



Assimilation, Accommodation and Activism: How Women in the IT Workplace Cope

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ABSTRACT

Women are under-represented in the information technology (IT) professions. A sufficient understanding of the underlying causes of gender under-representation in the IT profession is needed in order to develop effective educational policies and workplace human resource strategies to attract and retain more women. Unfortunately, few theories exist about how some women manage to survive and succeed in this male domain. One line of research critically analyzes marginalized groups coping and competing within the IT power structure. This paper continues in that tradition by developing a framework for the categorization of women's coping responses to gender issues found in the IT workplace. The framework integrates the findings from key multidisciplinary literature examining a variety of coping theories. The framework is based on the three types of women found in Trauth et al. (2000): *Assimilation*, *Accommodation*, and *Activism*. This coping responses framework will contribute to the development of new theories about the IT gender imbalance and provide a basis for interventions to promote change.

Keywords: Information technology, Workforce, Gender, Coping

INTRODUCTION

Despite significant growth in the information technology (IT) professions in recent years, there remain segments of the population that are under-represented in IT. Among those under-represented are women (Trauth, Nielsen, & von Hellens, 2000). A sufficient understanding of the underlying causes of gender under-representation in the IT profession is needed in order to develop effective educational policies and workplace human resource strategies to attract and retain more women (Trauth, 2002). Unfortunately, few theories exist about how some women manage to survive and succeed in this male domain. One line of research studied by Kvasny and Trauth (2002) describes patterns of coping behavior by under-represented groups competing within the power structure of the information society.

This paper continues in that tradition by developing a framework for the categorization of women's coping responses to gender issues found in the information technology workplace. The framework integrates the findings from key multidisciplinary literature that examines a variety of coping theories. The framework is based on the three types of women found in Trauth et al. (2000). In that study on the under-representation of women in the IT field, the authors explored the experiences of women who are in technical positions and who work in a range of industries throughout Australia. At the conclusion of the paper the authors suggested three types of women in the IT workforce. This paper begins where Trauth et al. left off by producing a framework of coping responses based on the three types of women identified in that study.

COPING THEORIES IN LITERATURE

In general, most coping studies appear to tap into three sorts of coping variables: direct action on the environment or self; interpretive reappraisal regarding the environment or self; and emotion-management. This section discusses several dominant viewpoints about coping that are found in the literature from non-IS disciplines. Two feminist identity theories are reviewed. This is followed by two investigations of coping behavior from psychology literature. Finally, several models of coping within occupational life are presented.

Women's Identity Coping Models

The Downing and Roush (1985) model of feminist identity development is derived from Cross's (1971) theory of Black identity development. The Downing and Roush model is based on the premise that women who live in contemporary society must first acknowledge, then struggle with, and repeatedly work through their feelings about prejudice and discrimination in order to achieve an authentic and positive feminist identity. Downing and Roush delineated a five-stage model. The first stage, *passive acceptance*, involves adherence to traditional sex roles and acceptance of male superiority. These women fail to acknowledge discrimination against women within society. The second stage, *revelation*, is exemplified by a consciousness-raising experience in which the individual develops anger through a questioning process resulting in an understanding of female culture. In the third stage, *embeddedness*, close affiliations with other like-minded women are formed. The relationships create a safe, women-friendly environment in which women process feelings of anger and betrayal. The fourth stage, *synthesis*, is characterized by the formation of a positive feminist identity that integrates the understanding that oppression has an impact on women. In the final stage, *acting commitment*, a culmination of the previous stages occurs in which the individual channels her feminist identity into activities promoting the creation of social change.

The Downing and Roush (1985) identity model is similar in certain aspects to another well-known women's identity model by Belenky, Clinchy, Goldberger, and Tarule (1986). In this model five perspectives outline how women view reality, define a male-dominated majority culture, and draw conclusions about truth, knowledge, and authority. The authors believe that most women can recall incidents in which either they or female friends were discouraged from pursuing some line of intellectual work on the grounds that it was "unfeminine" or incompatible with female capabilities (Belenky et al., 1986). Belenky et al. access conceptions of knowledge and truth that are accepted and articulated today and shaped throughout history by the male dominated majority culture. Men have constructed the prevailing theories, written the history, and set values that have become the guiding principles for men

and women alike.

