THREE STUDIES ON COUNTERINTUITIVE EFFECTS OF ORGANIZATIONAL STATUS

by

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Abstract

This dissertation examines some counterintuitive effects associated with having high status. Whereas much literature focuses on benefits associated with holding high status, in this dissertation, I highlight some negative outcomes that can come from having status. Study 1 examines marital costs that can emerge when women hold high job status relative to their spouses. I propose a conditional process model such that when women experience job status leakage, a construct referring to contempt that women feel towards their husbands’ lower job status, this will positively predict marital instability, mediated through decreased relationship satisfaction. The model is tested in a cross-sectional field study on women in high job status positions, and the model is supported.

The second study of this dissertation examines potential costs when in high status positions to CEOs longevity. I argue that despite the benefits accrued at the highest level of organizational status; CEOs will compare their status to other CEOs, which influences their longevity. Using a retrospective cohort analysis on award winners from Financial Word Magazine’s “CEO of the Year” contest, I test four competing models, which suggest that the ways CEOs interpret their status can predict longevity. The results of this study are largely unsupported, though post-hoc analyses and theorizing suggest that status maintenance comes at a cost to longevity for this group of CEOs.

In the third study of this dissertation, I examine the relational costs associated with holding high status. Given the relational nature of status, for some individuals to have high status, there must be lower status referents. The emotions and behaviors of those lower status others are the focus of the third study. I propose that in the presence of status differences, lower status individuals will feel envious of others’ higher status
positions, and I quantify how much status dispersion must be present in order for envy to be triggered. I also suggest that when individuals are envious of others’ status positions, they are more likely to ostracize high status targets and perceive themselves as ostracized in social interactions. The results suggest that there is a curvilinear relationship between status dispersion and envy, where only minimal status differences need be present in order for envy to emerge, and envy then predicts feeling ostracized in social situations.

The dissertation closes with a general discussion of the studies, and suggests areas for future research.
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Statement of Originality

I hereby certify that all of the work described within this thesis is the original work of the author. Any published (or unpublished) ideas and/or techniques from the work of others are fully acknowledged in accordance with the standard referencing practices.

(Alyson Byrne)

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Chapter 1

Introduction

“Early on in an encounter, the subject of what we “do” will arise and depending on how we answer, we will either be the recipients of bountiful attention or the catalysts of urgent disgust.” (De Botton, 2004, pp. 76).

It is surprising the amount of prestige, respect and status that a person can be given simply by occupying a position that is at the upper levels of social status hierarchies. As De Botton indicates, one’s response to the question “what do you do?” will determine whether people are either elated to be in your company, or eager to disappear. Be it one’s job, social background, education, income, or other status markers that are highly valued in today’s society, status matters (Pearce, 2011).

Sociologists and anthropologists have long studied the notion that when people gather, social hierarchies emerge, in which some individuals are granted higher social value than others (Blau, 1964). The drive to acquire status and to be held in esteem has long been considered a fundamental human need and motive (Barkow, 1975; Barrick, Steward, & Piotrowski, 2002; Frank, 1985). Almost equal to the drive to acquire status is the drive to avoid any loss of status, and the subsequent loss of resources and opportunities (Troyer & Younts, 1997; Waldron, 1998).

While the literature on having status within organizational settings remains understudied (Chen, Peterson, Phillips, Podolny, & Rideway, 2011; Magee & Galinsky, 2008), what research has been conducted largely examine its many benefits; and only rarely highlight plausible costs associated with having high status. This preoccupation with benefits of having status ignores an important component of status – that it is a
relative phenomenon. In order to have status, one must be able to compare and evaluate status attributes relative to another person or group.

That referent comparison may be an important determinant of the positive or negative outcomes associated with status. While much research focuses on the benefits associated with having high status, a comprehensive picture of potential costs associated with those high status positions is missing. Might there be times when those high status positions are the source of negative consequences? Dependent upon the context within which status is examined, against whom status comparisons are made, and how those status evaluations impact relationships, the consequences of having high status might not always be positive.

The purpose of my dissertation is to examine some disadvantages associated with having status. In three different studies, examining status within different contexts and referents, and using diverse samples and methodologies, I predict unexpected costs associated with high status. This introductory chapter provides an outline of what status is, how people evaluate their status relative to others, the importance of referents, and the outcomes typically associated with having status. I then briefly describe the three separate studies (a field study, an archival study, and an experimental study) investigating counterintuitive costs of achieving high status.

What is status?

Status refers to “a socially constructed accepted ordering or ranking of individuals, groups, organizations or activities in a social system” (Washington & Zajac, 2005, p. 284), and one’s hierarchical position is determined by the respect and deference received from others (Berger, Cohen, & Zelditch, 1972). People high in status are
admired, and granted greater respect, honor, and prestige (Ridgeway & Walker, 1995; Pearce, 2011). As discussed by Magee and Galinsky (2008), status is separate from power, prestige, legitimacy or reputation, but having status can lead to gaining one or any of those constructs.

People acquire status when specific objects, status beliefs, experiences or other salient concepts associated with those individuals are socially valued (Ravlin & Thomas, 2005). These status markers, or status characteristics, signal one’s relative worth to others in a social hierarchy (Berger, Rosenholtz & Zelditch 1980). Status markers can be either ascribed or achieved (Ravlin & Thomas, 2005; Thomas-Hunt & Phillips, 2011). Ascribed status markers emerge at birth from characteristics over which people have no control, such as gender, race, and socioeconomic status. In contrast, individuals have some control over achieved status markers by acquiring higher education, high status occupations or higher levels of income (Merton, 1968). Within organizational or group dynamics, status is achieved through competent job performance (e.g. Shackelford, Wood & Worchel, 1996), articulate and assertive speech (e.g. Driskell, Olmstead, & Salas, 1993), associating with higher status affiliates (Lin, 1990; Podolny, 1994) or symbolically, such as by sitting at the head position of a boardroom table (e.g. Berger & Zelditch, 1998).

**How is status evaluated?**

Status is a relational construct – it is a property of co-actors (Magee & Galinsky, 2008) and individuals can only make sense of their status position in comparison to other’s status as a point of reference (Christie & Barling, 2010). Within social hierarchies, people can evaluate themselves as high in status only if others are
subordinate to themselves (Blau & Scott, 1962). The referent nature of status is such that an increase in one’s relative status automatically generates a decrease in the relative status of referent others (Heffetz & Frank, 2011).

Status evaluations are a form of social comparison, in which people use referents to compare their attributes, possessions and positions to evaluate where they stand (Festinger, 1954). Within organizational contexts, social comparisons highlight the importance of referents in helping individuals and groups to assess where they rank regarding their roles and positions (Shah, 1998) and to evaluate their pay, job complexity, and performance (Adams, 1965; Oldham, Kulik, Ambrose, Stepina, & Brand, 1986). These interpretations can be very powerful, as they suggest evalulative information about a person’s worth relative to others (Wrzesniewski, Dutton & Debebe, 2003) and these comparisons can have a significant impact on organizational outcomes such as absenteeism, employee morale, employee well-being, job satisfaction, organizational commitment and job performance (Brown, Ferris, Heller, & Keeping, 2007; Geurts, Buunk, & Schaufel, 1994; Hooper & Martin, 2008; Vidyarthi, Liden, Anand, Erdogen, & Ghosh, 2010).

Status referents are necessary to determine where individuals reside in status hierarchies, but against whom people evaluate their status is not fully understood. Social comparison theory suggests that the similarity, availability and relevance of referent others is important in selecting social referents (Festinger, 1954; Kulik & Ambrose, 1992; Levine & Moreland, 1987), and a similar relationship should exist for status comparisons. In making social comparisons those at higher organizational levels typically choose referents external to the organization, whereas lower status employees will select
referents within organizations (Andrews & Henry, 1963; Goodman, 1977; Kulik & Ambrose, 1992). People select referents that occupy positions similar to their own (Contractor & Eisenberg, 1990) or their peers (Mumford, 1983), or make comparisons with close friends (Wheeler & Miyake, 1992). When romantic couples share egalitarian beliefs, they may choose each other as social referents for occupational and organizational comparisons (Vanyperen & Buunk, 1991). Ultimately, there is little consensus about the selection of referents for status comparisons, however against whom one evaluates their status can have important consequences, as the selection of referents may lead to perceived inequity and dissonance (Kulik & Ambrose, 1992; Ronen, 1986).

The choice of status referent is essential to understanding the outcomes associated with having high status. Status typically affords individuals a myriad of benefits, however that might be dependent upon context and referents. The traditional research perspective on status (as will next be outlined) suggests that when people are ranked higher than others in status continuums, positive benefits will ensue, however this may not always be the case (Marr & Thau, 2013). I suggest that dependent upon the status referents and the contexts in which status evaluations are made, there may be costs to having status. In this next section, I outline the traditional perspective of status that focuses on its many benefits, and then consider some of its costs.

