saturated model (182.00), suggesting issues of parsimony within the model and difficulty in cross-validating it (Hu & Bentler, 1995). Thus, respecification was also done with an eye for model parsimony.

To determine the sources of Model A's misspecification, item descriptive statistics, parameter estimates, and modification indices were examined. First, the item "The success of the University of Minnesota community doesn't depend on members working together" had a high degree of multivariate kurtosis (C.R. value > 5; Bentler, 2005), violating the assumption underlying structural equation modeling that data are multivariate normal (Arbuckle, 2007). As a result, it was removed from the model.

Second, several modification indices with large values were present indicating possible cross-loadings and error covariances. Two parameters were indicative of cross-loadings. Item 9 ("In general being a member of the University of Minnesota community is an important part of what defines me" <--- Action; MI = 21.456) and item 13 ("I am not usually conscious of the fact that I am a member of the University of Minnesota community" <--- Action; MI = 4.395) both loaded on *action* in addition to *identification*. In the interest of model parsimony and because items 9 and 13 did not load cleanly on only one factor, both were removed from the model.

In addition, modification indices pointed to two misspecified error covariances. One was between item 6 ("I feel a sense of attachment and belonging to the University of Minnesota community") and item 7 ("I don't identify with the University of Minnesota

community), $MI = 7.495$, and the other between item 7 and item 10 (“I don’t see myself as being part of the University of Minnesota community”), $MI = 23.169$. These systematic measurement errors were likely due to content overlap and redundancy of the items (Byrne, 2010). In fact, correlations at the item-level did suggest a significant and high degree of similarity, $r(354) = .63, p < .05$ between items 6 and 7, and $r(354) = .68, p < .05$ between items 7 and 10. Given that item 6 was also very highly correlated with another item in the *identification* factor (item 8, “I feel strong ties to the University of Minnesota community”), $r(354) = .76, p < .05$, it was removed from the model to avoid redundancy and to eliminate the error covariance between it and item 7. To resolve the error covariance between item 7 and item 10, item 7 was removed from the model, given the high degree of overlap between them. Item 10 had a slightly stronger factor loading (.785 versus .775) and a slightly better squared multiple correlation (.616 versus .601).

Ultimately, review of parameters, model fit and modification indices resulted in a respecified model, Model B (see Figure 3). It included the same two factors, *identification* and *action*, but had fewer items representing each factor. *Identification* included four items (“If someone asked, I don’t think I could define the University of Minnesota community”; “I feel strong ties to the University of Minnesota community”; “I don’t see myself as being a part of the University of Minnesota community”; and “I am invested in the University of Minnesota community”) and *action* included four items (“The University of Minnesota community becomes stronger when members share their knowledge and resources with one another”; “I don’t think that members of the University of Minnesota community have an obligation to work together to help other

members”; “Through their actions, members of the University of Minnesota community can have a positive effect on the future of their community”; and “Members of the University of Minnesota community should work to create a better future for its members”).

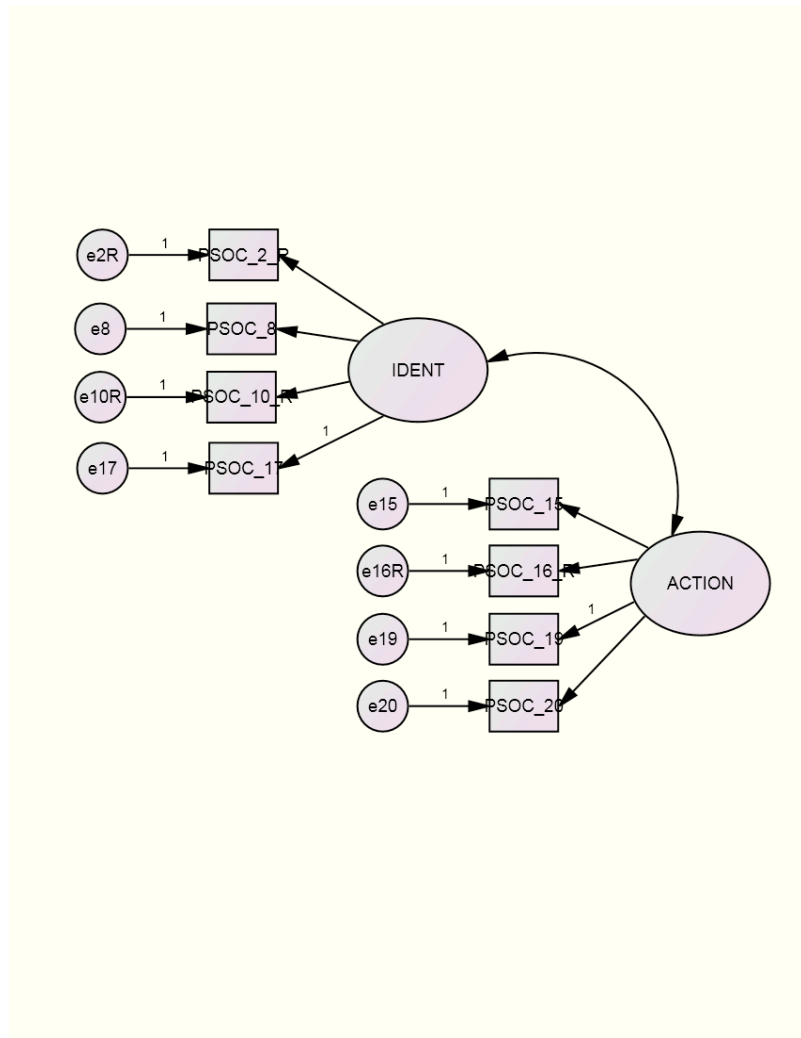


Figure 3. Respecified PSOC model (Model B) resulting from structural equation modeling analyses; includes the same two factors as previous models, *identification* and *action*, but fewer items represent each factor.

Model B was reestimated and results provided evidence for a well-fitting model.

The chi-square value was not significant, $\chi^2(19, N = 349) = 27.52, p > .05$, suggesting the observed data were consistent with the theoretical model (Barrett, 2007). The CFI value of .99 (Hu & Bentler, 1999) and RMSEA value of .04 (Browne & Cudeck, 1993; Hu & Bentler, 1999; MacCallum et al., 1996) represent an improvement over Model A and an indication that the hypothesized two-factor structure of a psychological sense of community fits the sample data well. Additional goodness-of-fit indices were also indicative of good fit (GFI = .98, AGFI = .97; Hooper et al., 2008; AIC = 61.52, compared to 72.00 for the saturated model, and CAIC = 144.06, compared to 246.78 for the saturated model; Hu & Bentler, 1995).

Multigroup analysis. The last step in the first phase of analysis tested for multigroup invariance, investigating whether the same two-factor structure for psychological sense of community held across both the United States and Italy. Multigroup analyses using AMOS tested for equivalence of both the measurement (i.e., factor loadings) and structural models (i.e., factor variances and covariances). Testing for multigroup invariance of the measurement model was addressed first. Then, once established, the structural model was evaluated.

Examining invariance of the measurement model proceeded in a step-wise manner (see Table 2 for summary of nested model comparisons). First, I tested for the invariance of all factor loadings, across both the *identification* and *action* factors, by constraining all parameters equal across groups. Results showed evidence of noninvariance, as seen in the statistically significant chi-square statistic when comparing

the fit of this fully constrained model to that of the baseline model (no equality constraints imposed) (Byrne, 2010), $CMIN = 15.79, p < .05$. As a result, additional tests were conducted to determine which parameters accounted for these noninvariant findings. Each parameter was tested individually by adding an equality constraint for that parameter to the unconstrained baseline model and comparing the fit of that new model to baseline fit. Once factor-loading parameters were found to be invariant across groups, their equality constraints were maintained cumulatively through the rest of the testing process (Byrne, 2010).

Table 2

Nested Model Comparisons for Tests of Multigroup Invariance

Model description	Comparative model	DF	CMIN	Statistical significance	CFI	RMSEA
1. Configural model; no equality constraints imposed	---	38	53.55	NS	.98	.03
2. Measurement model ¹						
a. (Model A) All factor loadings constrained equal.	2A versus 1	6	15.79	$p < .05$	.97	.06
b. (Model B) Factor loading for Item 10 (ID) constrained equal.	2B versus 1	1	4.17	$p < .05$	.98	.04
c. (Model C) Factor loadings for Item 8 (ID) constrained equal.	2C versus 1	1	.44	NS	.98	.03
d. (Model D) Factor loadings for Items 8 and 2 constrained equal (on ID).	2D versus 1	2	.56	NS	.98	.03
e. (Model E) Model D with factor loadings for Item 15 (on ACT) constrained equal.	2E versus 1	3	1.76	NS	.98	.03

(continued)

Model description	Comparative model	DF	CMIN	Statistical significance	CFI	RMSEA
f. (Model F) Model D with factor loadings for Items 15 and 16 (on ACT) constrained equal.	2F versus 1	4	1.86	NS	.98	.03
g. (Model G) Model D with factor loadings for Items 15, 16, and 20 (on ACT) constrained equal.	2G versus 1	5	11.83	$p < .05$	.97	.04
h. <i>Final Measurement Model</i> with all factor loadings constrained equal, except for Item 10 (ID) and Item 20 (ACT)	2H versus 1	4	1.86	NS	.98	.03
<hr/>						
3. Structural Model						
Model H with variances of ID and ACT, and covariance between ID and ACT constrained equal.	3 versus 1	7	3.20	NS	.99	.03

Note. NS = non significant, $p > .05$; ID = Identification; ACT = Action; ¹: Item 17 (ID) and Item 19 (ACT) were already constrained equal to 1 in AMOS.

At the end of this testing process, two items were identified as noninvariant across cultural groups, suggesting that they operate differently in their measurement of the intended content for American and Italian participants. These were item 10 on the *identification* factor (“I don’t see myself as being a part of the University of Minnesota community”), and item 20 on the *action* factor (“Members of the University of Minnesota community should work to create a better future for its members”). Item 10 had a standardized regression weight of .77 in the American sample and .68 in the Italian sample, suggesting that seeing themselves as part of the psychological community is a stronger component of participants’ identification with that community in the United States than in Italy. This difference likely results from differences in the university atmosphere between the two countries. University students in the United States have many opportunities to craft their images as part of the community by living on campus, wearing pieces of university clothing with school colors, and cheering for their university’s teams at sporting events. In Italy, universities are conceived mainly for education only and typically do not have student housing, school paraphernalia, or sports teams. Thus, being a part of their university community may not be as salient for Italian students or as important a factor in shaping their identification with it.

Item 20 had a standardized regression weight of .61 in the American sample and .75 in the Italian sample, suggesting that an obligation to work toward bettering the future for other community members is a stronger component of *action* for Italians than for Americans. Whereas other items in the *action* factor refer to the future of the community, this particular item also invokes a certain duty that is involved in community

membership. It seems this duty aspect resonates more strongly with Italians than it does with Americans and shapes how Italians conceptualize their role as community members, perhaps due to the greater salience of psychological communities in the Italian context. If Italians are generally more used to thinking of communities as people linked by shared goals and concerns, they may be more apt to think of community membership as including a duty to further the community's goals for the benefit of current and future generations.

A second measurement model was subsequently tested that held factor loadings for all items equal except items 10 and 20 (i.e., those that were noninvariant across groups). This model was found to be invariant across the United States and Italy, CMIN = 1.86, $p > .05$. After establishing measurement model invariance, I then tested for invariance in the structural model (i.e., factor variances and covariances). The first structural model constrained factor variances for both factors as equal, as well as the covariance between them, and it was found to be invariant across cultural groups, CMIN = 3.20, $p > .05$. In sum, results of the multigroup analysis provide evidence that the two-factor structure underlying a psychological sense of community is the same across the United States and Italy.

Phase 2 - cross-validation. Given that analyses ultimately proceeded in a somewhat exploratory manner and respecification and reestimation of the original model was necessary, it was important to test the final model's validity (Model C) using a cross-validation procedure (e.g., Cudeck & Browne, 1983). Another multigroup analysis, this time using Sample 2 data, was conducted in AMOS (see Figure 4 for model diagram).

Results provided further evidence for Model C's validity. The baseline model with no equality constraints imposed fit the data well ($\chi^2(38, N = 338) = 49.45, p > .05, CFI = .98, RMSEA = .03, GFI = .97$) and both the measurement (CMIN = 8.80, $p > .05$) and structural models (CMIN = 10.48, $p > .05$) were invariant across the United States and Italy (see Table 3 for summary of nested model comparisons).

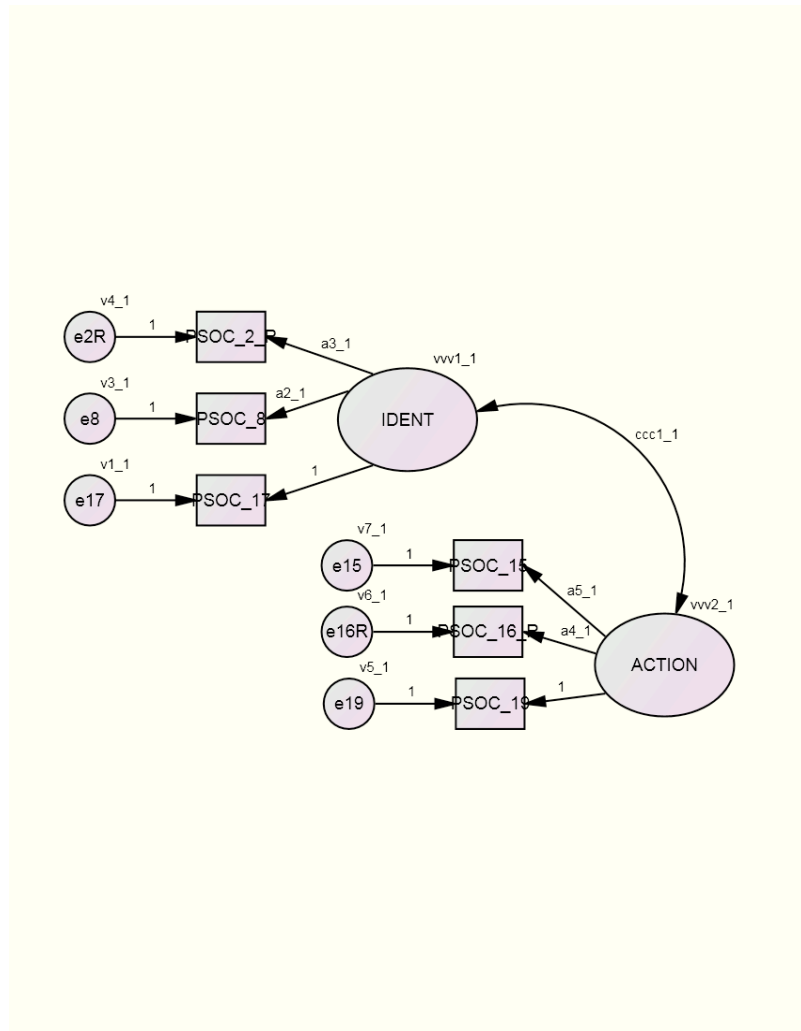


Figure 4. Final PSOC model (Model C).

Table 3

Nested Model Comparisons for Tests of Multigroup Invariance – Cross-validation Sample

Model description	Comparative model	DF	CMIN	Statistical significance	CFI	RMSEA
1. Configural model; no equality constraints imposed	---	38	49.45	NS	.98	.03
2. Measurement model ¹						
All factor loadings constrained equal, except for Item 10 (ID) and Item 20 (ACT)	2 versus 1	4	8.80	NS	.97	.03
4. Structural Model						
Measurement model with variances of ID and ACT, and covariance between ID and ACT constrained equal.	3 versus 1	7	10.48	NS	.97	.03

Note. NS = non significant, $p > .05$; ID = Identification; ACT = Action; ¹: Item 17 (ID) and Item 19 (ACT) were already constrained equal to 1 in AMOS.

Partially supporting initial hypotheses, findings from Study 1 suggest psychological sense of community is best represented by a two-factor structure. The first factor, *identification*, reflects an ability to conceptualize and define the psychological community in which one is a member. It also includes being invested in that community, feeling strong ties to the community, and seeing oneself as part of it. Whereas *identification* highlights a more individual-oriented dimension of a psychological sense of community, *action*, the second factor, reflects an other-oriented dimension. *Action* represents a belief that the community becomes stronger when members share their knowledge and resources, that members have an obligation to work together for the benefit of other members, and an acknowledgment of the community's legacy, that members can have a positive effect on their community's future and that they should work to create a better future for themselves and for other members.

Moreover, the two-factor theoretical structure underlying a psychological sense of community was shown to be valid both in the United States and in Italy, suggesting a certain consistency of the PSOC construct across the two countries. Despite differences in notions of community between the United States and Italy (i.e., salience of physical communities in the United States and psychological communities in Italy), the two-factor structure that underlies PSOC remains the same and, thus, meaningful comparisons regarding the construct can be made. At the item level, however, results point to the importance of taking cultural differences into account when examining psychological constructs. Although a majority of items were found to operate equivalently in both

countries, two items differed in their measurement of the intended content, shedding light on certain cultural differences in conceptualizations of community.

Broadly, findings from Study 1 help to better elucidate what comprises a solely psychological sense of community and provide insight into whether its structure is universally applicable across cultures. This step was a critical foundation for the two studies that follow and for future explorations of a psychologically-focused sense of community. Without knowledge of PSOC's underlying structure, it would have been difficult, if not impossible, to examine correlates and effects on behavior.

Study 2

With more solid evidence for the structure of a solely psychological sense of community, I extended research to examine how the construct manifests itself (i.e., its correlates), and the similarities and differences in these manifestations across two cultures, the United States and Italy. Study 2 includes correlates that literature has suggested may be antecedents or consequences of a psychological sense of community (see Figure 5 for summary). Given its correlational design, however, Study 2 did not and could not examine whether these correlates cause a higher PSOC, are caused by it, or both.

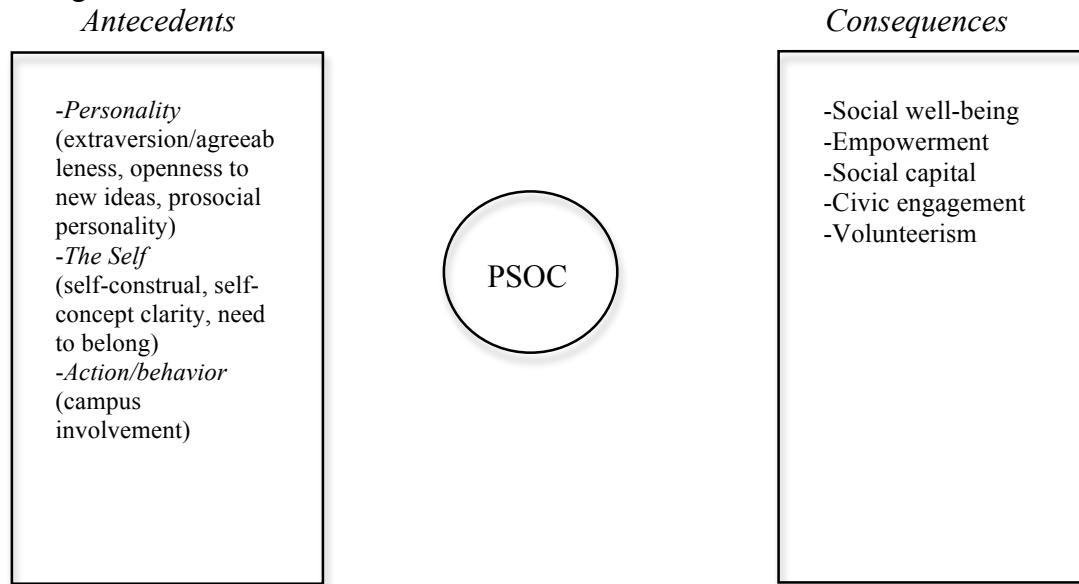


Figure 5. Summary of correlates examined.

Method

Participants. Undergraduate students at both the University of Minnesota (282 women, 79 men) and the Università Cattolica del Sacro Cuore in Milan, Italy (219 women, 20 men) participated in exchange for compensation in accordance with their respective university's policies. The same prompt and verification item that were used in Study 1 to ensure that participants viewed their university community in a psychological light were also used in this study (see Appendix A, parts 1 and 3). Twenty-four American students (6.65%) and sixteen Italian students (6.69%) classified their university community as a physical one and, thus, were omitted from subsequent analyses. The resulting sample included 337 students (264 women, 73 men) from the University of Minnesota and 223 students (206 women, 17 men) from the Università Cattolica del Sacro Cuore.

