UNDERSTANDING WOMEN’S RISK FOR HIV INFECTION USING SOCIAL DOMINANCE THEORY AND THE FOUR BASES OF GENDERED POWER

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Theoretical models to date have fallen short of accounting for the alarming worldwide rates of HIV infection in women through heterosexual contact. In this article, social dominance theory and the four bases of gendered power—force, resource control, social obligations, and consensual ideologies—are used to organize and explain international research findings on women’s risk of contracting HIV from male sexual partners. Research suggests that the four bases of gendered power contribute to women having less power than men in heterosexual relationships, resulting in challenges to preventing HIV transmission from male partners. Social dominance theory also recognizes the intersections among various group-based hierarchies, such as race and class, thereby helping explain why women of color and low-income women are disproportionately affected by HIV. The intergroup focus of social dominance theory points to gender inequality as increasing men’s risk of HIV infection as well, and the construct of social dominance orientation helps to explain individual differences in HIV risk behavior. We discuss the ways the current theoretical framework can prove useful in helping to guide future research addressing the connections between power and HIV risk, including exploring mediators and links to other theoretical models. We also discuss the implications the framework has for intervention efforts aimed at reducing HIV rates worldwide, such as supporting efforts at increasing women’s representation in hierarchy-enhancing positions, incorporating empowerment issues into current interventions, promoting use of female condoms, and targeting heterosexual men for interventions.

The joint United Nations Programme on HIV/AIDS and the World Health Organization (UNAIDS/WHO, 2007) estimate that there are 33.2 million people in the world who are HIV-positive, with 2.5 million of them having been newly infected in 2007. Worldwide, the percentage of people living with HIV who are women has dramatically increased from 35% in 1985 to nearly 50% presently, and to over 60% among 15- to 24-year-olds (United Nations Programme on HIV/AIDS/United Nations Population Fund/United Nations Development Fund for Women [UNAIDS/UNFPA/UNIFEM], 2004; UNAIDS/WHO, 2007). Because heterosexual contact accounts for the majority of HIV cases in women (e.g., more than 70% in the United States), it is vital to understand why women are becoming infected by male partners and how this trend can be halted (Centers for Disease Control and Prevention [CDC], 2006; UNAIDS/UNFPA/UNIFEM, 2004). To date, no theoretical model has fully explained the role of gender as a major force contributing to women’s heterosexual risk for HIV.

Most past theoretical models have tended to explain the factors leading to transmission of HIV by focusing on social-cognitive or motivational processes, without paying particular attention to gender. For example, according to self-efficacy theory (Bandura, 1977) as applied to sexual risk behavior, people’s cognitive appraisal of their ability to successfully use condoms—which is affected by emotions, past experiences, knowledge, social influences, and outcome expectancies—determines whether they will use condoms (Wulfert & Wan, 1993). The theory of reasoned action (Fishbein & Ajzen, 1975) as applied to sexual risk behavior, suggests that people’s personal attitudes toward and subjective norms about condom use affect their intentions to use condoms, resulting in behavioral outcomes (Albarracín, Johnson, Fishbein, & Muellerleile, 2001). The theory of planned behavior (Ajzen, 1985) suggests the same factors as the theory of reasoned action, but additionally
asserts that one’s perceived control over condom use (which is equivalent to the idea of one’s self-efficacy for condom use) affects intentions and behavior (Albarracín et al., 2001). Indeed, factors suggested by these theories have been found to significantly predict sexual risk behavior and reduce risk behavior when included in interventions in a variety of populations in Africa, Asia, Australia, the Caribbean, Europe, North America, and South America (e.g., Albarracín et al., 2001; Albarracín, Duranton, & Earl, 2006; Albarracín, Kunakale, & Johnson, 2004).

Nonetheless, self-efficacy theory and the theories of reasoned action and planned behavior have been criticized for not fully explaining HIV risk among disadvantaged groups, specifically women. Critics of these theories state that they incorrectly assume that women have as much personal control over sexual situations as men; they fail to recognize environmental and structural factors affecting heterosexual risk behavior; and they do not account for the unique challenges that different groups of women face due to the intersections of gender, race, and class in an unequal, hierarchical society (Amaro, 1995; Fullilove, Fullilove, Haynes, & Gross, 1990; Kerrigan et al., 2003; Mays & Cochran, 1988; Quina, Harlow, Morokoff, & Saxon, 1997; Wyatt & Chin, 1999). Together these criticisms have led many researchers to point toward power as an essential element contributing to women’s risk for HIV infection through heterosexual transmission (Amaro & Raj, 2000; Heise & Elias, 1995; Pulerwitz, Gortmaker, & DeJong, 2000; Zierler and Chin, 1999). Together these criticisms have led many researchers to point toward power as an essential element contributing to women’s risk for HIV infection through heterosexual transmission (Amaro & Raj, 2000; Heise & Elias, 1995; Pulerwitz, Gortmaker, & DeJong, 2000; Zierler and Chin, 1999).

Indeed, even in a recent meta-analysis evaluating the strength of the theories of reasoned action and planned behavior to predict sexual risk behavior in a variety of populations around the world, Albarracín et al. (2004) found that these theories in some cases explained sexual risk behavior among disadvantaged groups even better than among advantaged groups. Specifically, they found that some of the relationships in the models were statistically stronger among groups with less social power, such as women and members of disadvantaged racial/ethnic groups, and therefore they concluded that social power matters. However, because these theories do not directly address issues of power and do not include aspects of power in their theoretical models, they are unable to provide a clear explanation within their frameworks of why Albarracín et al. (2004) found these statistical differences based on groups’ social power. Increasingly, there has been recent theorizing and research directly pointing to and testing the relationship that power has with HIV risk in women, and evidence is mounting that male dominance and various aspects of women’s lack of power in heterosexual relationships predict unprotected sex and risk for HIV infection all over the world (e.g., Crosby et al., 2008; Kershaw et al., 2006).