**Outcomes of high status**

**Benefits.** The benefits of high status have been well documented across multiple disciplines. Those who hold higher social status enjoy improved individual life outcomes: better health and well-being (Bosma, Marmot, Hemingway, Nicholson, Brunner, & Stansfeld, 1997), improved longevity (Marmot & Shipley, 1996), higher life satisfaction
(Pinquart & Sorensen, 2000), higher self-esteem (Twenge & Campbell, 2002) and greater happiness (Easterlin, 2001; Oswald, 2004). They also have more resources (Gallo & Matthews, 2003) and more power (Thye, 2000). Interpersonally, they are treated better by others (Anderson, John, Keltner, & King, 2001), are granted more speaking opportunities (Smith-Lovin & Brody, 1989; Okamoto & Smith-Lovin, 2001), and have greater influence in social discussions (York & Cornwell, 2006). Beyond material and social benefits, holding higher status is also intrinsically meaningful (Huberman, Loch, & Önçüler, 2004), and is a highly valued emotional reward (Emerson, 1962).

Within organizational contexts, having higher status brings significant advantages. One of the most prevalent assumptions is that those with higher status are more competent and better performers. Higher levels of education, one of the more frequently studied status markers, leads others to assume greater task competence, even when the task is unrelated to one’s education (Webster & Hysom, 1998). The performance of high status individuals can be sub-standard, but their lower status counterparts still perceive their work to be of higher quality (Szmatka, Skoveretz & Berger, 1997; Washington & Zajac, 2005). Simply being associated with high-status others, or affiliated with high status organizations, can boost one’s reputation as a high performer (D’Aveni, 1996; Elsbach & Kramer, 1996; Kilduff & Krackhardt, 1994).

Not surprisingly, therefore, higher social status is also positively related to employees’ tangible and interpersonal benefits. High status employees are perceived to be more competent and to make greater organizational contributions than low status counterparts, which translates to higher pay (Belliveau, O’Reilly, & Wade, 1996; Berger & Webster, 2006; Ridgeway, Boyle, Kuipers, & Robinson, 1998). Higher status also
predicts people’s hierarchical rankings in organizations, such that employees of higher social class and elite education are more likely to hold executive positions (Stern & Westphal, 2010). Considering the benefits that are accorded to higher status employees, it is not surprising that they tend to be more satisfied at work than their lower status counterparts (Golding, Resnick, & Crosby, 1983). Higher status employees enjoy better social relations at work, and have more organizational citizenship behaviors directed towards them and are the targets of fewer counterproductive behaviors (Scott & Judge, 2009). They are afforded greater latitude with their behaviors, such that they are judged less harshly for deviating from organizational norms or workplace misbehaviors (Bowles & Gelfand, 2010; Hollander, 1958).

The benefits of attaining status do not exist solely at the individual level – high status groups will benefit compared with low status groups. They perform better (Jemmott & Gonzalez, 1989; Langer & Benevento, 1978; Langer & Imber, 1979); and can even benefit from poor performance if it is in a low-status domain where their sub-standard performance reinforces their lack of affiliation to this low-status level (Reinhard, Stahlberg, & Messner, 2008). High status groups also receive a greater allocation of rewards and resources, monopolizing these goods or opportunities in order to maintain their exclusivity and status (Weber, 1978). Status at the group level is relatively stable, and it is infrequent that groups are able to change their initial status levels (Podolny, 1994), perhaps due to the exclusive opportunities afforded to high status groups (Washington & Zajac, 2005), restricting lower status teams from the social mobility needed to advance.
Benefits associated with high status also occur at the organizational level. Economically, high status organizations enjoy significant financial advantages over those of lower status (Nahapiet & Ghashal, 1998; Podolny, 1993). High status firms are traditionally offered greater access to financial capital (Stuart, Hoang, & Hybels, 1999), higher initial stock prices (Welbourne & Cyr, 1999), and have higher valuations (Sauer, Thomas-Hunt, & Morris, 2010). They are granted greater mobility, entering new markets more easily than their low status equivalents (Jensen, 2003), and are more likely to be selected as partner firms (Li & Berta, 2002). High status firms are also able to acquire and retain top management talent (Hambrick & Cannella, 1993).

**Costs.** As outlined, the benefits of high status are such that people should desire status at almost any cost – hence, the notion that status is a fundamental human motive. However, I question whether there are downsides to having status? Recent research suggests that there might well be – in certain situations when people believe they can provide less value to a group, they would prefer to opt for lower ranking positions as they fear they cannot live up to others’ expectations (Anderson, Willer, Kilduff & Brown, 2012). This fear may be justified – people who opt for lower ranking positions do not have to worry about losing those status positions. Losing status, especially for those high in status, can be self-threatening, and negatively impact performance (Marr & Thau, 2013). Indeed, just the prospect of losing status is sufficient to result in increased heart rate (Scheepers, Ellemers, & Sintermaartendsdijk, 2009), and anxiety (Neeley, 2013), as a result of which people are willing to expend considerable resources to avoid status loss (Petit, Young, & Spataro, 2010).
While losing status can be one way in which high status brings about negative consequences, I suggest that there may be unexplored costs associated with being in high status positions. As has been reviewed, the traditional model of status reflects its benefits: greater resources, opportunities, and outcomes. However, might there be situations and contexts where more status is, in fact, not always more beneficial, but a liability to oneself and to others? When examining status within specific contexts and relationships, might the benefits of status be juxtaposed with costs to oneself and to others?

Thus, while high status will afford individuals many benefits, the purpose of this dissertation is to gain a comprehensive understanding of status by studying some of the counterintuitive negative outcomes. Through three different studies, using different methodologies and samples, I examine some of the costs associated with having high status, and I now provide a brief outline of the three studies comprised in this dissertation.

**Overview of Manuscripts**

**Manuscript 1**

The first study of my dissertation examines the costs encountered by women who hold higher job status relative to their husbands. Typically, normative economic patterns in marriages are that men are the primary status jobholders, however “non-normative” patterns in marriages have emerged, where, in some marriages, wives hold positions of higher job status than do their husbands. While the occupational benefits and resources afforded to these high job status women are undoubtedly positive, how do women’s high status positions impact marriages? Little is understood about the emotional and psychological consequences that women in these non-normative marital patterns
experience – might they resent, be embarrassed by, or have contempt for their spouses’ job status? Might their husbands’ job status detract from their own status levels? And if so, how does this impact marital relationships?

This was the intent for the first study of this dissertation. I argue that when women experience “job status leakage”, they feel contempt and embarrassment towards their husbands’ job status and perceive it as detracting from their own. I predict that job status leakage positively predicts marital instability, as mediated through lower levels of relationship satisfaction. I also position various work and family constructs as moderators to this mediated relationship. I tested these predictions in a field-study of married women who hold high job status positions, and the results and implications of this study are discussed in the first manuscript of this dissertation.

**Manuscript 2**

Status differences have long been a predictor of health and longevity – this research began primarily through a series of seminal studies by Michael Marmot (2004) starting in the 1960’s, where he studied differences in health and mortality rates amongst British Civil Servants. In examining the health outcomes of employees at varying job levels, he found that the relative risk of mortality increased significantly as job status decreased. Specifically, those at the bottom of the hierarchy (e.g. messengers, clerical workers) had four times the risk of death as compared to top administrators, even after retirement (Marmot & Shipley, 1999). Inherent in Marmot’s work is that he makes status comparisons between levels within the organization. The effects of small status differences within the *same* level remain to be investigated. Is it possible that small status differences within the very highest levels of organizational status impact longevity?
The purpose of the second manuscript of my dissertation was to explore this very phenomenon. Being evaluated as higher in status relative to others can bring upon numerous positive psychological factors, including increased self-esteem, sense of purpose, and pride, which can positively influence one’s health and longevity (Bailis, Chipperfield, & Helgalson, 2008; Bailis, Chipperfield, & Perry, 2005; Haslam, Jetten, Postmes, & Haslam, 2009). However, even those in high status positions evaluate their status relative to others – dependent upon how individuals make status comparisons may have negative impacts to longevity.

In the second manuscript of this dissertation, I take a more finite perspective of Marmot’s (2004) work, and suggest that the psychological factors that predict longevity can emerge from status comparisons made within the same high status gradient. To examine this relationship, I examined status differences made between CEOs. CEOs are at the pinnacle of status within organizational contexts, yet explorations as to with whom they compare themselves and the outcomes of those comparisons are underexplored. I argue that when CEOs are evaluated as higher in status relative to other CEOs, they are more likely to experience positive advantages to their longevity, but CEOs who rank slightly lower (even within high status gradients) will have their longevity compromised. I examine these ideas through a retrospective cohort study using Financial World magazine’s “CEO of the Year” contest winners from 1975-1985.