To ensure that I could appropriately conduct analyses comparing the United States and Italy, I had to ensure that the samples matched each other on key variables (i.e., gender and age), thereby allowing samples to reflect the relevant cultural comparison and not demographic differences. By removing 16 females and 37 males at random from the American sample, I was able to create a subset that did not differ from the Italian sample by gender, $\chi^2(1, N = 507) = 3.41, p > .05$. The two samples did, however, differ in age. Italian participants ($M = 20.70, SD = 3.11$) were significantly older than American participants ($M = 19.86, SD = 2.15$), as illustrated by an independent-samples *t*-test, $t(505) = -3.60, p < .01$. This age difference is common given different education systems in the two countries. The minimum age to enroll in an Italian university is 19, whereas students in the United States generally begin college when they are 18. As a result, Italian university students are typically older than their American counterparts. Despite this age difference, however, participants in both countries were at similar points in their university careers and in the same developmental stage of life, emerging adulthood (Arnett, 2004). For these reasons, analyses proceeded using the American sample subset that matched on gender.

Procedure. Participants in both the United States and Italy completed a questionnaire that included background questions, and measures designed to assess psychological sense of community and its hypothesized correlates. All contents were translated into Italian for administration in Italy using a back-translation procedure with bilingual and native speakers. To maintain consistency among studies, the psychological community of reference was the university community.

Psychological sense of community. Psychological sense of community was assessed with the six-item measure that resulted from Study 1 analyses (see Appendix B, part 1). Recall that two items (“I don’t see myself as being a part of the University of Minnesota community” and “Members of the University of Minnesota community should work to create a better future for its members”) were found to be noninvariant across cultural groups. To create a PSOC measure that was invariant across the United States and Italy and, thus, to allow for comparisons between the two countries, these two items were removed from scale calculations¹. The scale (United States: alpha = .74; Italy: alpha = .66) was comprised of two subscales designed to tap the *identification* and *action* factors comprising PSOC. *Identification* (United States: alpha = .69; Italy: alpha = .66) included the following three items: “If someone asked, I don’t think I could define the University of Minnesota community”; “I feel strong ties to the University of Minnesota community”; and “I am invested in the University of Minnesota community.” *Action* (United States: alpha = .62; Italy: alpha = .57) also included three items: “The University of Minnesota community becomes stronger when members share their knowledge and resources with one another”; “I don’t think that members of the University of Minnesota community have an obligation to work together to help other members”; and “Through their actions, members of the University of Minnesota community can have a positive effect on the future of their community”. Items were re-worded for use in Italy to reference the Università Cattolica del Sacro Cuore. Participants used a seven-point

¹ Correlations between responses on these two items and PSOC correlate scale scores showed a pattern of results consistent with those presented in the results section.

Likert-type scale to indicate their level of agreement with each statement (1 = “strongly disagree”; 7 = “strongly agree”).

A total scale score was created by reverse-scaling negative items, summing all items and calculating a mean. The same procedure was used to calculate a mean score on each subscale. In addition, participants were divided based on a median-split procedure into those that fell above and below the median on psychological sense of community (indicating a high versus low PSOC), and on the subscales of *identification* (high or low on the identification factor) and *action* (high or low on the action factor).

PSOC correlates - antecedents. Fundamentally, it may be people’s personalities or conceptions of self that guide them to become members in psychological communities and shape the ties they form. It may also be people’s actions or behaviors within a psychological community that influence their ties to it.

Extraversion and agreeableness. Literature has established the importance of personality at the individual, interpersonal, and social institutional levels, and its association with everything from happiness, identity, and relationships with peers, to occupational choice and community involvement (for review see Ozer & Benet-Martinez, 2006). Given its wide-ranging influences, particularly with identity and community involvement, personality may also be associated with a psychological sense of community. In particular, the facets of extraversion and agreeableness may be especially relevant in facilitating an individual’s connections with other community members and prompting the ties that shape PSOC. It is hypothesized that higher psychological sense of

Running head: EXPANDING THE BOUNDARIES OF COMMUNITY
community will be associated with a greater degree of both extraversion and agreeableness.

41

Both extraversion and agreeableness were assessed using two subscales of the Big Five Inventory (BFI; Benet-Martinez & John, 1998; see Appendix B, part 6). The subscales included eight items that measured extraversion (United States: $\alpha = .90$; Italy: $\alpha = .74$; e.g., “is talkative”) and nine items that assessed agreeableness (United States: $\alpha = .77$; Italy: $\alpha = .77$; e.g., “tends to find fault with others). Participants used a seven-point Likert-type scale to indicate their level of agreement with each statement (1 = “strongly disagree”; 7 = “strongly agree”). A total scale score for each subscale was created by summing all items in that subscale and calculating a mean.

Openness to new ideas. Another personality dimension that may be particularly relevant for PSOC is openness to new ideas, a more focused facet of the openness to experience construct that measures openness as comfort in learning, hearing and expressing different points of view (Mannino & Rothman, 2009). This narrower definition may be better suited for examining social interactions in a diverse environment, such as a psychological community and particularly the university community that was examined here. Being more open to learning, hearing and expressing different points of view may facilitate an individual’s connections and interactions with other community members and, thus, be associated with a higher PSOC.

A 10-item measure assessed participants’ openness to new ideas (United States: $\alpha = .88$; Italy: $\alpha = .87$; see Appendix B, part 5). Items in the openness to new ideas scale tapped two dimensions: *express* (4 items; United States: $\alpha = .89$; Italy:

different opinion on an issue than I do”; “I enjoy expressing my point of view on an issue to people”), and *acquire* (6 items; United States: alpha = .89, Italy: alpha = .88; e.g., “I enjoying hearing about multiple viewpoints on a particular issue”; “I’m comfortable hearing about someone else’s view on an issue, even when I disagree with it”).

Participants used a seven-point Likert-type scale to indicate their level of agreement with each statement (1 = “strongly disagree”; 7 = “strongly agree”). A total scale score was created by reverse-scaling negative items, summing all items and calculating a mean.

Two corresponding subscale scores for *express* and *acquire* were also created using the same procedure.

Prosocial personality. Past research has suggested a link between sense of community and volunteer action. As people become more strongly tied to a community and perceive greater connections to a community of people with shared concerns, they engage in more behaviors to help that community (e.g., Mashek et al., 2007; Omoto & Snyder, 2002). It may be, then, that individuals who have a greater predisposition toward helping behaviors, such as engaging in prosocial action, also exhibit a higher psychological sense of community. One personality variable that has often been found to associate with helping behaviors is a prosocial personality (e.g., Penner, 2002). It is expected that people who are more prosocial in nature will also exhibit a higher PSOC.

A modified version of the Prosocial Personality Battery (Penner, 2002) assessed a prosocial personality (see Appendix B, part 7). Sixteen items assessed three subscales of

.58; Italy: alpha = .60; e.g., “When people are nasty to me, I feel very little responsibility to treat them well”); *perspective taking* (5 items; United States: alpha = .65; Italy: alpha = .64; e.g., “I sometimes find it difficult to see things from the ‘other person’s point of view”); and *empathic concern* (4 items; United States: alpha = .62; Italy = .62; e.g., “Other people’s misfortunes do not usually disturb me a great deal”). Participants used a five-point Likert-type scale to indicate their level of agreement with each item (1 = “strongly disagree”; 5 = “strongly agree”). A total scale score for each subscale was created by reverse-scaling negative items, summing relevant items, and calculating a mean. A score for the total scale, representing the *other-oriented* dimension of a prosocial personality, was also calculated by summing all items and calculating a mean (United States: alpha = .73; Italy: alpha = .73).

Self-construal. Perceptions of self and identity are critical components of how we interact with our social worlds (e.g., Baumeister, 1998). Given that psychological sense of community involves connections between self and community, it is critical to explore how PSOC relates to other self-related constructs. Of particular importance is self-construal. Cross-cultural research (e.g., Markus & Kitayama, 1991, 2003; Singelis, 1994; Singelis, Triandis, Bhawuk, & Gelfand, 1995), in particular, has often examined differences between independent (i.e., the self is seen as separate from others and unique

² Although low, alphas for subscales of the Prosocial Personality Battery in the present study are similar to alphas reported by Penner (2002): .65, .66, .67, and .77 for the social responsibility, perspective-taking, empathic concern, and other-oriented dimension subscales, respectively.

to a particular individual) and interdependent (i.e., the self is flexible, and arises from and is a part of an environment of strong social interconnections) selves, linking them to areas such as emotions, cognition, motivations, and behavior. As Markus and Kitayama (1991) outline, independent selves are marked by their attitudes and behaviors, taking responsibility for themselves. Their major task is to say “what’s on their mind,” realize their personal attributes (e.g., talent) and, ultimately, express themselves. For interdependent selves, personal attributes are equally as important as the ability to maintain relationships characterized by quality and harmony. It is the individual’s task to “fit-in and read the other person’s mind” to properly assess the situation and behave appropriately.

Singelis (1994) suggests that these two dimensions can and do coexist in individuals, and that individuals vary in the extent to which independent and interdependent selves are salient. It is hypothesized that interdependent selves will be more closely associated with PSOC, as ties to community involve connections and relationships with others. Thus, the greater the salience of the interdependent self, the higher the psychological sense of community.

A modified version of the Self-Construal Scale (SCS; Singelis, 1994; see Appendix B, part 8) was used to assess independent and interdependent self-construals. The scale included 17 items comprised of two subscales³: *independent* (8 items; United States: alpha = .64; Italy: alpha = .57; e.g., “I enjoy being unique and different from

³ Reliabilities for the independent and interdependent self-construal subscales, although lower than desired, are comparable with those reported in other studies (e.g., Cross, 1995; Singelis, 1994; Singelis et al., 1995).

others in many respects”); and *interdependent* (9 items; United States: alpha = .67; Italy:

alpha = .73; e.g., “Even when I strongly disagree with group members, I avoid an

argument”). Participants used a seven-point Likert-type scale to indicate their level of

agreement with each item (1 = “strongly disagree”; 7 = “strongly agree”). A total score

for each subscale was created by summing all relevant items and calculating a mean.

Each participant received two scores, one for the strength of the independent self and one

for the strength of the interdependent self.

Self-concept clarity. If individuals can express their identification with a psychological community, the importance it has for them, and how behaviorally invested they are, the community has likely entered into their self-concept to some degree. These individuals may, in general, have a clearer and more defined self-concept. Past research has examined ties between self-concept clarity and other related areas, suggesting, for example, that a well-structured self-concept facilitates involvement in volunteer activity (Hart & Atkins, 1999; Hart, Atkins, & Ford, 1998). Thus, it is hypothesized that individuals with a high degree of self-concept clarity (i.e., their self-beliefs are clearly and confidently defined, internally consistent, and stable) may also have a higher psychological sense of community.

The clarity of participants’ self-concepts was assessed using the Self-Concept Clarity Scale (SCC; Campbell et al., 1996; see Appendix B, part 9). Participants used a seven-point Likert-type scale (0 = “not at all true of me”; 6 = “extremely true of me”) to indicate the extent to which twelve statements were true of themselves (United States: alpha = .90; Italy: alpha = .86; e.g., “My beliefs about myself often conflict with one

another”; “I spend a lot of time wondering about what kind of person I really am”). A total scale score was created by reverse-scaling negative items, summing all items and calculating a mean.

Need to belong. Many believe the need to belong, a need to form and maintain strong, stable interpersonal relationships (Baumeister & Leary, 1995), is closely related to a sense of community. Some even consider it one of PSOC’s fundamental components (e.g., McMillan & Chavis, 1986; Sarason, 1974). Most, however, recognize the distinctions that exist between the two constructs. The need to belong is perceived as having a foundation in more utilitarian motives (e.g., Vieno, 2005). In contrast, a sense of community represents an inherently social construct based on relationships characterized by emotions, solidarity, and support, and not utilitarian needs. Given its related but distinct nature, it is hypothesized that people with a high need to belong will also exhibit a higher psychological sense of community, but that the relationship will not be so large as to render the two constructs redundant. The need to belong was assessed using a ten-item measure (Leary et al., 2007; United States: $\alpha = .77$; Italy: $\alpha = .79$; e.g., “I need to feel that there are people I can turn to in times of need”; see Appendix B, part 11). Participants used a five-point Likert-type scale to indicate their level of agreement with each statement (1 = “strongly disagree”; 5 = “strongly agree”). A total scale score was created by reverse-scaling negative items, summing all items and calculating a mean.

Action/behavior. Two items assessed community involvement, one aspect of participants’ actions and behaviors within the psychological community (see Appendix B, parts 2 and 3). Items included: 1) “How involved are you in campus activities (e.g.,

events (e.g., fairs, sports events, movies)?” Participants used a seven-point Likert type scale to rate their involvement in university activities (Item 1; 1 = “not at all involved”; 7 = “very involved”), and another seven-point Likert-type scale to rate the frequency with which they attend university events (Item 2; 1 = “never”; 7 = “very often”). Responses to these two items were highly correlated, $r(519) = .70, p < .01$, so they were added together and a mean calculated to form an *index of involvement*. A higher PSOC was expected to be associated with greater involvement, as involvement affords individuals more opportunities to interact with the psychological community and build ties with other community members.

To gain a more accurate picture of community involvement, one that was not influenced by time spent at their university, one item was included to be used as a control variable in subsequent analyses (see Appendix B, part 4). Participants were asked to indicate how much time they spent at the university on an average day using an 8-point Likert-type scale that listed hours in two-hour intervals (1 = “0-2 hours”; 8 = “More than 14 hours”).

PSOC correlates – consequences. Just as certain constructs may play a role in predicting psychological sense of community, PSOC may also have several important consequences.

Social well-being. Previous research has suggested that individuals who report stronger community ties feel psychologically healthier, both in terms of subjective well-being (Davidson & Cotter, 1991) as well as social well-being (Albanesi, Cicognani &

Zani, 2007). In fact, Albanesi and colleagues (2007) suggest that sense of community

plays an important role in predicting social well-being, at least in an Italian sample. It is, therefore, important to assess the relationship between well-being, particularly social well-being, and a solely psychological sense of community. In line with past research, it is hypothesized that people with higher psychological sense of community will also have a greater degree of social well-being.

Social well-being was assessed using a 15-item scale (Keyes, 1998; see Appendix B, part 13) that included five dimensions: *social integration* (3 items; e.g., “I don’t belong to anything I’d call a community”), *social acceptance* (3 items; e.g., “People who do a favor expect nothing in return”); *social contribution* (3 items; e.g., “I have something valuable to give to the world”); *social actualization* (3 items; e.g., “The world is becoming a better place for everyone”); and *social coherence* (3 items; e.g., “The world is too complex for me”). Participants used a five-point Likert-type scale to indicate their level of agreement with each statement (1 = “strongly disagree”; 5 = “strongly agree”). A total scale score to represent social well-being was calculated by reverse-scaling negative items, summing all items and calculating a mean. Alpha reliabilities for this total scale were .82 and .78 in the American and Italian samples, respectively. Dimension subscales were not analyzed separately due to their low and widely divergent alpha reliabilities, ranging from .37 to .80 in the United States and from .17 to .70 in Italy.

Empowerment. Along with higher levels of social well-being, individuals with a higher psychological sense of community may also feel more empowered to make their

voices heard and to take action within the community or to engage in broader-reaching civic action. Empowerment has already been linked to civic action, with past research finding that people who score higher on indices of empowerment also report more civic participation (e.g., Zimmerman & Rappaport, 1988). Given that connections to community have also been shown to facilitate prosocial activities, as will be elaborated in a subsequent section, the link between empowerment and PSOC is likely. Four items, created for use in this study, measured empowerment (United States: alpha = .84; Italy: alpha = .77; see Appendix B, part 10). Items included: “I feel that I have the power to change the course of my life”; “I feel competent”; “I feel empowered”; and “I feel that I have the abilities to contribute to my community.” Participants used a seven-point Likert-type scale to indicate their level of agreement with each statement (1 = “strongly disagree”; 7 = “strongly agree”). Items were summed and a mean calculated for use as a scale.

Social capital. Introduced by Coleman (1988), social capital refers to the interpersonal relationships that facilitate action and the benefits gained from the resulting social networks (Portes, 1988). In Putnam’s (2000) view, social capital includes the social networks and connections between and among individuals, and the norms of reciprocity that these connections foster. For him, social connections and engagement in civic action are key components of building social capital. Community connections and prosocial action are, then, critical determinants of social capital, and in turn, byproducts of it. It is expected that a higher psychological sense of community will be associated with a higher degree of social capital.

A 13-item measure (Onyx & Bullen, 2000; see Appendix B, part 12) assessed individuals' degree of social capital. The modified measure⁴ (United States: alpha = .73; Italy: alpha = .66) evaluated three dimensions that comprise social capital: *social agency or proactivity in a social context* (4 items; e.g., "If you disagree with what everyone else agreed on, would you feel free to speak out?"); *feelings of trust and safety* (4 items; e.g., "Do you agree that most people can be trusted?"); and *family and friends connections* (5 items; e.g., "In the past week, how many phone conversations have you had with friends?"). Participants used a four-point Likert-type scale to indicate their agreement with each question (1 = "No, not much"; 4 = "Yes, definitely") or the frequency with which they engaged in each behavior (1 = "No, not at all"; 4 = "Yes, frequently"). A total scale score was created by summing all items and calculating a mean. Dimension subscales were not analyzed separately due to their low and divergent alpha reliabilities, ranging from .48 to .73 in the United States and from .30 to .64 in Italy.

Prosocial action. Community has often been conceived as a backdrop for volunteer activities. People typically engage in actions in and around the communities in which they live. Community is also frequently the target of volunteer efforts. Individuals may, for example, engage in actions to beautify their neighborhood or work to fight illiteracy in their towns. In fact, there are growing indications that connections to a larger community may facilitate volunteering and other prosocial activities (e.g., McMillan, 1996; McMillan & Chavis, 1986; Omoto & Snyder, 2002; Sarason, 1974). Thus, it is

⁴ Other studies report similar alpha reliabilities for Onyx and Bullen's (2000) social capital measure (e.g., Healy, Haynes, & Hampshire, 2007; Phongsavan, Chey, Bauman, Brooks, & Silove, 2006).

hypothesized that the higher people's psychological sense of community, the greater their engagement in prosocial action.

Prosocial action was measured in two ways. A civic engagement scale (United States: $\alpha = .81$; Italy: $\alpha = .74$) assessed participants' degree of civic engagement in the larger society (see Appendix B, part 14). The scale was translated and modified from a scale previously used in Italy to assess the civic engagement of young adults (e.g., Marta, 2008; Marzana, 2009). Participants used a seven-point Likert-type scale (1 = "Not at all frequently"; 7 = "very frequently") to indicate the frequency with which they engaged in ten activities (e.g., "give money for a political or social campaign"; "participate in a demonstration or protest"). A total scale score was created by summing all items and calculating a mean.

A more specific form of prosocial action, volunteerism, was also assessed (see Appendix B, parts 15 and 16). Participants indicated their degree of past volunteer involvement ("How involved have you been in volunteer activities within the past two years?") using a seven-point Likert-type scale (1 = "not at all involved"; 7 = "very involved"). They also responded to a yes/no question assessing their present volunteer activity ("Are you currently involved in a volunteer activity?").

For the purposes of analyses, responses from the civic engagement scale and the volunteer involvement questions were combined to form an *index of volunteerism*. Participants received one point if their scores fell above the median on the civic engagement scale, one point if their scores were above the median on the past

volunteerism scale, and one point if they currently volunteered. Participants could receive a total of three points, indicating a high level of involvement in prosocial action.

Results

Analyses first examined general differences between the United States and Italy in PSOC and its two factors, *identification* and *action*. The second focus of analyses was to investigate the relationship between a psychological sense of community and its proposed correlates. Toward this aim, correlational analyses were conducted between PSOC scores and correlate scale scores⁵. In addition, independent-samples *t*-tests were conducted to investigate possible differences between those grouped via median-split procedures into high versus low PSOC scores, as well as those who had high versus low *identification* and *action* scores. The third step of analyses used a multiple regression to examine which proposed antecedents significantly predicted PSOC. All analyses described above were first conducted for each country separately, then comparisons were made between findings from the two.

