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The Chosen Few: Latinas and the New Technologies

by Yolanda Rodríguez Ingle, Ph.D.
University of Texas-El Paso

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Yolanda Rodríguez Ingle is Assistant Vice President, Office of Institutional Advancement (Alumni Relations) or the University of Texas-El Paso. Building on the only national survey of Latina faculty to date, she recently completed a qualitative research project on Latina faculty in the U.S. and their career paths. Prior to UTEP, she worked as director of teacher education research projects for the Tomás Rivera Center in Claremont, Calif. Dr. Rodríguez Ingle's vast experience with educational policy issues and concerns spans two decades of work as a classroom teacher, university instructor, and community advocate. She has devoted much of her energy to issues concerning the recruitment, retention, and preparation of Latino K-12 teachers, and the professoriate. She has also co-authored several publications related to these issues including a chapter in the 1999 *Readings in Equal Education* series entitled "Looking for needles in a haystack: Hispanics in the teaching profession."

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Introduction

Recent information points to the fact that there is a critical shortage of skilled technology workers in the United States. A Virginia Polytechnic Institute study found an astounding 346,000 unfilled positions across the country. The U.S. Department of Labor projects that more than a million new high-tech workers will be needed between now and the year 2006. It is a predicament that holds dire implications for the American economy, but also offers bright opportunities for people interested in high tech careers (Fletcher, 1998).

This shortfall has caught the attention of the nation's top business and government officials. The federal government is leading an unprecedented effort to help train new workers for high tech jobs. The initiative includes educational and retraining programs, the creation of an internet job bank, and a campaign to showcase the potential of high tech careers. A key component of this $17 million effort is a grant competition to provide money for programs that extend the benefits of information technology to those who have the least exposure to it – populations that are disproportionately Black and Hispanic.

Fletcher (1998) summarizes the present poor participation of these two major groups in this field. Specifically, African-Americans represent roughly 10% of the nation's information technology workers, but they are frequently in jobs that offer the lowest pay and least prestige. If computer operators and data entry staff are removed, just 6% of the nation's high tech workers are Black, according to the author of the article. Hispanics, meanwhile, represent 5.4% of the overall information technology workforce and 3.4% of those in professional level jobs.

It is evident that when we look at who ends up pursuing careers as software engineers, researchers, computer scientists, and in other high technology pursuits, people of color are underrepresented (Fletcher, 1998).

Background

Every day all of us are reminded that the world is in a continuous state of flux and change, which is strongly influenced by technology. Moreover, we are often reminded that information technology, in particular, has and will continue to transform our lives into the next century. Knowledgeable forecasters and commentators describing foreseeable changes in this area are not all in agreement nor can they predict all of the specific ways these changes will evolve or affect us. Whether we are focused on the underlying technologies and their uses in most human activities (e.g., teaching, learning, jobs, health, entertainment, shopping, etc.), the major concern for many of us is: *How is this new technological world of information going to change our lives?* Concurrently, those individuals from the Latino community who are informed about these forecasted changes are concerned and notably interested in addressing this same question. For the Latino community, an added concern is summarized in the question: *How do we prepare and engage our community for these emergent and dramatic forthcoming changes?*

Numerical information, such as how many computers are found in Latino homes and in classrooms attended by Latino children, or simply the rehashing of the growing demographics of Latinos, is neither enough nor the only compelling reason for being concerned about the forthcoming changes in the technology arena. Growing emphasis is on a reassurance that the Latino community will be given the opportunity to become a full participant in the changing dynamics of the information revolution (Dertrouzos, 1997).

These figures do not reference any differences regarding gender – that is, how are women faring in these fields and in academe? Although women represent half of the entire United States population, they do not necessarily achieve parity in these fields, either in the corporate or academic environments.

Occupational segregation, with regard to gender and diversity, is still widespread in the workforce. The study of the number of women found in traditionally, and predominantly male occupations (e.g., lawyers, doctors, and professors) is still of interest to many researchers. Although some successes have been acknowledged, the achievements of women within traditional male-oriented occupations continue to lag behind that of their male colleagues. Furthermore, even when women are as qualified as men, they are still underrepresented in the upper echelons of numerous professions, specifically the managerial and executive ranks.

In the world of academe, the story is similar. Within the higher education arena, more than 50% of students at the undergraduate and master's levels are women, according to the American Council on Education (ACE) and these numbers annually increase. Women also now hold a larger share of faculty and administrative positions than in previous years. However, despite recent gains, women in these positions still have not achieved parity (ACE, 1995). Men continue to hold a majority of the faculty and instructional staff positions, precisely, 63% or 558,532 (National Center for Education Statistics, 1995).

The concept of "tokenism" is one structural explanation used to address situations in which persons of one social type (e.g., women) are in an extreme minority when they enter an occupation. This concept explains many difficulties women face as they enter traditionally male-dominated occupations (Kanter, 1977a). Since the publication of Rosabeth Kanter's *Men and Women of the Corporation* in 1977, the concept of "tokenism" has been widely incorporated into the study of women who work in nontraditional jobs (Zimmer, 1988). Kanter (1977) argued that the proportion of men and women in organizations can have important effects on group processes and, consequently, on what happens to those in minority status.