**Manuscript 3**

When individuals are ranked higher than others in status, lower-status others tend to want to befriend them due to benefits accrued through status linkages (Lin, 1990). Omitted in this phenomenon is that when people evaluate themselves as lower in status,
those evaluations can be powerful, as they provide information about people’s worth (Wrzesniewksi et al., 2003). Low status evaluations can trigger painful emotional reactions, which lead to negative behaviors directed towards those high in status as well as towards low status individuals themselves.

In my third study, I argue that in the presence of status differences, those in the lower status positions will feel envy of other’s high status levels. Just how much status dispersion needs to be present in order for lower status individuals to feel envious is an important question, which I investigate in this study. I also suggest that when individuals hold low status, they engage in ostracism of others, and feel ostracized by others, and these ostracizing behaviors stem from their feelings of envy. I test these ideas using a two-part experimental study.

Summary

In summary, this dissertation explores the unintended costs of achieving high levels of status. Those unintended consequences are explored through specifying and inferring particular referents in specific contexts. Achieving high levels of status can provide innumerable benefits, but I argue that without understanding some of the costs of having status, we lack a comprehensive understanding of the construct. Through three different studies using three different methodologies, this dissertation explores some of the unintended consequences that can result from high status, and, in doing so, contributes to the advancement of literature on status.
1.1 References


Chapter 2

Manuscript 1

When wives bring home the job status: The effects of job status leakage on marital instability

Abstract

Women are represented increasingly in high organizational status positions. While the advancement of women into high status jobs brings to them a myriad of organizational benefits, the psychological and emotional impacts that these hierarchical positions bring to marital relationships remain underexplored. In this study, I focus on the costs to one’s marriage that can arise when women hold positions of high job status. I propose that women who experience contempt or resentment towards their husbands’ job status, feeling that it detracts from their own (which I refer to as “Job Status Leakage”) are more likely to experience marital instability. I propose a conditional process model where the relationship between job status leakage and marital instability is mediated by lower levels of relationship satisfaction, and that boundary conditions exist that moderate this relationship. In a cross-sectional field study of 209 women who occupy high job status, I found support for the model. Theoretical contributions, practical implications, and future research suggestions are discussed.
2.1 Theoretical development

“Choose your spouse or partner carefully...there is almost no other choice that you can make that will have as much of an impact – positive or negative – on your career.”

(Sallie Krawcheck, as cited in Rosin, 2012, pp. 219.)

Sallie Krawcheck, once one of the highest-ranking women on Wall Street (Zellinger, 2013) is part of a small community of women who reach the pinnacle of status in their chosen careers. As she candidly points out, one of the most important decisions she and other high job status women can make is the selection of their partner. This intersection between women’s job status and choice of spouse is not new, but of growing importance when considering the evolution of women’s role in the workforce. Traditionally, just being a female was considered a low status marker, as gender was deemed a disadvantageous status characteristic (Ridgeway, 1991), and assumed that it is more worthy to be male than female (Broverman, Vogel, Broverman, Clarkson, & Rosencrantz, 1972; Eagly & Wood, 1982). Women were perceived to have less power and status than men, with little control over resources (Eagly & Wood, 1999). This was largely due to the traditional gender exchange relationship, in which men assumed the role of economic breadwinners, and women were expected to contribute to household production (Becker, 1976). This social structural theory of sex differences (Eagly & Wood, 1999) explained occupational status differentials that favored men over women (Lipps, 1991; Steil, 1997).

This status differential slowly changed as women’s participation in the workforce increased. The most recent data indicate that women account for approximately 51% and 48% of the labor force in the United States and Canada respectively (U.S. Department of Labor Statistics, 2013; Ferrao, 2010). The positions women occupy have also changed.
Currently, women hold approximately 51% of management and professional positions in the United States, and outnumber males in roles such as financial managers, human resources managers, education administrators, accountants, and medical and health services managers (U.S. Department of Labor Statistics, 2013).

Increases in women’s occupational status affect economic patterns in marriages. Whereas men were once the sole high status jobholders, “non-normative” patterns in marriages, in which wives hold higher job status than their husbands, are becoming more prevalent. Recent data suggest that, whereas in 1987 women were the primary household breadwinners (earning 55% or more of the household income) in only 18% of couples, women are currently the primary household breadwinners in 29% of households in the United States (U.S. Department of Labor Statistics, 2013), demonstrating a prominent change in the economic patterns of marriages.

From a feminist and organizational perspective, the advancement of women in the workplace reflects considerable progress and women should receive numerous benefits from these high status positions. Yet, it is essential to understand the effects and possible costs of these new patterns on marital relationships. Progress is being made in this area: Some research has investigated how women’s roles as primary breadwinners relate to problems concerning the division of household labor (e.g., Bittman, England, Sayer, Folbre, & Matheson, 2003; Cooke, 2006; Lachance-Grzela & Bouchard, 2010) and how men in these relationships experience negative outcomes due to threats to masculinity (Pierce, Dahl, & Nielsen, 2013; Watson & McLanahan, 2011). Using American Census Data from 2008-2010, Bertrand, Kamenica and Pan (2013) showed that where women do
hold primary breadwinner status, couples are more likely to be unhappy, experience
greater conflict and more likely to divorce.

However, few studies have examined the psychological and emotional reactions
of wives who are the primary job status holders in marriages, despite the fact that these
reactions may help explain any marital instability. Some suggestions as to what these
processes are may be found in Hanna Rosin’s (2012) book “The End of Men; The Rise of
Women” (2012). Rosin recounts numerous anecdotes of women being embarrassed,
ashamed, frustrated with or lacking respect for their spouses when their male partners are
in lower job status roles than themselves. As explained by one woman who is the primary
breadwinner and the mother of only one child, “I have two babies at home, and I can’t
decide which of them is more work.” (2012, pp. 103).

While Rosin’s book explores this phenomenon in great journalistic detail, there is
very little conceptual or empirical research on the emotional process that women
experience when they have higher job status than their husbands. This idea of “marrying
down” may stimulate feelings of resentment or embarrassment of one’s husband. When
women experience these feelings, how might that impact their marital relationships? And
under what conditions might such effects be strengthened or weakened?

Thus, the purpose of this study is to understand some of the costs associated with
marital relationships for women in high job status positions. First, I delve into the nature
of this emotional process, referring to it as job status leakage, and theoretically locating it
within work-family literature. Then I propose a mediated model, such that when women
experience job status leakage, they are less likely to be satisfied with their relationships,
which predicts predict marital instability. I also propose moderators to this relationship,
such that spousal support can weaken the degree to which job status leakage predicts satisfaction in marriages, and propose that the relationship between marital satisfaction and instability is weakened when the couple has children, yet strengthened when women place high importance on career commitment. In a cross-sectional study surveying women in high job status positions, I test this conditional process model.

Conceptual Background and Hypotheses Development

Job Status Leakage

As discussed, status is a socially determined ordering based on salient status markers (for example, one’s occupational level) that define people’s social worth relative to salient others (Ravlin & Thomas, 2003; Washington & Zajac, 2005). One of the most prominent markers of status is one’s job – being in a high status occupation brings with it an assumption of higher education, higher income and greater competence (Merton, 1968), which affords individuals in those positions the many benefits that are associated with status, including prestige, respect and honor (Magee & Galinsky, 2008).

While occupational choice is one way to acquire status, individuals may maintain or secure further status through other ways (see Chapter 1 for review), for example through social relationships, where lower status individuals can increase their status by associating with higher status others. Status can transfer through “interlinkages” between individuals and groups (Blau, 1989; Goode, 1978). An interlinkage occurs when individuals, groups or organizations look to enhance and maintain their status by accumulating ties to high status others, as this can enhance the prestige with which people are viewed. Status can flow between actors at all levels of analysis. At the organizational level, understanding of status spreading between firms has been
conceptualized as “status leakages” (Podolny, 2005, p. 13). Podolny suggests status leakages occur when status is diffused across market participants, such that high status firms become status producers by affiliating with and increasing the status of other firms. Associating with higher status firms has been shown to be beneficial to lower status firms’ own status and subsequent economic outcomes (Gulati & Higgins, 2003; Stuart, Hoang, & Hyberls, 1999).