Past work has recognized that women have limited access to power both structurally and interpersonally, reducing their choices and at times constraining their ability to exercise control even over their own bodies (Connell, 1987; Davis, 1981). Thus, HIV researchers have begun to apply issues of power to theorizing on HIV risk for women. For example, Amaro (1995), in her classic article “Love, Sex, and Power,” theorized about the ways that gender roles and women’s differential social status relative to men are crucial in understanding women’s risk for HIV infection and how to prevent it. Wingood and DiClemente (2000) further theorized about this connection and applied Connell’s (1987) Theory of Gendered Power to understanding women’s HIV risk, pointing to three elements of gendered relationships: the sexual division of labor, the sexual division of power, and the structure of cathexis (also referred to as the structure of affective attachments and social norms).

This theorizing, along with the increasing amount of research testing the connection between power and women’s HIV risk, has moved the field forward and greatly expanded our understanding of factors contributing to the increasing number of women contracting HIV from male partners.

We suggest that social dominance theory (SDT), as developed by Sidanius and Pratto (1999), with a focus on the four bases of gendered power identified by Pratto and Walker (2004), offers an ideal theoretical fit for further moving the field forward. This theoretical framework can contribute to increased understanding and organization of the accumulating empirical research findings on the relationship between power and women’s risk for HIV infection from male partners. We propose that this framework can complement and advance current theories, as well as inform theoretically driven interventions addressing the heterosexual transmission of HIV. This framework is ideal because it includes a thorough analysis of gendered power on multiple levels as well as the effects of intersecting group memberships, such as race and class.

In this article, first we will outline the reasons why SDT and the four bases of gendered power offer an ideal theoretical framework for understanding women’s HIV risk from heterosexual contact. Second, we will use SDT and the four bases of gendered power to synthesize the mounting research findings internationally and to illuminate the relationship between power and women’s HIV risk. Third, we will discuss the ways that the current theoretical framework can inform future research and intervention efforts.

**SDT AND THE FOUR BASES OF GENDERED POWER**

SDT focuses on power within hierarchical societies, synthesizing psychological and sociological theories. SDT presents a multi-level analysis of group-based inequality and oppression by integrating ideas from personality theory, political behavior theory, group positions theory, Marxism and neoclassical elite theories, social comparison theory, social identity theory, and evolutionary psychology (Sidanius & Pratto, 1999). SDT asserts that because of hierarchies within society that are based on social categories (e.g., race, religion, gender, class, sexuality), members of marginalized or disadvantaged groups face discrimination
institutionally and interpersonally on a daily basis (Pratto, 1999; Sidanius & Pratto, 1999; Sidanius, Pratto, van Laar, & Levin, 2004). This theory is fairly unique within the realm of social psychology because it recognizes and explains the importance and persistence of institutional inequality in addition to individual discrimination for understanding group-based power differences and their consequences (Sidanius & Pratto, 1999).

SDT has been applied to a range of issues with many different populations, with robust findings supporting its strength as a theory to explain social inequality and oppression in many countries (see Pratto, Sidanius, & Levin, 2006). For example, this theory has been successful in predicting who will support group-based inequality (sexism, racism, and other local hegemonies) and who will show favoritism for high-status groups in countries as different as Canada, China, Israel, Taiwan, and the United States (Levin, Federico, Sidanius, & Rabinowitz, 2002; Pratto et al., 2000). SDT has also helped to explain the ways that issues of power and hierarchy have an impact on phenomena as distinct as racial and ethnic stereotyping (Quist & Resendez, 2002), career choices by undergraduate and graduate students (Sidanius, van Laar, Levin, & Sinclair, 2003), attitudes toward police officers (Howell, Perry, & Vile, 2004), the relationship between children’s experiences of bullying and their social networks (Mouttapa, Valente, Gallaher, Rohrbach, & Unger, 2004), and support for intergroup violence across diverse countries (Henry, Sidanius, Levin, & Pratto, 2005; Levin, Henry, Pratto, & Sidanius, 2003).

SDT has been implemented to understand various aspects of gender-based power, such as within- and between-group gender differences in occupation, mate selection, and caregiving (Pratto & Hegarty, 2000; Pratto, Stallworth, Sidanius, & Siers, 1997). SDT directly addresses gender inequality, and, importantly, within the focus worked on gender, Pratto and Walker (2004) have outlined four bases specific to gendered power—force, resource control, social obligations, and consensual ideologies—that can be applied to a range of issues. According to SDT, power and dominance are defined as operating on individual, group, institutional, and structural levels. In much of the literature connecting power and HIV risk, the term “power” has referred to being able to act or behave according to one’s own wishes and being able to influence or have control over the actions of others (see Wingood & DiClemente, 2000). In the context of heterosexual risk for HIV, this definition is useful because it seems especially important to take into consideration the abilities that women have to choose with whom and how they have sex, in addition to their ability to influence a partner’s actions, such as putting on a condom.

To our knowledge, neither SDT nor the four bases of gendered power have been explicitly applied to understanding women’s risk for HIV infection from male partners. SDT researchers have acknowledged health disparities between advantaged and disadvantaged groups (e.g., Sidanius & Pratto, 1999; van Laar & Sidanius, 2001), but there has yet to be work exploring SDT’s ability to explain such disparities. Using the four bases of gendered power as a lens gives us the ability to focus on the specific ways that women’s risk for HIV infection from male partners is related to gender inequality, or patriarchy. Using some of SDT’s other contributions gives us the ability to understand heterosexual transmission of HIV infection in the context of other hierarchies operating on various levels.

SDT recognizes gender as being distinct from arbitrary-set groups (i.e., groups that are completely socially constructed such as race) because of gender’s relationship to biological sex (Pratto & Espinoza, 2001; Sidanius & Pratto, 1999; Sidanius, Sinclair, & Pratto, 2006). At the same time, SDT highlights that gender and arbitrary-set groups interact and are mutually sustaining, suggesting that the discussion of hierarchy in one domain (e.g., gender) is incomplete without a discussion of hierarchy in other domains (e.g., race and class; Pratto & Espinoza, 2001; Pratto et al., 1997; Sidanius & Pratto, 1999). Thus, this theoretical framework can help to account for the disproportionate rates of HIV infection among poor women and women of color around the world. In its focus on intergroup relations and the interactions between dominant and subordinate groups, SDT allows us to understand the ways that group hierarchies also contribute to men’s risk of contracting HIV. Finally, social dominance orientation (SDO), an individual difference variable growing from SDT, can help to explain and predict individual differences in attitudes and behaviors related to dominance and power (Sidanius & Pratto, 1999), thereby explaining and predicting individual differences in heterosexual risk behavior resulting from hierarchies within heterosexual relationships.