Educational Attainment

A look at the educational attainment of these women is necessary to better understand the challenges they face during their attempt toward upward professional mobility.

Latinas have made some gains in educational attainment. In 1992-93, only 811 Latinos received a doctorate. Of this total, 436 were awarded to men and 378 to women (ACE, 1995). Although Latinas have closed the gap between themselves and their male counterparts in the number of both bachelor and master degrees awarded at the national level, they have not closed the gap between themselves and all other women, nor between themselves and male Latinos at the highest levels of education (Cuadraz, 1992). In fact, Latino men earned more doctoral degrees than Latinas in 1995. Latino men were also more likely than Latinas to achieve full professor status during the 1995-1996 academic year (National Center for Education Statistics, 1995).

In the corporate arena, a new report by the research group Catalyst, which works to advance women in business, found that most minority women in management find the barriers against their advancement through business ranks a severe reality in their careers (HACU, 1998). While minority women represent 10% of the workforce, they hold only 5% of management jobs, compared to the 35% of White, non-Hispanic women holding management positions (HACU, 1998).

Gaps of Information About Latinas

Several reasons can be cited for the lack of information about Latinas in academe that may serve to also partially explain the scant information about them in engineering, sciences, and technology. While there have been a number of significant studies that address either women faculty (undifferentiated by ethnicity) or Latino academicians and administrators (undifferentiated by gender), the majority of studies fail to view Latinas as a separate unit of analysis (Ingle and Wolf, 1992).

Often the conditions or status of Latinas is subsumed within the larger label of minority when contrasting minority vs. majority group experiences. In addition, little consideration has been given to the diversity among Latina faculty in terms of their educational and income levels, backgrounds, or geographical concentrations. There is virtually no attention given to intragroup distinctions, such as nationality or ethnicity, because Latina faculty members are generally lumped together under a generic label like "Hispanic" (Leal and Martinez, 1992). There are a few personal accounts written about Latina faculty giving insight about their experiences (e.g., racism, marginality), the documentation about the unique observations in their working environments vis-à-vis their organizational experiences, and successes are still missing.

As preparation for this paper, I searched for information in the internet and other available sources in an attempt to capture how Latinas are faring in the area of technology and complementary careers. The available information was negligible. Yes, there were a handful of articles regarding Latina leaders, but I only found one article that specifically described the involvement of Latinas in these fields.

Four women were featured in an article in the national magazine published by the Society of Mexican-American Engineers and Scientists (MAES) in 1996. They were described as women who were well-equipped with remarkable skills and knowledge. In addition, they were considered extraordinary Latinas who were making significant contributions in the world of science and engineering technology.

One of these women was a professor in neurology who presently oversees a major $170 million university research center. Another was a chemical engineer who was recognized as one of three corrosion specialists in the nation. A geophysical mathematician was the third woman who involved herself in the development of seismic imaging algorithms that are currently used in the exploration and production of oil and gas hydrocarbon reservoirs.

Information regarding women in technology fields is mostly anecdotal and remains scant, particularly for Latinas in academe. A Latina professor in computer science at the University of Texas-El Paso shared these statistics citing the pipeline for women pursuing the following careers particularly in academe. These figures are not specific to Latinas; they do illustrate a present reality for women in general (Andrews, 1995):

- 45% of the women are capable of studying science, engineering, or math;
- 20% actually graduate;
- 12% go to graduate school;
- 6% complete their degree;
- 3% receive a Ph.D.

This Latina professor also mentioned the fact that of the few Latinas that she knew in computer science, most of them were Puerto Rican.

One commentary illustrating an interesting phenomenon transpired with a new Latina engineering graduate. I asked her about the number of women that were in her program when she graduated two years ago. She recalled that there were approximately 100-120 engineering graduates and, of those, there were about 20-25 Latina engineering graduates. I then asked her if they were from Mexico or the United States; she said most were from Mexico. This young engineer corroborated my Latina colleague's comment about Puerto Rican women.

A perspective on the realities facing Latinas is necessary in order to have a better understanding of the major causes of stress and conflict faced by these women as well as their rewarding and positive experiences. As Aleman (1995) so aptly states "As Latina/o professors, we are newcomers to a world defined and controlled by discourse that do not address our realities, that do not affirm our intellectual contributions, that do not seriously examine our worlds."

Why is it Important to Study Latinas?

Latinas warrant consideration because it is necessary to address the interaction effects of ethnicity and gender. Women of color have been, and continue to be, "victims of both racial and sex discrimination" (Carter, Pearson, and Haevlik, 1988) which has limited their full participation in many fields. Also evident is the reliance on anecdotal information that does not provide the realities of the obstacles that they face in their educational and workplace experiences.