At the individual level, organizational scholars have looked at how high status affiliations can increase individual level status. This phenomenon has been examined from a social resources perspective (Lin, 1982; 1990) where people strive to gain status by making connections with higher status others. Again, these relationships have beneficial outcomes in terms of prestige (Hsu, 2004) and employment opportunities (Lin, Ensel & Vaughn, 1981).

The benefits of affiliation with high status others have been well documented. The corollary of this perspective, that high status individuals with links to lower-status others may compromise their higher status (Faulkner, 1983), has not been adequately explored. Just why high status individuals and organizations affiliate with others of lower status positions is not clear, given the potential threat of losing one’s own status by associating with those of lower status (Podolny, 1994). In affiliating with lower status others, it is possible that others may view those of higher status negatively.

The emotional process that high status individuals can experience by affiliating with low status others may be particularly painful when they occur between spouses, specifically for women who hold higher job status than their husbands. We are accustomed to a normative pattern in which husbands hold higher job status relative to
their wives (Eagly, Eastwick, & Johannesen-Schmidt, 2009; Eastwick et al., 2006); as such, having higher job status than one’s husbands violates socially accepted norms of marriage. This is disparagingly referred to as “marrying down”, which is an indicator of heterogamy in marriages, whereby one partner carries more status (in terms of education, occupational status, income, or social background) than the other (Schwartz, 2013).

While heterogamy in marriages typically occurs when husbands have higher status than wives, a phenomenon referred to as hypogamy is emerging, where wives now hold higher levels of status than do husbands (Dalmia, Kelly, & Sicilian, 2012; Esteve, Garcia, & Permanyer, 2012).

This pattern where women “marry down” is increasing, with studies showing many wives now outpace their husbands in status markers such as education, income and job status (Schwartz 2013). These patterns of hypogamy have demonstrated negative implications for marital dynamics: when wives have higher levels of education than their husbands, their marriages are plagued with higher levels of marital instability, dissatisfaction, and violence (Atkinson, Greenstein, & Lang, 2005; Bertrand et al., 2013; Gong, 2007; Lapierre & Hill, 2013; MacMillan & Gartner, 1999), and in certain populations where women have high levels of education, rather than marry someone of lower educational status, they prefer to avoid marriage altogether (Hitsch, Hortacsu, & Ariely, 2010; Lichter, Anderson & Hayward, 1995; Schafer & Quinn, 2010).

Given that non-normative job status patterns could be associated with negative psychological outcomes, we need to understand the psychological experiences of wives in these types of status positions. I suggest that feeling that one’s husband’s job status detracts from one’s own could be a significant source of discontent for wives. Wives may
feel that their own status, which they worked so hard to acquire, is hampered by the lower job status of their husbands. Where wives feel that their job status puts them at a level superior to their spouse, they may feel embarrassed by, or ashamed of their spouses’ job status. They may be resentful that their husbands did not amount to their same level of status. The accumulation of these emotions regarding their husband’s job status could lead women to feel contempt towards their spouse’s job. Ultimately, these feelings are a reflection of what I term “job status leakage”, which reflects the feelings of embarrassment and contempt experienced by women who hold higher job status then their husbands. I suggest that job status leakage is unidimensional, reflecting emotions and behaviors that are present when a partner is embarrassed by their spouse’s job status, such that it does not bring the same level of status and respect.

Job status leakage is likely to influence a wife’s experience of her marital relationship. As indicated in population studies, women in hypogamic marriages experience considerably more marital instability than do those in homogamous or hypergamic marriages (where males have higher status; Schwartz, 2013). Still, it is unlikely that it is simply the presence of these emotions that precedes marital instability – instead, I suggest that job status leakage will be related to marital instability through the mediating influence of relationship satisfaction.

**Relationship satisfaction.**

Perhaps one of the greatest benefits that can emerge from being married is relationship satisfaction. Studies show that relationship satisfaction is positively related to life satisfaction and well-being (see Proulx, Hemls, & Buehler, 2007 for a review). In marriages where couples engage in everyday conflict, bring negative affect into the
relationship, and allow their work to interfere with the family, relationships suffer and people feel considerably dissatisfied (Fincham & Beach, 1999; Ford, Heinen, & Langkamer, 2007; Janicki, Kamarck, Shiffman, & Gwaltney, 2006; Mackey, Diemer, & O’Brien, 2000). An interpersonal predictor of relationship dissatisfaction is feeling contempt for one’s spouse, denoted as judgmental or disapproval of a spouse (Gottman, Coan, Carerre, & Swanson, 1998) and is perceived as a behavior that communicates that one spouse is superior to another (Meunier & Baker, 2012). Contempt is particularly destructive for relationship satisfaction, as it erodes the respect and equality in a relationship (Johnson, 2008). Contempt towards one’s spouse is a consistent predictor of relationship dissatisfaction (e.g., Buehlman, Gottman & Katz, 1992; Gottman, 1994; Gottman et al., 1998).

In line with this research, and the emotions associated with job status leakage, such as embarrassment and resentment towards husbands’ job status, I predict that job status leakage will negatively predict relationship satisfaction. I suggest that when women experience job status leakage, associated feelings of contempt and embarrassment will result in lower relationship satisfaction.

Hypothesis 1: Job status leakage is negatively related to relationship satisfaction.

Marital Instability

Relationship satisfaction is one of the key factors in determining whether people choose to remain in, or leave a marriage. Scholars have long used social exchange theory of marriage to understand and predict why and when relationships form, continue and become unstable (Previti & Amano, 2003; Thibaut & Kelley, 1959; Levinger, 1976). The social exchange theory of marriage reflects three components: attractions, barriers, and
alternatives. According to Levinger (1976), attraction to the relationship is based on the proportion of rewards received minus the costs involved in the relationship. Rewards include love, companionship, and emotional support, whereas costs include unpleasant aspects, such as making compromises, dealing with spouse’s bad habits or tolerating abusive behaviors. When the costs outweigh the rewards, low levels of satisfaction with the relationship result, and people are more likely to want to think about ending the relationship. However, this is dependent on the barriers to leaving (financial dependence, feelings of obligation, moral or religious reasons), as well as the availability of attractive alternatives (believing that another relationship or independence is more attractive than staying in the relationship). While the three components of the social exchange theory help to predict marital instability, studies suggest that the attraction of the relationship is the primary predictor to marital instability (Bradbury, Fincham, & Beach, 2000; Glenn, 1991; Lewis & Spanier, 1979; Previti & Amano, 2003).

I use the term marital instability to reflect (a) a cognitive state, where people think their marriage is in trouble and are considering getting a divorce, and (b) a behavioral state, which includes behaviors people engage in toward dissolving the relationship, be it talking with friends, consulting an attorney or speaking with a counselor (Booth, Johnson, & Edwards, 1983). While the term “marital instability” is used interchangeably with similar but distinct concepts such as marital dissolution, divorce, or marital disruption (Booth, et al., 1983), the concepts are conceptually different - divorce or marital dissolution speak to the finality of a marriage, whereas marital instability can reflect an individual partner or couple’s inclination to end a marriage in which divorce may not necessarily be the final outcome (Booth et al., 1983). Marital instability
incorporates greater nuance about the processes that couples encounter prior to dissolving a marriage.

I predict that in turn, job status leakage will predict marital instability via relationship satisfaction. This relationship is mediated through decreased marital satisfaction resulting from job status leakage. Thoughts and behaviors associated with marital instability do not arise immediately from job status leakage – rather, women experiencing job status leakage are unhappy with their relationship, they do not benefit from the attractions associated with happy unions, and this further predicts marital instability.

*Hypothesis 2: Job status leakage has a positive relationship with marital instability as transmitted through relationship satisfaction.*

See Figure 2-1 for hypothesized mediated model.

![Figure 2-1: Hypothesized mediated model](image)

**Boundary conditions**

This relationship, of course, may not reflect the experiences of all women experiencing job status leakage. Rather, there are boundary conditions associated with
aspects of both the work and family that influence these relationships. I suggest that the negative effects of job status leakage on relationship satisfaction will be buffered when husbands provide high levels of both instrumental and emotional support to their wives. Similarly, several factors will moderate the relationship between satisfaction and marital instability. Specifically, I suggest that the presence of children in the marriage act as a barrier to exiting the relationship, and that the importance women place on their career status can strengthen the relationship between satisfaction and marital instability.

