Promoting Gender Equality: The Role of Ideology, Power, and Control in the Link Between Land Ownership and Violence in Nicaragua

Shelly Grabe*
University of California-Santa Cruz

Scholars have argued that institutional inequities and control over resources are linked to gender-based violence. However, psychologists have yet to reposition their research questions to examine how structural inequities lead to power imbalances and gender-based norms that perpetuate threats to women’s health and safety. This study provides a theoretical framework for, and an examination of, hypotheses surrounding the role of land ownership in shifting gender relations and women’s receipt of violence that have been posed in the literature but never empirically tested. Surveys conducted in rural Nicaragua revealed that land ownership among women challenges traditional gender ideology and increases women’s power and control within the marital relationship, which in turn, reduces levels of violence. The findings have important implications for the discussion of gender-based violence in the context of development and for initiatives that can lead to more equitable policies for women. The study puts psychology at the crossroads of women’s human rights, globalization, and social change by putting forth a novel

*Corresponding concerning this article should be addressed to Shelly Grabe, Department of Psychology, University of California-Santa Cruz, Santa Cruz, CA 95064 [e-mail: sgrabe@ucsc.edu].

This collaborative project brought together science and grass roots community advocacy. The researcher’s expertise ensured theoretically grounded, sound methodology. The community collaborators’ expertise ensured cultural sensitivity and community relevance. Each member of the team served an absolutely critical role. Invaluable contributions were made by: the women of the Xochilt-Acalt women’s center; the CIERUNIC S.A. research team; the suggestions, tireless translation, and support provided by Anne McSweeney; the dedicated assistance of Juan Pastor Solis Rojas; the translation and commitment of Helen Dixon; the professional support from Sonia Arguto at FIDEG; the advice provided by the Red de Mujeres Contra la Violencia; and, most certainly, the innovation, inspiration, and undying commitment to the women’s movement in Nicaragua of Carlos Arenas at WCCN. This research was supported by a National Science Foundation grant (OISE-0714697) to Shelly Grabe.
model for understanding inequality and providing an empirical framework for social justice.

People, especially poor women, are capable of promoting their own development if their own efforts and initiatives are recognized and supported. The first steps must be to build the ‘infrastructures,’ the context in which women can feel some sense of control over their lives. (Antrobus, 1987, p. 112).

Violence against women is the most pervasive human rights violation in the world (UNIFEM, 2006). Domestic violence in particular has become widely recognized internationally as a serious problem with grave implications for the physical and psychological well-being of women (WHO, 2005). Women’s rights over the health and safety of their bodies have therefore become a topic of increasing concern for organizations as large as the World Health Organization (WHO) and the United Nations (UN). As such, numerous international agencies and development practitioners have devoted their resources to gender-based interventions aimed at increasing women’s empowerment and safety surrounding the body (Narayan, 2005). Nevertheless, rates of violence continue unabated, despite widespread commitments internationally to draw increased attention to the prevalence and consequences of control over and violation of women’s bodies. For example, at a UN conference in 1995, 189 governments adopted the Beijing Platform for Action, an international agenda for women’s empowerment and a statement of women’s rights as human rights (UN, 1995). The mission statement of the Platform states:

The Platform for Action is an agenda for women’s empowerment. It aims at accelerating the implementation of the Nairobi Forward-looking Strategies for the Advancement of Women and at removing all the obstacles to women’s active participation in all spheres of public and private life through a full and equal share in economic, social, cultural and political decision-making. This means that the principle of shared power and responsibility should be established between women and men at home, in the workplace and in the wider national and international communities. Equality between women and men is a matter of human rights and a condition for social justice and is also a necessary and fundamental prerequisite for equality, development and peace. A transformed partnership based on equality between women and men is a condition for people-centered sustainable development. A sustained and long-term commitment is essential, so that women and men can work together for themselves, for their children and for society to meet the challenges of the twenty-first century.

Why, then, despite an international agenda for women’s empowerment and recognition of women’s rights as human rights, do egregious violations of women’s rights still occur? Although great strides have been made in raising awareness of gender-based violence, efforts to curb violence against women have been limited in part because existing research has not adequately investigated the structural inequities that may determine women’s status and ultimately perpetuate a system of gender-based violence and risk. Because violence represents a societal problem
requiring changes in gender-role ideology and social structures that perpetuate gender hierarchy (Ozner & Bandura, 1990), social psychological investigation into structures by which violence against women is supported and sustained is necessary. In response to this need, the current study offers a theoretical framework and empirical investigation into the structural inequities that legitimate and maintain power imbalances that subordinate women and threaten the health and safety of their bodies. Taking a critical view of how structural inequities perpetuate a system of gender-based violence requires that psychologists position their research questions to include an examination of institutional resources as opposed to a more common focus on individual level variables (Glick & Fiske, 1999).

Rapidly changing conditions in the restructuring of resources in “developing” countries (in particular, land tenure) provide a perfect context for an analysis of social structures that reflect dominant roles and elevated status that may, in turn, severely limit the amount of control women can exercise over their own bodies. In particular, the disruptive consequences of the economic policies of the 1980s and 1990s introduced or exacerbated several structural factors that have contributed to rising levels of gender inequity and marginalization (Naples & Desai, 2002). This has been especially visible within the area of property rights, with pervasive gender inequities in land ownership, in particular, being recognized as a violation of women’s human rights (Pena, Maiques, & Castillo, 2008). The current study investigates how land ownership contributes to a system in which female subordination is sustained and reproduced, thereby increasing women’s risk of violence. Until recently, these two major violations of women’s rights—gender-based violence and property rights—have been addressed independent of each other, with little work investigating the connection between possession of land and women’s ability to assert nonmaterial rights (Pena et al., 2008). The current study examines whether ownership of land interrupts the process by which men and women come to view women’s bodies as objects that can be dominated through the use of violence. This study also investigates the mechanisms that can help explain how and why land ownership leads to decreased violence among women. Given that work of this nature has not been conducted before, this investigation pushes the boundaries of psychology in an original way by examining a process

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1 According to the UN, there is no singularly recognized definition of a developed country. Former Secretary General Kofi Annan defined a developed country as “one that allows all of its citizens to enjoy a free and healthy life in a safe environment.” Given that many industrialized countries do not meet these criteria, and that the terms developed, underdeveloped, and developing are often used by so-called “First World” nations to describe the relatively low economic well-being of another country in a manner that implies inferiority, when used in this article these terms will appear in quotations to reflect the problematic nature discussed here.