Last, moderation analyses, using hierarchical linear regression, were conducted to determine whether country moderated the relationship between psychological sense of community scores and correlate scale scores. Country, the moderator, was entered in a

⁵ Correlation, rather than regression, was chosen as the method of analysis at this stage to examine the general degree of association between PSOC scores and correlate scale scores without imposing a directional or causal effect. Although certain correlates were hypothesized to be antecedents and others consequences, the studies presented here do not test these claims. Thus, correlational analyses were most appropriate for an initial exploration into relations between PSOC and its hypothesized correlates.

first step of the analysis, the main effect of the particular correlate under examination in a second step, and the two-way interaction between country and the correlate in a third step. All variables were mean-centered prior to creating interaction terms.

Cross-country differences in PSOC. Three independent-samples *t*-tests were conducted to determine whether the United States and Italy significantly differed in PSOC, *identification*, and *action* scores. Results revealed that Americans had significantly higher PSOC scores ($M = 5.29, SD = .76$) than Italians did ($M = 4.81, SD = .89$), $t(516) = 6.67, p < .01$. Results of similar analyses with *identification* and *action* scores indicated that this difference was primarily due to *identification*. Americans scored significantly higher on the *identification* subscale ($M = 4.76, SD = 1.08$) than Italians did ($M = 3.78, SD = 1.28$), $t(516) = 9.44, p < .01$. However, the two groups did not significantly differ in their *action* scores (United States: $M = 5.82, SD = .70$; Italy: $M = 5.86, SD = .88$), $t(515) = -.54, p > .05$.

PSOC correlates – antecedents. The second step of analyses began by examining PSOC's relationship with the correlates that may be fundamental in driving people to develop ties with psychological communities and key influences in shaping those ties (see Table 4 for summary of correlations).

Table 4

Summary of Correlations between Correlate Scores and PSOC, Identification, and Action Scores in the United States and Italy

Correlates	PSOC		Identification		Action	
	United States	Italy	United States	Italy	United States	Italy
Extraversion	.24**	.09	.28**	.12 ^m	.08	-.01
Agreeableness	.31**	.27**	.24**	.26**	.32**	.19**
Openness to new ideas	.29**	.14*	.25**	.07	.25**	.18**
Prosocial personality	.40**	.26**	.31**	.17**	.41**	.29**
Independent self-construal	.27**	-.03	.29**	-.02	.13*	-.04
Interdependent self-construal	.18**	.19**	.08	.07	.29**	.29**
Self-Concept clarity	.23**	.10	.24**	.12 ^m	.13*	.04
Need to belong	-.02	.14*	-.06	.05	.05	.21**
Involvement index	.48**	.37**	.54**	.37**	.23**	.21**
Social well-being	.58**	.23**	.51**	.19**	.47**	.22**
Empowerment	.37**	.12 ^m	.33**	.10	.28**	.13 ^m
Social capital	.31**	.12 ^m	.31**	.10	.19**	.16*
Index of volunteerism	.24**	.15*	.26**	.11	.14*	.15*

** $p < .01$; * $p < .05$; ^m marginally significant, $p < .1$

Extraversion. As hypothesized, extraversion scores were significantly and positively correlated with PSOC scores in the United States, $r(285) = .24, p < .01$. Similarly, people with high PSOC scores had significantly higher extraversion scores ($M = 4.64, SD = 1.08$) than people with low PSOC scores ($M = 4.15, SD = 1.10$), $t(283) = -3.75, p < .01$. Correlations between PSOC subscale scores and extraversion scores suggested this relationship was driven by *identification*. Extraversion scores were significantly and positively correlated with *identification* scores, $r(285) = .28, p < .01$, but had no significant relationship with *action* scores, $r(285) = .08, p > .05$. Moreover, people with high *identification* scores had significantly higher extraversion scores ($M = 4.68, SD = 1.07$) than people with low *identification* scores ($M = 4.17, SD = 1.12$), $t(283) = -3.90, p < .01$. People with high ($M = 4.57, SD = 1.13$) and low ($M = 4.36, SD = 1.11$) *action* scores did not significantly differ in their extraversion scores, $t(283) = -1.53, p > .05$.

Extraversion scores and PSOC scores were not significantly correlated in the Italian sample, $r(233) = .09, p > .05$. However, comparisons of people with high and low PSOC scores revealed some relationship. People with high PSOC scores had significantly higher extraversion scores ($M = 4.47, SD = .95$) than people with low PSOC scores ($M = 4.18, SD = .99$), $t(231) = -2.28, p < .05$. As in the United States, this difference seemed driven by *identification*. Extraversion scores were marginally and positively correlated with *identification* scores, $r(233) = .12, p = .07$, but had no significant relationship with *action* scores, $r(232) = -.01, p > .05$.

Results of a hierarchical linear regression to test moderation indicated that country moderated the path between extraversion scores and *identification* scores ($\beta = -.11, p <$

.01). Simple slopes were calculated to determine regression lines for Americans with high and low *identification* scores, and for Italians with high and low *identification* scores.

These analyses illustrated that the relationship between extraversion and *identification* is stronger for Americans (see Figure 6).

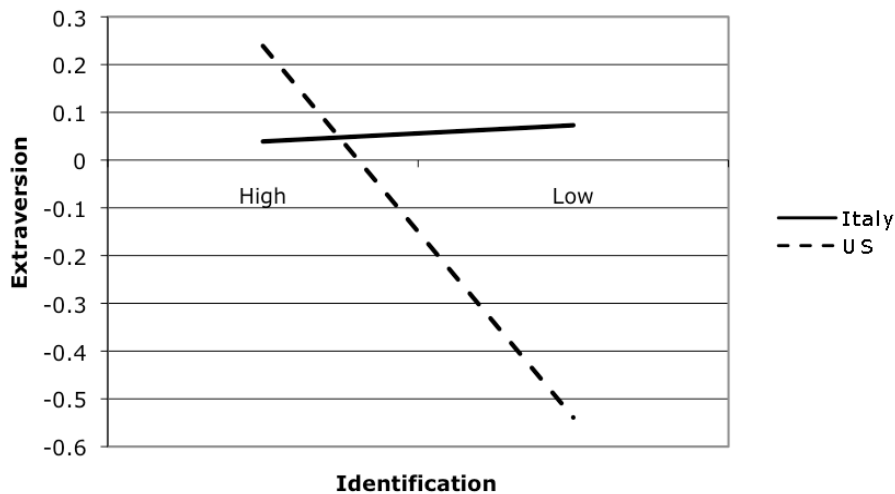


Figure 6. Country as a moderator of the path between extraversion and *identification*.

Agreeableness. As predicted, agreeableness scores were significantly and positively correlated with PSOC scores in the United States, $r(285) = .31, p < .01$. Similarly, people with high PSOC scores had significantly higher agreeableness scores ($M = 5.58, SD = .70$) than people with low PSOC scores ($M = 5.15, SD = .72$), $t(283) = -5.06, p < .01$. Correlations between PSOC subscale scores and agreeableness scores provided evidence for the same trend. Agreeableness scores were positively and significantly correlated with both *identification* scores, $r(285) = .24, p < .01$, and *action* scores, $r(285) = .32, p < .01$. Moreover, people with high *identification* scores had significantly higher agreeableness

scores ($M = 5.53$, $SD = .70$) than people with low *identification* scores ($M = 5.24$, $SD = .75$), $t(283) = -3.31$, $p < .01$, and people with high *action* scores had significantly higher agreeableness scores ($M = 5.63$, $SD = .74$) than people with low *action* scores ($M = 5.28$, $SD = .72$), $t(283) = -3.76$, $p < .01$.

Findings from the Italian sample echoed these trends. Agreeableness scores were significantly and positively correlated with PSOC scores, $r(233) = .27$, $p < .01$. Similarly, people with high PSOC scores had significantly higher agreeableness scores ($M = 5.28$, $SD = .87$) than people with low PSOC scores ($M = 4.88$, $SD = .91$), $t(231) = -3.40$, $p < .01$. As in the United States, correlations between PSOC subscale scores and agreeableness scores illustrated the same trend. Agreeableness scores were positively and significantly correlated with both *identification* scores, $r(233) = .26$, $p < .01$, and *action* scores, $r(232) = .19$, $p < .01$. Moreover, people with high *identification* scores had significantly higher agreeableness scores ($M = 5.36$, $SD = .85$) than people with low *identification* scores ($M = 4.93$, $SD = .90$), $t(231) = -3.73$, $p < .01$, and people with high *action* scores had significantly higher agreeableness scores ($M = 5.24$, $SD = .93$) than people with low *action* scores ($M = 5.00$, $SD = .87$), $t(230) = -2.03$, $p < .05$.

Openness to new ideas. As hypothesized, openness to new ideas scores were significantly and positively correlated with PSOC scores in the United States, $r(285) = .29$, $p < .01$. Similarly, people with high PSOC scores had significantly higher openness to new ideas scores ($M = 5.57$, $SD = .75$) than people with low PSOC scores ($M = 5.18$, $SD = .82$), $t(283) = -4.19$, $p < .01$. Correlations between PSOC subscale scores and openness to new ideas scores provided evidence for the same trend. Openness to new

ideas scores were positively and significantly correlated with both *identification* scores, $r(285) = .25, p < .01$, and *action* scores, $r(285) = .25, p < .01$. Moreover, people with high *identification* scores had significantly higher openness to new ideas scores ($M = 5.57, SD = .79$) than people with low *identification* scores ($M = 5.23, SD = .78$), $t(283) = -3.66, p < .01$, and people with high *action* scores had significantly higher openness to new ideas scores ($M = 5.64, SD = .72$) than people with low *action* scores ($M = 5.29, SD = .82$), $t(283) = -3.49, p < .01$. Analyses also suggested that the relationship between openness to new ideas and PSOC primarily results from the acquire dimension of openness to new ideas. Correlations between acquire scores and scores on PSOC, $r(285) = .32, p < .01$, *identification*, $r(285) = .24, p < .01$, and *action*, $r(285) = .33, p < .01$, were higher than correlations between express scores and PSOC, $r(285) = .17, p < .01$, *identification*, $r(285) = .19, p < .01$, and *action*, $r(285) = .10, p > .05$.

Findings from the Italian sample reflected similar trends. Openness to new ideas scores were significantly and positively correlated with PSOC scores, $r(233) = .14, p < .05$. Similarly, people with high PSOC scores had significantly higher openness to new ideas scores ($M = 5.52, SD = .88$) than people with low PSOC scores ($M = 5.16, SD = .94$), $t(231) = -2.96, p < .01$. As in the United States, correlations between PSOC subscale scores and openness to new ideas scores illustrated the same trend. In the Italian context, however, the relationship between openness to new ideas and PSOC was driven by *action*. Openness to new ideas scores were positively and significantly correlated with *action* scores, $r(232) = .18, p < .01$, but had no significant relationship with *identification* scores, $r(233) = .07, p > .05$. Moreover, people with high *action* scores had significantly

higher openness to new ideas scores ($M = 5.53$, $SD = .83$) than people with low *action* scores ($M = 5.25$, $SD = .98$), $t(230) = -2.32$, $p < .05$. People with high ($M = 5.37$, $SD = .92$) and low ($M = 5.37$, $SD = .93$) *identification* scores did not significantly differ in their openness to new ideas scores, $t(231) = -.01$, $p > .05$.

As in the United States, results in Italy also suggested that the relationship between openness to new ideas and PSOC primarily results from the acquire dimension of openness to new ideas. PSOC scores, specifically *action* scores, were significantly and positively correlated with acquire scores, $r(233) = .16$, $p < .01$ for PSOC, $r(232) = .22$, $p < .01$ for *action*. However, PSOC scores had no significant relationship with express scores, $r(233) = .07$, $p > .05$. The link between acquire and *action* became clearer when comparing people with high and low scores on *identification* and *action*. A one-way ANOVA was conducted to compare people who were high-*identification*/high-*action*, high-*identification*/low-*action* and low-*identification*/high-*action*. Results indicated the presence of a significant difference between the groups, $F(2, 143) = 3.44$, $p < .05$. Specifically, people in the low-*identification*/high-*action* group had significantly higher acquire scores ($M = 6.18$, $SD = .73$), particularly as compared to the high-*identification*/low-*action* group ($M = 5.69$, $SD = 1.08$), $F(1, 141) = 6.88$, $p < .01$.

Results of a hierarchical linear regression to test moderation indicated that country moderated the path between openness to new ideas scores and *identification* scores ($\beta = -.10$, $p < .05$; see Figure 7) and, marginally, the path between acquire scores and *identification* scores ($\beta = -.08$, $p = .08$). Simple slopes were calculated for both to determine regression lines for Americans with high and low *identification* scores, and for

Italians with high and low *identification* scores. These analyses, for both paths, illustrated that the relationship between openness to new ideas and *identification* is stronger for Americans.

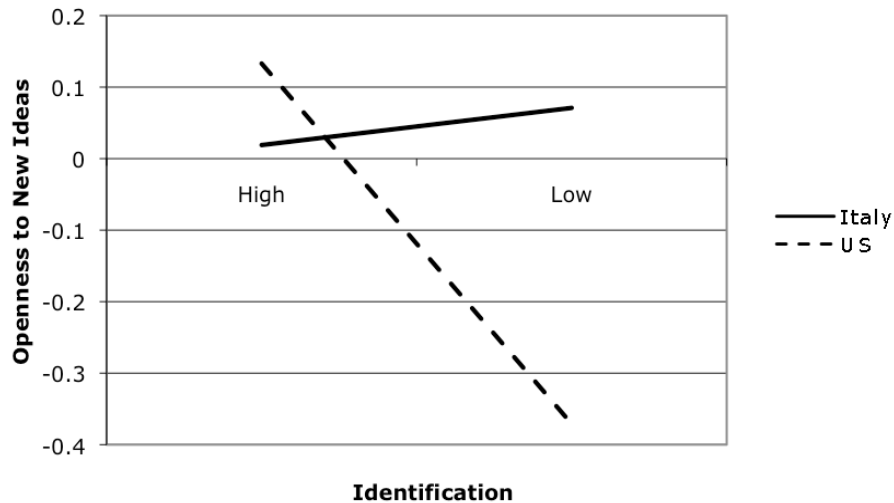


Figure 7. Country as a moderator of the path between openness to new ideas and *identification*.

Prosocial personality. As hypothesized, prosocial personality scores were significantly and positively correlated with PSOC scores in the United States, $r(285) = .40, p < .01$. Similarly, people with high PSOC scores had significantly higher prosocial personality scores ($M = 3.82, SD = .36$) than people with low PSOC scores ($M = 3.53, SD = .37$), $t(283) = -6.62, p < .01$. Correlations between PSOC subscale scores and prosocial personality scores suggested this relationship was driven by *action*. Prosocial personality scores were positively and significantly correlated with *action* scores, $r(285) = .41, p < .01$, and with a smaller magnitude, *identification* scores, $r(285) = .31, p < .01$. Moreover, people with high *identification* scores had significantly higher prosocial personality

scores ($M = 3.80$, $SD = .36$) than people with low *identification* scores ($M = 3.58$, $SD = .40$), $t(283) = -4.78$, $p < .01$, and people with high *action* scores had significantly higher prosocial personality scores ($M = 3.91$, $SD = .36$) than people with low *action* scores ($M = 3.59$, $SD = .37$), $t(283) = -6.66$, $p < .01$.

Providing further evidence for the role of *action* were results of a one-way ANOVA comparing people with high and low scores on *identification* and *action*, $F(2, 165) = 6.14$, $p < .01$. People with high-*identification*/high-*action* ($M = 3.90$, $SD = .35$) and those with low-*identification*/high-*action* ($M = 3.94$, $SD = .37$) did not significantly differ in their prosocial personality scores, $F(1, 163) = .20$, $p > .05$. However, both groups did have significantly higher prosocial personality scores than people with high-*identification*/low-*action* ($M = 3.72$, $SD = .34$), $F(1, 163) = 9.14$, $p < .01$ for comparison with high-*identification*/high-*action*, $F(1, 163) = 7.01$, $p < .01$ for comparison with low-*identification*/high-*action*.

Also worthy of note were the elevated correlations between *action* scores and scores on the empathic concern subscale of a prosocial personality, as compared to the social responsibility and perspective-taking subscales. The correlation between *action* scores and empathic concern scores, $r(285) = .45$, $p < .01$, was higher than correlations between *action* scores and social responsibility scores, $r(285) = .25$, $p < .01$, and between *action* scores and perspective-taking scores, $r(285) = .22$, $p < .01$. These findings suggest that the relationship between PSOC and a prosocial personality is driven by empathic concern.

Findings from the Italian sample reflected similar trends. Prosocial personality scores were significantly and positively correlated with PSOC scores, $r(231) = .26, p < .01$. Similarly, people with high PSOC scores had significantly higher prosocial personality scores ($M = 3.77, SD = .43$) than people with low PSOC scores ($M = 3.65, SD = .43$), $t(229) = -2.16, p < .05$. As in the United States, correlations between PSOC subscale scores and prosocial personality scores suggested this trend was driven by *action*. Prosocial personality scores were positively and significantly correlated with *action* scores, $r(230) = .29, p < .01$, and with a smaller magnitude, *identification* scores, $r(231) = .17, p < .01$. In Italy, results also provided further evidence for the idea that the relationship between *action* and a prosocial personality is driven by empathic concern. As in the United States, the correlation between *action* scores and empathic concern scores was higher, $r(230) = .33, p < .01$, than correlations between *action* scores and social responsibility scores, $r(230) = .16, p < .05$, and between *action* scores and perspective-taking scores, $r(230) = .16, p < .05$.

Results of a hierarchical linear regression to test moderation indicated that country moderated the path between prosocial personality scores, specifically empathic concern scores, and PSOC scores ($\beta = -.09, p < .05$). Simple slopes were calculated to determine regression lines for Americans with high and low PSOC scores, and for Italians with high and low PSOC scores. These analyses illustrated that the relationship between PSOC and empathic concern is stronger for Americans (see Figure 8).

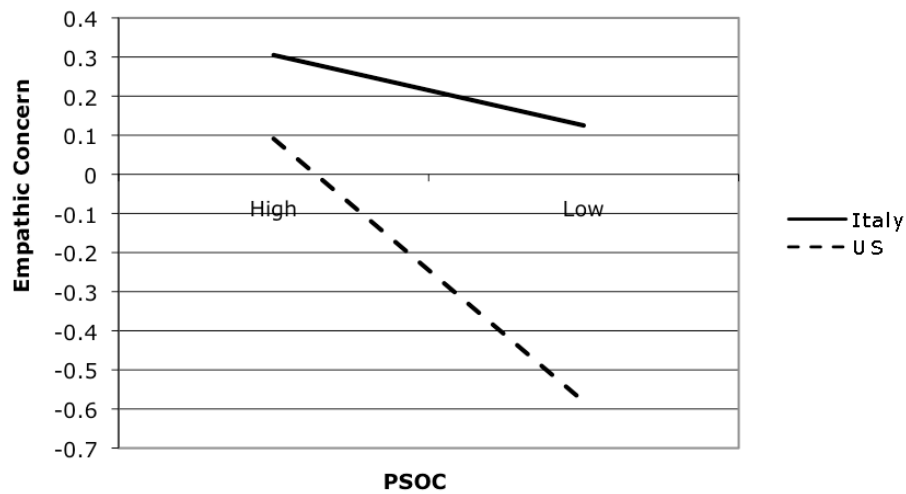


Figure 8. Country as a moderator of the path between empathic concern and PSOC.

Self-construal. In partial support of initial hypotheses, both independent, $r(285) = .27, p < .01$, and interdependent self-construal scores, $r(285) = .18, p < .01$, were significantly and positively correlated with PSOC scores in the United States. Similarly, people with high PSOC scores had significantly higher independent ($M = 4.85, SD = .68$) and interdependent ($M = 4.93, SD = .67$) self-construal scores than people with low PSOC scores (Independent: $M = 4.55, SD = .69$; Interdependent: $M = 4.75, SD = .58$), $t(283) = -3.66, p < .01$ for independent self-construal, $t(283) = -2.39, p < .05$ for interdependent self-construal. Correlations between PSOC subscale scores and self-construal scores helped to form a clearer picture, pointing to the idea that *identification* and *action* tap different self-construals. Independent self-construal scores were positively and significantly correlated with *identification* scores, $r(285) = .29, p < .01$, and with a smaller magnitude, *action* scores, $r(285) = .13, p < .05$. In contrast, interdependent self-construal scores were positively and significantly correlated with *action* scores, $r(285) =$

.29, $p < .01$; however, they were not significantly correlated with *identification* scores, $r(285) = .08, p > .05$. Results suggest that, at least in the United States, psychological sense of community accommodates both types of self-construal.