There are five perspectives in this model from which women know and view the world. The first perspective is *silence*. Women experience themselves as mindless and voiceless, and subject to the whims of external authority. They adhere to sex role stereotypes and have little awareness of their intellectual capabilities. In the second perspective, *received knowledge*, women conceive of themselves as capable of receiving, even reproducing knowledge. They are not capable of creating their own knowledge because all knowledge is obtained from the all-knowing external authorities. *Subjective knowledge* is the third perspective. In this perspective women conceive truth and knowledge as personal, private, and subjectively known or intuited. In the fourth perspective, *procedural knowledge*, women are invested in learning and applying objective procedures for obtaining and communicating knowledge. In the final perspective, *constructed knowledge*, women view all knowledge as contextual. They experience themselves as creators of knowledge, and value both subjective and objective strategies for knowing.

Both of these theories model the journeys of women through phases of psychological development from passive acceptance/silence to acting commitment/constructed knowledge in their realization of a gendered society. The destination is an individual who recognizes the social oppression of women and actively promotes the creation of social change in a positive way.

Psychological Coping Models

From a social-psychological perspective, Pearlin and Schooler (1978) investigate coping behavior as a protective function that mediates the impact that society has on its members. A fundamental assumption of their theory is that people are actively responding to the continuous strains built into daily roles. Pearlin and Schooler define coping responses as the behaviors, cognitions, and perceptions in which people engage when actually contending with their life-problems (Pearlin & Schooler, 1978).

Pearlin and Schooler (1978) categorize coping responses into three major types distinguished from one another by their functions. The first type of coping response changes the situation out of which the strainful experience arises. This response represents the most direct way to cope with life-strains. It aims at altering or eliminating the very source of the stress. Negotiation, discipline, and direct action are examples of coping responses that modify the conditions leading to the problem.

The second type of response controls the meaning of the strainful experience after it occurs but before the emergence of stress. This response recognizes that the meaning attached to an experience determines to a large extent the threat posed by that experience. Making positive comparisons, and selectively ignoring that which is noxious are examples of coping responses used to neutralize the problematic meaning of the experience.

The third type of response functions more for the control of stress itself after it has emerged. This type of coping neither alters the situation generating the stress nor modifies the perception of the strainful experience. The response functions more for the management of stress by helping people to accommodate without being overwhelmed by it. This type of coping response brings together a number of orientations to life-problems: denial, passive acceptance, withdrawal, a hopefulness bordering on blind faith, and belief that the avoidance of worry and tension is the same as problem solving (Pearlin & Schooler, 1978).

Unlike the previous theories, Pearlin and Schooler's (1978) coping responses do not propose a developmental timeline; instead they are influenced by general psychological resources. Psychological resources are the personality characteristics that people draw upon to help them withstand threats posed by events and objects in their environment. These resources reside in the individual's attitudes toward oneself. The psychological resources represent some of the things people *are*. Coping responses represent some of the things that people *do* in their efforts to deal with the strains they encounter in their different roles (Pearlin & Schooler, 1978).

An extensive research program by Lazarus and his colleagues (Lazarus & Folkman, 1984) distinguished between problem and emotion-focused coping. Problem-focused coping is defined as efforts aimed at altering the person-environment transaction and emotion-focused coping refers to efforts aimed at regulating the emotions. Problem-focused efforts are often directed at defining the problem, generating alternative solutions, weighting the alternatives in terms of their costs and benefits, choosing among them, and acting. In addition

to problem-oriented strategies, problem-focused coping may include strategies that are inwardly directed (Lazarus & Folkman, 1984). Emotion-focused processes change the meaning of a stressful transaction without distorting reality, however, self-deception may become a consideration in this type of coping process. Lazarus and Folkman state that emotion-focused coping is used to maintain hope and optimism, to deny both fact and implication, to refuse to acknowledge the worst, to act as if what happened did not matter, and so on. In an earlier study, Lazarus and Folkman (1980) concluded that problem and emotion-focused functions were used by everyone in virtually every stressful encounter both facilitating and impeding each other in the coping process.