2 I recognize the overall problematic nature of land privatization in many countries, but argue that there is a great deal to be gained in the area of women’s physical and psychological well-being by implementing women’s rights in a context where development practitioners are focused on allocating resources in a manner that typically exacerbates existing power differentials.
that has direct implications for policies aimed at improving women’s safety and well-being.

**Land Ownership: Power and Dominance**

The theory of gender and power (Connell, 1987) postulates that gender-based inequalities are pervasive societal characteristics that result in men’s disproportionate power in society and control over a number of areas, including women’s bodies. Indeed, institutionalized structural inequities in the distribution of resources contribute to power imbalances and gender-based norms that create a risk environment that legitimizes and perpetuates women’s subordinate status and adversely influences their health and safety (Deshmukh-Ranadive, 2005; Glick & Fiske, 1999; Jenkins, 2000; Wingood & DiClemente, 2000). Because customary norms and practices throughout most of the world recognize the male head of household as the main authority figure and principle owner of land assets, land ownership in “developing” countries reflects dominant roles and elevated status in society and is a sign of power and dominance (Deere & Leon, 2001; Palmer, 2008; Pena et al., 2008).

Therefore, in Latin America, and other “developing” regions, systematic differences in land ownership may contribute to high rates of domestic violence among women. Scholars have long asserted that violence against women must no longer be examined as an individual private experience but as a systematic problem that is institutionalized throughout societies (Russo, 2001). Yet, to date, much of the research into domestic violence is highly skewed toward investigating individual and relational factors rather than societal factors that influence women’s vulnerability to violence (Heise & Garcia-Moreno, 2002).

In one notable exception, a link between property rights and gender-based violence was first introduced into the economics literature in 1994, with the suggestion that formalizing property in a woman’s name could lead to beneficial transformations in gender relations (Agarwal, 1994). Over a decade later, the first and only published survey in this area found that in Kerala, India, as many as 49% of women who did not own property suffered long-term physical violence, compared with 18% and 10%, respectively, of those who owned either land or a house, and 7% of those who owned both assets (Panda & Agarwal, 2005). The authors suggest that owning land provides women with economic security and a tangible exit option to escape violent partners. However, a wealth of research in psychology suggests that a number of factors unrelated to economic status prevent women from leaving violent relationships (e.g., fear of retaliation; Hendy et al., 2003). In fact, the Kerala study reported that levels of violence did not differ between women who were regularly employed, seasonally employed, or unemployed, suggesting that land ownership provided a different kind of security than did employment. These findings support the notion that it is not solely economic freedom that results in
reduced receipt of domestic violence. On the contrary, the findings suggest that eliminating the practice of violence against women requires changes that extend beyond economic opportunity and are focused, rather, on structural factors, such as land ownership.

In 2006, economists from the International Center for Research on Women (ICRW) expanded on Panda and Agarwal (2005) research through qualitative interviews with women landowners in Kerala and West Bengal to examine the role of land in women’s receipt of violence. They suggested that property ownership extended women’s negotiating power within the marital relationship and their ability to confront subordination, thereby decreasing levels of domestic violence. However, a major limitation of these investigations in South Asia is that they were in communities where bilateral property ownership was the norm. Female ownership of land did not necessarily challenge existing gender attitudes and roles. Nevertheless, these studies put forth a framework for investigating the link between land ownership and women’s receipt of violence. Yet, this line of inquiry remains largely underexplored, and there has been no investigation of this topic in other “developing” regions, particularly in Latin America, where land reform has received considerable attention. Inquiries in this area also have largely been dominated by economists, with virtually no attention given to the social psychological mechanisms that may explain the link between land and violence.

**Mechanisms Linking Land Ownership to Violence**

Being able to hold property and to exert enough control over one’s body to be secure from violence are two of the ten primary capabilities Martha Nussbaum (2000) puts forth to define true human functioning or a life worthy of dignity. Nussbaum argues that the structure of social and political institutions should be established, in part, to promote at least a threshold level of these human capabilities, such that basic rights become institutionalized so that everyone has the opportunity—or is capable—of realizing their rights. In the past two decades, this view has become incorporated into the development community, and it has become accepted to evaluate development in terms of human capabilities and enhanced well-being (Nussbaum & Sen, 1993; Sen, 1999).

Indeed, the increasing recognition in the development discourse regarding women’s rights has led to a proliferation of programs aimed at promoting women’s capabilities. The inclusion of women in development programs has largely come through the focus of income-generating programs—most notably microcredit loaning (Goetz & Gupta, 1996; Kabeer, 2005). Although the income generation that stems from microcredit loans may improve a household’s economic status, women’s receipt of the loan, or the labor associated with the loan, does little to diversify women’s labor, resulting in an adherence to a traditional occupational structure that sustains male dominance (Kabeer, 1994, 2001). In a review of credit
programs in Bangladesh, 63% of female loan holders reported having only partial, very limited, or no control over the loans they had procured (Goetz & Gupta, 1996). Effectively targeting poverty may ensure that short-term, material needs are met but may not alter women’s status or effectively give them voice in their relationships or their community (Kabeer, 1994). Several scholars have argued that expanding women’s control of resources, such as through land ownership, may be one way of altering women’s status and addressing unbalanced power relations between women and men (Agarwal, 1994; Deere & Leon, 2001; Razavi, 1999; Wieringa, 1994).