The relationship between interdependent self-construal, specifically, and *action* also emerged when comparing people with different levels of *identification* and *action*. A one-way ANOVA comparing people with high-*identification*/high-*action*, high-*identification*/low-*action*, and low-*identification*/high-*action* suggested the presence of a significant difference, $F(2, 165) = 6.14, p < .01$. People with high-*identification*/high-*action* ($M = 5.03, SD = .67$) and those with low-*identification*/high-*action* ($M = 5.10, SD = .60$) did not significantly differ in their interdependent self-construal scores, $F(1, 163) = .21, p > .05$. However, both groups did have significantly higher interdependent self-construal scores than people with high-*identification*/low-*action* ($M = 4.79, SD = .69$), $F(1, 163) = 4.35, p < .05$ for comparison with high-*identification*/high-*action*, $F(1, 163) = 3.91, p < .05$ for comparison with low-*identification*/high-*action*.

Findings from analyses with the Italian sample fell more in line with initial hypotheses. Only interdependent self-construal scores were significantly and positively correlated with PSOC scores, $r(230) = .19, p < .01$; independent self-construal scores were not, $r(230) = -.03, p > .05$. Similarly, people with high PSOC scores had significantly higher interdependent self-construal scores ($M = 4.98, SD = .74$) than people with low PSOC scores ($M = 4.78, SD = .84$), $t(228) = -1.85, p = .07$, but there was no significant difference in independent self-construal scores, $t(228) = -.13, p > .05$. The absence of a relationship between independent self-construal scores and PSOC scores

construal has in Italy ($M = 4.33$, $SD = .75$) as compared to the United States ($M = 4.71$, $SD = .70$), as illustrated by an independent-samples t -test, $t(516) = 6.05$, $p < .01$.

Correlations between PSOC subscale scores and interdependent self-construal scores provided further evidence for the idea that *identification* and *action* tap different types of self-construal. Interdependent self-construal scores were significantly and positively correlated with *action* scores, $r(229) = .29$, $p < .01$, but were not significantly correlated with *identification* scores, $r(230) = .07$, $p > .05$.

As in the United States, the relationship between interdependent self-construal and *action* also emerged when comparing people with high and low scores on *identification* and *action*. A one-way ANOVA, $F(2, 143) = 2.58$, $p = .08$, illustrated that those with low-*identification*/high-*action* had higher interdependent self-construal scores ($M = 5.15$, $SD = .67$), particularly compared to those with high-*identification*/low-*action* ($M = 4.81$, $SD = .75$), $F(1, 141) = 4.83$, $p < .05$.

Self-concept clarity. As predicted, self-concept clarity scores were significantly and positively correlated with PSOC scores in the United States, $r(285) = .23$, $p < .01$. Similarly, people with high PSOC scores had significantly higher self-concept clarity scores ($M = 4.67$, $SD = 1.19$) than people with low PSOC scores ($M = 4.19$, $SD = 1.10$), $t(283) = -3.48$, $p < .01$. Correlations between PSOC subscale scores and self-concept clarity scores suggested *identification* may be driving this relationship. Self-concept clarity scores were significantly and positively correlated with *identification* scores, $r(285) = .24$, $p < .01$, and with a smaller magnitude, *action* scores, $r(285) = .13$, $p < .05$.

Moreover, people with high *identification* scores had significantly higher self-concept clarity scores ($M = 4.65$, $SD = 1.20$) than people with low *identification* scores ($M = 4.25$, $SD = 1.12$), $t(283) = -2.93$, $p < .01$. People with high ($M = 4.61$, $SD = 1.21$) and low ($M = 4.38$, $SD = 1.15$) *action* scores did not significantly differ in their self-concept clarity scores, $t(283) = -1.56$, $p > .05$.

Self-concept clarity scores and PSOC scores were not significantly correlated in the Italian context, $r(233) = .10$, $p > .05$. However, comparisons of PSOC scores between people with very high and very low self-concept clarity scores revealed some relationship. Individuals whose scores fell in the top third of self-concept clarity scores had significantly higher PSOC scores ($M = 4.99$, $SD = .83$) than those in the bottom third ($M = 4.69$, $SD = .95$), as illustrated by an independent-samples *t*-test, $t(150) = -2.06$, $p < .05$. Correlations between PSOC subscale scores and self-concept clarity scores suggested that *identification* drives this difference. Self-concept clarity scores were marginally and positively correlated with *identification* scores, $r(233) = .12$, $p = .07$, but were not significantly correlated with *action* scores, $r(232) = .04$, $p > .05$.

Need to belong. Contrary to expectations, need to belong scores were not significantly correlated with PSOC scores in the United States, $r(285) = -.02$, $p > .05$. They were, however, significantly and positively correlated with PSOC scores in Italy, $r(230) = .14$, $p < .05$. Correlations between PSOC subscale scores and need to belong scores suggested this relationship was driven by *action*. Need to belong scores were significantly and positively correlated with *action* scores, $r(229) = .21$, $p < .01$, but had no significant relationship with *identification* scores, $r(230) = .05$, $p > .05$. Moreover,

people with high *action* scores had significantly higher need to belong scores ($M = 4.06$, $SD = .60$) than people with low *action* scores ($M = 3.83$, $SD = .63$), $t(227) = -2.82$, $p < .01$. People with high ($M = 4.02$, $SD = .59$) and low ($M = 3.86$, $SD = .65$) *identification* scores did not significantly differ in their need to belong scores, $t(228) = -1.85$, $p > .05$. Importantly, these results support the conclusion that the need to belong and psychological sense of community are two separate and distinct constructs.

Community involvement. As hypothesized, involvement index scores were positively and significantly correlated with PSOC scores in the United States, $r(282) = .48$, $p < .01$, controlling for the average amount of time people spent at their university per day. Similarly, people with high PSOC scores had significantly higher involvement index scores ($M = 4.35$, $SD = 1.32$) than people with low PSOC scores ($M = 3.03$, $SD = 1.35$). Correlations between PSOC subscale scores and involvement index scores suggested this relationship was driven by *identification*. Involvement index scores were positively and significantly correlated with *identification* scores, $r(282) = .54$, $p < .01$, and with a smaller magnitude, *action* scores, $r(282) = .23$, $p < .01$, controlling for the average amount of time people spent at their university per day.

Providing further evidence for the role of *identification* were results of a one-way ANOVA comparing people with high and low scores on *identification* and *action*, $F(2, 165) = 32.79$, $p < .01$. People with high-*identification*/high-*action* ($M = 4.77$, $SD = 1.21$) and those with high-*identification*/low-*action* ($M = 4.41$, $SD = 1.16$) did not significantly differ in their involvement index scores, $F(1, 163) = 3.26$, $p > .05$. However, both groups did have significantly higher involvement index scores than people with low-

identification/high-*action* ($M = 2.52, SD = 1.14$), $F(1, 163) = 63.53, p < .01$ for comparison with high-*identification*/high-*action*, $F(1, 163) = 47.55, p < .01$ for comparison with high-*identification*/low-*action*.

Findings from the Italian sample echoed similar trends. Involvement index scores were positively and significantly correlated with PSOC scores, $r(228) = .37, p < .01$, controlling for the average amount of time people spent at their university per day. Similarly, people with high PSOC scores had significantly higher involvement index scores ($M = 3.75, SD = 1.64$) than people with low PSOC scores ($M = 2.63, SD = 1.45$), $t(230) = -5.36, p < .01$. As in the United States, correlations between PSOC subscale scores and involvement index scores suggested that *identification* drives this relationship. Involvement index scores were positively and significantly correlated with *identification* scores, $r(228) = .37, p < .01$, and with a smaller magnitude, *action* scores, $r(228) = .21, p < .01$, controlling for the average amount of time people spent at their university per day. Moreover, people with high *identification* scores had significantly higher involvement index scores ($M = 3.91, SD = 1.60$) than people with low *identification* scores ($M = 2.81, SD = 1.54$), $t(230) = -5.31, p < .01$. People with high ($M = 3.46, SD = 1.67$) and low ($M = 3.13, SD = 1.64$) *action* scores did not significantly differ in their involvement index scores, $t(229) = -1.51, p > .05$.

As in the United States, further evidence for the role of *identification* in Italy came from comparisons of people with high and low scores on *identification* and *action*. A one-way ANOVA, $F(2, 143) = 4.43, p < .05$, indicated that people with high-*identification*/high-*action* ($M = 3.78, SD = 1.62$) and those with high-*identification*/low-

action ($M = 4.07$, $SD = 1.59$) did not significantly differ in their involvement index scores, $F(1, 141) = .74$, $p > .05$. However, both groups had significantly higher involvement index scores than people with low-*identification*/high-*action* ($M = 3.09$, $SD = 1.66$), $F(1, 141) = 4.53$, $p < .05$ for comparison with high-*identification*/high-*action*, $F(1, 141) = 8.29$, $p < .01$ for comparison with high-*identification*/low-*action*.

Results of a hierarchical linear regression to test moderation indicated that country moderated the path between involvement index scores and *identification* scores ($\beta = -.10$, $p < .01$). Simple slopes were calculated to determine regression lines for Americans with high and low *identification* scores, and for Italians with high and low *identification* scores. These analyses illustrated that the relationship between *identification* and community involvement is stronger for Americans (see Figure 9).

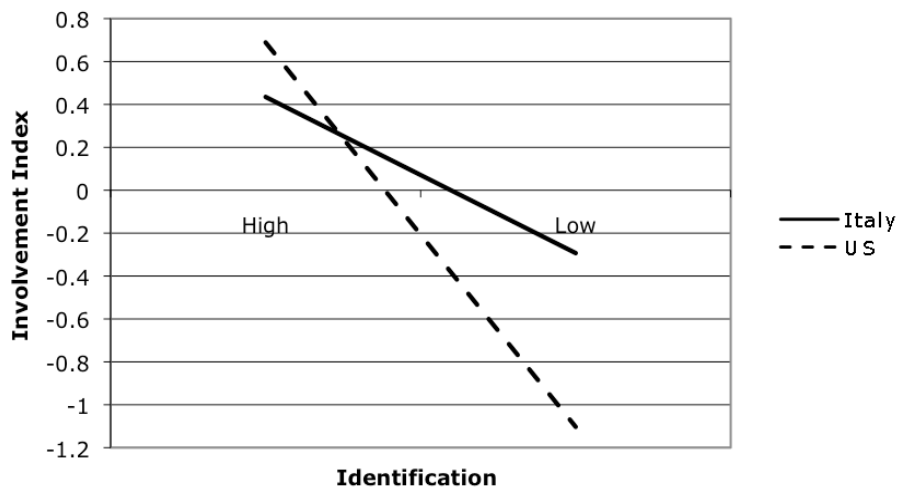


Figure 9. Country as a moderator of the path between community involvement and *identification*.

Predicting PSOC. To determine which antecedents were significant predictors of a psychological sense of community, two multiple regression analyses were conducted, one for the United States and one for Italy. All hypothesized antecedents were included as simultaneously entered predictors to maintain consistency across cultural groups: extraversion scores, agreeableness scores, openness to new ideas scores, prosocial personality scores, independent self-construal scores, interdependent self-construal scores, self-concept clarity scores, need to belong scores, and index of involvement scores. In the United States, results of the multiple regression revealed the following antecedents to significantly predict (positively) PSOC scores: openness to new ideas scores ($\beta = .14, p < .05$), prosocial personality scores ($\beta = .26, p < .01$), interdependent self-construal scores ($\beta = .15, p < .01$), self-concept clarity scores ($\beta = .16, p < .01$), and involvement index scores ($\beta = .48, p < .01$). Results of the multiple regression with Italian data illustrated that, as in the United States, self-concept clarity scores ($\beta = .15, p < .05$) and involvement index scores ($\beta = .35, p < .01$) positively predicted PSOC scores. Unique in the Italian context was also the role of need to belong scores in significantly predicting PSOC scores ($\beta = .14, p < .05$).

PSOC correlates – consequences. Analyses next examined PSOC's relationship with the correlates that may be consequences of it (see Table 4 for summary of correlations).

Social well-being. As predicted, social well-being scores were positively and significantly correlated with PSOC scores in the United States, $r(285) = .58, p < .01$. Similarly, people with high PSOC scores had significantly higher social well-being

Running head: EXPANDING THE BOUNDARIES OF COMMUNITY 71
scores ($M = 3.91$, $SD = .42$) than people with low PSOC scores ($M = 3.39$, $SD = .50$),

$t(283) = -9.67$, $p < .01$. Correlations between PSOC subscale scores and social well-being scores provided evidence for the same trend. Social well-being scores were positively and significantly correlated with both *identification* scores, $r(285) = .51$, $p < .01$, and *action* scores, $r(285) = .47$, $p < .01$. Moreover, people with high *identification* scores had significantly higher social well-being scores ($M = 3.90$, $SD = .44$) than people with low *identification* scores ($M = 3.45$, $SD = .51$), $t(283) = -8.00$, $p < .01$, and people with high *action* scores had significantly higher social well-being scores ($M = 3.95$, $SD = .48$) than people with low *action* scores ($M = 3.55$, $SD = .50$), $t(283) = -6.19$, $p < .01$.

Findings from the Italian sample echoed these trends. Social well-being scores were positively and significantly correlated with PSOC scores, $r(232) = .23$, $p < .01$. Similarly, people with high PSOC scores had significantly higher social well-being scores ($M = 3.29$, $SD = .56$) than people with low PSOC scores ($M = 3.06$, $SD = .66$), $t(230) = -2.92$, $p < .01$. As in the United States, correlations between PSOC subscale scores and social well-being scores illustrated the same trend. Social well-being scores were positively and significantly correlated with both *identification* scores, $r(232) = .19$, $p < .01$, and *action* scores, $r(231) = .22$, $p < .01$. Moreover, people with high *identification* scores had significantly higher social well-being scores ($M = 3.31$, $SD = .55$) than people with low *identification* scores ($M = 3.11$, $SD = .65$), $t(230) = -2.50$, $p < .05$, and people with high *action* scores had significantly higher social well-being scores ($M = 3.32$, $SD = .56$) than people with low *action* scores ($M = 3.10$, $SD = .64$), $t(229) = -2.71$, $p < .01$.

Results of a hierarchical linear regression to test moderation indicated that country moderated the path between social well-being scores and PSOC scores ($\beta = -.14$, $p < .01$). Simple slopes were calculated to determine regression lines for Americans with high and low PSOC scores, and for Italians with high and low PSOC scores. These analyses illustrated that the relationship between PSOC and social well-being is stronger for Americans (see Figure 10). Similarly, country moderated the path between social well-being scores and both *identification* scores ($\beta = -.15$, $p < .01$) and *action* scores ($\beta = -.10$, $p < .01$) in a similar manner.

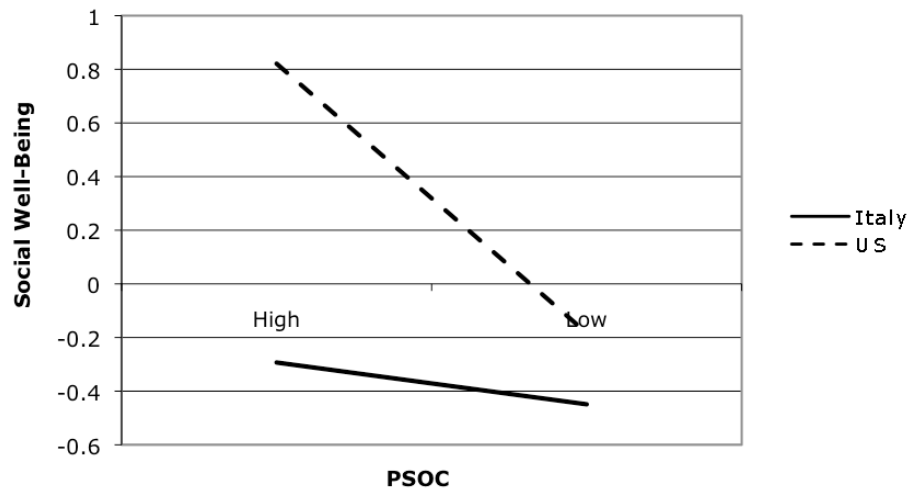


Figure 10. Country as a moderator of the path between social well-being and PSOC.

Empowerment. As hypothesized, empowerment scores were positively and significantly correlated with PSOC scores in the United States, $r(285) = .37$, $p < .01$. Similarly, people with high PSOC scores had significantly higher empowerment scores ($M = 5.83$, $SD = .67$) than people with low PSOC scores ($M = 5.31$, $SD = .98$), $t(283) = -5.21$, $p < .01$. Correlations between PSOC subscale scores and empowerment scores

provided evidence for the same trend. Empowerment scores were positively and significantly correlated with both *identification* scores, $r(285) = .33, p < .01$, and *action* scores, $r(285) = .28, p < .01$. Moreover, people with high *identification* scores had significantly higher empowerment scores ($M = 5.83, SD = .70$) than people with low *identification* scores ($M = 5.36, SD = .95$), $t(283) = -4.86, p < .01$, and people with high *action* scores had significantly higher empowerment scores ($M = 5.88, SD = .69$) than people with low *action* scores ($M = 5.47, SD = .90$), $t(283) = -3.84, p < .01$.

In Italy, empowerment scores were positively correlated with PSOC scores, but only at marginal significance, $r(233) = .12, p = .08$. The same was true for their correlation with *action* scores, $r(232) = .13, p = .05$, but empowerment scores were not significantly correlated with *identification* scores, $r(233) = .10, p > .05$. Similarly, there were no significant differences in mean empowerment scores between people with high and low scores on PSOC, $t(231) = -1.68, p > .05$, *identification*, $t(231) = -1.36, p > .05$, or *action*, $t(230) = -.85, p > .05$.

Not surprisingly, results of a hierarchical linear regression to test moderation indicated that country moderated the path between empowerment scores and PSOC scores ($\beta = -.12, p < .01$). Simple slopes were calculated to determine regression lines for Americans with high and low PSOC scores, and for Italians with high and low PSOC scores. These analyses illustrated that the relationship between PSOC and empowerment is stronger for Americans (see Figure 11).

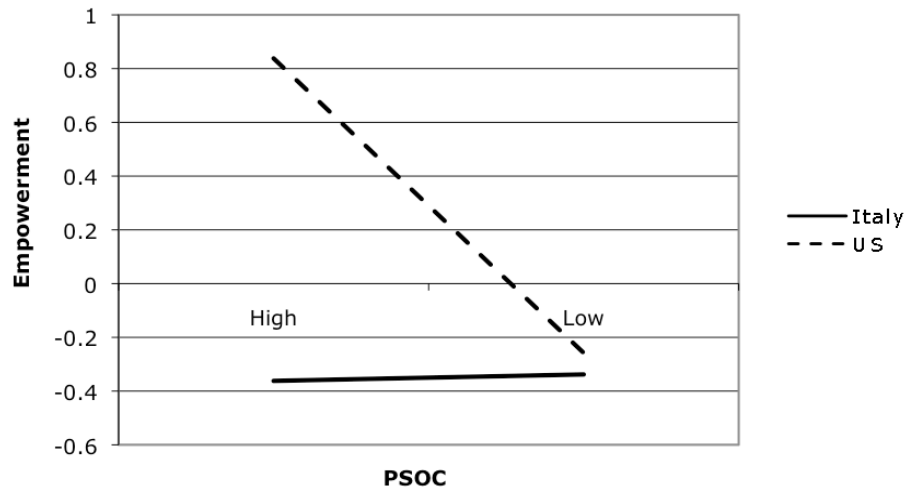


Figure 11. Country as a moderator of the path between empowerment and PSOC.

Social capital. As predicted, social capital scores were positively and significantly correlated with PSOC scores in the United States, $r(285) = .31, p < .01$. Similarly, people with high PSOC scores had significantly higher social capital scores ($M = 3.06, SD = .38$) than people with low PSOC scores ($M = 2.83, SD = .38, t(283) = -5.07, p < .01$). Correlations between PSOC subscale scores and social capital scores suggested this relationship was driven by *identification*. Social capital scores were positively and significantly correlated with *identification* scores, $r(285) = .31, p < .01$, and with a smaller magnitude, *action* scores, $r(285) = .19, p < .01$.