**SYNTHESIZING THE LITERATURE USING THE SDT FRAMEWORK**

*The Four Bases of Gendered Power*

It is important to note from the outset that Pratto and Walker (2004) conceptualized the four bases of gendered power as fungible. Thus, although distinctions can be made between the four bases of gendered power, the bases are interconnected and can reinforce each other. As a whole, these four bases are useful for outlining the ways gendered power dynamics work and contribute to women’s HIV risk.

**Force.** Force is the first base of gendered power (Pratto & Walker, 2004) because of its significant contribution to the maintenance of a power hierarchy between men and women. Force includes abuse, rape, assault, and any other form of violence against women that undermines women’s power, even if it is indirectly the threat of violence that achieves this end (McCornick, 1994, pp. 119–146). Women’s experience of force can be considered a form of “unofficial terror,” identified by SDT, in that it
Resource control includes access to resources (Perrino, Fernández, Bowen, & Arheart, 2006). Among college women, childhood sexual abuse predicted reduced ability to demand condom use or refuse sex (Johnsen & Harlow, 1996). Further, research with women in the United States from diverse racial and ethnic backgrounds has found that women who were HIV-positive were more likely to have experienced childhood sexual assault than women who were HIV-negative (Paxton, Myers, Hall, & Javanbakht, 2004).

Rape and sexual assault as an adult are also significant sources of HIV risk for women (Scott et al., 2005), both by creating instances of risk within themselves and by affecting women’s future behavior. In a study of American Indian and Alaskan Native women living in New York, having experienced sexual assault predicted greater sexual risk behavior (Evans-Campbell, Lindhorst, Huang, & Walters, 2006). Female sex workers in Cape Town, South Africa, discussed the common experience of being forced to have unprotected sex (Pauw & Brener, 2003). Rates of rape (both by strangers and by intimate partners) in South Africa are relatively high and have been on the rise (Ackermann & de Klerk, 2002), and South African women’s past experiences of forced sex are associated with less condom use (Pettifor, Measham, Rees, & Padian, 2004; Thomas, 2005). In rural areas of Haiti, women’s experiences of forced sex within the past year were related to their rates of sexually transmitted infection (STI) diagnoses (Kershaw et al., 2006).

Emotional and physical abuses in primary relationships also pose a challenge to women’s ability to use condoms. Women in the United States with physically abusive partners were more likely to report never using condoms, experiencing abusive consequences of condom use negotiation, and fearing consequences of attempting to negotiate condom use (e.g., Molina & Basainait-Smith, 1998). Because women’s experience of partner violence is closely related to the amount of power they have in those relationships, a history of violence has a negative effect on women’s condom use with those partners (Pulerwitz et al., 2000). Among a diverse group of women in different regions of the United States, abused women reported more sexual risk behavior, less control over having safer sex, more unwanted sex, and lower self-efficacy for getting partners to use condoms (Beadnell, Baker, Morrison, & Knox, 2000). Fearing abuse by a partner can deter women from even raising safe-sex issues (Amaro, 1995).

Clark, Bruce, and Dude (2006), examining data from Demographic and Health Surveys in 22 African and seven Latin American countries, noted the significance of violence in predicting risk for HIV infection in the relationships of married female adolescents, in which age differences and tolerance of spousal abuse affect power inequities. Ackermann and de Klerk (2002) highlighted the acceptance of violence as a part of heterosexual relationships in South Africa and its relation to women’s risk for contracting HIV from their partners. Among secondary school students in rural South Africa, the threat or use of force by male partners in heterosexual relationships predicted inconsistent condom use in those relationships (Hoffinan, O’Sullivan, Harrison, Dolezal, & Monroe-Wise, 2006). Further, in a study of 1,366 women in Soweto, South Africa—even after controlling for age, for current relationship status, and for women’s own risk behavior—partner violence and women’s own feelings of being controlled in their relationships significantly predicted their actual HIV status (Dunkle et al., 2004). Similarly, in Tanzania a woman’s lifetime experience of partner violence was found to be a significant predictor of her being HIV-positive (Maman et al., 2002).

In summary, research conducted worldwide suggests that childhood abuse, sexual assault, and abuse in relationships all predict sexual risk behavior in women. It seems clear that women’s experiences of violence are associated with an increased risk of contracting HIV, specifically from male sexual partners.

Resource control. Resource control includes access to well-paying jobs, education, health care, and institutional influence, which generally favors more men than women worldwide (Connell, 2005). Although continuing to address power on multiple levels like the other bases of gendered power, resource control particularly highlights the role of institutional and structural inequality in women’s subordination (Pratto & Walker, 2004). Focusing on resource control addresses the ways that gender-based inequities increase HIV risk for women in general and also begins to provide evidence for the ways that other group-based hierarchies, such as race and class, are important to take into account when explaining heterosexual risk behavior. Specifically, research points to the relationships women’s HIV risk has with economic dependence on male partners, poverty, sex work, education, and institutional influence.

Because of inequality in access to resources, women are often left economically dependent on male partners, making it challenging and sometimes even dangerous for women to negotiate condom use or discuss monogamy (Gutiérrez, Oh, & Gillmore, 2000). African American women in North Carolina reported that a main reason for having unprotected sex was their financial dependence on male partners (CDC, 2005). Similarly, in a study in...
Massachusetts, urban women’s income positively correlated with their sexual relationship power (i.e., relationship control and decision-making dominance), which in turn accounted for more than 50% of their lack of condom use (Pulerwitz, Amaro, DeJong, Gortmaker, & Rudd, 2002). Financial decision making within a relationship is closely related to sexual decision making, and women who make financial decisions independently are more likely to use condoms consistently than women who either share financial decision making or do not participate in those decisions at all (Soler et al., 2000).