Although inequitable access to resources may provide the material structures through which imbalances in power are sustained, such structures alone cannot explain the ability of land ownership to affect levels of domestic violence (Kabeer, 1999). Unequal structural arrangements also reinforce and are reinforced by social rules, norms, values, and cultural beliefs about appropriate roles of men and women within a society (Kabeer, 1994). Feminist scholars suggest that notions of land ownership share core ideologies that are embedded within constructions of masculinity and femininity and the “proper” roles that men and women should assume in public spheres (Deere & Leon, 2001). Similarly, it is well accepted that violence against women occurs in a sociocultural context supported by ideology (Goodman et al., 1993; Jenkins, 2000). Patriarchy—in which society is organized such that males have a disproportionate amount of power and control—can help explain how violence against women is perpetuated (Malik & Lindahl, 1998). Because land ownership among women substantially challenges traditional gender roles, it is hypothesized that the processes involved in owning land can transform the conditions in which women can exercise agency and, in turn, be empowered to confront aspects of their subordination.

It is well documented that because of culturally sanctioned gender roles that foster power imbalances, women often have little control over their physical safety or sexual access (Connell, 1987; Gupta, 2002; Kalichman et al., 2005). It is therefore hypothesized that because ownership of land among women substantially challenges traditional gender roles, it increases women’s power and control within the marital relationship, thereby reducing levels of violence.³ Thus, it is not just an increase in women’s ownership of material resources that can explain a change in women’s receipt of violence, but it is the psychological processes that result from having control over them that effectively influence women’s agency. Despite it being over a decade since Goetz and Gupta (1996) highlighted the lack of evaluations assessing the impact of resource allocation on power relations within the household, little research has explicitly investigated these mechanisms.

³ It should also be considered that as power shifts within the household, increased violence in the short term is possible. Some research suggests that when women’s employment “violates” traditional gender roles (i.e., spouse unemployed; lower employment status), men may initially try to coercively control their partners (MacMillon & Gartner, 1999).
Social psychologists maintain that power is not simply a political issue, but that it is also always psychological and pivotal in resisting domination and attaining wellness (Griscom, 1992; Jenkins, 2000; Prilleltensky, 2008). Scholars argue that because oppression entails a state of asymmetric power relations whereby dominating persons exercise their power by restricting access to material resources, gaining power, or resistance, involves changes in the structural circumstances that allow a person the ability and opportunity to influence a course of events (Prilleltensky, 2008). A great deal of work from community psychology suggests that empowerment is achieved when people have higher levels of control over their environments and, as such, shifts in power are viewed as firmly rooted in a social action framework that includes change at societal levels (Perkins & Zimmerman, 1995; Zimmerman, 1990, 1995). Therefore, examining the role of land resources in women’s receipt of violence in the absence of the psychological process would leave remaining questions about how women gain power and control.

It is widely agreed upon that, in addition to resources, a critical understanding of one’s sociopolitical environment is also a fundamental aspect of altering power relations (Narayan, 2005; Zimmerman, 1995). In gaining power, individuals are reconstructing and reorienting deeply engrained systems of social relations. As such, the development of critical awareness is an essential component in achieving the capability to competently challenge established systems or political interests (Kieffer, 1984). Although strategic gender interests may be met through women’s land rights, it has been argued that ownership is meaningless if women are not supported in the process and are not made aware of their rights through some level of organizing (e.g., Pena et al., 2008). As Freire (1970) argued, collective organizing and raising awareness of one’s own social reality is a vital means to initiating action and creating social change. Therefore, in some cases, a consciousness raising experience may need to take place before individuals can begin to be empowered. Furthermore, given women’s disenfranchisement from most sources of institutional power, it has been suggested that their collective strength and organizational capacity within nongovernmental organizations (NGOs) is a vital instrument for articulating their needs in the development process (Kabeer, 1994). As such, this study examines ownership of land as facilitated by an NGO because it is believed that a combination of structural changes and psychopolitical education facilitates women’s awareness of their roles, resulting in transformations in gender relations.

**Women’s Land Ownership in Nicaragua**

Until the past three decades, women’s ownership of land in Latin America was restricted because of legal and customary laws that prohibited women from being landowners. Since the structural adjustments of the 1980s and 1990s, there has been a great deal of attention to women’s property rights from scholars across
Changing national and international policies and current intervention programs promoting women’s human rights make this an opportune time for investigating the study hypotheses (Razavi, 2008). Of the Latin American countries that have implemented gender-progressive agrarian reform policies, Nicaragua stands out (Deere, 1985). The Agrarian Reform Laws of the 1980s and 1990s that recognized equal rights for both sexes were acknowledged as one of the most forward-looking reforms in Latin America. Nevertheless, data from the rural titling office indicate that between 1979 and 1989, women accounted for only 8–10% of beneficiaries under the agrarian reform. These low numbers reflect that land was still being allocated primarily to male “heads of households,” whereas titled women were likely widowed or unmarried women living alone (FAO, 2005).

In 1995, a major legislative leap was taken that led to compulsory joint titling for married couples and for those living in stable relationships (FAO, 2005). However, as evidence of the cultural norms, the term “joint” in the Joint Titling Act was interpreted literally as “two persons” within the family unit. Hence, this act did more to promote joint titling for men (fathers and sons) than for women (FAO, 2005). Thus, despite considerable legislation that positions Nicaragua as cutting-edge in mainstreaming gender in agricultural policy, the relatively low percentage of women landowners reflects the reality that social constructions of gender, combined with cultural practices of restricting women’s access to land, have prohibited women from realizing their legal rights. Furthermore, domestic violence has been recognized as a public health problem in Nicaragua, with national prevalence estimates indicating that between 28% and 69% of women report experiences of domestic violence (Ellsberg, Caldera, Herrera, Winkvist, & Kullgren, 1999; Ellsberg, Heise, Peña, Agurto, & Winkvist, 2001). Given the increasing attention to property rights and high levels of domestic violence, Nicaragua is a model country from which to conduct this investigation.