**Spousal support.** Social support enables people to feel loved, cared for, included and valued (King, Mattimore, King, & Adams, 1995), and can be provided by numerous sources, including organizations, supervisors, coworkers, friends, or family (Kaufmann & Beehr, 1989). Of particular interest to this study is the social support from one’s spouse, which can be of an emotional or instrumental nature (Adams, King, & King, 1996). Emotional support reflects the degree to which spouses provide encouragement, understanding, attention and positive regard, and it includes the behaviors and attitudes one has towards their spouses’ work (King et al., 1995). Instrumental support reflects the tangible help aimed at facilitating the day-to-day family and household operations (King et al., 1995). Receiving instrumental support enables spouses to devote more time and energy to work demands (Wayne, Randel & Stevens, 2006). High levels of emotional support predict self-efficacy at home and at work (Parasuraman, Purohit, & Godshalk, 1996), psychological well-being (Aycan & Eskin, 2005), family-work enrichment (Grzywack & Marks, 2000) and negative relationships with employee stress (Noor, 2002). High levels of instrumental spousal support have a negative relationship with
workplace negativity (Fu & Shaver, 2001). Finally, both forms of spousal support positively predict life and job satisfaction (King et al., 1995).

I propose that job status leakage will not be related to marital satisfaction when wives report that their husbands provide both forms of spousal support. My rationale for this is that spousal support enables wives to actively pursue their careers, and provides both the affective and instrumental support necessary to achieve their goals. In addition, husbands who provide support are implicitly demonstrating that they respect and encourage their wives in their career endeavors, thereby making it unlikely that women will resent their husbands’ job status or feel contempt towards their job status positions. Supporting this, Branson (2010) examined the lives of women who held CEO positions at Fortune 500 companies. One factor that all women had in common was a supportive husband. In studies of both female executives and female managers, one of the key predictors of their successes was that these women had supportive spouses at home, who provided them with both the instrumental and emotional assistance necessary to achieve their higher job status positions (Ezedeen & Ritchey, 2008; Välimäki, Lämsä, & Hiillos, 2009).

By receiving instrumental support, women will be able to maintain their current job status, be it through increased work hours, networking opportunities, training or travel. In addition, as noted elsewhere (e.g., Bittman, et al., 2003; Cooke, 2006; Lachance-Grzela & Bouchard, 2010), the division of household labor is a frequent source of marital conflict, where women continue to be tasked with the majority of household and domestic duties, even when they are the primary income earners (Bertrand et al., 2013). When husbands provide high levels of instrumental support, an equitable
relationship can be maintained (Tichenor, 1999), and this source of conflict will be mitigated. Thus, even when women experience job status leakage, it will not have a negative impact on relationship satisfaction if husbands provide high levels of instrumental support. Alternatively, in situations where husbands do not provide sufficient levels of instrumental support, the relationship between job status leakage and relationship satisfaction will be significant. When husbands provide little support around the home and women experience job status leakage, wives experience a lack of respect from their husbands regarding their careers, despite their position as primary job status holder for the family. Experiencing job status leakage and a lack of instrumental support will have an even greater negative relationship on their levels of relationship satisfaction.

**Hypothesis 3: The relationship between job status leakage and relationship satisfaction is moderated by instrumental support.**

Similarly, when husbands provide their wives with high levels of emotional support, a parallel pattern will emerge. In receiving emotional support, wives will feel the understanding and support necessary to help with their career demands. Even where wives resent their husbands’ job status level, if husbands are encouraging, understanding and listen to their wives about their careers and other life stressors (Ezedeen & Ritchey, 2008), their wives may overlook any negative feelings about their husbands’ job status. In these situations, husbands’ levels of emotional support can buffer the relationship between job status leakage and relationship satisfaction. However, in those cases where husbands provide low levels of emotional support, the relationship between job status leakage and marital satisfaction will be strengthened.

**Hypothesis 4: The relationship between job status leakage and relationship satisfaction is moderated by emotional support.**
Figure 2-2 reflects the moderated relationships of the first half of the model.

**Figure 2-2: Moderators of Job Status Leakage to Relationship Satisfaction**

**Career commitment.** The literature examining commitment in the workplace is vast (for a review, see Meyer, Jackson, & Maltin, 2008). People can be committed to some facet of their work through affective, continuance or normative commitment (Meyer & Allen, 1991), however studies largely examine affective commitment to the organization (Meyer et al., 2008). Affective commitment refers to “the employee’s emotional attachment to, identification with, and involvement in the organization” (Meyer & Allen, 1991, p. 67). While Meyer and Allen’s definition specifies the organization as the target of one’s commitment, recent calls for the extension of organizational commitment theories explore commitment as a more general attitudinal construct with a target specific approach (Klein, Molloy, & Brinsfeld, 2012). Specifically, individuals can feel a degree of emotional attachment to, identification with, and involvement in a variety of aspects of their jobs, including their team (e.g. Neninger, Lehmann-Wallenbrock, Kauffeld, & Hanschel, 2010), union (e.g. Fullager, Gallagher,
Career commitment is the target-specific attitudinal dimension of commitment that is of most interest to my study. Ellemers et al. (1998) define career commitment as the extent to which “people feel committed to the individual goal of advancing in their personal careers” (p. 718). When people feel high levels of career commitment, they are motivated to work towards advancing their careers, be it at their current organization or elsewhere, and they feel an emotional attachment to furthering their careers. Career commitment predicts separate behaviours from other forms of commitment. Those high in career commitment are more likely to engage in individual career oriented pro-active behaviours to help their personal advancement (Balshak & Den Hartog, 2010), to participate in professional activities (Meyer, Allen, & Smith, 1993), to voluntarily leave their job to gain personal advancement (Ellemers et al., 1998), and to have higher levels of self-rated initiative (Den Hartog & Balshak, 2007).

I propose that career commitment will moderate the relationship between relationship satisfaction and marital instability. When women have high levels of career commitment, they seek out different opportunities and experiences that will help to advance their careers. They are emotionally driven to advance in their careers, and place high priority on achieving high levels of status and success in their chosen vocation. Women who are less satisfied in their marriages will be more likely to experience marital instability when they have high levels of career commitment. The reasoning for this is that they can achieve greater personal fulfillment through their work and do not seek out similar levels of personal satisfaction through their marriage. Alternatively, women who
place lower value on career commitment may believe that staying in an unhappy relationship could satisfy their role as wife, which may fulfil some innate need. Therefore, I predict that the relationship between relationship satisfaction and marital instability will be strengthened when women have high levels of career commitment, but weakened when women have lower levels of career commitment.

Hypothesis 5: The relationship between relationship satisfaction and marital instability is moderated by career commitment.

Children. One key reason that couples commit to stay in unhappy marriages is the presence of children (Previ & D’Amato, 2003). Numerous studies indicate that couples who have children are more likely to stay married even when they perceive the costs of the marriage to be high, and the rewards to be low (Amato & Hohmann-Marriott, 2007; Heaton, 1990; White, Booth, & Edwards, 1986), and children can act as a binding force even when marital satisfaction is low (Previ & D’Amato, 2003). There at least two reasons why children act as barriers to marital dissolution: 1) the affective and emotional ties that are associated with having children with another person (Brines & Joyner, 1999); and 2) the economic costs associated with having children (Cherlin, 1977; Heaton, 1990).

Regarding the affective and emotional ties, having children tends to increase spouses’ commitment to marriage, as the affective and emotional benefits are greater for parents who live together than those who are apart (Becker, Landes & Michael, 1977). Alternatively, the economic dependency that predicts why children act as barriers to divorce even in unhappy marriages suggests that the financial burden that is encountered with children can be mitigated when couples stay together rather than separate. For example, many low-income couples tend to stay together for the economic benefits that
come from two incomes, rather than separate incomes, regardless of their levels of satisfaction (Cross-Barnet, Cherlin, & Burton, 2011).

I propose that the presence of children will moderate the relationship between satisfaction and marital instability. While previous research has demonstrated that the relationship between satisfaction and marital instability is moderated by the presence of children, this has largely been examined on the general population. Understanding whether this relationship extends to high status women is an important question. For these women, it is unlikely that financial dependency on husbands would act as barriers to marital instability. I suggest, however, that the emotional and affective ties related to co-parenting are sufficient to moderate the relationship between relationship satisfaction and marital instability, such that the presence of children will weaken the relationship between satisfaction and marital instability.

Hypothesis 6: Having children will moderate the relationship between relationship satisfaction and marital instability.

Figure 2-3 reflects the moderated relationships of the second half of the model.
Figure 2-3: Moderated relationship between satisfaction and marital instability

The entire hypothesized moderated mediated model is shown in Figure 2-4.

Figure 2-4: Hypothesized Moderated Mediated Model
Finally, to enhance the validity of the study I will introduce various statistical controls to reduce the possibility of plausible, rival hypotheses. First, I will include demographic variables of age and length of relationship as control variables as both tend to be negatively correlated with marital instability (Booth, Johnson, White, & Edwards, 1986). In addition, given research showing that when women have higher incomes relative to their spouses, threats to gender identity relate to marital instability (Bertrand et al., 2013), I will control for gender ideology. Finally, in light of the sensitive nature of the constructs in question, I will control for women’s levels of impression management (Paulhus, 1998).