Findings from the Italian sample echoed similar trends. Social capital scores were marginally and positively correlated with PSOC scores, $r(232) = .12, p = .08$. Similarly, people with high PSOC scores had significantly higher social capital scores ($M = 3.07, SD = .38$) than people with low PSOC scores ($M = 2.94, SD = .37, t(230) = -2.53, p < .05$). As in the United States, correlations between PSOC subscale scores and social

capital scores illustrated the same trend. In the Italian context, however, the relationship between social capital and PSOC was driven by *action*. Social capital scores were significantly and positively correlated with *action* scores, $r(231) = .16, p < .05$; however, they were not significantly correlated with *identification scores*, $r(233) = .10, p > .05$. Moreover, people with high *action* scores had significantly higher social capital scores ($M = 3.07, SD = .41$) than people with low *action* scores ($M = 2.97, SD = .35$), $t(229) = -2.00, p < .05$. People with high ($M = 3.05, SD = .37$) and low ($M = 2.98, SD = .38$) *identification scores* did not significantly differ in their social capital scores, $t(230) = -1.46, p > .05$.

Results of a hierarchical linear regression to test moderation indicated that country moderated the path between social capital scores and *identification scores* ($\beta = -.15, p < .01$). Simple slopes were calculated to determine regression lines for Americans with high and low *identification scores*, and for Italians with high and low *identification scores*. These analyses illustrated that the relationship between *identification* and social capital is stronger for Americans (see Figure 12).

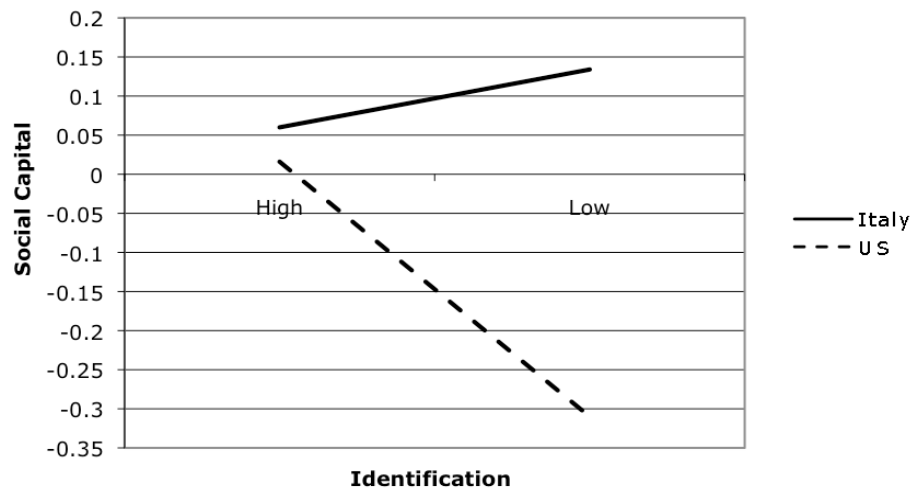


Figure 12. Country as a moderator of the path between social capital and *identification*.

Prosocial action. As predicted, index of volunteerism scores were positively and significantly correlated with PSOC scores in the United States, $r(285) = .24, p < .01$. Similarly, people with high PSOC scores had significantly higher index of volunteerism scores ($M = 2.00, SD = .84$) than people with low PSOC scores ($M = 1.50, SD = .90$), $t(283) = -4.79, p < .01$. Correlations between PSOC subscale scores and index of volunteerism scores suggested this relationship was driven by *identification*. Index of volunteerism scores were positively and significantly correlated with *identification* scores, $r(285) = .26, p < .01$, and with a smaller magnitude, *action* scores, $r(285) = .14, p < .05$. Moreover, people with high *identification* scores had significantly higher index of volunteerism scores ($M = 2.04, SD = .85$) than people with low *identification* scores ($M = 1.51, SD = .88$), $t(283) = -5.19, p < .01$. People with high ($M = 1.91, SD = .86$) and low ($M = 1.71, SD = .92$) *action* scores did not significantly differ in their index of volunteerism scores, $t(283) = -1.65, p > .05$.

Findings from the Italian sample reflected similar trends. Index of volunteerism scores were positively and significantly correlated with PSOC scores, $r(233) = .15, p < .05$. Similarly, people with high PSOC scores had significantly higher index of volunteerism scores ($M = 1.37, SD = 1.13$) than people with low PSOC scores ($M = 1.09, SD = 1.06$), $t(231) = -1.88, p = .06$. Correlations between PSOC subscale scores and index of volunteerism scores illustrated the same trend but, in contrast to the United States, provided evidence that *action* was driving this relationship. Index of volunteerism scores were positively and significantly correlated with *action* scores, $r(232) = .15, p < .05$; however, they were not significantly correlated with *identification* scores, $r(233) = .11, p > .05$. Moreover, people with high *action* scores had significantly higher index of volunteerism scores ($M = 1.40, SD = 1.14$) than people with low *action* scores ($M = 1.14, SD = 1.07$), $t(230) = -1.78, p = .07$. People with high ($M = 1.34, SD = 1.12$) and low ($M = 1.19, SD = 1.10$) *identification* scores did not significantly differ in their index of volunteerism scores, $t(231) = -1.03, p > .05$.

Discussion

Findings from Study 2 provide evidence for psychological sense of community's relationship with many correlates. People with a higher psychological sense of community tended also to be more extraverted, agreeable, open to new ideas, involved with the psychological community, and engaged in prosocial action. They also had a more prosocial personality, a more salient interdependent self-construal, more self-concept clarity, higher levels of social well-being and social capital, and reported feeling more empowered.

Although relationships between PSOC and its correlates were more similar than different, findings do begin to shed light on the ways in which PSOC may manifest itself differently across cultural contexts. Moderation analyses suggest that relationships between PSOC and extraversion, openness to new ideas, a prosocial personality, community involvement, social well-being, empowerment, and social capital are stronger for Americans than they are for Italians. In addition, openness to new ideas, prosocial personality, interdependent self-construal, self-concept clarity, and community involvement, all significantly predicted PSOC in the United States, whereas fewer correlates predicted PSOC in the Italian context (self-concept clarity, community involvement, and a need to belong).

An additional perspective on psychological sense of community is gained when considering whether *identification* or *action* played a key role in driving PSOC's relationship with its correlates. Both dimensions seem to be implicated in ties with agreeableness and social well-being, both in the United States and in Italy. Also consistent across countries was the prominence of *identification* in PSOC's relationship with extraversion, self-concept clarity, and community involvement, and *action* in ties with a prosocial personality and an interdependent self-construal. That these correlates tap different PSOC dimensions may speak to the individual versus other-oriented nature of the correlates and of the *identification* and *action* factors. As previously indicated, salient in *identification* is the individual-oriented connection that one feels with the psychological community. In contrast, *action* can be considered more other-oriented,

oriented toward the broader psychological community.

This individual versus other-oriented distinction emerges even more clearly when considering how PSOC relates to different types of self-construal. An independent self-construal, in which the self is seen as distinct and unique to a particular individual, was related to *identification*. An interdependent self-construal, in which the self arises from and is part of an environment of strong social interconnections, had closer ties to *action*. Considered in this light, it follows that correlates more oriented toward the individual, such as extraversion, self-concept clarity and community involvement, are tied to *identification*, whereas correlates more oriented toward others, such as a prosocial personality and an interdependent self-construal, link to *action*.

For some correlates, the relationship with PSOC is driven by different PSOC dimensions in the United States and in Italy. PSOC's relationship with openness to new ideas, empowerment, social capital, and prosocial action was driven by both *identification* and *action*, or only *identification*, in the United States, and by *action* in Italy. These differences may reflect underlying variations in how psychological sense of community is conceptualized. Whereas one's own individual connection with the psychological community may predominate in the United States, connections with other members and an orientation toward the broader community may be at the forefront in Italy.

Several important areas of inquiry emerge from this study that should be explored in future research. First, although this study examined correlates that literature suggests

may be antecedents or consequences of a PSOC, given its correlational nature it could not examine whether correlates cause a higher PSOC, are caused by it, or both. Results of this study contribute initial insight into how the correlates examined relate to PSOC. Future studies can now build upon this foundation and focus on the causal and directional aspects of these relationships. Second, future research should begin to explore the complexities that may characterize PSOC's relationship with its correlates. It may be, for example, that certain constructs mediate the relation between PSOC and certain correlates. Take empowerment, for example, that was only marginally related to PSOC in Italy. Given that past studies have found greater empowerment to be associated with more civic participation (e.g., Zimmerman & Rappaport, 1998), it may be that civic engagement mediates the relation between PSOC and empowerment in Italy. Exploring these mediating mechanisms would add an additional layer of knowledge, contributing to a better understanding of how PSOC manifests itself.

Overall, Study 2 provides a critical additional layer to the psychological sense of community construct, providing insight into how PSOC manifests itself (i.e., its correlates) and how these manifestations may be similar or different across cultures. Findings illustrate that similarity in PSOC structure across countries was, in general, also reflected in similar relationships between PSOC and its correlates. This information is important to advance the construct and provide evidence that not only is psychological sense of community a useful theoretical idea, but that it is also linked to other established constructs (e.g., self-construal), and has practical implications for behavior (e.g., prosocial action). In addition, findings highlight the potential benefit that psychological

also felt more integrated into the social environment, more empowered, were more likely to be active members of society, and believed they had something valuable to contribute. Study 2, then, goes one step further in filling the broader PSOC literature gaps that inspired this research, helping to shape a more cohesive conceptualization of the PSOC construct and making a stronger case for approaching it in a solely psychological light.

Study 3

Studies 1 and 2 provide insight into the structure and dimensions of a solely psychological sense of community and its correlates. Study 3 extended examination of PSOC to focus on a hypothesized consequence, prosocial action, and to manipulate the PSOC construct in a more experimental manner. Past research, and Study 2's results, suggest that greater community ties and perceptions of connecting to a community of people with shared concerns (i.e., higher PSOC) lead people to behave in ways that help that community and society as a whole (e.g., Mashek et al., 2007; McMillan, 1996; McMillan & Chavis, 1986; Omoto & Snyder, 2002; Sarason, 1974).

Study 3 examined the relationship between psychological sense of community and prosocial action in greater depth to begin answering the following questions: 1) Does PSOC predict prosocial action?; and 2) Does increasing the salience of psychological sense of community lead to increases in prosocial action? To investigate the effects of PSOC on prosocial action, I examined its role within a model inspired by Penner's (2002, 2004) Model of the Decision to Volunteer and Omoto and Snyder's (2002) Volunteer Process Model. Common in both models is the idea that volunteer action is influenced by

the following variables: *demographic characteristics*, *social pressures/environment* (e.g., values transmitted by the family, family and peer engagement in prosocial action), *personal characteristics* (e.g., values, prosocial personality), and what Penner (2004) terms *activators* (e.g., past experience with volunteerism). Despite the link between psychological sense of community and prosocial action, to date no known research has examined the role of a solely psychological PSOC within models of prosocial action. It was hypothesized that PSOC would emerge as a significant predictor of prosocial action, controlling for the other hypothesized predictors (i.e., social environment, personal characteristics, activators).

To examine whether increasing the salience of psychological sense of community leads to greater prosocial action (e.g., volunteer behavior and civic participation), participants were randomly assigned to two groups. One group received a manipulation designed to heighten PSOC's salience and one group served as a control. It was expected that participants in the experimental condition (i.e., for whom PSOC had been heightened) would score the highest on measures of prosocial action.

Method

Participants. Undergraduate students at both the University of Minnesota (244 women, 77 men) and the Università Cattolica del Sacro Cuore in Milan, Italy (123 women, 16 men) participated in exchange for compensation in accordance with their respective university's policies. Of the initial participant sample, 17 students from the United States (12 women, 5 men) and 22 students from Italy (15 women, 7 men) were removed because they either indicated believing their university fit best under a physical

reasons, were not able to hear the audio-recording that served as the manipulation (8 from the United States and 7 from Italy). Thus, the remaining sample included 304 (232 women, 72 men) participants from the United States and 117 (108 women, 9 men) from Italy.

To ensure that I could appropriately conduct analyses comparing the United States and Italy, I had to ensure that the samples matched each other on key variables (i.e., gender and age), thereby allowing samples to reflect the relevant cultural comparison and not demographic differences. By removing 33 men at random from the American sample, I was able to create a subset that did not differ from the Italian sample by gender, $\chi^2(1, N = 388) = 3.38, p > .05$, or age, $t(386) = -1.85, p > .05$ (United States: $M = 20.53, SD = 2.89$; Italy: $M = 21.26, SD = 4.79$).

Procedure. Participants in both the United States and Italy completed a questionnaire that included background questions, and measures to assess key variables in the model of prosocial action (i.e., psychological sense of community, social pressures/environment, personal characteristics, activators, and prosocial action). All contents were translated into Italian for administration in Italy using a back-translation procedure with bilingual and native speakers. Prior to their participation, participants were randomly assigned to one of two groups, the experimental group and the control group. After completing measures for all independent variables, but before responding to items regarding prosocial action, each group listened to a different 3-4 minute audiotaped conversation designed to either heighten PSOC's salience or to serve as a control. To

maintain consistency among studies, the psychological community of reference was the university community. The same prompt and verification item that were used in Studies 1 and 2 to ensure that participants viewed their university community in a psychological light were also used in this study (see Appendix A, parts 1 and 3). Those few participants who did not were removed from analyses, as detailed in the participants section above.

Psychological sense of community. Psychological sense of community was assessed with the six-item measure that resulted from Study 1 analyses (see Appendix C, part 1). Recall that two items (“I don’t see myself as being a part of the University of Minnesota community” and “Members of the University of Minnesota community should work to create a better future for its members”) were found to be noninvariant across cultural groups. As in Study 2, these two items were removed from scale calculations to create a PSOC measure that was invariant across the United States and Italy and, thus, allowed for comparisons between them. As a result, the scale (United States: $\alpha = .73$; Italy: $\alpha = .69$) included three items that measured *identification* (e.g., “I feel strong ties to the University of Minnesota community”) and three items that assessed *action* (e.g., “Through their actions, members of the University of Minnesota community can have a positive effect on the future of their community”). Items were re-worded for use in Italy to reference the Università Cattolica del Sacro Cuore. Participants used a seven-point Likert-type scale to indicate their level of agreement with each statement (1 = “strongly disagree”; 7 = “strongly agree”). A total scale score was created by reverse-scaling negative items, summing all items and calculating a mean. The *identification* and *action* subscales were not examined separately, as the goals of this study were to

investigate the effects of participants' PSOC in general and not specific to one dimension or another⁶.

Demographic characteristics. Past research suggests that education and income are the two demographic characteristics most commonly associated with volunteerism (e.g., Penner, 2002). Given that participants were university students and, thus, neither education nor income would vary greatly within this sample, demographic characteristics were not included.

Social environment. Penner (2004) hypothesized that people who make the decision to engage in volunteer action have likely felt either direct or indirect pressure to do so. These pressures may exist within the social climates and cultural context that Omoto and Snyder (2002) consider in the antecedents stage of their Volunteer Process Model. Individuals may be prompted to volunteer, for example, by the requests and/or perceived expectations of others (Penner, 2004; Piliavin & Callero, 1991) and by the subjective norms associated with that behavior. The Theory of Reasoned Action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and the Theory of Planned Behavior (Ajzen, 1991) consider subjective norms to be important factors in guiding human behavior. Young adults in particular, as are the participants of this study, may be motivated to volunteer by how common volunteering is among their friends and family, and by the values they learned within the family setting. Past research supports this idea, finding that young adults' personal as well as family values correlate with a civic identity and with

⁶ When *identification* and *action* scores are examined, instead of general PSOC scores, results of analyses remain consistent with those presented in the results section.

social actions such as volunteerism (Flanagan, 2004; Flanagan, Bowes, Jonsson, Csapo, & Sheblanova, 1998; Flanagan & Tucker, 1999).

Two items (see Appendix C, parts 2 and 3) measured the extent to which participants' family and friends engage in volunteer activity ("How many members of your family/friends engage in some kind of volunteer activity (e.g., helping a neighbor, tutoring children)?"). Participants used a seven-point Likert-type scale to respond (1 = "none"; 7 = "all").

Values transmitted by the family were assessed using two subscales of Flanagan's (2004) Family Climate and Childrearing Style scale (see Appendix C, part 4), (1) *compassion* (4 items; e.g., "My parents taught me to help others, especially those who are less fortunate," and (2) *family discussions of current events* (6 items; e.g., "My parents discussed current events with me"). Participants used a five-point Likert-type scale to indicate their level of agreement with each statement (1 = "strongly disagree"; 5 = "strongly agree"). A total scale score was created by summing all items in both subscales and calculating a mean. Alpha reliabilities for the full scale were .82 and .83 in the American and Italian samples, respectively.

To examine the total influence of social environment on volunteer action, scores on the two items that measured friends' and family's engagement in volunteer activity and scores on the Family Climate and Childrearing Style Scale were summed to form an *Index of Social Environment*.

Personal characteristics. Studies have shown that personal characteristics such as beliefs and attitudes, needs and motives, and personality are consistent and strong

2002; Penner & Finkelstein, 1998; Rioux & Penner, 2001). Of particular interest are values and a prosocial personality.

Values are one of the key motivations (outlined by Clary and colleagues, 1998, in their Volunteer Functions Inventory) that foster volunteer efforts and sustain these efforts over time. People often volunteer to express values that are important to them, such as helping those who are less fortunate (Clary & Snyder, 1999). Other research also highlights the important role of values in fostering prosocial action such as organizational citizenship behaviors (Rioux & Penner, 2001) and participation in AIDS service organizations (Omoto & Snyder, 1995). Values were assessed using a translated Values of Engagement inventory that has previously been used in Italy (e.g., Marta, 2008; Marzana, 2009; see Appendix C, part 5). The inventory was inspired by the Volunteer Functions Inventory's (Clary et al., 1998) value motivations subscale. Participants rated the importance that seven values (e.g., "contribute to your country"; "be active in politics") had for them, using a five-point Likert-type scale (1 = "not at all"; 5 = "a great deal"). Alpha reliabilities for this inventory were .80 and .81 in the American and Italian samples, respectively.

One personality type that has often been linked with helping behaviors is a prosocial personality. In general, people who are more prosocial in nature also engage in more helping behaviors (e.g., Penner, 2002). A modified version of the Prosocial Personality Battery (Penner, 2002; see Appendix C, part 6) assessed a prosocial personality. Participants used a five-point Likert-type scale to indicate their level of

16 items included two subscales of the Prosocial Personality Battery: *social responsibility* (e.g., “When people are nasty to me, I feel very little responsibility to treat them well”); and *empathy* (e.g., “I sometimes find it difficult to see things from the ‘other person’s point of view”). A total scale score was created by reverse-scaling negative items, summing items in both subscales and calculating a mean. Alpha reliabilities for the full scale were .78 and .79 in the American and Italian samples, respectively.

To examine the total influence of personal characteristics on volunteer action, scores from the Values of Engagement Inventory and the Prosocial Personality Battery were summed to form an *Index of Personal Characteristics*.

Activators. Penner (2004) defines volunteer activators as anything that may activate in someone the desire to volunteer. This may include seeing a particularly poignant advertisement by a volunteer agency or having previously engaged in volunteer work, as Omoto and Snyder (2002) highlight in their Volunteer Process Model. One item (see Appendix C, part 7) assessed participants’ previous involvement in volunteer work (“How involved have you been in volunteer activities within the past two years?”). Participants used a seven-point Likert-type scale to indicate the extent of their past involvement (1 = “not at all involved”; 7 = “very involved”).

PSOC manipulation. Before their participation, participants were randomly assigned to one of two groups, the experimental group and the control group. After completing measures that assessed PSOC, social environment, personal characteristics,

and activators, participants listened to one of two audio-taped conversations. They were provided with the following instructions:

Next you'll hear a short audio-recording that was made during a previous research study. The conversation takes place between two friends, Katie and Ben. Like you, they're both undergraduate students at the University of Minnesota. As part of the research they were asked to talk about a class they were taking. Please listen carefully; we'll ask you a series of questions afterwards.