In sum, by linking the processes surrounding land ownership to broader cultural ideologies and to household gender relations, this study begins to address the current lack of rigorous quantitative research investigating the mechanisms that can improve women’s physical and psychological well-being. Although a need for complex models of violence that utilize multiple levels of analysis has been discussed extensively in the literature, few studies have integrated multiple factors in their investigations (Gage & Hutchinson, 2006; Jenkins, 2000; Malik

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4 It is argued that not all forms of property have the same influence. Land, unlike other forms of property, has the potential to be income generating and livelihood sustaining. Despite a decline in agricultural output in Central America, the dependence on land remains an important source of livelihood. In the absence of income generation, small plots or backyard gardening can provide sustenance for the family and reduce the risk of absolute poverty. For these reasons, land ownership is a form of political and symbolic status that is not found with other forms of property.
Fig. 1. The hypothesized model. Land ownership and organizational participation are hypothesized to predict gender-role ideology, which in turn, is hypothesized to influence both relationship power and control, and, finally, women’s receipt of violence.

& Lindahl, 1998). Therefore, in response to calls to stimulate innovative theory and research in this area, the current study proposes a framework of pathways by which land ownership influences women’s receipt of violence (see Figure 1). In prior research, one of the limitations has been that the few studies that have attempted to investigate relationship power, while employing a rather theoretically rich conceptualization, have routinely failed to adequately assess power and focus rather on proxies such as household decision making or education and income levels (e.g., Hill, 2003; Holvoet, 2005; Kabeer, 1994, 1999; Malik & Lindhal, 1998). This study specifically investigates whether addressing entrenched inequalities shifts gender-role ideologies that lend to increased power and control within the relationship, effectively giving women the agency to assert more control over their bodies and reduce levels of domestic violence. Although it is widely accepted that individuals’ well-being exists within an ecological structure whereby well-being is nested within macrolevel societal structures and resources (Prilleltensky, 2008), it is also possible that the direction of the effects may go the other way. As such, competing models are also tested. The current study is aimed at providing the empirical support necessary for social action and policy change aimed at implementing more equitable policies for women.

Methods

Sample and Procedure

This study is based on a two-group design. A household survey was administered to two different groups of women—one predominantly landowners and the other predominantly nonlandowners. The data were collected in 2007 in the municipality of Malpaisillo/Larreynaga in the state of León, Nicaragua. The two groups were chosen from the same geographical location within the country so that the women would have a great deal in common economically, socially, and culturally. First, this region of the country was significantly impacted by the destruction of Hurricane Mitch in 1998. As a result, the area saw the intervention of development organizations focused on home building and, given the international focus on gender, many organizations built and titled houses in women’s names. As such, over 30% of women in both groups reported receiving their houses from an NGO and the majority were titled in the women’s names. Second, NGOs in
both groups offered human rights and gender reflections education and literacy training.

Because customary practices still largely prohibit women from owning land, this research was conducted in collaboration with a women’s organization in order to obtain a sufficient number of landowning women for the first group. The women’s organization, established in the early 1990s, has a program aimed at facilitating women’s ownership of and titling to land—Program Productivo. To construct the intervention group, a list of the 380 women who had received assistance from the organization in facilitation of land ownership was submitted to simple random sampling. Based on pilot work, I anticipated a 30% nonresponse rate due to issues of migration, illness, and death. To meet a target of 175 respondents, I randomly selected 255 of the 380 women.5 One hundred seventy-four women from this sample were interviewed. However, during the post-Mitch rebuilding, a sizable number of women used the organization to facilitate legalization of land only in order to have houses built (and did not identify as landowners), but were not subsequently involved in the organization (29%). As such, these women were dropped from further analyses, resulting in a sample of 124 landowners.

The second group of women was selected from neighboring communities in the same municipality that were not actively involved in the organization. Nonlandowning women from the same communities, where the collaborating NGO was working, were purposely not chosen because it is possible that merely living in the same communities where the NGO was operational, regardless of whether or not individuals were members of the organization, could still expose them to the benefits of local changes implemented by the organization. Therefore, to construct the control group, 35 women each from 5 surrounding communities in the same municipality were randomly selected. Because I did not have a list of residents in neighboring communities, systematic sampling procedures for remote rural areas were employed with the assistance of a community leader. A member of the research team would start at a community structure (e.g., church) and choose every nth household in order to arrive at 35 women in each community. If an eligible woman was not present in the household, the research assistant would use the first nonselected home starting again from the community structure. One hundred seventy-five women from the surrounding communities were interviewed using this method. Upon study completion, I learned that one of the control communities had received intervention that prohibited inclusion in either of the two groups; thus, this community was dropped, resulting in 140 women in the control group. In addition, a small percentage of women in this group owned land through

5 Cohen’s (1992) criteria were used to determine sample size. An $N$ of 64 was needed in each group to determine medium effects (main effects for violence across groups). Because the sample sizes needed for small effects were considerably larger ($N = 393$), and the sample size in the Panda and Agarwal study was considerably larger (total $N = 302$), a target of 175 in each group was established for a total of 350 women.
inheritance (17%). In order to facilitate straightforward comparisons between landowners who received their land titles through an organizational intervention and nonlandowners, the women who received their land through inheritance in this group were dropped from subsequent analyses, resulting in a sample of 114 nonlandowners. From here on, the first group will be referred to as the landowning group and the second group as the nonlandowning group. These samples allow for direct comparison of women involved in land resource allocation aimed at empowerment and women who did not receive this intervention. The total sample size was 238 women.