2.2 Methods

Recruitment and participants

Participants were recruited from two primary sources. Given the nature of the sample I was interested in studying (i.e., women who had achieved high job status and were in the upper echelons of organizations), it was essential to study women who had high levels of job status, therefore were not reflective of the general population. The first recruitment source was a women’s executive network based in Canada. This network has over 16,000 female members, and is primarily responsible for hosting events about leadership, mentoring and networking dedicated to the advancement of women. Each week, they inform their members about upcoming events via email. At two separate time periods, they sent out e-mail requests to their members asking for their voluntary participation in this study. Participants were then screened to ensure that they were female and were currently in a heterosexual marital or in a common-law relationship for at least a period of one year. This method of recruitment gathered 107 total participants.
Acknowledging that 107 participants would not be sufficient for this study, a second recruitment method was used. Permission was granted to recruit from a university’s business school’s executive education program. E-mails were sent to approximately 485 female participants who had completed an executive program within the last four years. Again, the same pre-screening criteria was applied to this population. This form of recruitment yielded a total of 102 total participants, ultimately bringing the total sample to 209 participants.

Women in this total sample were approximately 43.36 years of age, and worked at least 30 hours per week. The sample in this study did not reflect the general population, as the goal was to have representation of high job status women. Numerous demographic characteristics exist to support this perspective. Regarding education levels, 51% of the women surveyed had a university degree, 28% possessed a masters degree, and 7% of women held a doctorate degree; the remaining 15% had some university education, a college degree or a high school diploma. These women were also high earners – only 21% of women earned less than $94,999 a year, 50.3% of women earned between $95,000 and $169,999 a year, and 28% earned more than $170,000 a year. Finally, when asked how their current job status compared relative to their husbands, only 12.4% reported having lower job status than their husbands, 20.6% reported having the same level of job status as their husbands, and the vast majority reported having higher job status than their husbands, with 27.3% reported having slightly higher job status, and 39.7% reported having significantly higher job status.

Measures
**Job Status leakage.** A measure of job status leakage had to be developed for the purpose of this study. Items for this measure were developed in three separate stages. First, items were created based on the theoretical conception of the construct as reflecting feelings of embarrassment, resentment, shame, or lack of respect that women may have when their husbands’ lower job status detracts from their own. Second, with the help of four volunteer graduate students, the items developed were reviewed to ensure they reflected the meaning of the construct. Finally, I met with two senior executive women, both in positions of significantly higher job status than their husbands, to further review the meaning of the construct and the items developed. A total of 17 items were developed and the full list of the items are found in Appendix A.

It was then necessary to evaluate the factor structure of the items developed. To do so, I recruited 180 female participants from ClearVoice (see www.clearvoiceresearch.com). Participants were pre-screened to ensure they were all North American women who were employed full-time and were in a heterosexual marital relationship for at least one year. Participants average age was approximately 46 years old ($SD = 11.6$ years), and, on average, had been married for 18 years ($SD = 11.9$). Participants were asked to rate each item in the job status leakage scale on the extent to which they agreed with the item in reference to their spouse. The items were rated on a 5-point scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). In the measure, the higher the score, the greater the level of job status leakage felt by participants.

An exploratory factor analysis, using maximum likelihood varimax rotation, was conducted on the 17-items. A three-factor structure emerged, with the three factors capturing 64.77% of the variance (see Table 2-1). After reviewing the three factors, I
decided that the items that loaded most heavily on the second factor best reflected the construct. Therefore, I refined the scale to reflect those seven items and added an additional three items to further enhance the scale. The ten items can be found in Appendix B.

To ensure that the revised items reflected a one-factor structure of job status leakage, I recruited a second sample of participants (N = 199) through a Qualtrics panel (see www.qualtrics.com/panel-management/), to conduct a confirmatory factor analysis on the items, as well as to test the scale’s discriminant validity. Participants were again pre-screened to ensure that they were all North American women in heterosexual marital relationships, and that they worked at least 30 hours per week. Participants were approximately 42.3 years of age (SD = 14.54), and had been married for approximately 14.6 years (SD = 14.34). Participants were asked to respond to the ten-item measure of job status leakage.

To test for discriminant validity, I expected job status leakage to be negatively correlated with husbands’ job status, instrumental support, emotional support and marital satisfaction, and positively correlated with gender ideology. In addition, with respect to divergent validity, I expected that participants’ job status leakage would not be associated with general health. To test the measure’s discriminant validity, participants were asked to answer a single item regarding their husband’s job status using the subjective social status ladder where participants are asked to rank their husbands job status relative to others on a nine-rung scale, where those at the very top have the highest level of status (Singh–Manoux, Adler, & Marmot, 2003). In addition, participants completed the 14-item Spousal Support measure (King, et al., 1995), with equal numbers of items assessing
instrumental and emotional support (for example “My husband is interested in my job.”)

Participants also completed a 6-item gender ideology scale (European Values Study
Foundation, 2006) on a scale of 1 = strongly disagree to 7 = strongly agree (for example,
“If a woman earns more money than her husband, it’s almost certain to cause
problems.”). Finally, participants completed the 12-item general health questionnaire
(Banks, Clegg, Jackson, Kemp, Stafford, & Wall, 1980). A sample item is: “Have you
recently been able to face up to your problems?”, where 1 = much worse than usual to 5 =
better than usual. All items can be found in Appendix C.

Using Amos 20 and allowing for correlated errors, I computed a confirmatory
factor analysis, with all 10 items predicted to load on the latent variable of job status
leakage. The proposed model provided a good fit to the data ($\chi^2 (35, N = 201) = 39.49, p
= .03; CFI = .989; NFI = .97; RMSEA = .05; PCLOSE = .39$). In examining the loadings
of the factor structure, one item “I would be happier if my children chose a job similar to
my own” loaded at a much lower level (.37) relative to the other items (see all item
loadings in Table 2-2). Therefore, I re-computed the confirmatory factor analysis
excluding this one item, and found that this model provided a better fit to the data ($\chi^2 (17,
N = 201) = 24.91, n.s.; CFI = .99; NFI = .98; RMSEA = .04; PCLOSE = .48$). The
confirmatory factor structure suggests a one-item factor structure with nine-items
reflecting job status leakage.

Following the confirmatory factor analysis, I computed a correlation matrix on the
measured variables to test for discriminant validity. Means, standard deviations, and
intercorrelations for all measured variables can be found in Table 2-3. As predicted, job
status leakage was negatively and significantly correlated with husband’s job status ($r =$
- .29, p < .01), instrumental support \( (r = -.28, p < .01) \), emotional support \( (r = -.32, p < .01) \), and positively correlated with gender ideology \( (r = .61, p < .01) \). General health was not correlated with job status leakage \( (r = .02, \text{n.s.}) \).

Together, this provided support and validated the nine items for a one-factor structure of job status leakage.

**Relationship Satisfaction.** To measure relationship satisfaction, I used the 16-item couples satisfaction index (Funk & Rogge, 2007). The items ask participants about different aspects of their relationship and all scores are summed to provide an index of relationship satisfaction, such that higher scores denote relationship satisfaction. An example of an item is “How rewarding is your relationship with your partner?” and participants could answer 1 = Not at all, to 6 = Completely.

**Marital Instability.** Marital instability was measured using the 21-item marital instability scale ((Booth et al., 1983). Items are measured on a 4-point scale ranging from 1 = Never, 2 = Ever; 3= within the last three years; 4 = Now. All items from the marital instability scale are summed to provide an index of marital instability. An example of an item from this scale is “I have thought about living apart from my spouse.”

**Instrumental Support.** Instrumental support was measured by using the 7-items reflecting the instrumental support factor from the Spousal Support scale (King et al., 1995). Participants were asked to rate their level of agreement on a scale from 1 = strongly disagree to 5 = strongly agree, and an example of an item was “My spouse burdens me with things that he should be able to handle on his own” (reverse coded).

**Emotional Support.** Participants evaluated levels of emotional support by responding to the seven items that reflected the emotional support factor from the spousal
support scale (King et al., 1995). Participants were asked to rate their level of agreement on a scale from 1 = strongly disagree to 5 = strongly agree, and an example of an item was “When I have a tough day at work, my spouse tries to cheer me up.”

**Career commitment.** To measure the level to which woman placed high emphasis on advancing in their careers, participants evaluated the 6-item career commitment questionnaire which reflects the emphasis and value that people place on achieving in their careers (Ellemers et al., 1998). These items were rated on a seven point scale, ranging from 1= not at all to 7 = very much. A sample item from this scale is: “My career plays a central role in my life.”