Both conversations were approximately two to three minutes each and featured the same two voices to maintain consistency between conditions. Recordings were made by trained undergraduate research assistants and native speakers of English for use in the United States, and of Italian for use in Italy. Conversations depicted two University of Minnesota (or Università Cattolica del Sacro Cuore) undergraduate students, Katie and Ben (Daniela and Marco in Italy), talking about one of their psychology courses (see Appendix D for text). Content for the control group revolved around a neutral subject, perception, and did not refer to anything community-related. In contrast, content for the experimental group focused on a psychological sense of community so as to heighten its salience in participants' minds. Pilot studies ensured that participants perceived the conversations as intended and that no significant differences between the conversations were present (e.g., interest) other than those related to content.

To ensure that this was also true in the study itself, participants responded to several questions related to the conversation. These items included: "How interested were you in Katie and Ben's conversation?"; "Do you think Katie and Ben feel like part of the University of Minnesota?"; "Do you think Katie and Ben feel tied to other people at the University of Minnesota?"; "Did hearing this excerpt make you think of the University of

Minnesota as a community?"; and "Do you see yourself as a member of the University of

Minnesota community?" Results of independent-samples *t*-tests comparing the control and experimental groups indicated that the experimental manipulation operated as intended. There was no significant difference between the control (United States: $M = 3.71$, $SD = 1.55$; Italy: $M = 3.71$, $SD = 1.59$) and experimental groups (United States: $M = 3.81$, $SD = 1.38$; Italy: $M = 3.58$, $SD = 1.56$) in terms of interest in the conversations either in the United States, $t(269) = .59$, $p > .05$, or in Italy, $t(118) = -.47$, $p > .05$. People in the experimental group in both countries reported that Katie and Ben felt more like a part of the university (United States: $M = 6.06$, $SD = .84$; Italy: $M = 5.36$, $SD = 1.31$) than people in the control group did (United States: $M = 4.94$, $SD = 1.02$; Italy: $M = 4.46$, $SD = 1.41$), $t(267) = 9.94$, $p < .01$, in the United States, $t(118) = 3.59$, $p < .01$, in Italy. Similarly, people in the experimental group reported that Katie and Ben felt more tied to other people at the university (United States: $M = 5.90$, $SD = .97$; Italy: $M = 5.21$, $SD = 1.27$) than people in the control group did (United States: $M = 4.78$, $SD = 1.12$; Italy: $M = 4.41$, $SD = 1.43$) both in the United States, $t(266) = 8.79$, $p < .01$, and in Italy, $t(115) = 3.19$, $p < .01$.

The manipulation also successfully made psychological sense of community salient for those in the experimental group. Four, one-way ANCOVA analyses were conducted, two for each country, to determine whether hearing the conversation made the experimental group think of their university as a community and see themselves as members, controlling for their initial PSOC. As expected, people in the experimental group reported thinking of their university significantly more as a community after

than people in the control group did (United States: $M = 3.34$, $SD = 1.51$; Italy: $M = 3.29$, $SD = 1.60$), both in the United States, $F(1, 270) = 182.67$, $p < .01$, and in Italy, $F(1, 119) = 19.22$, $p < .01$. Similarly, people in the experimental group reported seeing themselves significantly more as members of their university community after hearing the conversation (United States: $M = 5.28$, $SD = 1.28$; Italy: $M = 4.28$, $SD = 1.47$) than people in the control group did (United States: $M = 4.48$, $SD = 1.44$; Italy: $M = 3.96$, $SD = 1.51$), both in the United States, $F(1, 268) = 26.84$, $p < .01$, and in Italy, $F(1, 119) = 4.45$, $p < .05$.

Outcome measures. After hearing the audio conversation, participants completed a series of items designed to assess the outcome variable of volunteerism. One measure, a Civic Engagement Scale (United States: $\alpha = .83$; Italy: $\alpha = .83$; see Appendix C, part 9) assessed participants' degree of civic engagement in the larger society, a broader form of volunteerism. The scale was translated and modified from a scale previously used in Italy to assess the civic engagement of young adults (e.g., Marta, 2008; Marzana, 2009). Participants used a five-point Likert-type scale (1 = "not at all likely"; 5 = "very likely") to indicate the likelihood that they would participate in nine activities (e.g., "give money to a social or political campaign"; "be involved in a political group"). A total score was created by summing all items and calculating a mean.

One item ("How many concrete favors or services are you likely to offer to members of the University of Minnesota community?") evaluated another form of volunteerism, the favors or services that participants were likely to offer to other

community members (see Appendix C, part 10). Participants used a five-point Likert-type scale to respond (1 = “none”; 5 = “a great deal”).

Participants’ interest in the activities and volunteer opportunities of their university community and the likelihood that they would participate were measured with six items (see Appendix C, parts 11 to 16; e.g., “How interested are you in being involved in campus activities (e.g., sports teams, organizations)?”; “How involved are you likely to be within the next year in volunteer activities on campus?”). Participants used a seven-point response scale to indicate their level of interest (1 = “not at all interested”; 7 = “very interested”) and the likelihood of their involvement (1 = “not at all involved”; 7 = “very involved”). Scores on all interest items were summed and a mean calculated to represent an *Interest Index*. Similarly, scores on all involvement items were summed and a mean calculated to represent an *Involvement Index*.

To examine volunteer action in its totality, scores on the Civic Engagement Scale, the item that assessed favors offered to the community, and the Interest and Involvement Indices were summed to form an *Index of Prosocial Action* (24 total possible points).

Results

Study 3 was guided by two primary questions: (1) Does PSOC significantly predict prosocial action? and (2) Does increasing the salience of psychological sense of community lead to increases in prosocial action?

Does PSOC predict prosocial action? Two multiple regression analyses, one for each country, were conducted to determine whether PSOC plays a significant role in predicting prosocial action. The following predictors were simultaneously entered to

predict scores on the index of prosocial action: PSOC scores, index of social environment scores (representing the influence of social environment), index of personal characteristics scores (representing the influence of personal characteristics), and past volunteer involvement scores (representing the influence of activators).

In the United States, the multiple regression model was significant, adjusted $R^2 = .35$, $F(4, 269) = 37.16$, $p < .01$ (see Table 5). As hypothesized, PSOC scores emerged as a significant predictor of index of prosocial action scores ($\beta = .41$, $p < .01$). Also playing a significant predictive role were index of social environment scores ($\beta = .14$, $p < .05$) and past volunteer involvement scores ($\beta = .18$, $p < .01$). Index of personal characteristics scores were not significant ($\beta = .10$, $p > .05$).

The same multiple regression model was also significant in Italy, adjusted $R^2 = .30$, $F(4, 117) = 13.22$, $p < .01$ (see Table 6). As in the United States, PSOC scores emerged as a significant predictor of index of prosocial action scores ($\beta = .44$, $p < .01$). This, however, was the only commonality in predictors between the two countries. Index of personal characteristics scores were the only other significant predictor of index of prosocial action scores in Italy ($\beta = .19$, $p < .05$), whereas they were not significant in the United States. Index of social environment scores ($\beta = .05$, $p > .05$) and past volunteer involvement scores ($\beta = .06$, $p > .05$) were not significant predictors in this model, but were in the United States. Thus, psychological sense of community as a significant predictor of prosocial action appears to be the common thread in the United States and Italy.

Table 5

Predictors of Prosocial Action in the United States

Predictor	Unstandardized		Standardized	t	Sig.
	B	Std. Error	Beta		
PSOC	1.80	0.23	0.41	7.85	$p < .01$
Index of social environment	0.27	0.11	0.14	2.44	$p < .05$
Index of personal characteristics	0.40	0.23	0.10	1.77	$p > .05$
Past volunteer involvement	0.35	0.11	0.18	3.07	$p < .01$

Table 6

Predictors of Prosocial Action in Italy

Predictor	Unstandardized		Standardized	t	Sig.
	B	Std. Error	Beta		
PSOC	1.76	0.33	0.44	5.32	$p < .01$
Index of social environment	0.12	0.25	0.05	0.47	$p > .05$
Index of personal characteristics	0.70	0.33	0.19	2.09	$p < .05$
Past volunteer involvement	0.10	0.19	0.06	0.55	$p > .05$

Does increasing the salience of PSOC increase prosocial action? To further

investigate the role of increasing PSOC's salience on prosocial action, a series of ANCOVAs was conducted. Analyses examined whether the experimental and control groups differed significantly on the outcome variables that assessed prosocial action, controlling for initial PSOC levels⁷ (see Table 7 for summary of mean differences).

Results in the United States supported hypotheses. Participants in the experimental group had significantly higher index of prosocial action scores ($M = 16.16$, $SD = 3.27$) than participants in the control group did ($M = 14.45$, $SD = 3.43$), $F(2, 269) = 14.35$, $p < .01$. The same trend was found in the individual scales and indices comprising the index of prosocial action. People in the experimental group reported significantly more likelihood of participating in civic engagement activities ($M = 3.14$, $SD = .64$) than people in the control group ($M = 2.92$, $SD = .71$), $F(2, 270) = 5.69$, $p < .05$, significantly more likelihood of offering favors to other community members ($M = 3.21$, $SD = .94$) than the control group ($M = 2.92$, $SD = .87$), $F(2, 269) = 3.86$, $p = .05$, significantly more interest in campus events and volunteer activities ($M = 5.12$, $SD = 1.30$) than the control group ($M = 4.57$, $SD = 1.45$), $F(2, 270) = 7.86$, $p < .01$, and significantly more likelihood

⁷ Moderation analyses, using hierarchical linear regression, were also conducted to determine whether PSOC scores moderated the relationship between manipulation group (i.e., experimental vs. control) and Index of Prosocial Action scores. PSOC scores, the moderator, were entered in a first step of analysis, the main effect of manipulation group in a second step, and the two-way interaction between PSOC scores and manipulation group in a third step. All variables were mean-centered prior to creating interaction terms. Results indicated that PSOC scores did not act as a moderator either in the United States ($\beta = -.04$, $p > .05$) or in Italy ($\beta = .01$, $p > .05$).

than the control group ($M = 4.04$, $SD = 1.57$), $F(2, 270) = 10.58$, $p < .01$.

Findings in the Italian context echoed similar trends. Participants in the experimental group had significantly higher index of prosocial action scores ($M = 14.35$, $SD = 3.47$) than participants in the control group did ($M = 12.64$, $SD = 3.34$), $F(2, 117) = 13.14$, $p < .01$. More specifically, people in the experimental group reported significantly more likelihood of participating in civic engagement activities ($M = 3.23$, $SD = .68$) than people in the control group ($M = 3.02$, $SD = .63$), $F(2, 119) = 4.17$, $p < .05$, significantly more likelihood of offering favors to other community members ($M = 3.05$, $SD = 1.01$) than the control group ($M = 2.67$, $SD = 1.06$), $F(2, 117) = 5.86$, $p < .05$, significantly more interest in campus events and volunteer activities ($M = 4.20$, $SD = 1.34$) than the control group ($M = 3.67$, $SD = 1.47$), $F(2, 119) = 6.55$, $p < .05$, and significantly more likelihood of participating in those campus events and volunteer activities ($M = 3.83$, $SD = 1.23$) than the control group ($M = 3.27$, $SD = 1.21$), $F(2, 119) = 9.80$, $p < .01$.

Table 7

Summary of Mean Differences between Experimental and Control Groups in Prosocial Action Variables

Variable	United States		Italy	
	Experimental group	Control group	Experimental group	Control group
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Index of prosocial action	16.16 (3.27)	14.45 (3.43)	14.35 (3.47)	12.64 (3.34)
Civic engagement scale	3.14 (.64)	2.92 (.71)	3.23 (.68)	3.02 (.63)
Favors offered to community	3.21 (.94)	2.92 (.87)	3.05 (1.01)	2.67 (1.06)
Interest index	5.12 (1.30)	4.57 (1.45)	4.20 (1.34)	3.67 (1.47)
Involvement index	4.70 (1.36)	4.04 (1.57)	3.83 (1.23)	3.27 (1.21)

Note. All mean differences are significant at either the $p < .01$ or $p < .05$ level.

Findings from Study 3 provide evidence for the important role of psychological sense of community in predicting prosocial action. Psychological sense of community was a significant predictor both in the United States and in Italy, the only predictor of prosocial action that was common across both cultural contexts. Furthermore, heightening the salience of psychological sense of community had important consequences for prosocial action. It increased interest in prosocial activities, both specific to the psychological community being referenced and general to society, and increased the likelihood of people's participation in those activities.

Findings from this study have important practical implications as well. Volunteer organizations seeking to recruit new volunteers might, for example, consider designing ads that make PSOC salient for the prospective volunteers reading them. Efforts by universities or aid organizations to mobilize communities and to increase involvement and support could focus on making PSOC salient in the content of interventions, training sessions or advertisements.

Overall, Study 3 extends examination of the PSOC construct in several important ways. First, it provides greater detail about PSOC's relationship with one proposed consequence, prosocial action, and its role within a model of volunteer behavior. Findings expand literature on prosocial action by supporting the inclusion of a solely psychological PSOC in future models of volunteerism. Second, it provides evidence for one way to manipulate the psychological sense of community construct and the important effects that heightening PSOC has on prosocial action. Third, Study 3 continues the work

manifests itself, and the similarities and differences in its manifestations across cultures.

These insights are critical to advance the construct as both theoretically and practically important, and to expand understanding of how PSOC behaves in varying cultural contexts. Thus, Study 3 goes one step further in filling the literature gaps that inspired this research and in shaping a cohesive conceptualization of the PSOC construct.

General Discussion

Consistent with past research, findings from this dissertation support the notion that psychological sense of community is a valid construct, whether defined as place or referring to social connections. The three studies presented here represent a continuation of PSOC's theoretical evolution, one that first began with the idea that social relationships and feelings of connection to others influence individuals' attachment to and identification with a specific geographic region (Hay, 1998; Kyle et al., 2005).

Results of the present research show that those social relationships and connections can alone form the basis for a psychological sense of community, supporting a broadening in the conceptualization of community to one focused solely on feelings of belonging and connection with a group of people who have shared concerns, whether or not they share a common physical or geographical location. This shift goes one step beyond current notions of PSOC that still retain ideas of physical space from the community-as-place literature.

Moreover, findings from this research help to better elucidate what comprises a solely psychological sense of community with respect to one type of psychological

community, a university. *Identification* with the community and *action*, working together

with other members for the community's betterment, emerged as two important factors

that form PSOC in the university setting across two cultural samples, the United States

and Italy. This knowledge of PSOC's structure provides a critical starting point for

research on a psychological sense of community defined in solely psychological terms.

Future work can now begin to explore whether *identification* and *action* remain important

factors when other types of psychological communities are considered.

The present line of research contributes additional evidence to the body of work

that has documented PSOC's relation to many varied factors, such as personality

(Lounsbury et al., 2003), social well-being (Albanesi et al., 2007), and community

involvement (Mashek et al., 2007). Results support the idea that psychological sense of

community is not only a theoretically-relevant construct, but that it also has ties to many

aspects of our daily lives. These ties lend themselves to thinking about more practical

applications of the construct. First, findings from Study 3 in particular illuminate PSOC's

potential to influence prosocial action. Making PSOC salient for individuals was enough

to have them express more interest in engaging in prosocial action to benefit both the

psychological community of which they were members and society as a whole. Although

the present research did not test actual effects on behavior or determine how long the

increased interest might last, it does suggest that PSOC is important to consider when

trying to increase participation. As such, it adds to literature supporting the idea that

connections to a larger community facilitate volunteering (e.g., McMillan, 1996;

McMillan & Chavis, 1986; Omoto & Snyder, 2002; Sarason, 1974). Volunteer

members, then, may want to make community salient for individuals, whether through the content of discussions, training sessions, or brochures.

Second, the six-item PSOC scale that emerged from this research may be a useful tool for universities to use when evaluating the effectiveness of their community development activities. University administrators have frequently focused their attention on finding ways to increase a sense of community on campus (McDonald, 2002). A recent article in the *Daily Princetonian*, for example, reported that at a recent Princeton University Community meeting, the university vice president proposed implementing several on-campus activities, such as an annual birthday party for the university, with the expressed purpose of increasing students' sense of community (Cohen, 2011). An article in *The Huntington News* of Northeastern University highlights a new initiative by university administrators that requires students to live on campus until after their sophomore year in an attempt to create a greater sense of community ("While prestige grows," 2011). Learning communities, groups of students who take several classes together, are also becoming increasingly popular as a way to foster ties among students and to create shared experiences based on common academic content (Zhao & Kuh, 2004). Efforts to evaluate these initiatives are often limited to anecdotal reports or evaluations of a specific program or activity (MacGregor, 1991; Matthews, 1994). At times, student engagement is used as a proxy for sense of community, and universities cite a lack of participation in student organizations and programming as evidence of the absence of a sense of community (e.g., Nook & Foss, 2006). Although the present

research does provide evidence that PSOC and community involvement are related, they are certainly not equivalent.

The PSOC scale developed here, then, could provide a novel and more theoretically grounded way to evaluate a psychological sense of community in the university environment. It could be used before and after community development initiatives (e.g., participation in learning communities) to assess whether PSOC shifted as a result of participation, providing a consistent and uniform way to evaluate across many different types of initiatives. It could also be administered to new students upon entering the university and at various subsequent time points (e.g., after 6 months, in the second year, in the final year) to document changes in PSOC over the course of their experience. Those changes could then be correlated with specific behaviors, such as engagement in university activities or time spent with social networks on campus, to identify potential causes of increases or decreases in PSOC.

Limitations

As with any research, the present study is not without its limitations.

Use of a university community. The studies in this dissertation investigate psychological sense of community with respect to one type of psychological community, a university. The university community was chosen due to its increased salience in students' minds and its ability to be compared cross-culturally in the United States and Italy. Although unique in ways that will be outlined below and in the Next Steps section, a university community is still a psychological community and, thus, shares elements with other types of psychological communities: for example, like other communities,

universities provide experiences or values that unite community members and bond those members together. In this sense, identifying with a psychological community and engaging in action for the community's benefit may still be salient components of PSOC across a variety of psychological communities.

However, although results of the present studies shed light on the composition and manifestations of a psychological sense of the *university* community, it is also possible that findings may not generalize to other psychological communities. Many of the elements that comprise PSOC based on the theoretical perspective of the present research, such as feelings of belonging and connection with a group of people who have shared concerns, may automatically be present in a university community but not in other psychological communities. All students, by virtue of enrolling at the university, are automatically community members and, at the very least, share that status and experience with other students. Having this baseline may ultimately facilitate PSOC and alter PSOC's composition in a university community versus another type of psychological community in which shared membership and experience are not present by default. This idea is discussed further in the Next Steps section below.

A university community may also differ from other psychological communities in the availability of shared public spaces. Universities generally have some degree of physical space that joins members together, such as lecture halls, campus centers, common study areas, and sports stadiums. As highlighted in the research on place attachment reviewed in the Introduction, people frequently form attachments to particular places (e.g., Knez, 2005; Lalli, 1992), and the more time they spend in a particular place,

the stronger the emotional bond they form (Knez, 2005). Thus, the presence of physical spaces within a psychological community may ultimately help members form connections to that community, fostering community ties and interactions among community members in a way that communities without these physical elements do not have. Research on on-line learning and virtual classrooms, for example, has found that the physical separation of students tends to reduce their sense of community and to increase feelings of disconnect and isolation as compared to students in traditional classrooms (e.g., Besser & Donahue, 1996; Morgan & Tam, 1999; Rovai, 2002; Twigg, 1997).

Just as university communities differ from other types of psychological communities, they may also differ from each other. The environment of a public university, such as the University of Minnesota where this research was conducted, may be different from that of a liberal arts college. The latter is typically much smaller, less bureaucratic, and has more of a residential campus, all characteristics that potentially help to foster a sense of connection to the university. In fact, Lounsbury and DeNeui's (1996) findings suggest that students in small colleges of fewer than 10,000 students have a higher sense of community than do students in colleges with enrollments of 10,000 or more. Still, larger public universities generally have a more prominent sports culture, connecting members of the university community and alumni for sporting events and homecoming celebrations. Classic work by Cialdini and colleagues (1976) highlights that university students are more likely to wear university apparel and to use the pronoun *we* after their university football team's victory than after a defeat. Thus, in larger colleges or

universities, sports may play an important role in fostering community ties and helping to maintain PSOC for community members over time.