Field procedures recommended by the WHO in conducting violence research in developing countries were followed to hire and train a local research team (Ellsberg & Heise, 2005). The WHO guidelines on ethics and safety also were adapted for this study. After oral consent was obtained, data were collected in private, face-to-face interviews with a structured questionnaire. The interviews were conducted in Spanish by trained female interviewers.

Measures

The questionnaires were developed in partnership with the research team, translated into Spanish by a member of the team, and then back-translated with a local Nicaraguan speaker to ensure the meanings were conveyed properly before the survey was piloted. As has been demonstrated in prior work in remote areas where literacy rates are low, I learned during the pilot phase that the complexity of a scaled response was difficult for respondents to understand (Ellsberg & Heise, 2005). Therefore, the scales assessing gender ideology, relationship power and partner control were all modified for dichotomous responses as indicated below.

Demographic characteristics. Sociodemographic data included age, number of children, education, occupation, earnings, employment status, relationship status, and duration of relationship. Participants also reported data on their current partner: partner’s age, work status, earnings in relation to the respondent, type and length of relationship, the number of children they have, and the partner’s use of alcohol and drugs.

Organizational participation. In order to assess organizational participation, participants were asked how regularly they participate in workshops and seminars aimed at women’s empowerment, how long they have been participating in those activities, and whether anyone has ever prevented them from participating in organized activity.

Land/property. Questions assessing land acquisition and land ownership were adapted from assessments used by the International Center for Research
on Women. Women were asked whether or not they owned land, how much land, how the land was titled (individual, joint, other), how the land was acquired (e.g., inheritance, agrarian reform, NGO intervention), and who controlled the land (self, partner, self and partner equally).

**Gender ideology.** Eight items were chosen from the 25-item short version of the Attitudes Towards Women Scale (Spence, Helmreich, & Stapp, 1973) based on cultural relevance. Lower scores reflect more subordinate views of women (i.e., more traditional gender ideology). Respondents were asked whether they agreed or disagreed with items such as “Men should share in household tasks such as washing dishes and doing the laundry,” and “A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.” Internal consistency for this scale was .67.

**Relationship power.** Respondents were asked to agree or disagree with 11 items from the Relationship Control Subscale of the Sexual Relationship Power Scale that assess power in the marital relationship (Pulerwitz, Gortmaker, & DeJong, 2000; e.g., “My partner tells me who I can spend time with,” “When my partner and I disagree, he gets his way most of the time”). Three items from the original scale that assessed condom use, as well as one item that did not translate well (“Most of the time, we do what my partner wants to do”) were not included in this assessment. Higher scores reflect greater levels of power within the relationship for the respondents. Internal consistency for this scale was .86.

**Partner control.** Respondents were asked whether or not their partners generally prohibit or control their ability to carry out everyday activities (e.g., visit family or friends) or exhibit controlling behavior or jealousy (e.g., “Insists on knowing where you are at all times; Is often suspicious that you are unfaithful”), as well as seven items from the WHO (Ellsberg & Heise, 2005). Three additional items were added to assess whether partners prevented women from working outside of the home, studying, or using contraceptives. Affirmative responses in each category were summed for a total score. Higher scores reflect greater levels of partner control. Internal consistency for this scale was .89.

**History of violent experiences.** The Conflict Tactics Scale (CTS) was used to determine the existence of physical, psychological, and sexual violence (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). CTS measures current (within the past 12 months) and lifetime prevalence of violence. This scale has been used in prior work on domestic violence in Nicaragua (Ellsberg et al., 2001) and in the World Health Organization’s multicountry study on domestic violence (2005). Physical violence was assessed with six acts of aggression in order of severity, ranging from throwing objects to the use of a weapon. Psychological violence was
assessed with four items indexing insults, humiliation, intimidation, and threats. Sexual violence was assessed using three items indexing forced or coerced intercourse or sexual behavior. A sum of reported behaviors in each area was taken as an index of violence. Because these scales were count scores, internal consistencies were not computed.

**Sample Profile**

Background differences between the groups of women were tested to check for comparability between samples and to ascertain the need to control for demographic variables in subsequent analyses. Demographic statistics broken down by group are presented in Table 1. The average age of the respondents was early to mid-40s, although the majority of the women fell between 25 and 34 years old. Approximately three-quarters of the sample were in partnered relationships that were between 6 and 10 years in duration, though the landowners reported longer relationships. The majority of the sample had three or more children. Most of the women respondents were literate, although approximately a quarter of the sample never received formal schooling and the landowners reported higher levels of secondary schooling. Finally, a significantly higher percentage of women in the landowning group reported current employment. This finding may be skewed by the fact that the majority of landowning women reported making an income off of their land. Because age differences likely explain the differential duration

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6 In addition to the Program Productivo, the collaborating NGO has several other programs among which include education and vocational training. The landowners may report higher levels of education because of their participation in programs at the center.
Table 2. Mean Differences Among Study Variables

<table>
<thead>
<tr>
<th></th>
<th>Landowners (N = 124)</th>
<th>Nonlandowners (N = 114)</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender ideology (M, SD)</td>
<td>1.84 (.166)</td>
<td>1.62 (.216)</td>
<td>.00</td>
<td>1.16</td>
</tr>
<tr>
<td>Relationship power (M, SD)</td>
<td>1.81 (.235)</td>
<td>1.67 (.293)</td>
<td>.00</td>
<td>0.54</td>
</tr>
<tr>
<td>Partner control (M, SD)</td>
<td>1.50 (2.45)</td>
<td>2.22 (2.84)</td>
<td>.04</td>
<td>−0.27</td>
</tr>
<tr>
<td>12M Physical violence (M, SD)</td>
<td>.067 (.500)</td>
<td>.167 (.651)</td>
<td>.01</td>
<td>−0.17</td>
</tr>
<tr>
<td>12M Psychological violence (M, SD)</td>
<td>.372 (.896)</td>
<td>.342 (.910)</td>
<td>.77</td>
<td>0.03</td>
</tr>
<tr>
<td>12M Sexual violence (M, SD)</td>
<td>.067 (.309)</td>
<td>.149 (.536)</td>
<td>.00</td>
<td>−0.20</td>
</tr>
</tbody>
</table>