Those women who have successfully attained a postsecondary education and who are not working in academe and other professions have "slipped through the eye of the needle" (Gandara, 1982) and have managed to survive and succeed in the academic pipeline when so few Latinas have been able to do so. This phenomenon points to intriguing research as a way to better understand and, thus, recommend ways to improve the working experiences for all women.

Moreover, Latino teachers and scholars "serve as useful irritants, interpreters of society, and as role models for their students" (Olivas, 1988). Minority faculty members who "engage in activities associated with the conduct of research germane to minorities, reforming the curriculum and shaping the future institutional policies by participating in college and university governance" can have an important impact on the future of American higher education (Justiz and Bjork, 1987).

Although Latina voices are multiplying and more Latinas are achieving their academic and career goals than in any previous generation, there are several obstacles remaining. Latinas still face the dual challenge of discrimination against them because they are women and because they are members of an ethnic minority group. Doors are opening, but the opening is not wide enough (HACU, 1998).

As of yet, mostly anecdotal accounts of such obstacles exist in the literature addressing Latina's in the workforce. These women are unique. The research related to the educational experiences of these women has generated a litany of reasons for educational failure, but, so far, has produced few insights into the process of educational success (Gandara, 1991).

Dilemmas and Contradictions of Status

Hughes (1945) reminds us that in addition to specifically determined traits or technical competencies (e.g., computer literate), there are a complex number of auxiliary characteristics (e.g., articulate) which come to be expected of its incumbents. For example, in order to be accepted at certain status levels, some professionals use different solutions (e.g., social segregation – a Latino lawyer may become a lawyer to Latino clients, an African-American sociologist generally studies race relations and teaches at a historically Black college) to survive and advance their status.

Another solution, which results in a kind of isolation, if not in segregation, is that of putting the new people in less visible environments (e.g., laboratory) where they get the prestige of researchers. Thus, they are out of the way of patients or the public and are placed with a few people of his/her own position and in charge of only few people (Hughes, 1945). This approach offers a career line apart from the mainstream of promotion to power and prestige. Hughes argues the following:

> *In all of these cases, it looks as if the highest point which a member of these odd groups (e.g., based on sex, race, ethnicity) may attain is determined largely by the number of people of his/her own group who are in a position to seek his services or in a position such that he may be assigned by another authority to act professionally with reference to them. On the other hand, the end of segregation involved may lead professional people, or others advanced to special positions, to seek 'as compensation' monopoly over such functions with reference to their own group (Hughes, 1945).*

Perceptions and judgments about these groups are often a negative bias because these groups are disproportionately concentrated in low-status social positions and because many ethnic groups are highly visible. That is, the stereotypes associated with these groups can be especially strong and difficult to overcome (Konrad and Gutek, 1987). Dworkin et al.,

(1986) contend that the negative consequences of tokenism seem to occur only for members of social categories that are of lower status relative to the majority. Minority members representing ethnicity, class, and educational groups most likely experience similar performance pressures, isolation, and role encapsulation. Upper-status tokens, who rapidly achieve positions of authority, are socially central and are allowed to demonstrate innovative behaviors (Yoder, 1991).

Research supports the hypothesis that Black and Hispanic groups in the United States are disadvantaged compared to Whites in many situations. Researchers in the areas of status attainment have shown that Whites attain higher earnings and occupational status than Blacks even when their education is equal (Konrad and Gutek, 1987). Konrad and Gutek (1987) cite numerous studies that consistently found that women, more likely than men, exhibited behavior indicative of a lower status in a variety of situations.

The United States is a stratified society that presents a variety of barriers to an equal distribution of its opportunities as well as its resources. Skin color, socioeconomic class of origin, gender, and language are examples of characteristics that are good statistical predictors of success. Despite the negative predictions based upon such factors, many people born Black (African-American), Hispanic, female, or poor do achieve high levels of occupational status and career success (Boardman, Harrington, and Horowitz, 1986).

Many studies have examined the entry points and career options for Blacks and women, but the study of these phenomena retrospectively for highly successful careers (e.g., faculty member) has been largely neglected (Nieva and Gutek, 1981). The question therefore is: How is success achieved in the face of society's negative expectations?

Boardman, Harrington, and Horowitz (1986), in their exploratory study, investigated the life-history antecedents of career success for 25 Black and 24 White females. The researchers discovered that these people had not only achieved extraordinary levels of occupational success in business, academia, or government service, but also found a striking similarity with respect to the need for achievement. Despite the extremely different backgrounds of the women in the study, they consistently reflected a concern for standards of excellence and good performance (Boardman, et al. 1986).

Cohort Identity and Intercohort Dynamics

Another relevant topic to consider when addressing organizational environments are the dynamics that occur when an individual becomes part of a group. Kanter (1977) suggests that unbalanced subgroup proportions should have the effect of heightening subgroup distinctions. She theorizes that when individuals of a new social category enter a previously homogeneous group (e.g., White Anglo-Saxon males), group members become consciously aware of the characteristics that make them a group, and consequently, of subgroup differences. The numerically dominant subgroup may then behave in ways that heighten social boundaries between subgroups (e.g., excluded from certain meetings).