Even the two university communities studied here, the University of Minnesota and the Università Cattolica del Sacro Cuore, have unique atmospheres. American universities are flooded with ways that students can craft their images as members of that community. They can live on campus, buy t-shirts, mugs, and even key chains with school colors, and cheer for their university teams at sporting events. Just walking around an American university campus, one typically sees a large number of students wearing something with their university colors or logo. These university paraphernalia provide a way for students to reflect and demonstrate a part of themselves. In what is now a foundational article on conceptions of the self, William James (1890) highlighted that people are the sum of their possessions. Subsequent research has followed this reasoning to explore the ways in which possessions form the extended self, helping to shape a sense of oneself, one's history, and one's future (Belk, 1988), reflect the socially shared instrumental and symbolic meanings of identity, serve various functions (e.g., expressing oneself, symbolize group membership) (Dittmar, 1991), and the ways in which individuals create environments (e.g., decorating a dorm room in university colors) that reflect and subsequently shape their identities (e.g., Baumeister, 1982; Goffman, 1959; Gosling, Ko, Mannarelli, & Morris, 2002).

Universities in Italy, however, are conceived mainly for education and typically do not offer student housing, sports teams, school colors, or clothing with the university logo. Thus, Italian students do not have as many visible ways to show their affiliation

community. Yet, even in the absence of these particular ways to reinforce psychological sense of community, Italian students still possess PSOC. As will be further outlined in the underestimation of cross-cultural variations section, PSOC likely arises from different aspects of the Italian university environment, and Italian students find other ways to reinforce their identities as members of the university community.

The elements that make psychological communities unique, such as the availability of shared public spaces and ways to visibly display one's affiliation, may result in psychological sense of community being shaped differently in each one. It is an empirical question for future research to examine whether the *identification* and *action* factors that shape PSOC to the university community also hold across other psychological communities, or whether additional factors come into play depending on each community's unique characteristics. It may be that *identification* remains an important factor comprising PSOC across any psychological community because an individual-based connection is critical to form community ties. Other factors, however, and the ways in which PSOC manifests itself may depend on community characteristics, as will be outlined in more detail in the Next Steps section below.

Underestimation of cross-cultural variations. Another limitation of the present research that is worthy of note stems from the use of psychological sense of community as a predictor variable. Efforts were made to create a PSOC measure that was invariant across the United States and Italy to allow for subsequent comparisons between the two

countries. In doing so, however, some cultural variation in what constitutes psychological sense of community in each country may have been lost.

Findings from Study 1 begin to speak to this issue. Recall that two items operated differently in their measurement of the intended content for American and Italian students, pointing to potential differences in PSOC's conceptualization. Seeing themselves as part of the university community was a stronger component of students' identification with that community in the United States than in Italy, likely due to the different university environments. An obligation to work toward bettering the future for other community members seemed to be a stronger component of *action* for Italians than for Americans. Perhaps the duty invoked resonates more strongly with Italians because they are generally more used to thinking of communities in psychological terms (Mannino et al., 2011) and, thus, may be more apt to believe that community membership includes a duty to further the community's goals for the benefit of current and future generations. These two items shed light on the ways in which the measurement tool used in this research may not have adequately captured cross-cultural variations in conceptions of community. It is important, then, for future research to approach PSOC as a dependent variable to see how its composition might shift based on cultural context.

Ultimately, it may be that cross-cultural differences in PSOC are tied to properties of the psychological community's structural environment, an aspect that the present research did not fully address. As outlined previously, students at both the University of Minnesota and the Università Cattolica del Sacro Cuore exhibited a psychological sense of community despite differences between the two university environments. PSOC for

university community, such as the sports culture and plethora of university paraphernalia. These elements, however, do not exist in Italy and so PSOC must arise from other parts of the Italian university environment.

Two possible elements include mealtime and the role of religion. Food and mealtime are important parts of Italian culture (Leitch, 2003; Morgan & Sonnino, 2007; Parasecoli, 2003; Pontecorvo & Fasulo, 1999). In fact, Italy is the birthplace of slow food, a movement that promotes access to good, local food, taking pleasure in eating it, and being aware of the responsibility to protect the foods and traditions of one's culture ("Slow Food International," n.d.). It is not surprising, then, that Italian universities often schedule classes so that at least one hour can be taken for lunch, and it is common practice for students to eat lunch together in the university cafeteria (E. Marta, personal communication, November 9, 2010). This results in one hour per day, at the very least, when community members gather together and interact. In addition, Italian culture and identity center on many traditions and values associated with the Catholic religion (Fandetti & Gelfand, 1983; Jansen, 1988; Rotunno & McGoldrick, 1982). The presence of Catholicism is particularly strong at the Università Cattolica del Sacro Cuore, which is a Catholic university. Students can attend daily mass at the university chapel and there is a visible presence of nuns and priests on campus (E. Marta, personal communication, November 9, 2010). This shared religion and the emphasis it places on family, friendships, and other social relationships likely provide students with a sense of unity

and help to form the bonds they feel with other community members and the university

as a whole.

Another element of the structural environment that was not adequately assessed in this research is the interpersonal aspect of community, the actual material interactions and exchanges that individuals have within a psychological community. This may be an especially relevant component of PSOC in the Italian context. As Study 2 findings illustrate, the relationships between PSOC and its correlates were much smaller in Italy than in the United States, suggesting that some aspect of PSOC in the Italian university community was not fully captured. Most of the correlates examined, such as personality variables and self-construal, were focused on the individual. As such, they may have resonated with how PSOC is conceived in the United States, a much more individualistic culture than southern European cultures, such as Italy, that tend to be more interdependent in nature (Francescato & Tomai, 2001; Markus & Kitayama, 1991).

It may be the more interpersonal aspects of community, such as the connections and interactions one has with other members, that are at the forefront of psychological sense of community in Italy. This idea resonates with the more interdependent nature of Italy, where the self arises from and is part of an environment of strong social interconnections (e.g., Markus & Kitayama, 1991, 2003; Singelis, 1994; Singelis et al., 1995). As such, PSOC in the Italian context could be strongly correlated with more relational constructs, such as sociability or interacting well with others, and with actual interactional behaviors, such as the amount of time spent talking with other community members. Future studies may wish to further develop the PSOC scale proposed here to

include items that assess these interactional aspects of the community environment. Some sample items might include: “I enjoy interacting with other members of the community”; or “I spend a great deal of time interacting with other community members.” Adding items of this nature would more adequately tap elements of the interaction and exchange among community members that constitute communities.

Next Steps

Expanding the psychological community. Results from this line of research provide a foundation from which future work on psychological sense of community can now build. Findings point to a basic structure of PSOC, comprised of *identification* and *action*, that underlies ties to a university community. Studies should now focus on investigating PSOC with respect to other types of psychological communities to see whether this structure remains consistent or changes when altering the referent community, and to determine how changes in PSOC’s structure influence its manifestations.

Of increasing importance in today’s technological world are on-line communities such as Wikipedia or Facebook. The physical spaces that help to foster community ties in a university community are not present to the same degree on-line. Take a movie recommendations website such as MovieLens, for example. There is no physical space that can bring community members together, but they can still interact with one another and the community as a whole by logging-on to the site, browsing the movie recommendations of others, adding their own personal movie preferences, communicating with other members in chat rooms, and participating in volunteer

community may be especially relevant in this context given the nature of an on-line community. Past research has begun to examine this issue, finding that the dimensions of sense of community related to a virtual environment differ from those for a physical environment. Specifically, social processes (Blanchard & Markus, 2004) and communication patterns (Rovai, 2001) seem to take a more prominent role in virtual communities. In addition, *knowledge* may be a more critical component of PSOC in online communities, whereas it was not relevant in a university community. By virtue of being a student, one automatically knows that the university community exists. This same default is not present in on-line communities, where there is much more variation in knowledge of the community and the ability to define it.

A second psychological community that would be interesting to explore further is a religious community. In some respects, religious communities are similar to university communities as they both tend to have shared public spaces for community members to interact. However, one might argue that members of a religious community have a stronger sense of shared values and experience than members of a university community do. This shared history likely pervades many more aspects of members' lives, from the attitudes they hold to the holidays they celebrate, ultimately influencing their worldview in ways that membership in a university community does not. As such, one might hypothesize that membership in a religious community is more directly tied to constructs such as social well-being and social capital because members feel more embedded in society, more socially integrated and accepted, and are more likely to believe they

contribute to society. Findings from research in this area do suggest that members of religious communities tend to exhibit a stronger sense of community, engage in more volunteer activities (Greeley, 1997; Park & Smith, 2000; Wilson & Musick, 1997), have more extensive social networks (Taylor & Chatters, 1988; Ellison & George, 1994) and, thus, exhibit more religious capital (Park & Smith, 2000) than people who are not members. Ties to a religious community and other similar communities may pull for a *connections* factor in PSOC's structure, one that taps the extent to which individuals feel similar to other community members and perceive there to be shared experience and values among them. *Connections* may not have emerged in the university setting because most universities encourage a diversity of experiences and backgrounds. Students share the experience of being students with other community members but do not necessarily have any personal beliefs or attitudes in common.

Last, it is important for future research to also explore how community size influences PSOC's structure and manifestations. For example, a university community may be relatively small, ranging from a few hundred to several thousand people. A religious community could be thought of as comprising the regular churchgoers in a mid-size congregation or everyone around the world who adheres to the same religion. Catholics all over the world, for instance, are united by the Vatican and feel part of a larger community of worshippers. An on-line community, such as Facebook, could be larger still. Psychological sense of community in relation to a very large community that numbers in the thousands or even millions may differ from PSOC tied to a community of only a few hundred. Community size has been found to influence feelings of attachment

and universities (Lounsbury & DeNeui, 1996). Although in some settings increased size is related to a lower sense of community (e.g., Lounsbury & DeNeui, 1996), other work suggests that increasing population size does not weaken community ties (e.g., Kasarda & Janowitz, 1974). A *connections* factor, as mentioned in the previous paragraph, may be much more salient for a smaller community than for a larger one due to the greater feasibility of interacting with other community members. *Knowledge* may emerge as a key component of PSOC only for very large psychological communities, given that there are likely many more ways to define and conceptualize them. Community size could also influence the ways in which PSOC manifests itself. Taking action for the community's benefit, for instance, may be more closely tied to PSOC in a smaller community where there are concrete ways to do so. If Catholics wish to help their local church, they can donate money or help to organize a church picnic. However, engaging in prosocial action to benefit the larger community of Catholics worldwide is not as straightforward.

Expanding the sample. Just as future work on psychological sense of community should explore different types of communities, so too should it investigate people in different stages of life. University students are at a particular point in their development and may have very different ideas of community than people with greater life experience do. Individuals in their 60s, for example, have likely been members of many different psychological communities throughout their lives, potentially making them more inclined to become members and influencing how they form subsequent ties. Past work on physical communities suggests that older residents feel closer to the community and view

Chipuer, & Bramston, 2003). One could hypothesize that *knowing* a psychological community exists is an especially salient component of PSOC for people in their 20s, but not as critical for people in their 60s who are more predisposed to recognize psychological communities. Although young people may not be as inclined to recognize psychological communities, their membership in those communities and the interpersonal connections that communities afford may be particularly important to developing their sense of self in relation to others (Mead, 1934; Cooley, 1902), particularly as they struggle to shape their identity and build social relationships (Erikson, 1950).

Connections between PSOC and correlates such as social well-being and social capital may be more pronounced for older individuals given that they have had greater experience in society and more opportunities to create social ties. Studying PSOC in people of varying ages also affords the opportunity to investigate PSOC's relation to other relevant constructs, such as generativity, a concern for establishing and guiding the next generation. One would expect PSOC and generativity to be correlated in older samples, given their stage of life, but not in younger samples. Previous research suggests that as generativity concerns increase among older adults, the likelihood of volunteering increases as well (Okun & Michel, 2006).

PSOC's development. Another next step in the evolution of a solely psychological sense of community is to explore how PSOC develops and to begin to answer questions such as: What factors govern PSOC's development? Does PSOC develop faster for certain individuals than for others? Does PSOC develop in the same

way for all psychological communities, or does the process change depending on each community's characteristics? One might expect *identification* to be one of the first steps in developing PSOC. Once individuals have established a personal connection with the psychological community, they can then take *action* for the community's betterment. One could also hypothesize that PSOC develops more quickly when psychological communities have public spaces to facilitate the interactions and shared experiences that are influential in forming community ties. PSOC with respect to communities where *knowledge* is an important factor, such as on-line communities, may take longer to develop as individuals first need to become aware that the psychological community exists and then develop ties to it.

Conclusion

This dissertation research takes one step forward in examining a psychological sense of community conceived in solely psychological terms, forming the foundation for future study and expansion of knowledge in this area. In doing so, it also adds to the broader base of literature on community across a variety of disciplines and helps to bring social-psychological research to meet work in the fields of sociology, anthropology, and archeology in which shifts toward a conception of community without physical boundaries are already underway. Sociology has traditionally thought of community as a group of people who interact in a common physical location. However, even in those early definitions, evidence pointed toward more psychological elements, such as traditions, solidarity, harmony, and unity of purpose. These aspects form the basis for expanded notions of community within the discipline that remove geographic constraints

Newby, 2005). Anthropology also approaches the concept of community with emphasis on the idea that it represents a group of people joined together by commonalities, whether in social structure or shared experience. Anthropologists have traditionally examined physical communities and continue to do so; however, they have broadened their scope to include religious and on-line communities as well (Barnard & Spencer, 2002). Even archeology, in its study of social communities, conceives of community not only as a place where people used to live, but also as a group of people who interacted socially and shared similar types of material culture (e.g., types of houses or styles of pottery) (Canuto & Yaeger, 2000; Hegmon, 2002). Social-psychological research on a solely psychological sense of community complements work in these other disciplines, adding an important perspective on the individual and on the ties individuals feel to the communities in which they are members.

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Appendix A

Welcome and thank you for your interest in participating! The survey that you're about to complete will ask you to answer several questions about the idea of community. There are no right or wrong answers; we're interested in learning about your own views and experiences. Your responses will be kept *completely confidential*, so please respond candidly.

- I. The University of Minnesota community goes beyond a specific building or campus. It is a community where students, faculty, staff and alumni, no matter where they are, feel tied to others who share common experiences and have similar concerns. Please think of the University of Minnesota community in this way as you respond to the following questions.

	1 <i>Strongly Disagree</i>	2 Disagree	3 Slightly Disagree	4 <i>Neutral</i>	5 Slightly Agree	6 Agree	7 <i>Strongly Agree</i>
1. There is such a thing as the University of Minnesota community.							
2. If someone asked, I don't think I could define the University of Minnesota community.							
3. The University of Minnesota community is made up of people with different backgrounds, values, and opinions.							
4. The bonds that connect members of the University of Minnesota community are more important than what set them apart from each other.							
5. All members of the University of Minnesota community face similar challenges.							
6. I feel a sense of attachment and belonging to the							

University of Minnesota community.							
7. I don't identify with the University of Minnesota community.							
8. I feel strong ties to the University of Minnesota community.							
9. In general being a member of the University of Minnesota community is an important part of what defines me.							
10. I don't see myself as being a part of the University of Minnesota community.							
11. I am similar to other members of the University of Minnesota community.							
12. It is very important for me to feel connected to the University of Minnesota community.							
13. I am not usually conscious of the fact that I am a member of the University of Minnesota community.							
14. If someone I did not know within the University of Minnesota community had an emergency, I would be willing to help.							
15. The University of Minnesota community becomes stronger when members share their knowledge and resources with one							

another.							
16. I don't think that members of the University of Minnesota community have an obligation to work together to help other members.							
17. I am invested in the University of Minnesota community.							
18. The success of the University of Minnesota community doesn't depend on members working together.							
19. Through their actions, members of the University of Minnesota community can have a positive effect on the future of their community.							
20. Members of the University of Minnesota community should work to create a better future for its members.							

II. Next, please answer these few questions about yourself.

- a. What is your gender? _____
 - i. Male
 - ii. Female
- b. How old are you? _____
- c. What year are you in school? _____
- d. What is your area of study? _____

- e. What is your religion?
 - i. Catholic
 - ii. Muslim
 - iii. Hindu
 - iv. Buddhist
 - v. Jewish
 - vi. Atheist
 - vii. No religion
 - viii. Other (please write in) _____

- f. What is your racial and/or ethnic background?
 - i. White, Caucasian, European, non-Hispanic
 - ii. Asian, Asian American
 - iii. Middle Eastern
 - iv. Black
 - v. North African
 - vi. Hispanic or Latino/a
 - vii. Mixed (parents are from 2 different groups)
 - viii. Others (please write in) _____

III. Sometimes community is defined in a *physical* sense, a specific building, place or geographic location with clear physical boundaries. Other times community can be described as something more *psychological*, going beyond physical boundaries to include the ties someone feels to other people who have similar concerns. Do you think the University of Minnesota community fits best under a physical or a psychological definition of community? (Please click one)

- Physical Community
- Psychological Community

Thank you for participating!

Appendix B

Welcome and thank you for your interest in participating! The survey that you’re about to complete will ask you to answer several questions about yourself, your beliefs, and social preferences about interacting with others. There are no right or wrong answers; we’re interested in learning about your own views and experiences. Your responses will be kept *completely confidential*, so please respond candidly.

The first series of questions ask about your preferences with respect to the University of Minnesota community.

- I.** The University of Minnesota community goes beyond a specific building or campus. It is a community where students, faculty, staff and alumni, no matter where they are, feel tied to others who share common experiences and have similar concerns. Please think of the University of Minnesota community in this way as you respond to the following questions.

	1 <i>Strongly Disagree</i>	2 Disagree	3 Slightly Disagree	4 <i>Neutral</i>	5 Slightly Agree	6 Agree	7 <i>Strongly Agree</i>
1. If someone asked, I don't think I could define the University of Minnesota community.							
2. I feel strong ties to the University of Minnesota community.							
3. I am invested in the University of Minnesota community.							
4. The University of Minnesota community becomes stronger when members share their knowledge and resources with one another.							
5. I don't think that members of the University of Minnesota							

community have an obligation to work together to help other members.							
6. Through their actions, members of the University of Minnesota community can have a positive effect on the future of their community.							

II. How involved are you in campus activities (e.g., sports teams, organizations)?

1	2	3	4	5	6	7
Not at all						Very
Involved						Involved

III. How often do you attend university-sponsored events (e.g., fairs, sports events, movies)?

1	2	3	4	5	6	7
Never						Very
						often

IV. On an average day, how much time do you spend on campus?

- a. 0-2 hours
- b. 2-4 hours
- c. 4-6 hours
- d. 6-8 hours
- e. 8-10 hours
- f. 10-12 hours
- g. 12-14 hours
- h. More than 14 hours

The next series of questions ask about you, as well as your opinions and preferences on various topics.

V. Please read the following statements and decide how much you agree with each.

	1 Strongly disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly agree
1. I enjoy hearing about multiple viewpoints on a particular issue.	1	2	3	4	5	6	7

2. I'm comfortable expressing my view to people who have a different opinion on an issue than I do.	1	2	3	4	5	6	7
3. It's interesting to learn about different viewpoints on a particular issue.	1	2	3	4	5	6	7
4. I enjoy expressing my point of view on an issue to people.	1	2	3	4	5	6	7
5. I'm comfortable engaging in discussions with someone who disagrees with me about an issue.	1	2	3	4	5	6	7
6. I'm comfortable learning about someone else's point of view on a particular issue.	1	2	3	4	5	6	7
7. I'm comfortable expressing different views to people regardless of whether others are open to hearing it.	1	2	3	4	5	6	7
8. I enjoy reading about different views on a particular issue.	1	2	3	4	5	6	7
9. I'm comfortable hearing about someone else's view on an issue, even when I disagree with it.	1	2	3	4	5	6	7
10. I enjoy learning about both sides of an issue.	1	2	3	4	5	6	7

VI. Below are a number of characteristics that may or may not apply to you. Please decide how much you agree with each.

I see myself as *someone who ...*

	1 Strongly disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly agree
1. is talkative	1	2	3	4	5	6	7
2. tends to find fault with others	1	2	3	4	5	6	7
3. is helpful and unselfish with others	1	2	3	4	5	6	7
4. is reserved	1	2	3	4	5	6	7
5. is full of energy	1	2	3	4	5	6	7
6. starts quarrels with others	1	2	3	4	5	6	7
7. has a forgiving nature	1	2	3	4	5	6	7
8. generates a lot of enthusiasm	1	2	3	4	5	6	7
9. tends to be quiet	1	2	3	4	5	6	7
10. can be cold and aloof	1	2	3	4	5	6	7
11. is generally trusting	1	2	3	4	5	6	7
12. has an assertive personality	1	2	3	4	5	6	7
13. is considerate and kind to almost everyone	1	2	3	4	5	6	7
14. is sometimes shy, inhibited	1	2	3	4	5	6	7
15. is outgoing, sociable	1	2	3	4	5	6	7

16. is sometimes rude to others	1	2	3	4	5	6	7
17. likes to cooperate with others	1	2	3	4	5	6	7

VII. Below are a number of statements that may or may not describe you, your feelings, or your behavior. Please read each statement carefully. There are no right or wrong responses.