Note. 12M = past 12 months. Mean differences are indicated along with the d = effect size. Effect sizes are calculated as the difference between two means divided by the standardized deviation (d = (M₁ − M₂)/s). Effect sizes are computed to assess the magnitude of the difference between groups. According to Cohen (1988), an effect size of 0.2 might be considered “small” (although still a notable difference), whereas values around 0.5 are “medium” effects, and values of 0.8 or higher considered “large” effects. A positive d for gender-role ideology and relationship power indicates that landowners scored higher on the study variable. A negative d for partner control indicates that landowners’ partners controlled their mobility less. Higher scores on gender ideology and relationship power are more progressive.

of women’s relationships, only age and education will be controlled in subsequent analyses.

Preliminary Analyses

Descriptive analyses of land ownership revealed that 99% the landowners held individual, rather than joint, titles to their land. The majority of these women (58%) reported that they alone made decisions regarding the land, whereas 36% reported that they made decisions equally with their husbands (only 6% reported that their husbands controlled the land). Women owned, on average, seven and a half manzanas (12.65 acres), 80% reported that the land was agricultural, and 82% reported making an income off of the land. Eighty-nine percent endorsed the statement that owning land provides protection during times of marital conflict.

Table 2 presents group differences in the proposed process and outcome variables: gender-role ideology, relationship power, partner control, and violence. As can be seen from the table, there are significant differences on all of proposed process variables with landowners reporting more progressive gender-role ideology, more relationship power, and less partner control. The findings also suggest that landowners reported significantly less physical and sexual violence in the past 12 months. Over 40% of women in each group reported experiencing psychological violence in their lifetime and over 23% reported receipt of physical violence, with estimates of sexual violence being nearly as high. These estimates are comparable to those reported for physical violence in a Demographic and Health Survey (28%)
conducted with a nationally representative sample in Nicaragua (Ellsberg et al., 2001). Because women came into land ownership an average of 14 years after their marriage, land ownership should not predict differences of lifetime experiences of violence. As expected, analyses did not indicate group differences in any of the three lifetime measures of violence. As such, only current, or 12-month violence will be included in the proposed model. Table 3 presents correlations among study variables.

Results for Proposed Pathways

The proposed model was estimated using EQS maximum likelihood estimation procedures (Bentler, 1995), with variance–covariance matrices serving as input. Missing data were handled with the EQS 6.1 missing data analysis regression imputations. Multiple fit indices were used as guides to evaluate goodness-of-model fit: the normed fit index (NFI; Bentler & Bonett, 1980), the comparative fit index (CFI), and the root mean squared error of approximation (RMSEA). Chi-square goodness-of-fit statistics and the chi-square to degrees of freedom ratio are also reported. A satisfactory fit is indicated by a nonsignificant chi-square or a chi-square lower than double the degrees of freedom and NFI and CFI values greater than .95 (Hu & Bentler, 1999). Values less than .08 for the RMSEA indicate adequate fit (Steiger, 1990).

To test the hypothesized model, a path diagram was constructed that details the pathways between land ownership, organizational participation, gender-role ideology, relationship power, partner control, and women’s receipt of violence (see Figure 1). Based on significant relationships, age was controlled when predicting land ownership and education was controlled when predicting participation level, gender-role ideology, relationship power, and partner control. Partner alcohol use was controlled when predicting relationship power and partner control. As shown in Figure 2, both land ownership and participation level were related to more progressive gender-role ideology. Gender-role ideology, in turn, predicted higher levels of relationship power for women and less partner control. Relationship power and partner control each predicted receipt of violence. Specifically, women’s relationship power predicted less physical and sexual violence, and partner control predicted greater receipt of psychological and sexual violence. Results of the path model demonstrated that the hypothesized model provided a good fit to the data (see Table 4).

In order to establish that changes in gender-role ideology and relationship power and control help explain how land ownership and/or organizational participation were indirectly related to decreases in receipt of violence, criteria for mediating conditions and a product of coefficients test were used. The conditions that must be met to establish a significant indirect relation are: (a) the independent variables must be significantly related to the process variables; (b) the
<table>
<thead>
<tr>
<th></th>
<th>Land Ownership</th>
<th>Gender Ideology</th>
<th>Relationship Power</th>
<th>Partner Control</th>
<th>Physical Violence</th>
<th>Psychological Violence</th>
<th>Sexual Violence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land ownership</td>
<td>-</td>
<td>-0.49***</td>
<td>0.26***</td>
<td>-0.13*</td>
<td>-0.09</td>
<td>0.02</td>
<td>-0.10</td>
</tr>
<tr>
<td>Gender ideology</td>
<td>-</td>
<td>-0.25***</td>
<td>-0.16*</td>
<td>0.04</td>
<td>0.08</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>Relationship power</td>
<td>-</td>
<td>-0.66***</td>
<td>-0.28***</td>
<td>-0.33***</td>
<td>-0.32***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner control</td>
<td>-</td>
<td>-0.66***</td>
<td></td>
<td>0.25***</td>
<td>0.46***</td>
<td>0.31***</td>
<td></td>
</tr>
<tr>
<td>Physical violence</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-</td>
<td>0.61***</td>
<td>0.68***</td>
<td></td>
</tr>
<tr>
<td>Psychological violence</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td>-</td>
<td>0.57***</td>
<td></td>
</tr>
<tr>
<td>Sexual violence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, ***p < .001.
Table 4. Goodness-of-Fit Statistics for the Hypothesized Models