For low-income women, inequality in access to resources turns into dependence on men for survival, making it especially difficult for them to negotiate condom use and leave abusive or unfaithful men (Sikkema, Wagner, & Bogart, 2000). Also, many low-income women have more immediate worries, such as paying rent or having enough food, which may reasonably take precedence over protecting oneself from HIV (CDC, 2005; Mays & Cochran, 1988; Sikkema et al., 2000).

For women outside the United States and Europe, for whom rates of poverty and struggles for basic survival are often higher, the power dynamics involved in women’s economic dependence on male partners can be even more pronounced. Machel (2001) concluded from work with secondary school-age women in Mozambique that middle-class students more readily challenged gender norms than working-class students and were less likely to depend financially on their partners, leading to a class difference in the power they had in their sexual relationships and their risk of contracting HIV. Women’s need for economic support is sometimes their reason for engaging in sexual relationships with men, regardless of how risky they may be (Luke, 2003). In research conducted in Kenya (Voeten, Egesah, Varkevisser, & Habbena, 2007), Côte d’Ivoire (Longfield, 2004), and Ghana (Ankomah, 1999; Mill & Anarfi, 2002), women discussed their sexual relationships with men as being in the interest of their own material gain, often leading to obligations to have unprotected sex, even when male partners are known to have other partners. Indeed, some work has analyzed heterosexual relationships using social exchange theory (e.g., Baumeister & Vohs, 2004), and when women’s resources are limited, sex becomes a resource that has exchange value, giving power to the men who have the resources that women need.

For sex workers, sexuality is most obviously an economic resource used for exchange, and sex workers’ need for resources, such as money, shelter, gifts, or drugs, is related to their level of power in influencing condom use (Gentry, Ellison, & Sterk, 2005; Nemoto, Iwamoto, Wong, Le, & Operario, 2004). Studies in Uganda and the former Zaïre (now Democratic Republic of the Congo) found that the poorest sex workers had unprotected sex the most often (Gysels, Pool, & Nnalusiba, 2002; Schoepf, 1997). Research with women in the sex industry in Johannesburg, South Africa, suggests that the need to keep clients and make as much material gain with each client as possible becomes a barrier to practicing safe sex (Wojcicki & Malala, 2001). Another issue for female sex workers is access to institutional power within their line of work. In Indonesia (Basuki et al., 2002), the Dominican Republic (Kerrigan et al., 2003), and China (Yang & Xia, 2006) women’s condom use rates were higher when the “pimps,” or others running establishments in which women were working, supported them in their condom use negotiation with clients and with condom availability.

Education influences women’s risk of HIV infection as well, affecting women’s HIV/AIDS knowledge and their power to reduce risk behavior. In one study with South African women, higher education level was one of the only significant predictors of decreased sexual risk behaviors (Kalichman et al., 2005). Education can increase women’s knowledge, access to other resources, and power within their relationships, as exemplified in a study of orphans and vulnerable children in Zimbabwe (Gregson et al., 2005). It may also lead to increased challenging of gender norms and scripts associated with women’s subordination. Indeed, education has been identified in large-scale studies throughout Latin America and Africa as having an ameliorating impact on women’s HIV risk (Clark et al., 2006; Jewkes, Levin, & Penn-Kekana, 2003). Thus, having access to education seems to be vital for reducing HIV rates in women.

As explained by SDT, women in general, and especially poor women, women of color, and women outside the Western world, are underrepresented in the “hierarchy-enhancing” positions at the top of most institutions and companies (which wield the power to influence many factors affecting women’s risk for HIV infection). Instead they are in “hierarchy-attenuating” positions (Pratto et al., 1997). Thus, choices about which contraceptives are produced and recommended are made by the male-dominated and male-focused pharmaceutical companies, medical field, and governments (Connell, 2005; Watkins & Whaley, 2000). This inequality in influence may partially explain why the male condom is the most commonly used HIV-prevention method, although the female condom, which could give more power to women, is efficacious when women are trained to use it (Beadnell et al., 2000; Heise & Elias, 1995; Hollander, 2002). In South Africa, Namibia, and Botswana, women who were told about the female condom were interested, excited, and even demanded that they be provided with a supply (Susser & Stein, 2000). Some female sex workers in South Africa reported that their experiences with using female condoms gave them power over protecting themselves during intercourse with clients and that clients were receptive to trying a new strategy; however, some women reported difficulties in its usage, most likely because they had not been properly trained (Pauw & Brener, 2003).

Thus, research both in the United States and internationally provides evidence that women’s economic dependence on male partners, their experiences with poverty, sex
workers’ dependence on revenue from male partners, women’s education levels, and their general lack of institutional influence all contribute to their sexual risk behavior. Clearly, women’s lack of control over various forms of resources is associated with a substantial increase in their HIV risk.

Social obligations. Social obligations constitute the third base of gendered power (Pratto & Walker, 2004), focusing on relationships and provision of care as sources of inequality between women and men. Social obligations include responsibilities to others (such as a partner or children), and the norm in most societies is for women, as compared to men, to have more obligations in terms of being caregivers or satisfying others’ needs and desires (Ford, 2006, pp. 258–260; Pratto & Walker, 2004). In the United States, although more women now work outside the home, men have not increased their share of the caretaking responsibilities that have traditionally been handled by women (Eagly, Wood, & Johannesen-Schmidt, 2004). Women sometimes give caregiving responsibilities priority over issues related to their own health (e.g., Watkins & Whaley, 2000, p. 49), including HIV risk.

Specifically, research points to the connection between women’s HIV risk behavior and their level of commitment to a relationship, which seems to reflect the level of felt obligation that a woman has to her male partner. Women who are in committed relationships with men are consistently less likely to use condoms and report more challenges to negotiating condom use than single women (Amaro & Raj, 2000; Gómez & Marín, 1996; Mays & Cochran, 1988). It may seem that lack of condom use within a relationship would not increase one’s risk for HIV infection; however, because men may not be monogamous and may not be honest about or discuss their HIV status, some women become infected by long-term partners (e.g., Sikkema et al., 2000). Even when women know or suspect a partner’s infidelity, they may have unprotected sex because of their sense of obligation to the relationship (Gentry et al., 2005). For example, pregnant women in rural areas of Haiti reported that despite knowing or suspecting that their male partners were unfaithful, they were still unlikely to use condoms (Kershaw et al., 2006). Although the connection between increased level of commitment in a relationship and decreased condom use has been noted frequently, identifying social obligations as an important and unique base of gendered power (Pratto & Walker, 2004) provides a possible clear explanation for this connection.