**Children.** Participants were asked if they had any children with their spouse, and responses were in the form of yes/no.

**Control variables.** Participants reported their age and the length of their relationship with their spouse in number of years. Gender ideology was measured using the World Values Survey (European Values Study Foundation, 2006), where participants were asked to respond to 6-items on a scale of 1 = strongly disagree to 7 = strongly agree. A sample item from this measure is: “When jobs are scarce, men should have more right to a job than women.” Finally, impression management was evaluated using the 12-item short form of the impression management scale (Paulhus, 1999). Participants are asked to indicate how true they felt each of the twelve statements were, on a scale from 1 = not true; 4 = somewhat true; and 7 = very true. An example of an item from this scale is “I never cover up my mistakes.” All measures for large survey can be found in Appendix D.

**Test of Sample Differences**
Given that the sample was collected via two different sources, it was important to first test if there were any significant differences among the samples on the variables of interest. Comparing the samples using t-tests, the majority of the variables demonstrated no significant differences between the samples (all means and t-test differences are reported in Table 2-4). The samples only differed in terms of age and relationship length, with the University executive women’s group being slightly older (M = 44.91, SD = 7.46 vs. M = 41.93, SD = 8.72) and having longer relationships (M = 16.13, SD = 9.37 vs. 12.74, SD = 8.64) than the Corporate executive women’s group; age: t(205) = 2.61, p < .05; relationship length: t(205) = 3.67, p < .05. The University executive women’s group had lower levels of job status leakage (M = 1.41, SD = 0.52 vs. M = 1.58, SD = 0.66) and career commitment (M = 5.20, SD = 0.95 vs. M = 5.50, SD = 0.99) than the corporate executive women’s group: job status leakage: t(206) = -2.09, p < .05; career commitment: t(206) = -2.27, p < .05. Because of the number of t-tests computed, I applied Bonferonni post-hoc analyses to correct for family wise error, and none of these differences met the criterion for significance (p < .005 level), justifying the decision to merge the two samples.

Data Analysis

I proposed a conditional process model, often termed a moderated mediated model (Hayes, 2013a). To test the hypotheses, I completed the analyses in two interlinked steps. I first examined a simple mediation model (Hypotheses 1 and 2), and then integrated the proposed moderator variables in the model (Hypotheses 3-6) by empirically testing the overall conditional process model using Hayes’ macros (Hayes, 2013b).
Step 1: Test of mediation. The first two hypotheses in the model suggest an indirect effects model, whereby the relationship between job status leakage and marital instability is mediated through relationship satisfaction. Tests of such mediated hypotheses are often based on the assumption that to support mediation, the direct effect of job status leakage on marital instability must be significant. Much empirical work on mediation that supported this perspective was based on Baron and Kenny’s (1986) requirement that the first step of mediation is establishing a direct relationship between the independent variable and the dependent variable. However, this assumption is now questioned (Hayes & Preacher, 2010; Hayes 2013a; Preacher & Hayes, 2004), and it is no longer considered necessary for the independent and the dependent variables to be significantly related to establish mediation (Kenny, Kashy, & Bolger, 1998). Instead, it is now argued that mediation analyses should be based on formal significance tests of the indirect effects, largely based on the Sobel tests and omitting the need for a significant direct relationship between the independent and dependent variable (Preacher & Hayes, 2004; Cole, Walter, & Bruch, 2008).

To analyze the mediated model (Hypothesis 1 and 2), I used Hayes (2013b) SPSS Process model macros to examine the relationship between job status leakage and marital instability as mediated through relationship satisfaction. To avoid problems associated with non-normal distributions, I used bootstrapping, which is a resampling method. Bootstrapping is typically used to produce an estimation of the sampling distribution in order to obtain confidence intervals that are more precise than confidence intervals using standard methods, as bootstrapping makes no inferences about the shape of the sampling distribution (Hayes, 2013a). 5000 bootstrap samples are deemed sufficient for most
analyses (Hayes 2013a). In these tests, mediation is significant if the 95% bias corrected confidence intervals for the indirect effects do not include zero, equivalent to a significance value of p < .05 (Hayes, 2013a).

**Step 2: Tests of moderated mediation.** Concerning Hypotheses 3 – 6, I proposed that the relationship between job status leakage and marital instability, as transmitted by relationship satisfaction, would be moderated by a number of variables (see Figure 4). These relationships represent a moderated mediated model, or what has been termed a conditional process model (Hayes, 2013a). To test these relationships, again I used Hayes’ (2013b) SPSS Process model macros. The Process macros again facilitate the use of 5000 bootstrapping bias-corrected confidence intervals. Moderation is significant if the 95% bias corrected confidence intervals for the interaction terms do not include zero, again comparable to a significance value of p < .05 (Hayes, 2013a).

All results are presented in unstandardized form as recommended by Hayes (2013a).

**2.3 Results**

Table 2-5 presents means, standard deviations, and intercorrelations for all measured variables.

**Test of Mediation.**

Table 2-6 presents the results for Hypotheses 1 and 2. Supporting Hypothesis 1, job status leakage was negatively associated with relationship satisfaction, as indicated by a significant and negative unstandardized regression coefficient (β = -9.19, p < .01). Also, relationship satisfaction was negatively associated with marital instability, as indicated by a significant and negative unstandardized regression coefficient (β = -3.9, p
Finally, in support of Hypothesis 2, job status leakage had an indirect effect on marital instability through relationship satisfaction: the indirect effect was positive (3.55), as hypothesized. Bootstrap results confirmed the significant Sobel test, with bootstrapped 95% bias-corrected Confidence Intervals around the indirect effect not containing zero (LLCI = 2.09; ULCI = 5.47). Thus, Hypotheses 1 and 2 received support, and results are depicted in Figure 2-5.

![Diagram](image)

**Figure 2-5: Regression Weights – Mediated Model**

**Test of Moderated Mediation**

Table 2-7 presents the results for Hypotheses 3 – 6. With regards to Hypothesis 3, the predicted relationship between job status leakage and relationship satisfaction was weaker when wives perceived their husbands to be providing instrumental support (β = 3.00, p < .05). To further examine this relationship, the relationship between job status leakage and marital instability is stronger when instrumental support is low (β = 4.38; 95% CI [1.36, 8.04]) than at the mean (β = 2.86; 95% CI [1.01, 4.99]), though both are significant. When instrumental support is high, the relationship between job status
leakage and marital instability (as mediated by satisfaction) is non-significant ($\beta = 1.33; 95\% \text{ CI} [-0.37, 4.52])$. Therefore, Hypothesis 3 was supported.

Next, examining Hypothesis 4, the predicted relationship between job status leakage and couples satisfaction was not moderated by perceptions of husband’s emotional support. Results indicated that the cross-product term between job status leakage and emotional support was non-significant ($\beta = -0.61, \text{ n.s.}$). Thus, Hypothesis 4 did not garner support.

Moving to Hypothesis 5 about the moderating role of career commitment, the predicted relationship between relationship satisfaction and marital instability was significantly stronger when wives had high levels of career commitment. Results indicated that the interaction term between relationship satisfaction and career commitment was significant ($\beta = -0.07, p < .05$). The relationship between job status leakage and marital instability (as mediated by satisfaction) is strongest when women had high levels of career commitment ($\beta = 3.22; 95\% \text{ CI} [1.23, 5.53]$) than when women had mean levels ($\beta = 2.86; 95\% \text{ CI} [1.01, 4.49]$) or low levels ($\beta = 2.49; 95\% \text{ CI} [0.76, 4.63]$) of career commitment, though all interactions are significant. This supports Hypothesis 5, such that the relationship between relationship satisfaction and marital instability is higher for women who have higher levels of career commitment.

Finally, in examining the results for Hypothesis 6 regarding the effects of the number of children, I predicted that the relationship between relationship satisfaction and marital instability would be weaker for wives who had children. Results indicated that the interaction between relationship satisfaction and children was significant ($\beta = .18, p < .05$), providing support for Hypothesis 6. To further understand the interaction, the
relationship between job status leakage and marital instability (as mediated by satisfaction) is stronger when women have no children ($\beta = 2.96; 95\% \text{ CI } [1.01, 4.49]$) than when women have children ($\beta = 1.90; 95\% \text{ CI } [0.93, 3.16]$), though both interactions are significant, ultimately providing support for Hypothesis 7.