<table>
<thead>
<tr>
<th>Model Specified</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>NFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>AIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hypothesized model</td>
<td>60.45</td>
<td>32</td>
<td>1.89</td>
<td>.92</td>
<td>.96</td>
<td>.06</td>
<td>−3.60</td>
</tr>
<tr>
<td>2. Alternative model A</td>
<td>121.53</td>
<td>29</td>
<td>4.19</td>
<td>.84</td>
<td>.87</td>
<td>.12</td>
<td>63.53</td>
</tr>
<tr>
<td>3. Alternative model B</td>
<td>50.15</td>
<td>28</td>
<td>1.79</td>
<td>.92</td>
<td>.96</td>
<td>.06</td>
<td>−5.85</td>
</tr>
</tbody>
</table>

hypothesized process variables must directly predict the outcome; and (c) a product of coefficients test, in which a calculated indirect effect is divided by a calculated standard error is significant (MacKinnon, 2000; Sobel, 1990). Significant $t$-values from these formulas indicate that the indirect effect of the independent variable on the dependent variable is significant. First, to test whether land ownership was significantly indirectly related to increased relationship power and decreased partner control via gender-role ideology, a products of coefficients test for each pathway that met the first two criteria (i.e., that the pathway from the independent variable to the process variable and the pathway from the process variable to the dependent variable were both significant) was conducted. Results from this test provide significant support for the indirect relation of land ownership on relationship power $t = 2.99$ ($p = .003$) and partner control $t = −1.97$ ($p = .048$), suggesting that land ownership is related to higher levels of relationship power and lower levels of partner control via changes in gender-role ideology. Similarly, participation level was also indirectly related to relationship power $t = 2.18$ ($p = .028$) via gender-role ideology, but not to partner control. Thus, it seems that while the role of the organization may be important in terms of facilitating land titles and women’s roles as landowners, actual ownership of land is a more robust predictor of altered gender relations. Next, the indirect relations of gender ideology on violence via relationship power and partner control were examined. Gender-role ideology was significantly indirectly related to physical and sexual
violence through relationship power $t = -1.96 (p = .05)$ and $t = -2.04 (p = .04)$, respectively. Similarly, gender-role ideology was significantly indirectly related to psychological and sexual violence through partner control $t = -1.96 (p = .05)$ and $t = -2.04 (p = .04)$, respectively.

Given the limitations of cross-sectional data, and the likelihood that there is complimentarity in these processes, alternative path models and mediation analyses were also tested. First, it may be theorized that more progressive women choose relationships characterized by less violence and have greater levels of relationship power and control as a result. More progressive attitudes and higher levels of control to begin with may allow women to get involved with organizations and to become landowners. An alternative model was run with variables conceptualized in the following order: gender ideology, violence, relationship power and control, and land ownership and organizational participation. However, there was limited support for this model (see alternative model A, Table 4). Specifically, gender ideology did not predict women’s receipt of physical, psychological, or sexual violence. In addition, partner control did not predict land ownership or organizational participation.

Perhaps a more plausible alternative model would argue for yet a different ordering of the variables such that more progressive gender-role attitudes among women would directly predict women’s likelihood of becoming involved in the organization and becoming landowners. These women would, in turn, have more power and control in their relationships and that power and control would thereby predict lowered receipt of violence. The already established relationships between land ownership and organizational participation and gender ideology that were presented in the first model, and the pattern of correlations demonstrated in Table 3, provide support for this suggestion. This model proposed that more progressive gender ideology would directly predict land ownership and participation in the organization, both of which would predict higher levels of relationship power and lower levels of partner control. Power and control were again predicted to affect levels of violence. Although this model provided a good fit to the data, neither land ownership nor participation in the organization predicted reduced partner control. As such, partner control was dropped from the pathways and the model was rerun (see alternative model B, Table 4). In the final model, gender ideology significantly predicted land ownership and participation level. However, in the absence of partner control, the relationships between power and violence directly replicate the correlations provided in Table 3. Specifically, relationship power is negatively related to physical and sexual violence. Mediational analyses
suggest that gender ideology is significantly indirectly related to higher levels of relationship power via land ownership $t = 3.19$ ($p = .00$) and land ownership is indirectly related to physical and sexual violence via relationship power $t = -1.94$ ($p = .051$) and $t = -2.0$ ($p = .04$).

Although no single criterion can determine model selection, the appropriateness of the competing models was compared to that of the hypothesized model by evaluating the goodness-of-fit statistics and the Akaike information criterion (AIC) for the various models (Bozdogan, 1987). The model with the lowest AIC is preferable. As can be seen in Table 4, both the hypothesized model and alternative model B provide nearly identical fit statistics, though model B yields the smallest of the AIC. Although both models suggest a strong association between land ownership and gender ideology, these competing models cannot definitively tell us which comes first. In addition, alternative model B was a reduced model that cannot speak to the role of partner control in the cycle of violence. Because directionality in cross-sectional research is, in part, distinguished by theory, the interpretations and conclusions will focus on the hypothesized model that has the strongest theoretical support (Hoyle, 1995).

**Conclusion**

This study demonstrates that taking a social psychological approach to the investigation of violence against women can bridge the theoretical arguments surrounding human rights with the practical implementation of development interventions. The findings uncover mechanisms surrounding women’s subordination and receipt of violence and provide empirical support that has yet to be demonstrated elsewhere. Moreover, the data also suggest that if we are to make any serious attempt at reducing violence against women worldwide, policies ensuring that appropriate infrastructures exist to support women’s capabilities to exercise their rights are necessary. Although the discourse of human rights is not widely used among psychologists (Kitzinger & Wilkinson, 2004), these results suggest that women’s land ownership, in and of itself, as well as how it relates to other fundamental rights in terms of psychological and physical violence, may be a fundamental requirement of social justice.