Marriage has an important impact on women’s risk of contracting HIV in various countries in the world, especially when the men are significantly older (Clark et al., 2006; Heise & Elias, 1995). In some countries, like Kenya, Tanzania, Cameroon, and Zambia, a higher percentage of married 15- to 19-year-olds have HIV than unmarried individuals of the same age (Clark et al., 2006). Pettifor et al. (2004) found that in a nationally representative sample of more than 4,000 young women in South Africa, inconsistent condom users were more likely to be married, and in turn inconsistent condom use made one more likely to be HIV-positive. It is hard to know exactly why marriage would be related to sexual risk behavior, and it is certainly possible that these findings are more closely related to issues of resource control and economic dependency or exchange than social obligations. However, it is also possible that marriage creates a greater sense of obligation for women toward their husband in the same way that level of commitment in a relationship is related to women’s risk. Additionally, there is some evidence that this association cannot be completely attributed to economic dependence. For example, even among Ugandan women who could support themselves and could more easily choose or leave partners, the more formal their relationship with a male partner, the harder negotiating condom use and refusing unprotected sex was (Nyanzi, Nyanzi, Wolff, & Whitworth, 2005).

Similarly, a study in Vietnam found that many female partners of male injecting drug users (IDUs) were monogamous and did not demand condom use although they were in a high-risk situation (Go, Quan, Voytek, Celentano, & Nam, 2006). On the other hand, the IDU male partners, despite their behavior (often involving unclean needles and unprotected sex with other people), did not feel the need to use condoms to protect their partners, demonstrating how gender differences in relationship obligations can increase women’s HIV risk. Research with female sex workers in many countries, including the Dominican Republic, Ghana, Kenya, South Africa, and Zimbabwe, has illustrated that a condom is less likely to be used the more regular a client is or the more intimate the relationship with the client is perceived to be, and it is rarely used with personal partners (Côté et al., 2004; Kerrigan et al., 2003; Pauw & Brener, 2003; Ray, van de Wijgert, Mason, Ndowa, & Maposhere, 2001; Voeten et al., 2007).

In summary, research findings from various countries suggest that some sense of obligation or commitment that women feel when in relationships with men, which men often do not reciprocate, is associated with increased risky sexual behavior. The imbalance in social obligations expected of women versus men is an important factor to consider in understanding women’s risk of contracting HIV from male partners.

Consensual ideologies. The final base of gendered power consists of consensual ideologies (Pratto & Walker, 2004), which justify and sustain women’s disadvantage worldwide. Consensual ideologies include gender roles, norms, stereotypes, and any other beliefs or expectations about men and women that are generally agreed upon in a society or culture, putting women in weaker positions in comparison to men (Eagly et al., 2004). An important contribution of SDT is the recognition that subordinate groups often play an active role in their own subordination and that
the consensual nature of dominance, and the ideologies that maintain that dominance, is essential to understanding why social hierarchies persist (Sidanius & Pratto, 1999). Specifically, research points to the relationship of women's HIV risk with gender and sexual norms and scripts, fidelity issues, conceptions of masculinity versus femininity, homophobia, and more benevolent forms of sexism.

Ideologies about sexual behavior vary greatly by culture, but across many groups, gender roles assert that women are and should be the passive acceptors of sex whereas men are and should be the controlling aggressors (Bowleg, Lucas, & Tschan, 2004; Scott et al., 2005). For example, some women in the United States implicitly associate sexuality with submissiveness (Sanchez, Kiefer, & Ybarra, 2006), suggesting that these beliefs are consensual. Women have less power to influence condom use in the face of sexual gender norms suggesting they should not be knowledgeable about sex, be sexually assertive, or have control over their own sexuality (Fullilove et al., 1990; Gómez & Marín, 1996; Pratto & Walker, 2004; Sikkema et al., 2000). In countries as different as South Africa and Vietnam, research has demonstrated that gender norms and sexual scripts decrease women's ability to insist on condom use (Dunkle et al., 2004; Go et al., 2006; O'Sullivan, Harrison, Morrell, Monroe-Wise, & Kubeka, 2006). In rural Haiti, the more that a woman was able to communicate with her partner about sex, and the more power she felt she had in her relationship, the more she used condoms (Kershaw et al., 2006). Similarly, in Hong Kong, women's egalitarian gender attitudes were positively associated with condom use within their marriages (Tang, Wong, & Lee, 2001).

Both women and men often accept the idea that a woman should be faithful regardless of whether her male partner is (Fullilove et al., 1990). This ideology challenges women's condom use negotiation if they fear that issues of trust and fidelity will be raised in response. Among African American women, a history of having male partners raise questions of fidelity in response to women's suggestion of condom use predicted less condom use (Perrino et al., 2006). Women in Ghana reported that worrying that their male partners would raise issues about women's sexual activity outside of the relationship prevented women from negotiating condom use as well (Ankomah, 1999; Mill & Anarfi, 2002). Beliefs about promiscuity, which prescribe that good women should not have sex with multiple men, and the assumption that women carrying condoms or raising the issue of condoms with their partners are promiscuous result in women not wanting to talk about condoms or use condoms (Brown, Sorrell, & Raffaelli, 2005; Whitehead, 1997). In addition, the idea that men are less likely to stay monogamous than women, which is often accepted in society and justified by evolutionary or biological arguments (Bowleg et al., 2004), may lead women to avoid questioning their partners about fidelity.