To offset these social boundaries and avoid tokenism, Kanter made several observations regarding group dynamics. When addressing the question – *How many are enough?* – she concluded:

> *A mere shift in absolute numbers, then as from one to two tokens, could potentially reduce stresses in a tokens situation even while relative numbers of women remained low. But two were also few enough to be easily divided and kept apart. It would appear that larger numbers are necessary for supportive alliances to develop in the token context (1977).*

In addressing the number-balancing strategies, Kanter took the next step by recommending several policy changes within the organizational context. First of all, in hiring – "*batch* rather than one-by-one hiring of women for top positions should be the rule" (Kanter, 1977). Secondly, when women are brought into positions that are numerically rare, *clustering* – rather than spreading – was more useful. In essence, women should be clustered in sufficient numbers (e.g., cohorts) to be no longer identifiable as tokens, even if it means some groups, departments, units, or locales have none (Kanter, 1977). More importantly,

organizations with a better balance of people would be more tolerant of differences among them. Kanter identified additional benefits "a reduction in stress on the people who are different, reduction in conformity pressures on the dominant group… these efforts would enhance the value of an organization's prime resource – its people" (Kanter, 1977).

In spite of the importance of cohorts in other social contexts, the effects of cohorts, which are the consequence of organizational demography (e.g., ethnicity), have been neglected in organizational analysis (Konrad and Gutek, 1987). Coincidentally, much theory and research is devoted to the study of group composition, which is defined "as the examination of groups in terms of the subgroups that compose them" (Konrad and Gutek, 1987). Pfeffer's (1981) studies of organizational demography is an example of work in this area.

Pfeffer (1985) defines organizational demography as "the aggregate of individuals (within some population definition) who experienced the same event within the same interval." According to Pfeffer (1983), there are no significant gender effects on performance or stress, at the individual level of analysis. It is the relative proportions of men and women that condition the form and nature of social interaction and group process that occurs "with subsequent impacts on psychological well being, attitudes, and even job performance" (Larwood, 1982). Bringing in people one at a time makes it more likely that they will not effectively get into the social structure, will suffer decreased performance, or will be more likely to leave (Larwood, 1985). To bring in people as a group gives each the opportunity of building links with the others for purposes of both task accomplishments and social support. Strong alliances among peers could advance the minority group as a whole (Kanter, 1977).

Konrad and Gutek's (1987) extensive review of the literature in the area of group composition cited Latane and Wolf (1981) who theorized that the influence of individuals in the numerical minority increases as the size of the minority group increases. Taylor et al. (1976), on the other hand, theorized that the influence of numerical minority individuals declines as the size of the minority increases. While Kanter (1977) suggested that individuals will experience the most prejudicial behavior when they constitute a small minority of the group, Blalok (1967) suggested a contradictory hypothesis that individuals will experience more prejudicial behavior when they constitute a large minority of the group. Studies have shown that individuals have more positive outcomes in groups when they are in the minority (South et al., 1982-83). Other studies suggest that individuals have negative outcomes when they are in the minority (Tidball, 1980).

Konrad and Gutek (1987) further propose that group composition can vary in at least three ways, each of which may affect the individual's outcomes. These researchers contend that groups may vary according to: (1) characteristics (e.g., skin color) which, at times, serve as social distinctions in identifying subgroups; (2) interrelationships between the social distinctions (e.g., gender) which defines the subgroups; and (3) distributions of their members among subgroups (e.g., percentage of representation of subgroup members in one organization).

James et al., (1994) further contends "the feminine stereotype often applies to women when there are negative implications for at least some abilities and skills valued in the workplace" (Kanter, 1977, Reid and Clayton, 1992). Social identity based on prejudice/discrimination in the workplace manifests itself in a variety of ways: greater scrutiny and criticism by outgroup individuals (Dworkin, Chafetz, and Dworkin, 1986; Pettigrew and Martin, 1987); social isolation and lack of social support (Beck, Horan, and Tolbert, 1980); lack of access of relevant organizational information (Hoffman, 1985); race or gender-linked differences in interpersonal behavior received from other individuals in the organizations (Dickens and Dickens, 1982; Fernandez, 1981); differences between ethnic-groups in allocation of rewards and promotions (Fernandez, 1981; Morrison and Von Glinow, 1990); intolerance of cultural value, behavior-norm differences, and resultant conformity pressures (Cox and Nkomo, 1986); and the use of jobs and other subtle put-downs to maintain and demonstrated status differences and stereotypes (Fernandez, 1981).

Another important area regarding group composition is the effect of distributions of social categories within groups. When groups become more homogeneous on a social distinction, they are more often stereotyped (Konrad and Gutek, 1987). The average quality of social interactions within a group should decline as heterogeneity increases because individuals prefer to interact with similar rather than dissimilar others (Konrad and Gutek, 1987).