The findings also lend evidence to the notion that women’s NGOs that offer an alternative view to development—by transforming traditional power structures—provide an important and effective means to achieving change on a number of fronts: structural (e.g., resources), relational (e.g., gender relations), and individual (e.g., physical and psychological well-being). Specifically, the results suggest that women’s organizational participation was part of the pathway to reducing violence, albeit not as strong a predictor as owning land. Nevertheless, demonstrating the importance of the organization suggests that changing laws alone is not enough to bring about significant social change and that organizational
intervention can greatly facilitate women’s access to property and related psychological and physical health. These findings also lend support to Freire’s (1970) theory of consciousness raising through group forums as a means to bring about empowerment. Collaborative effort between grassroots organizations and activist scholars may be imperative in the struggle for social justice.

Although the quasi-experimental nature of the study design allowed for cross-group comparisons, the lack of random assignment and longitudinal design may limit the conclusiveness of the study findings. For example, it is possible that women self-selected into the Program Productivo due to economic need, housing need, or because they were less traditional than their nonlandowning counterparts. Although we cannot account for the role of women’s willingness to join the organization in the first place, alternative model A suggested that levels of relationship power and partner control were not related to women’s participation, suggesting that the sample of women involved were not simply the women whose husbands would allow it. Similarly, whether women who participated in the NGO are more likely to report differences on study variables because of some inherent a priori characteristics cannot be determined from this study. However, the comparable histories of lifetime violence between the two groups of women suggest similar backgrounds. Finally, although there was some evidence from model B that some aspects of this process were reciprocal, namely that land ownership and organization participation were significantly related to gender ideology, simply reversing the order of these variables in cross-sectional models tells us little about which comes first in the causal ordering of these variables. Only a randomly assigned study design, and longitudinal analyses, could more confidently answer these questions. However, such designs raise ethical issues in field research investigating processes surrounding receipt of violence.

Despite the fact that there are always limitations in cross-sectional data, the results from this study lend evidence for the theoretically justified model. As Moane (1999) stated in an analysis of gender oppression, “A liberation psychology aims to facilitate breaking out of oppression by identifying processes and practices which can transform the psychological patterns associated with oppression and facilitate taking action to bring about change in social conditions (p. 180).” From this perspective, focus on individual differences does little to alter social structures; thus, there is greater benefit to focusing on the proposed directional model in terms of enacting social change. Specifically, liberation psychologists argue that progress is not an individual psychological task, but one requiring social changes and political organization (Martín-Baró, 1994). Similarly, it has been argued that awakening of critical consciousness joins issues of social transformation (e.g., altered social structures) with personal liberation (e.g., more relationship power, reduced violence; Freire, 1970). Therefore, the processes articulated by liberation psychology, as well as the theory of gender and power (Connell, 1987) offered earlier, would argue that sociostructural changes and organizational support come
before the changes in ideology that allow women to emerge from the process with higher levels of agency. Similarly, the hypothesized model answers questions and provides avenues for understanding how women gain power and control. Model B, while providing a good fit, does not afford this same understanding.

Finally, the study findings are timely. Not only do they illustrate the mechanisms by which altered structural changes can bring about profound social and psychological change for women at a time when gender-based violence is receiving unprecedented levels of international attention, but they lend support for social advocacy and programs focused on women’s ownership of land. Although issues of agrarian change and rural development were a major part of the neoliberal agenda that imposed privatization on indebted developing countries in the 1990s, it has only been in very recent years that women’s interest in land has emerged as a contested issue (Razavi, 2008). Given women’s centrality to agricultural livelihoods, an intensification of women’s unpaid agricultural labor, increasing levels of poverty, and food scarcity, women’s property rights have taken on new urgency (Razavi, 2008). The findings from the current study suggest, at a minimum, that programs and policies should aim to alter the structural barriers that prohibit women from being landowners. For example, leading organizations, such as the Clinton Global Initiative (2010), which holds empowering women and girls as one of their primary action areas, should include facilitating women’s access to land as part of their strategic effort to reduce violence against women and girls. Similarly, because women face the risk of land alienation and entitlement failure in the presence of imposed privatization from multilateral lending programs (despite having legal rights), organizational interventions are necessary to ensure that everyone is capable of realizing their rights. Changing institutional structures shifts the responsibility of combating violence from women to policy makers and program implementers, making it possible that women become beneficiaries of legal reform. For example, major foundations, such as the Rural Development Institute (2010), with their Global Center for Women’s Land Rights that works to facilitate land ownership for women, can use findings from the current study to further their delivery of policy recommendations and programmatic solutions to securing women’s land rights. Projects and programs aimed at development in areas involving ownership and control over vital resources can better improve women’s rights by altering the complex power structure in which women’s subordination is embedded. Finally, perhaps more than most, this area is ripe for interdisciplinary efforts and cooperative collaboration between interventionists, social activists, and researchers working for women’s human rights and social justice in an increasingly globalized context.

In sum, the findings from the current study suggest that increasing women’s ownership of land may be an important component in addressing gender inequities and curbing high levels of violence against women. The study also puts psychology at the crossroads of women’s human rights, globalization, and social change.
by putting forth a novel model for understanding inequality and providing empirical support that provides a framework of social justice and change. The need for researchers who can empirically evaluate empowerment-focused programs is critical in creating social change and in influencing organizations and policy makers who address women’s human rights and capabilities. Through collaborative efforts, changes to social policy that effectively grant women human rights, and gender-based interventions aimed at transformative relations, could lead to the very notions of social justice that are idealized by the international community addressing these issues.

References


SHELLY GRABE is an assistant professor of Social Psychology at the University of California, Santa Cruz. She was a recipient of the Ruth L. Kirschstein National Research Service award for her research on women’s body objectification, and she received her training from the Universities of Missouri and Washington. She was a Fellow in Women’s Studies at the University of Wisconsin-Madison before joining the faculty at UCSC. Her research interests involve how cultural objectification of women’s bodies serves to keep women in a position of marginalized status via threats to their psychological well-being. She identifies as a scholar-activist and is committed to exploring how the scholarly study of gendered social structures can foster social change.