Societal beliefs about what constitutes masculinity versus femininity and male versus female sexuality also relate to heterosexual risk behavior. In the United States and around the world, societies prescribe that men should feel good about having control over their female partners (Harvey, Beckman, Browner, & Sherman, 2002). This prescription could actually make it rewarding for men to achieve unprotected sex with their female partners against the women's wishes. Sexuality and sexual behavior are traditionally based on men's desires and performance, and men typically are assumed to be more knowledgeable about these issues than women. Thus, when women want to inform their male partners about the risk of HIV or to assert that they want to use condoms (which are often thought to interfere with men's performance and enjoyment), men may feel that norms are being broken and that their female partners are threatening their masculinity (Campbell, 1995; Whitehead, 1997). Research in South Africa and Namibia revealed that both men and women believe that some of the defining elements of masculinity are having multiple sexual partners (Hunter, 2005), having the right to be violent toward women in some instances (Kalichman et al., 2007), having many children, wanting unprotected sex, and being unconcerned with health, although many women criticize these ideas and recognize their links to HIV risk (Brown et al., 2005). Further, heterosexualism and the belief that HIV is a gay man's disease make men in the United States specifically, where this association is still prevalent, want to distance themselves from concerns of HIV as well as prevent men who may have had sex with men in the past from revealing their history to their female partners (Campbell, 1995; CDC, 2006; McNair & Prather, 2004).

Many theorists have argued that sexism is often not explicit or hostile, but instead takes the form of benevolence, paternalism, or parentalism (e.g., Glick & Fiske, 1996; Jackson, 1994; Pratto & Walker, 2001). Across many countries, it is often believed that women should be protected and taken care of by men (i.e., benevolent sexism; Glick et al., 2000), yet this helps to maintain gender inequality and reduces women's power. Pratto and Walker (2001) explain that “widespread acceptance of parentalism allows institutions to collude in ‘protecting’ women by limiting their access to education, political power, health care, legal standing, and economic resources” (p. 95). This form of sexism plays out in marriage and committed relationships, creating the expectation that men will financially support and protect women and that in return women will take care of the family and home. These consensual ideas can even decrease women's desire to leave partners who may be abusive or put them at risk because those partners still promise the support and protection that they are expected to provide (Pratto & Walker, 2001). The ideas of benevolent, paternalistic, or parentalistic sexism are important to consider in this context; provide a good example of a consensual ideology that decreases women's power in heterosexual relationships; and begin to highlight how the four bases of gendered power are connected and reinforce each other.
Thus, much research from various countries supports the influence of gender norms and scripts and ideas about fidelity, homophobia, and benevolent forms of sexism as contributing to women’s HIV risk. Clearly, gender ideologies, which are often accepted by women themselves, contribute to women’s lack of power to protect themselves from contracting HIV from male partners.

Other Contributions of SDT

Intersections with race and class. SDT compels us to examine the intersections among different group-based power hierarchies because of the unique experiences of oppression resulting from intersecting group memberships (Pratto & Espinoza, 2001; Pratto et al., 1997; Sidanis & Pratto, 1999). Specifically, understanding the intersections among gender, race, and class can help us to understand why women of color and low-income women are disproportionately affected by HIV. Gendered power imbalances are exacerbated in communities where competition for men is greater due to an uneven sex ratio, which has been documented specifically in African American communities (Fullilove et al., 1990; McNair & Prather, 2004). This uneven ratio can at least in part be attributed to racism in the legal system causing disproportionate numbers of African American men to be incarcerated (e.g., Davis, 2004; Sidanis & Pratto, 1999). This inequality in the criminal justice system also leads to the disproportionate imprisonment of Latino men (Sidanis & Pratto, 1999), although not to the extent that is seen for African American men, and thus may also contribute to HIV risk for Latinas.

Another example of how race-based inequality intersects with gender to create a unique situation of HIV risk for women of color is in their experience of violence. Collins (1990) has argued that violence against African American women is accepted more than violence against other women because of the unique history of violence against African American women in the United States. As already reviewed, violence has been linked to risk for HIV infection, and if violence against African American women is accepted more because of the intersections of gender- and race-based hierarchies, these intersections would seem to create a unique experience of risk for this group. Similarly, one’s immigration status has been linked to risk of experiencing violence because undocumented women who are victims of rape and other forms of violence are less likely to report crimes to the police because of their fears of a justice system that labels them “illegal” (e.g., Nemoto et al., 2004).

Class-based inequality also intersects with gender to create unique HIV risk. For example, in a recent study in the United States, abuse was a stronger predictor of being unable to refuse unwanted sex for homeless women than for women in low-income housing (Tucker, Wenzel, Elliott, Marshall, & Williamson, 2004). This is one example of the way that class, or access to resources, can contribute to women’s experience of violence and moderate its relationship to condom use. Clearly, to understand why certain groups of women are disproportionately affected by HIV, race and class have to be included in our analysis. The unique circumstances of women of color and low-income women must be recognized, as more and more researchers have begun to do (e.g., Gentry et al., 2005; Wyatt & Chin, 1999).

These findings exemplify the ways that different group-based hierarchies intersect, as put forth by SDT, to affect HIV transmission in women, and, importantly, they also suggest that the field may benefit from future research that explores possible interactions among variables. Specifically, it is important to continue to explore the ways that the four bases of gendered power may moderate and be moderated by each other, other variables identified by SDT, and other variables that have been tied to HIV risk by other theoretical models.

Men’s risk. The current theoretical framework has thus far helped us to specify how power contributes to heterosexual risk behavior and HIV infection in women around the world. However, SDT also compels us to focus on the intergroup nature of power and dominance (Pratto et al., 2006; Sidanis & Pratto, 1999). Although imbalances in power particularly disadvantage women in terms of HIV prevention, and rates of HIV infection are even higher for women in some countries than they are for men, these same gendered bases of power also put men at risk. For example, two studies in Cape Town, South Africa revealed the importance of sexual assault in understanding both men’s and women’s risk for HIV infection, finding that one in five men reported either threatening physical force or using physical force to have sex with women and that this history of committing sexual assault was a predictor of other sexual risk behavior in men (Kalichman et al., 2005, 2007). If gender inequality rooted in force, resource control, social obligations, and consensual ideologies leads to unprotected sex between women and men, then clearly these four bases of power are also contributing to men’s risk for HIV infection. Specifically, if conceptions of masculinity and male sexuality are such that having power over women in different realms of life and achieving unprotected sex with many female partners (without much concern for health risks, even for oneself) are reinforced, then these social constructions of masculinity and male sexuality greatly increase men’s chances of both contracting HIV and then passing it on to their subsequent partners (e.g., Hunter, 2005; Fleck, Sonenstein, & Ku, 1983). Gendered power hurts men in addition to women; thus, confronting gender inequality should help to reduce HIV rates in men as well as women.