Ryder (1965) has argued for the importance of studying cohorts in social systems. He maintains that change occurs through the introduction of new cohorts. Apparently, when organizations change directions or strategy, they do so most often through a change in personnel. Pfeffer (1985) used academe as an example of how an organization integrates ways to change ideas. Academic disciplines change as new ideas get absorbed in graduate schools and then are brought into the field by young faculty.

Pfeffer (1985) surmises that if change is generational, accomplished through the replacement of one cohort by another, there are several implications. Pfeffer (1985) summarizes three points to support his premise "first, change is likely to be lengthy. Second, when cohorts do turn over, it's important to consider which of the succeeding cohorts to bring in. Change is carried in cohorts, not in single individuals."

Tokenism in the Workplace

Like Pfeffer, several researchers have examined Kanter's propositions in a variety of settings, and have obtained mixed results. Most of the studies have focused on female tokens and have generally confirmed Kanter's propositions regarding the effects of tokenism on group interaction. Various explanations have been proposed for the different inequalities between the sexes in different fields. A synthesis of differing perspectives is presented to decide if there is a "strikingly different interaction context for women than for men" (Kanter, 1977).

Although the concept of tokenism is formulated in a way that allows examination of the work behavior of any minority group, it has proved most useful for examining women in nontraditional jobs where recent trends toward occupational integration have often placed them in highly skewed situations (Zimmer, 1988). Several researchers have used Kanter's theory as the basis for explaining some dynamics of organizational culture, which has elicited varied reactions and criticisms, particularly when it pertains to proportional representation.

Gender and Sex Ratios

Few women have been promoted to senior management positions during their careers. One explanation for this discrepancy has been the fewer developmental job opportunities. To test this idea, Ohlott and et al. (1994) surveyed male and female managers about developmental components in their current jobs. Results suggest that men experience some greater task-related developmental challenges, while women experience greater obstacles.

Field research suggests that women may have different opportunities for learning than men. Kanter (1977) argued that discriminatory organizational structures and processes are largely responsible for the fate of people in organizations and help explain why women have difficulty reaching upper management levels. Kanter's definition of opportunity included access to challenge and the opportunity to improve and increase skills. To illustrate this situation, Morrison et al. (1987) and Van Velcro and Hughes (1990) suggest that certain types of job assignments and challenging experiences, those viewed as stepping stones of future upper-level jobs, are more available for men than women. This situation may make it difficult for women to prepare for executive positions. Thus, "women may be less likely to receive assignments in which they must grapple with unfamiliar responsibilities, create change, handle a high level of responsibility, or manage nonauthority relationships" (Ohlott, McCauley, and Ruderman, 1994).

Nieva and Gutek (1981) suggest that the pressures that affect female newcomers affect people of any category who find few of their kind among others. Rustad's (1982) study of women in the military probably goes the furthest in attributing women's occupational problems to tokenism. It describes the daily lives of contemporary female soldiers and the conflicts they face as token women in formerly all-male jobs in the U.S. Army in Europe.

Several other studies have used the tokenism concept in similar ways to the ones described by Kanter (Adams, 1984; Florisha and Goldman, 1981; Yoder et al., 1983; 1985). Many researchers (Florisha and Goldman, 1981; Martin 1980; Rustad, 1982) agree with Kanter (1977) that number-balancing should be the ultimate goal.

Thus, tokenism is being used not only to understand women's occupational problems, but also to suggest policies for promoting women's progress in traditionally male jobs. Although Kanter and other researchers do not suggest that a balanced workforce alone will eliminate all of women's problems on the job, they do imply that balance is necessary to women's equal treatment on the job and that any movement toward balance will itself lead to some improvement. When there is a substantial increase in the number of women, other improvements will follow. But is it that simple? Will increasing women's proportional numbers in newly integrated occupations lessen women's problems on the job and further their achievement in those occupations? To assess these issues, we must critically evaluate the logic of tokenism and the available empirical evidence regarding the importance of relative numbers to workers' occupational experiences (Zimmer, 1988).

Without evidence of a causal link between relative numbers and occupational consequences, there is no reason to assume that increasing the number of women in an organization will necessarily improve their conditions of employment. In a paper, Zimmer (1988) further suggests that a gender-neutral concept such as tokenism is inadequate for understanding and solving gender problems in the workplace because it ignores the concept of relationships between men and women in a society plagued by sexism.

Both individual explanations, including socialization and structural explanations, such as Kanter's theory of proportions, have been used to explain sex differences in occupational achievement. According to Floge and Merrill (1986), these explanations provide a useful antidote to explanations of gender differences in achievement and behavior based on differential male and female socialization. However, these arguments explain only one side of socialization: how we learn to behave differently as men and women (Floge and Merrill, 1986). This leads to what these researchers refer to as "expectation status theory." In their opinion, this theory only encourages us to focus on the learned expectations regarding behavior, attitudes, and capabilities of categories of persons.