	1 Strongly disagree	2 Disagree	3 Uncertain	4 Agree	5 Strongly Agree
1. When people are nasty to me, I feel very little responsibility to treat them well	1	2	3	4	5
2. I sometimes find it difficult to see things from the "other person's" point of view	1	2	3	4	5
3. I would feel less bothered about leaving litter in a dirty park than in a clean one	1	2	3	4	5
4. When I see someone being taken advantage of, I feel kind of protective towards them	1	2	3	4	5
5. No matter what a person has done to us, there is no excuse for taking advantage of them	1	2	3	4	5
6. I sometimes try to understand my friends better by imagining how things look from their perspective	1	2	3	4	5
7. With the pressure for grades and the widespread cheating in school nowadays, the individual who cheats occasionally is not really as much at fault	1	2	3	4	5
8. Other people's misfortunes do not usually disturb me a great deal	1	2	3	4	5
9. It doesn't make much sense to be very concerned about how we act when we are sick and feeling miserable	1	2	3	4	5

10. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments	1	2	3	4	5
11. If I broke a machine through mishandling, I would feel less guilty if it was already damaged before I used it	1	2	3	4	5
12. When I see someone being treated unfairly, I sometimes don't feel very much pity for them	1	2	3	4	5
13. When you have a job to do, it is impossible to look out for everybody's best interest	1	2	3	4	5
14. I am often quite touched by things that I see happen	1	2	3	4	5
15. I believe that there are two sides to every question and try to look at them both	1	2	3	4	5
16. When I'm upset at someone, I usually try to "put myself in their shoes" for a while	1	2	3	4	5

VIII. Listed below are a number of statements that ask about a variety of feelings and behaviors in various situations. Read each one as if it referred to you.

	1 Strongly disagree	2 Disagree	3 Some what disagree	4 Don't agree or disagree	5 Agree some what	6 Agree	7 Strongly agree
1. I enjoy being unique and different from others in many respects	1	2	3	4	5	6	7
2. Even when I strongly disagree with group members, I avoid an argument	1	2	3	4	5	6	7
3. I do my own thing, regardless of what others think	1	2	3	4	5	6	7
4. I feel it is important for me to act as an independent person	1	2	3	4	5	6	7
5. I will sacrifice my self interest for the benefit of the group I am in	1	2	3	4	5	6	7

6. I'd rather say "No" directly, than risk being misunderstood	1	2	3	4	5	6	7
7. I prefer to be direct and forthright when dealing with people I've just met	1	2	3	4	5	6	7
8. I feel good when I cooperate with others	1	2	3	4	5	6	7
9. I often have the feeling that my relationships with others are more important than my own accomplishments	1	2	3	4	5	6	7
10. Speaking up during a class (or a meeting) is not a problem for me	1	2	3	4	5	6	7
11. My happiness depends on the happiness of those around me	1	2	3	4	5	6	7
12. I will stay in a group if they need me, even when I am not happy with the group	1	2	3	4	5	6	7
13. I try to do what is best for me, regardless of how that might affect others	1	2	3	4	5	6	7
14. It is important to me to respect decisions made by the group	1	2	3	4	5	6	7
15. My personal identity, independent of others, is very important to me	1	2	3	4	5	6	7
16. It is important for me to maintain harmony within my group	1	2	3	4	5	6	7
17. I usually go along with what others want to do, even when I would rather do something different	1	2	3	4	5	6	7

IX. Please read each statement carefully and indicate how much the statement is true of you.

	0 Not at all true of me	1	2 Slightly true of me	3	4 Quite true of me	5	6 Extre mely true of me
1. My beliefs about myself often conflict with one another	0	1	2	3	4	5	6

2. On one day I might have one opinion about myself and on another day I might have a different opinion	0	1	2	3	4	5	6
3. I spend a lot of time wondering about what kind of person I really am	0	1	2	3	4	5	6
4. Sometimes I feel that I am not really the person that I appear to be	0	1	2	3	4	5	6
5. When I think about the kind of person I have been in the past, I'm not sure what I was really like	0	1	2	3	4	5	6
6. I seldom experience conflict between the different aspects of my personality	0	1	2	3	4	5	6
7. Sometimes I think I know other people better than I know myself	0	1	2	3	4	5	6
8. My beliefs about myself seem to change very frequently	0	1	2	3	4	5	6
9. If I were asked to describe my personality, my description might end up being different from one day to another day	0	1	2	3	4	5	6
10. Even if I wanted to, I don't think I would tell someone what I'm really like	0	1	2	3	4	5	6
11. In general, I have a clear sense of who I am and what I am	0	1	2	3	4	5	6
12. It is often hard for me to make up my mind about things because I don't really know what I want	0	1	2	3	4	5	6

X. Please rate your agreement with the following items.

	1 Strongly disagree	2 Disagree	3 Somewhat disagree	4 Don't agree or disagree	5 Agree somewhat	6 Agree	7 Strongly agree
1. I feel that I have the power to change the course of my life	1	2	3	4	5	6	7
2. I feel competent	1	2	3	4	5	6	7
3. I feel empowered	1	2	3	4	5	6	7
4. I feel that I have the abilities to contribute to my community	1	2	3	4	5	6	7

XI. For each of the statements below, please indicate the degree to which you agree or disagree.

- 1 = Strongly disagree
 2 = Moderately disagree
 3 = Neither agree nor disagree
 4 = Moderately agree
 5 = Strongly agree

- _____ 1. If other people don't seem to accept me, I don't let it bother me.
- _____ 2. I try hard not to do things that will make other people avoid or reject me.
- _____ 3. I seldom worry about whether other people care about me.
- _____ 4. I need to feel that there are people I can turn to in times of need.
- _____ 5. I want other people to accept me.
- _____ 6. I do not like being alone.
- _____ 7. Being apart from my friends for long periods of time does not bother me.
- _____ 8. I have a strong need to belong.
- _____ 9. It bothers me a great deal when I am not included in other people's plans.
- _____ 10. My feelings are easily hurt when I feel that others do not accept me.

XII. The following questions ask about your views toward your community and society. Remember that there are no right or wrong answers, and that your responses will be kept completely confidential

	1 No, not much No, not at all	2	3	4 Yes, definitely Yes, frequently
1. Have you ever picked up other people's rubbish in a public place?	1	2	3	4
2. Do you go outside your local community to visit your family or friends?	1	2	3	4
3. If you need information to make a life decision, do you know where to find that information?	1	2	3	4
4. If you disagree with what everyone else agreed on, would you feel free to speak out?	1	2	3	4
5. Do you feel safe walking down your street after dark?	1	2	3	4
6. Do you agree that most people can be trusted?	1	2	3	4
7. Does your area have a reputation for being a safe place?	1	2	3	4
8. Does your local community feel like a home?	1	2	3	4
9. Can you get help from friends when you need it?	1	2	3	4
10. When you go shopping in your local area are you likely to run into friends and acquaintances?	1	2	3	4
11. In the past week, how many phone conversations have you had with friends?	1	2	3	4
12. How many people did you talk to yesterday?	1	2	3	4
13. Over the weekend do you have lunch/dinner with other people outside your household?	1	2	3	4

XIII. Please read the following statements and indicate your level of agreement with them.

	1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree
1. I don't feel I belong to anything I'd call a community	1	2	3	4	5
2. People who do a favor expect nothing in return	1	2	3	4	5
3. I have something valuable to give to the world	1	2	3	4	5
4. The world is becoming a better place for everyone	1	2	3	4	5
5. The world is too complex for me	1	2	3	4	5
6. I feel close to other people in my community	1	2	3	4	5
7. People do not care about other people's problems	1	2	3	4	5
8. My daily activities do not produce anything worthwhile for my community	1	2	3	4	5
9. Society has stopped making progress	1	2	3	4	5
10. I cannot make sense of what's going on in the world	1	2	3	4	5
11. My community is a source of comfort	1	2	3	4	5
12. I believe that people are kind	1	2	3	4	5
13. I have nothing important to contribute to society	1	2	3	4	5
14. Society isn't improving for people like me	1	2	3	4	5
15. I find it easy to predict what will happen next in society	1	2	3	4	5

think the University of Minnesota community fits best under a physical or a psychological definition of community? (Please click one)

- Physical Community
- Psychological Community

XVIII. The following section contains a few questions about yourself.

1. Your age:
 - a. 18
 - b. 19
 - c. 20
 - d. 21
 - e. 22
 - f. Other, please specify

2. Your gender: male
 female

3. Your religion:
 - a. No Religion
 - b. Buddhist
 - c. Protestant
 - d. Hindu
 - e. Jewish
 - f. Mormon
 - g. Evangelical
 - h. Catholic
 - i. Muslim
 - j. Atheist
 - k. Other _____

4. What is your racial and/or ethnic background?
 - a. White, Caucasian, European, non Hispanic
 - b. Asian, Asian American
 - c. Black or African American
 - d. Hispanic or Latino/a
 - e. American Indian
 - f. Mixed (parents are from 2 different groups)
 - g. Other (please write in) _____

5. What is your major? If you have not declared a major yet, what are you thinking of majoring in? _____

Welcome and thank you for your interest in participating! The survey that you're about to complete will ask you to answer several questions about yourself, your beliefs, and your behaviors (e.g., volunteer activities). There are no right or wrong answers; we're interested in learning about your own views and experiences. Your responses will be kept *completely confidential*, so please respond candidly.

- I. The University of Minnesota community goes beyond a specific building or campus. It is a community where students, faculty, staff and alumni, no matter where they are, feel tied to others who share common experiences and have similar concerns. Please think of the University of Minnesota community in this way as you respond to the following questions.

	1 <i>Strongly Disagree</i>	2 Disagree	3 Slightly Disagree	4 <i>Neutral</i>	5 Slightly Agree	6 Agree	7 <i>Strongly Agree</i>
1. If someone asked, I don't think I could define the University of Minnesota community.							
2. I feel strong ties to the University of Minnesota community.							
3. I am invested in the University of Minnesota community.							
4. The University of Minnesota community becomes stronger when members share their knowledge and resources with one another.							
5. I don't think that members of the University of Minnesota community have an obligation to work							

together to help other members.							
6. Through their actions, members of the University of Minnesota community can have a positive effect on the future of their community.							

II. How many members of your family engage in some kind of volunteer activity (e.g., helping a neighbor, tutoring children)?

- | | | | | | | |
|------|---|---|---|---|---|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| None | | | | | | All |

III. How many of your friends engage in some kind of volunteer activity (e.g., helping a neighbor, tutoring children)?

- | | | | | | | |
|------|---|---|---|---|---|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| None | | | | | | All |

IV. Please indicate how much you agree or disagree with the following statements, using the scale below.

- | | | | | |
|-------------------|-------------------|----------------------------|----------------|----------------|
| 1 | 2 | 3 | 4 | 5 |
| Strongly disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Strongly agree |

1. My parents taught me to help others, especially those who are less fortunate.
2. My parents are saddened by the injustice and wickedness of others.
3. My parents taught me to be attentive to the feelings and needs of others.
4. My parents taught me to pay attention to the needs of others, not just my own.
5. In my house we often talk about politics or current events.
6. My parents talk with me about current events.
7. I share my opinion about current events with my parents.
8. I'm interested in current events.
9. Sometimes my opinions on current events are different than those of my parents.
10. I often discuss current events with my parents.

V. When you think about your life and your future, how much is it important for you to:

1	2	3	4	5
Not at all				A great deal

- | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 1. Contribute to your country | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Do something to better society | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Be active in politics | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Do something for people less fortunate than you | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Have compassion for people in difficulty | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Help others | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Do something for a cause that's important to you | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

VI. Below are a number of statements that may or may not describe you, your feelings, or your behavior. Please read each statement carefully. There are no right or wrong responses.

	1 Strongly disagree	2 Disagree	3 Uncertain	4 Agree	5 Strongly Agree
1. When people are nasty to me, I feel very little responsibility to treat them well					
2. I sometimes find it difficult to see things from the "other person's" point of view					
3. I would feel less bothered about leaving litter in a dirty park than in a clean one					
4. When I see someone being taken advantage of, I feel kind of protective towards them					
5. No matter what a person has done to us, there is no excuse for taking advantage of them					
6. I sometimes try to understand my friends better by imagining how things look from their perspective					
7. With the pressure for grades and the widespread cheating in school					

nowadays, the individual who cheats occasionally is not really as much at fault					
8. Other people’s misfortunes do not usually disturb me a great deal					
9. It doesn’t make much sense to be very concerned about how we act when we are sick and feeling miserable					
10. If I’m sure I’m right about something, I don’t waste much time listening to other people’s arguments					
11. If I broke a machine through mishandling, I would feel less guilty if it was already damaged before I used it					
12. When I see someone being treated unfairly, I sometimes don’t feel very much pity for them					
13. When you have a job to do, it is impossible to look out for everybody’s best interest					
14. I am often quite touched by things that I see happen					
15. I believe that there are two sides to every question and try to look at them both					
16. When I’m upset at someone, I usually try to “put myself in their shoes” for a while					

VII. How involved have you been in volunteer activities within the past two years?

1	2	3	4	5	6	7
Not at all						Very
Involved						Involved

VIII. *Audio Conversations and follow-up questions*

IX. Please indicate how likely you are to do the following activities:

1	2	3	4	5
Not at all likely				Very likely

- | | 1 | 2 | 3 | 4 | 5 |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Give money to a social or political campaign | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Participate in a protest demonstration | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Be involved in a political group | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Work with others to resolve social or community problems | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Stay informed about the national news and social problems | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Contact a national or local government organization | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Be elected to an organization or political party | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Recycle | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. Participate in actions that help to protect the environment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

X. How many concrete favors or services are you likely to offer to:

1	2	3	4	5
None				A great deal

- | | 1 | 2 | 3 | 4 | 5 |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Other members of the University of Minnesota community | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

XI. How interested are you in being involved in campus activities (e.g., student groups, sports teams)?

- | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------|---|---|---|---|---|-----------------|
| Not at all interested | | | | | | Very interested |

XII. Within the next year, how involved are you likely to be in campus activities (e.g., student groups, sports teams)?

- | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------------------|---|---|---|---|---|---------------|
| Not at all Involved | | | | | | Very Involved |

XIII. How interested are you in participating in volunteer activities on campus (e.g., helping out at campus events)?

- | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------|---|---|---|---|---|-----------------|
| Not at all interested | | | | | | Very interested |

XIV. Within the next year, how involved are you likely to be in volunteer activities on campus (e.g., helping out at campus events)?

1	2	3	4	5	6	7
Not at all						Very
Involved						Involved

XV. How interested are you in attending university-sponsored events (e.g., fairs, sports events, movies)?

1	2	3	4	5	6	7
Not at all						Very
interested						interested

XVI. Within the next year, how often are you likely to attend university-sponsored events (e.g., fairs, sports events, movies)?

1	2	3	4	5	6	7
Never						Very
						Often

XVII. Sometimes community is defined in a *physical* sense, a specific building, place or geographic location with clear physical boundaries. Other times community can be described as something more *psychological*, going beyond physical boundaries to include the ties someone feels to other people who have similar concerns. Do you think the University of Minnesota community fits best under a physical or a psychological definition of community? (Please click one)

- Physical Community
- Psychological Community

XVIII. The following section contains a few questions about yourself.

1. Your age:
 - a. 18
 - b. 19
 - c. 20
 - d. 21
 - e. 22
 - f. 23
 - g. Other (please indicate): _____

2. Your gender:
 - male
 - female

3. Your religion:

- a. No Religion
- b. Buddhist
- c. Protestant
- d. Hindu
- e. Jewish
- f. Mormon
- g. Evangelical
- h. Catholic
- i. Muslim
- j. Atheist
- k. Other _____

4. What is your racial and/or ethnic background?

- a. White, Caucasian, European, non Hispanic
- b. Asian, Asian American
- c. Black or African American
- d. Hispanic or Latino/a
- e. American Indian
- f. Mixed (parents are from 2 different groups)
- g. Other (please write in) _____

5. What is your major? If you have not declared a major yet, what are you thinking of majoring in? _____

Text for Experimental Group

Katie: Hey Ben, how's it going?

Ben: Great, how about you?

Katie: Good, thanks. (pause)

Researcher: *Ok, we're ready to get started. Go ahead and talk for a few minutes about one of your classes. (pause).*

Ben: Ok, so I guess we're supposed to talk for the next few minutes about one of our classes.

Katie: Yeah, let's see (pause). Hmm ... actually, I'm reading this really cool book in one of my classes called *Bowling Alone*. Have you heard of it?

Ben: No, what's it about?

Katie: It talks about feelings of community in the U.S. and how connected we feel to people like our family, friends and neighbors compared to people in the past.

Ben: Oh, interesting. It kinda reminds me of something we just learned in one of my psych classes. Um ... I think it's called psychological sense of community or something. Anyways, it's this idea that we feel connected to other people who have similar experiences or interests as we do, even if we don't live in the same place or are around each other much.

Katie: Yeah, that totally sounds like what the book is talking about. So you could kinda say that something like Facebook could be considered a psychological community then, right? I mean, it helps me stay connected with people, like my friends from high school, that I only really see when I'm home for holidays. We don't live in the same place anymore, but we went to high school together so we kind of always have that in common.

Ben: Definitely. You could probably also think about the UofM as a psychological community. I would say that I feel tied to people here even though we don't live in the same place or come from the same town. But we all share the experience of being students here. Actually, I just read in the Daily that the majority of undergrads at the U think of it as a community and feel tied to the school and people here.

Katie: Oh yeah, I read that article too. I thought it was cool. I mean, I would definitely say that I agree. I know a lot of alumni that feel the same way too. Like my sister, she graduated 5 years ago from here and still wears her gopher sweatshirt everywhere (laughs).

Ben: (laughs) Yeah, I know a lot of people like that too. (pause)

Researcher: *Ok, time's up. You can go ahead and stop your conversation now.*

Katie: Hey Ben! How's it going?

Ben: Great, how about you?

Katie: Good, thanks. (pause)

Researcher: *Ok, we're ready to get started. Go ahead and talk for a few minutes about one of your classes. (pause).*

Ben: Ok, so I guess we're supposed to talk for the next few minutes about one of our classes.

Katie: Yeah, let's see (pause). Hmm ... actually, I'm reading this really cool book in one of my classes called *The Mind's Eye*. Have you heard of it?

Ben: No, what's it about?

Katie: It talks about language and communication and what happens when people lose a major ability, like not being able to see or speak anymore.

Ben: Oh, interesting. It kinda reminds me of something we just learned in one of my psych classes. Um ... I think it's called Broca's aphasia or something. Anyways, it's this idea that people can understand what words mean but they can't actually speak. Like, they could read something and understand what they read but couldn't explain it to someone.

Katie: Yeah, that totally sounds like what the book is talking about. It describes people with that and other people, like this one woman who was a concert pianist but suddenly couldn't read music anymore and this writer who worked to keep writing after he lost his ability to read. There are some really bizarre stories but it was cool to read them and see what happens in the brain and with our vision and stuff.

Ben: Definitely. You could probably also think about things related to perception too. Like all those visual illusions where you think that one line is longer than the other but it's really not. Or the pictures where you can either see a vase or a woman's face, depending on how you look at it. Actually, I just read in the Daily that the majority of undergrads at the U are totally fooled by those illusions, especially the line ones.

Katie: Oh yeah, I read that article too. I thought it was cool. I mean, I would definitely say that I agree. Even though I learned about those things in some of my classes and really should remember them I still get fooled every time (laughs).

Ben: (laughs). Yeah, I know a lot of people like that too. (pause)

Researcher: *Ok, time's up. You can go ahead and stop your conversation now.*