SDO. SDO, defined as support for group-based hierarchy and inequality or the belief that some groups are better than others, is an important element of SDT
Mediators: Complementing Other Theoretical Models

The current theoretical framework does not stand in opposition to previous findings and models in the realm of women’s HIV risk, but instead can complement them. By exploring mediators of the relationship between power and heterosexual risk behavior, we can integrate the current theoretical framework with existing social-cognitive and motivational theoretical models and other important variables. There is already evidence that some established factors that predict HIV risk are at least partial mediators of the relationships between the four bases of power and heterosexual risk behavior. For example, research has found that drug and alcohol use, depression, and self-efficacy are all mediators of the relationship between childhood abuse and adult sexual risk behavior (e.g., Newcomb, Locke, & Goodyear, 2003). Women who have experienced sexual and physical abuse are more likely to use substances that can impair their ability to engage in safer sex (Quina et al., 1997). In addition, low-income women may be particularly likely to use drugs and alcohol as an escape from their struggles, contributing to increased risk behavior (e.g., Paxton et al., 2004; Perrino et al., 2006; Scott et al., 2005). These examples present the possibility that substance use is a mediator between women’s lack of resources or experiences with violence and their HIV risk.

Women’s acceptance of their own sexuality and perceived control over their sexual encounters were found to directly correlate with their feelings of self-efficacy for condom use (Bryan, Aiken, & West, 1996, 1997). This finding suggests that women’s self-efficacy may be a mediator between the relationships consensual ideologies have with women’s sexual behavior and HIV risk. Among women living in low-income areas of the United States, those who were physically abused had lower self-efficacy for using condoms with their male partners than those who were not physically abused (Beadnell et al., 2000), suggesting that self-efficacy may be an additional mediator of the relationship that physical abuse has with condom use. Future work should continue to test for mediating factors to highlight integrative models that could map out more clearly the relationship that SDT and the four bases of gendered power have with other theories, such as self-efficacy theory and the theories of reasoned action and planned behavior. Such modeling can increase our understanding of the underlying mechanisms and processes contributing to women’s risk of contracting HIV from male partners.

FUTURE DIRECTIONS FOR RESEARCH AND INTERVENTION

Our review takes a first step in demonstrating the ability of SDT (Sidanius & Pratto, 1999), and namely the four bases of gendered power growing out of SDT (Pratto & Walker, 2004), to illuminate the significant and far-reaching role that power plays in explaining women’s HIV risk from male sexual partners. By focusing on the intersections among gender, race, and class, SDT also helps to explain why women of color and low-income women are disproportionately affected by HIV. Additionally, by focusing on the intergroup nature of power, SDT helps us recognize that gender-based power contributes to men’s risk. Furthermore, with the contribution of SDO, this theoretical framework helps to explain individual differences in dominance and risk in heterosexual relationships.

Future Research

In addition to offering an integrative framework for research findings to date, our theoretical framework also points to fruitful areas for future research. Although we reviewed substantial evidence that each of the four bases of gendered power is related to women’s chances of contracting HIV through heterosexual contact, it is important to keep in mind that the reviewed work was not designed specifically as tests of the four bases. To help us understand the unique and combined contribution of each of these bases of gendered power to women’s HIV risk, future work needs to directly test the relative contributions of, and interactions among, each of the four bases of gendered power simultaneously in predicting both women’s sexual risk behavior and their actual HIV status.

Additionally, future work may want to directly test other insights from SDT to give a fuller understanding of HIV risk. For example, these studies may look at the ways that race and class moderate the relationships between gendered power and HIV risk, may study the ways that gendered power leads to HIV risk for men, and may test the ability of SDO to predict individual differences in risk behavior. Ultimately, we hope that using this theoretical
framework will help researchers to obtain a more complete picture of the HIV problem and how to solve it.

**Intervention**

The current theoretical framework also leads to some direct suggestions for intervention efforts aimed at preventing HIV infection through heterosexual transmission. It points to the need to empower women by specifically addressing force, resource control, social obligations, and consensual ideologies as bases for imbalances in power. Because this theoretical framework identifies power at multiple levels working in concert, intervention recommendations include efforts at more distal levels such as institutional and societal, which may not appear to be directly related to individual HIV risk.

People and organizations that are working to end violence against women; to give women, people of color, and people outside of the United States and Europe equal access to resources; to put men and women on equal ground in terms of their social obligations; and to change beliefs and norms that maintain inequality can be part of the struggle to prevent the spread of HIV. A good example of this type of prevention would be to support the many already existing efforts to increase the number of women in hierarchy-enhancing positions and roles. As SDT explains, women’s disproportionate representation in hierarchy-attenuating roles is a central part of gender inequality. If we can increase the number of women in power-wielding roles, we can increase their economic resources, which in turn will decrease their dependency on male partners and their risk for contracting HIV.

Furthermore, increasing the number of women in hierarchy-enhancing positions and roles can play an important role in changing gender norms. Women who are successful in non-traditional fields and positions serve as role models for younger women, demonstrating that women can be successful in traditionally male and powerful positions and do not simply have to depend on men. Thus, this type of intervention additionally serves the purpose of challenging consensual ideologies that play a part in women’s tendency to end up in hierarchy-attenuating positions and in the less dominant or more passive role in heterosexual relationships. As discussed earlier, there is evidence that simply increasing women’s economic resources is not sufficient to prevent HIV risk behavior (e.g., Nyanzi et al., 2005) because other considerations, such as gender norms and social obligations, are also contributing to their risk. Thus, interventions that address more than one base of gendered power are likely to be more successful than interventions that only focus on one source of women’s disadvantage.