Toren and Kraus (1987) cite Berger, Wagner, and Zelaski (1983) to define the *expectations status theory*. According to these researchers, expectation status theory – sex, like race and ethnic origin – functions as a way to diffuse status characteristics from which general assumptions about individuals are inferred. In essence, sex is a major determinant of status, channeling individuals into particular social and occupational roles. Toren and Kraus (1987) further examine this notion by studying the effects of minority size on the academic positions for women in higher education in Israel. These researchers were interested in assessing whether academic women do better in terms of rank, promotion, and tenure when they work in the male-dominated "hard sciences" rather than in the humanities and social sciences where women have greater representation. Their findings showed that proportional representation is negatively related to their achievement in terms of academic ranks. Women, in general, possess "the wrong sex characteristics for the role of scientist in academia" (Toren and Kraus, 1987).

Performance expectations directed at the few women in the natural and exact sciences are higher than those expected in other disciplines. Women entering other academic careers – education, social work, literature, languages, art, sociology, and psychology – seem to be perceived as less talented and competent.

Commonalities do exist among the victims of prejudice (Allport, 1954), but women's situations are unique in several aspects. "Gender is a visible trait which is immediately noticed and constantly present. Women, as a consequence of their sex-role socialization, have some distinct difficulties" (Nielsen, 1979). Gender segregation is a cause of the gap in wages, benefits, and retirement impact (Perman, 1989).

Historically, both sexes have been concentrated in occupations where one sex or the other was overrepresented and the majority (women educators and men scientists). High ranking occupations in the U.S. have been typically male and, within occupations, the proportion of men increases and the proportion of women decreases as one approaches the top (Epstein, 1970a).

Some studies have attempted to show to what degree paucity of either gender in a field is due to their reluctance to enter a traditional field (e.g., nursing), and to what degree is it due to resistance on the part of either gender to accept the role associated with those fields. Segal (1962) compared and contrasted the conceptions of male and female nurses in a psychiatric hospital with respect to their intra-hospital status and their place in the general stratification system outside the hospital. Because nursing is usually reserved for women, the male nurses' views on the general stratification system are affected, especially in terms of a relatively low estimate of their own self-esteem. By several measures, male and female nurses had approximately the same prestige rank. Male nurses felt they had the lower positions and the female nurses' statements corroborated the men's impressions.

In another study of occupational segregation, Fottler (1976) examined the attitudes of female nurses toward male nurses. In both 1966 and 1972, basic data on male and female nurses in the U.S. showed that, while males constituted less than 2% of the total employed registered nurses, this percentage would likely increase in the future (Fottler, 1976). What is more significant is the fact that the males were holding a disproportionate percentage of administrative and supervisory positions in nursing, and thus casting doubt on the proposition that they suffer from discrimination in nursing (Fottler, 1976). Fottler (1976) concluded that there is no evidence of female resistance to male entry into nursing, the "sex-typing" of nursing may be due to social, cultural, and economic values that provide disincentives for males to enter this traditionally female occupation.

Expectations are higher for individuals whose diffuse external status is high (i.e., men), while lower status incumbents (women) are expected to perform not as well. Ohlott and her colleagues (1994) contend that male and female candidates vying for promotion may have had similar career paths and held jobs at similar levels in an organization, but it appears that women haven't had the same responsibilities as men in similar jobs. Being able to handle these types of challenges becomes more important at higher organizational levels. Women may be eliminated from a candidate pool because they have not had the opportunity to show what they can do when faced with these challenges (Ohlott et al., 1994).

Women may not have time to get into networks or develop the relationships necessary for good advice and feedback (Ohlott, McCauley, and Ruderman, 1994). In addition, obstacles have been related to low motivation and negative stress (McCauley et al., 1994; Ohlott et al., 1993). All of these factors contribute to organizational problems of turnover among talented women managers. "If women are placed in positions in which they face substantial obstacles and receive less support than men, women may be set up to fail. Increasing the probability of failure offers yet another subtle way of discriminating against women" (Ohlott, McCauley, and Ruderman, 1994).

As illustrated, "women are given less opportunities for advancement, their performance is evaluated less positively, and they have less influence on group decisions" (Toren 1987). Researchers believe that changing the proportions of women in university faculties without altering the prevalent perceptions of their sex attributes in relation to the academic-scientific role is not likely to improve their position.

Multiracial Groups

Although the token studies by Kanter were about women, she maintains that the dynamics of the tokenism process "generalize beyond male-female relations to person-of-one-kind and persons-of-another-kind interaction in various contexts…" (Kanter, 1977a). One area often referenced as a way for individuals to ascend the managerial ladder is by networking. Voluminous research indicates that women and minorities have limited access to, or are excluded from, organizational networks (Ibarra, 1993). According to Ibarra, there are two central questions that remain unanswered: (1) In what specific ways, if any, do the interaction networks of men,women,Whites, and racial minorities differ? and

(2) What mechanism produces those differences? The central thesis is that the organizational context in which interaction networks are embedded produces unique constraints on women and racial minorities, causing their networks to differ from those of their White male counterparts in composition and characteristics of their relationships with network members. Ibarra (1993) further hypothesizes that the organizational context affects personal networks directly, as well as through its impact on individuals' strategies for managing constraints.