Workforce-Oriented Coping Models

A study by Menaghan and Merves (1984) examined the effectiveness of specific coping efforts for various problems in occupational life. Two different criteria of effectiveness were considered: the extent to which distress was reduced; and the extent to which occupational problems were reduced. The authors identified four major coping efforts: (1) direct action to resolve problems; (2) optimistic comparisons of one's situation relative to the past and relative to one's peers; (3) selective inattention to unpleasant aspects and heightened attention to positive features of the situation; and (4) a conscious restriction of expectations for work satisfaction and a focus on the monetary rewards from employment. Menaghan and Merves's (1984) coping efforts are similar to Pearlin and Schooler's (1978) coping responses in that they are largely interpretive strategies and emotion-management processes rather than direct efforts to change one's situation.

Other workforce-oriented models regarding the immediate reactions or coping strategies employed by women confronted with sexual harassment behavior identify a variety of classification schemes based on these women's reactions. Gutek's (1985) survey of victims of sexual harassment reported the following reactions: 9 percent of the women had quit a job sometime because they refused to grant sexual favors; 5 percent had transferred as a result of sexual harassment; and 23 percent had talked to coworkers after the instance of harassment. Crull (1982) reported that 42 percent of the victims in her survey had resigned from jobs because of sexual harassment. Also, a large number of the women tried to avoid the harasser. Jensen and Gutek (1982) provided more detail on the emotional reactions to sexual harassment. In their study the victims experienced depression 20 percent of the time, disgust 80 percent, and anger 68 percent. The victims labeled their responses as either inward-directed (hurt, sadness, and depression) or outward-directed (anger and disgust).

In response to the growing managerial concern about the detrimental effects of job stress, Latack and Havlovic (1992) present a conceptual evaluation framework in the form of a matrix that specifically focuses on coping processes in work organizations. They evaluated published coping theories and coping measures for *comprehensiveness* (defined as focus and method of coping) and *specificity* (defined as coping behaviors versus coping effectiveness; coping style; coping resources; and stress management applications). This coping processes matrix aids researchers in choosing and developing coping measures applicable to job stress.

COPING RESPONSES FRAMEWORK

The previous literature review was used to generate a framework of coping responses. The framework enables a researcher to take an analytical perspective on the many variations of women's coping responses in the IT workplace. This particular framework was tested on a set of in-depth interviews conducted with women practitioners and academics in the IT field.

Table 1 presents the framework. *Assimilation*, *Accommodation*, and *Activism* define the three categories of coping. A woman coping by *assimilation* denies that discrimination against women exists in the IT workplace. She successfully utilizes differing degrees of selective perception to operate in this male-dominated profession. An assimilating woman adheres to traditional sex roles and acknowledges male superiority in all aspects of life.

A woman who copes by *accommodation* accepts that gender discrimination is an integral part of the IT workplace, as simply the way things are. She internalizes oppression while skillfully avoiding confrontations within a male-dominated environment. Oftentimes, she manages both domestic responsibilities and a full time IT career. Due to impossible time constraints, the accommodating woman often chooses between scaled back professional aspirations

and remaining childless.

The third type of woman uses *activism* to cope in the male-dominated workplace. She questions the inconsistencies and contradictions of the gender imbalance. The activist recognizes institutional barriers and expresses the need to be strong and fight the system. She networks with like-minded women while addressing discriminatory issues in hostile educational and work environments. The activist is proactive, often working as a radical or a champion to promote gender equality throughout society.

Table 1: Summary of Gender and IT Framework

Assimilation	Denies gender discrimination Selectively perceives oppression Adheres to traditional sex roles
Accommodation	Accepts gender discrimination Internalizes oppression
Activism	Questions male-dominated workplace Recognizes institutional barriers Aims to alter and resolve discrimination

CONCLUSION

This framework provides a conceptual tool that can be used for the analysis of transcripts produced from open-ended interviews, focus groups, participant observation, and other such data sets. The flexibility of the framework construction allows a wide range of scope useful from a high-level organizational view to a finely grained individualized analysis of specific coping experiences. The hierarchical structure of the framework lends itself to qualitative research software utilization through importation of coding trees.

Many promising possibilities for IS research emerge from the contents of the framework. Currently it is being utilized as an interpretative transcription analysis tool for several works in progress on gender and IT. This theoretical framework on how women in the IT workplace cope will improve our understanding as to why women are under-represented in the information technology sector and provide a basis for new interventions promoting change.

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