SDT would also suggest that because of the importance of the intersections of gender, race, and class, these efforts cannot fully succeed if they do not specifically seek to increase the number of women of color and low-income women in hierarchy-enhancing positions.

The current theoretical framework also leads to recommendations that can be implemented more immediately at both individual and group levels. These recommendations include incorporating issues of power outlined by SDT into existing interventions informed by other theories, such as the theories of reasoned action and planned behavior, which have already been successful to some extent. For example, Dworkin, Exner, Melendez, Hoffman, and Ehrhardt (2006) recently evaluated an intervention program that was conducted with women in New York City who reported heterosexual activity in the past year. The intervention program took an established intervention model (the AIDS risk reduction model), which uses three steps to encourage behavioral change in risk behavior, and added the elements of discussing and challenging gender norms and scripts generally accepted in society that can lead to risky heterosexual behavior.

Women who participated in this intervention felt stronger and more confident in being able to discuss protection with male partners, decided that they would not tolerate being controlled in their relationships with men, and even ended relationships they felt were negatively affecting their lives and their risk behavior (Dworkin et al., 2006). They attributed these positive changes specifically to having addressed issues of gender norms and women’s empowerment. This particular intervention is a notable example of the way that previous intervention strategies can be improved by incorporating a focus on empowerment. Indeed, the issues of institutional and interpersonal power inequalities have begun to be included more often in interventions recently (e.g., Marín, 2003; Romero et al., 2006). Although the particular focus in the intervention evaluated by Dworkin et al. (2006) was mostly on consensual ideologies, it can provide a model for attempting to incorporate the additional issues of resource control, force, and social obligations into future interventions.

There is also evidence internationally that the incorporation of empowerment issues into interventions has been successful in decreasing women’s risk for HIV infection. A randomized trial of the Songachi Project with sex workers in northeastern India provided evidence of the success of this approach (Basu et al., 2004). This approach to HIV interventions focuses on empowerment by working not just with sex workers, but also with people who have the power and influence to promote the rights of sex workers, such as “madams” and brothel owners, police officers, and politicians. The intervention resulted in increased condom use by the sex workers at follow-up assessments over the course of 16 months. These findings emphasize the way that an understanding of institutional and women’s lack of resource control can be used to implement strategies that will promote behavioral change. This is only one example of the many possible ways that an understanding of power’s influence on heterosexual risk behavior can create more successful interventions.
The current theoretical framework would also suggest that encouraging the use of female condoms is a promising intervention strategy (e.g., Hollander, 2002). Because the female condom is used on a woman’s own body, the use of this contraceptive increases the chance that women will be able to protect themselves from possible infection without having to convince their male partners to put on a condom. For example, Beadnell et al. (2000) found that, although physically abused women (compared to nonabused women) reported significantly lower self-efficacy in getting a partner to use a male condom, they did not report significantly lower self-efficacy in using a female condom. A few possibilities for increasing knowledge about and use of the female condom would be for physicians and other healthcare providers to be given incentives to suggest the use of female condoms for prevention of pregnancy and disease to clients; for all HIV and STI interventions to talk about the female condom, provide them, and teach participants exactly how to use them; for female condoms to be made widely available and easier to get for free the way that male condoms have increasingly become (e.g., the New York City condom); and for a thorough discussion of the female condom to become an established part of comprehensive sex education programs.

Another important implication of using SDT and the four bases of gendered power as a theoretical framework is that interventions need to be developed that target heterosexual men (Bowleg et al., 2004; Campbell, 1995). Interventions tend to target women with male partners and men who have sex with men, but rarely target men with female partners. By not focusing on men in heterosexual relationships, interventions actually reinforce the idea that women are the ones who need to worry about health issues like HIV, yet we know that many women lack the power in their relationships to translate their health concerns and knowledge into safer sexual behavior (Campbell, 1995). Other theorists, such as Wingood and DiClemente (2000), have already suggested that couple-based interventions would be more effective than ones targeting only heterosexual women. An understanding of HIV risk using the current theoretical framework additionally suggests that, because men tend to have more decision-making power in terms of whether a condom is used during sexual relations than women do and also are likely to support dominance and want to maintain that power, we need to specifically target heterosexual men to convince them to use condoms. Indeed, the men who will go to a couples intervention may already be the men who are more willing to communicate with their partners and take their partners’ concerns into consideration. As long as gender inequality persists, men with female partners have to be targeted for interventions, in the interest of their partners’ and their own health (Bowleg et al., 2004). Additionally, more research needs to address how interventions targeting heterosexual men can be successful in light of the ways that gendered power plays out in risk behaviors.

### SUMMARY

HIV continues to be a global problem. In our review, SDT and the four bases of gendered power identified by Pratto and Walker (2004) as growing out of SDT (i.e., force, resource control, social obligations, and consensual ideologies) were shown to illuminate the ways that power contributes to women’s risk of contracting HIV from male sexual partners. Force includes childhood and partner abuse, rape, assault, and even the fear of violence. Resource control includes access to well-paying and power-wielding positions with institutional influence, education, and health care. Social obligations include the disproportionate amount of responsibilities that women have to others, including their families, communities, and male partners. Consensual ideologies include the gender norms, roles, and scripts that result in differences in power between women and men. Research suggests that each of these four bases of gendered power contributes to women having less power than men in heterosexual relationships, resulting in challenges to preventing HIV transmission from male partners.

Additionally, SDT provides a framework that recognizes the intersections among various group-based hierarchies and explains the ways that race- and class-based hierarchies operate, thereby helping to explain why women of color and low-income women are disproportionately affected by HIV. The intergroup focus of SDT also compels us to recognize that gender-based power inequalities increase men’s risk of HIV infection, and the construct of SDO helps to explain individual differences in HIV risk behavior.

SDT and the four bases of gendered power address the need for theories that focus on power and inequality to understand HIV risk. The current theoretical framework should prove useful in helping to guide future research, including exploring mediators and links to other theories and models of HIV risk, as well as intervention efforts aimed at reducing HIV rates worldwide.

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