Kanter (1977) professes that in any situation where a significant proportion of different types of people are highly skewed, similar themes and processes occur. That is, any group in the extreme minority will suffer consequences similar to the managerial women at Industrial Supply Corporation, a conglomerate that employed about 50,000 people during the 1970's. Kanter referenced Seymour Sarason (1973) when addressing the fear of success felt by certain groups other than women.

According to Kanter, Sarason writes, "minorities of any kind, trying to succeed in a culturally alien environment, may fear visibility because of retaliation costs and, for this reason, may try to play down any recognition of their presence." When there are few or no other women, the women confront problems in interacting with their co-workers and in receiving credit and attention as individuals rather than as representatives of some group.

The so-called liberation of the 1970's spawned large numbers of women and Blacks entering White male-dominated professions. As a result, Fairhurst and Snavely (1983) believe that much of the thinking about what prompts and constitutes tokenism in the organization is based chiefly on observation of the Black and female minorities. The political atmosphere of some environments has been a factor precluding the success for some of these newcomers subject to tokenism.

According to Fairhurst and Snavely, little occurs to break down sexual and racial barriers to occupational choice until newcomers can be easily integrated into the working environment of the majority. They expand this notion even more and argue that individual responses to the token minority role and the majority member's role can vary when other sources of status and power are considered.

Observations

Many researchers have examined Kanter's propositions in a variety of settings with mixed results, and added suggestions for further research in areas not integrated as possible factors affecting her theory. Some confirmed Kanter's propositions regarding the effects of tokenism on group interaction, but also proposed other questions.

Several researchers found similar patterns of visibility, social isolation, and gender stereotyping in different settings (i.e., police department, law school) (Martin, 1980; Spangler, Gordon and Pipkin, 1978). Other researchers agree with Kanter's support of number-balancing in the workforce as a precondition for equal treatment on the job (Florisha and Goldman, 1981; Martin, 1980; Rustad, 1982). Yet, still others deduced there are intervening factors that need to be considered in addition to relative numbers.

For example, Floge and Merrill (1986) felt that the three perceptual tendencies would vary based on the status of the person and the organizational and occupational variables.

Zimmer (1988) criticizes the low proportion of the work group and, thus, questions the casual link between relative numbers and occupational consequences. Epstein (1970) and Segal (1962) flawed Kanter's theory because there is no contrast between the experience of female tokens with the experiences of otherwise similarly situated nontokens. Gutek and Morasch (1982) contend that sex ratios of the work role-set need to be included as part of the analysis. According to Yoder (1991), societal sexism was basically ignored as an important consideration and, in the case of minority members, the missing link is based on economic status. For Fairhurst and Snavely (1983), newcomers from minority groups must be integrated into the working environment or there will be no breakdown of barriers for these groups' occupational advancement.

Latina Faculty in Higher Education

Despite some significant strides over the last two decades, Latinas of all socio-economic levels continue to face problems in terms of their earning power, educational strides, and career attainment. Other challenges include: insufficient financial aid to obtain an education, ineffective recruitment practices, poverty, exclusionary admission requirements, irrelevant curricula, and shortage of Latina faculty and administrators as role models, and culturally illiterate campuses knowing little about Latinos in general (Arvizu, 1994; Chavira-Prado, 1994; Melendez and Petrovich, 1989; Nieva and Gutek, 1981; Nieves-Squire, 1991).

Familial and personal challenges often prevent Latinas from furthering their educational attainment. For many Latinas, a cultural imperative to marry and have a family, regardless of their academic aspirations, causes much stress. As a result, many Latinas in college are likely to have heavy domestic household responsibilities, a spouse and children. Some find that their families do not support their desire to continue their education. Many, who do manage to enroll and go to college, may be the first to study away from home. They may also be the first in their family or community to attend college. Most of the time, they are faced with conflicting roles and expectations. Even more compelling is reality that the accomplishment associated with receiving a degree does not necessarily mean instant availability of a job. When these women are employed they face barriers, problems, or differentiated treatment in their career and employment progression patterns (Chavira-Prado, 1994).

Latinas have been historically less likely to be employed than other women, and their employment-population ratio remains lower than that of non-Latinas. Moreover, Latinas 25 years and older are much less likely than others to have completed their high school diploma; this is a major determinant of sustained employability (de la Rosa and Maw, 1990).

Summary

Capturing the insights about the realities facing Latina faculty provides a better understanding of the possible causes of stress and conflict faced by these women, as well as their most rewarding and positive experiences. The relevance of this study goes far beyond getting diverse people into the faculty ranks, nor is it merely concerned with valuing and managing diversity. Rather it focuses on how Latina faculty perceive their value and whether they think they are making significant contributions in the realm of their working environment. If higher education is serious about attracting and retaining these women to the faculty rank, and giving them significant roles in the academic arena, the insights and reactions these individuals hold must be specifically considered and tapped. Therefore, there are both organizational and mission specific insights for universities, in general, to be gained from this study.

I feel a great sense of responsibility to present a more balanced picture of their reality that focuses on the academic culture and the impact it has had on these Latina faculty members. The following explanations summarize three perspectives garnered from the conversations with these Latina faculty at 4-year institutions across the United States.

I was pleased to find these women basically felt that they were indeed making contributions as faculty members. As previously mentioned, I found them to be well prepared, committed, and willing to do their best. They seemed to draw on a connection between being a good professor and the ability to affect their own ethnic community through their students and student-centered teaching and research, ultimately perceive this as a way to influence social change.

What is missing and not fully described are challenging situations these women face and their persistence. They never give up. In fact, they are hopeful that things will get better. Their personal and professional persistence, or what I refer to as the "eternal hope factor," seems evident even in

uncomfortable academic environments. Indeed, these women of color continue to experience racial, ethnic, and gender biases in the process of performing their duties as faculty members. They continue to experience exclusion, isolation, alienation, sexism, and racism. They continue to be plagued with the assumption that they are there to fill a minority-related position. In addition, I want to remind us that there is still work to be done in higher education. More understanding and comprehensive organizational change is needed to achieve campus climates that are truly inclusive and receptive to diversity.

To illustrate this point, I have chosen the words of one of the survey respondents. When asked "*Do you think that the institution facilitates or helps you in what you are doing?"* she responded:

> "*The rhetoric says I am supported. But, you know, the actions don't back up the rhetoric so I don't believe it. We have, like all other institutions, gone through a development level of restructuring.*
>
> *During the last few years, I was on three different committees. The first one was an affirmative action task force. I felt very empowered because we had a good group of people who came with a list of concerns and a timetable that the institution could follow. It was drafted on paper and it hasn't come to pass yet. This was in 1993-94. All we asked for was that, within the next five years, we could hire five Latinos. It hasn't happened. They are still going by the same old ideas.*"

University campuses could serve as exemplars for the nation in their efforts to embrace diversity and to model ways of respecting and integrating differences. Two major steps include the authentic acceptance of diversity in academe by improving the working experience of ethnic and racial minority faculty members on campuses, and by creating learning opportunities for faculty and students that result over the long term in an appreciation of each other's commonalities and differences.

Recruitment and Retention

Effective recruitment and retention of ethnic and racial minority faculty members have been a major concern for institutions of higher education over the past two decades. Numerous universities have tried various approaches to increase the number of Latino faculty through the public policy of affirmative action. In recent years, this approach has been emphatically challenged as discriminatory toward the White or Anglo community, and has been challenged in court cases and almost overturned in some states.

Although affirmative action is intended to increase opportunities for women and minorities to enter the academic job market, this goal has not yet been attained. Even with affirmative action programs as a way to increase the number of minorities across faculty ranks, the results have been negligible.

The data shows some minor increases in hiring patterns which have enhanced the pool of candidates for promotions and tenure, however affirmative action programs have not ensured equity in the review process of such individuals. Even when they are accepted as faculty members, Latina faculty have difficulty in totally fitting in. For example, the Latina faculty in this study referred to everyday interactions, both social and professional, that made them feel either unwelcomed, unappreciated, or unwanted. Some perceived an assumption on the part of colleagues that they were hired solely for affirmative action purposes. Thus, they feel pressured to continually prove that somehow they deserve their academic positions more than other faculty members.

What will replace affirmative action is presently under deliberation in the courts. Whether the terminology is changed or the programs revamped, the true challenge again goes back to a change in the mindset of administrators and faculties of higher educational systems. This will require dedication on the part of higher educational institutions to recruit, retain, and prepare students and faculty to understand and celebrate diversity.

Mentoring

Access to supportive colleagues is important to academics, and particularly, upon entry to academe and at review time. "Who communicates with whom" is greatly influenced by the campus climate and the disciplinary norms that have been established by senior academics. Responses of Latina faculty in this study emphasize that it should not be assumed that these norms are customary to underrepresented women and minorities.

The lack of support networks among colleagues have placed these Latina scholars and teachers at a disadvantage. As a result, a climate of isolation exists that prevents most of these Latina faculty from connecting with the full scope of scholarly and social life, ending up with a "ghettoization" or "barrioization" (Garza 1987/88) of these scholars in their own academic institutions. Therefore, they are limited in scope and their endeavors are often thwarted.

Although the women in this study were raised in different countries (i.e., U.S. and Latin America), came from different socioeconomic backgrounds, and had varying educational experiences, their perceptions of their respective academic environments underscore a great similarity and unanimity in their thoughts. Two observations about them are important.

First, these relatively young, well-educated Latina faculty members are ready to meet the challenges of academic life and are enthusiastic about participating in the educational reform movement, which I believe is vitally important to the future well-being of higher education. Second, these Latinas in academe – connected by gender, race, and ethnicity – seek equity in remuneration, opportunities for achievement, and influence to assist in the changing academic fabric of higher education in the new millennium.

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