2.4 Discussion

Although population studies have demonstrated that hypogamous marriages are more likely to result in dissolution, to my knowledge, this is one of the first studies that examines the link between job status leakage and marital functioning. To do so, I conceptualized job status leakage, proposing that it was a psychological and emotional experience that impacts women who feel a lack of respect and contempt towards their husbands’ lower status job. I proposed a model that suggested that women who experience job status leakage would be more likely to experience marital instability, mediated through low levels of relationship satisfaction. I hypothesized that when spouses provided instrumental and emotional support, women experiencing job status leakage would be more satisfied in their relationships than those not receiving support from their spouses. In addition, I proposed that even when women experience low levels of relationship satisfaction due to job status leakage, the presence of children would weaken the extent to which they face marital instability. However, when women emphasize advancement in their career as a primary value, they are at higher risk for marital instability.

I then developed a one-factor measure of job status leakage. This scale was developed through three separate steps, and tested and validated across two separate samples.
Overall, the findings of this study show that job status leakage is a predictor of marital instability, as mediated by relationship satisfaction. In other words, women who experience job status leakage are more likely to engage in thoughts and behaviors of leaving their marriage due to lower levels of satisfaction with their relationship.

Support was also found for the majority of the predicted moderators to this relationship. When husbands provided high levels of instrumental support, such that they provided help around the home, women’s relationship satisfaction was not impacted by job status leakage. In contrast, no support was found for the buffering effect of emotional support on the relationship between job status leakage and satisfaction. The likelihood that women would engage in thoughts and behaviors consistent with marital instability was weakened when they had children with their spouse. However, women who held high levels of career commitment were more likely to face marital instability when they had lower levels of relationship satisfaction.

**Theoretical Contributions**

This study offers numerous contributions both to the job status and work and family literatures. First, this study takes a psychological perspective and highlights a counterintuitive consequence of holding status by examining the connection between job status and marital instability. As demonstrated in numerous population studies, in marriages where women hold higher status than their spouse, marital instability is a common correlate (Bertrand et al., 2013; Lapierre & Hill, 2013). The relationship between hypogamous marriages and marital dissolution however is not inevitable – psychological and emotional experiences of partners are important contributors to this relationship. While other studies have pointed to mechanisms through which
hypogamous marriages and marital instability exists, such as the division of household labor (e.g. Bittman et al., 2003; Cooke, 2006) and threats to masculinity (e.g. Pierce et al., 2013; Watson & McLanahan, 2003), I examined the psychological and emotional processes that women can experience when their husbands are lower than themselves in job status. My study demonstrates that having such high status positions can come with a cost – when wives in high status positions experience job status leakage towards their husbands’ job status, increased marital instability arises through decreased levels of relationship satisfaction. This suggests that not all aspects of high job status are positive for women – achieving such a high status position may impact their family life in ways not typically considered.

This study also offers an important extension to the work and family literature. Far too frequently, the work and family literature focuses only on work-family conflict, however the experience of one’s work and family roles goes well beyond conflict (Allen, 2012). In this study, I proposed and found support that job status can impact marital instability. In so doing, I examined work and family by drawing from both the job status and marital literature and developed a new conceptualization of an established area, work-family conflict, by going beyond conflict and demonstrating that other aspects of one’s position at work can impact family dynamics.

Extending the conceptualization of work and family, I find that various aspects of women’s work life and family life moderate the relationship between job status leakage and marital instability. This study emphasizes the importance of spousal support for job status, and supports previous work that demonstrated the necessity of supportive spouses for women in management positions (Ezzedeen & Ritchney, 2008; Valimaki et al., 2009).
In addition, the presence of children can weaken the relationship between low levels of relationship satisfaction and marital instability. This finding is notable given the context in which it was studied only included women who have the financial means to support their children without help from their spouse. Furthermore, women who place higher levels of commitment to advancing in their careers are more likely to experience marital instability when they experience low levels of relationship satisfaction. Each of these three moderators provides a new conceptualization of work and family by providing contextual boundaries to the relationship between job status leakage and marital instability.

Fourth and finally, this study offers an important contribution to the intersection concerning job status and the work and family literature by isolating and studying women in high job status positions. While the goal of many studies is to establish generalizability, it may come at the cost of ignoring the importance of context (Johns, 2006). Specifically with regards to the phenomenon of job status leakage, the goal of this study is not generalizability, but understanding the unique experiences of high job status women. That this study examines a small segment of the population does not undermine its importance – rather, it underscores the value of isolating phenomenon that impacts certain portions of the population. Women who are in high job status positions have a different experience of work and family and given this context, applying general ideas associated with work and family may not be sufficient. Studying high job status women in isolation helps to tease apart important relationships that will influence their work and family lives.

**Strengths, Limitations, and Future Research**
Inherent in this study are numerous strengths. First, the primary strength is the new conceptualization of an established literature – this study went beyond work-family conflict and looked at the impact that job status can have on family dynamics. Few management researchers examine how work issues can impact marital instability. In this study, I positioned job status leakage as a predictor of marital instability, making a conceptual advancement to the work and family literature.

In addition, I introduced a new scale that measured job status leakage, examining the thoughts and behaviors of women who are embarrassed by and resent their husbands’ levels of job status. Having developed the scale in three separate stages and then tested the scale across two separate samples to ensure both convergent and divergent validity suggests that this scale has been appropriately validated.

Despite the strengths, some limitations must be noted. First, the study is cross-sectional, therefore precluding any possibility of causal inferences. Longitudinal studies will be necessary to support the inference that job status leakage “causes” marital instability through lower levels of relationship satisfaction. Second, I used same-source data for the variables in question, as a result of which concerns regarding common-method bias cannot be excluded. Although the low correlation between some of the study variables along with the presence of significant interactions minimizes the likelihood that this is a meaningful threat (Aiken & West, 1991; Lindell & Whitney, 2001), future research should use multi-source data where possible. For example, understanding the phenomenon by including husbands’ responses to certain variables such as levels of spousal support would be an important step for future research.
This study prompts many additional ideas for future research. First, I developed the construct of job status leakage to reflect women’s emotional responses to their husbands’ job status, encompassing feelings of embarrassment, resentment and contempt towards their husbands’ job status positions. This construct requires further exploration. An important next step is to understand the specific antecedents that pre-empt why and how women experience job status leakage. In this study, the women who were sampled had high levels of job status – and implicit in the construct is that they held higher levels of job status relative to their husbands. This assumption needs to be explicitly tested and examination of how the amount of status difference impacts job status leakage should be explored in detail, as the amount of status discrepancy between wives’ and husbands’ job status may have a linear relationship with levels of job status leakage.

In addition, it is important to understand the nature of the job status discrepancy, specifically understanding when the discrepancy came to be. If at the beginning of one’s relationship, both partners held similar levels of job status, and over the duration of their relationship, wives’ job status surpassed that of their husbands’, this may be a stronger predictor of job status leakage than a status discrepancy that has existed since the onset of the relationship. Relationships that began as status equal, but over time, wives’ job status exceeded their husbands’ job status may lead wives to be disappointed and frustrated that their husbands’ were not able to keep a similar upward status climb. Contrasting this with couples where wives always held higher levels of job status relative to their husbands, women may be less likely to experience job status leakage as these job status patterns were present and expected from the onset of the relationship. Understanding the size and
timing of the status discrepancy between wives and husbands is an important antecedent of job status leakage to study.

Furthermore, greater examination as to why women who have higher levels of job status relative to their husbands' experience job status leakage is an essential next step. Evidence from work conducted on status and marital expectations might provide some insight as to why women having higher levels of job status relative to their husbands might predict job status leakage. Typical marriages reflect patterns of marital homogamy, where both partners share relatively equal levels of education, occupational level, and financial means (Kalmijn, 1998), and this is especially true of couples in higher education and occupational levels (Blossfeld, 2009; Shwartz & Mare, 2005). In hypogamic marriages where women have higher levels of job status relative to their spouses, these non-normative marital patterns violate societal norms where partners either share equal levels of job status or men have higher job status than women. Despite the advances that women have made within the labor force, it is non-normative for women to hold higher levels of job status than their husbands. Even within college educated, career seeking young women, there is an expectation of inequality in marriage, in the form of fewer employment hours, smaller salaries and more housework and childcare than their husbands (Fetterolf & Eagly, 2011). When women find themselves in marriages where this pattern does not exist, such that their jobs are of primary status, it violates societal norms and can lead women to feel disappointed that their husbands’ job status did not measure up to their own. Those feelings of disappointment and resentment can then translate into feeling job status leakage towards their husbands’ jobs.
Subsequently, study of the specific behaviors that result from job status leakage should be taken. For example, if women experience job status leakage, future research should examine whether they engage in specific behaviors towards their husbands, such as ridiculing them, speaking to them with contempt, resenting them, and being embarrassed by them. Future research should also examine how job status leakage impacts women in the workplace. Job status leakage may trigger women to exclude their husbands from work events, to withhold information from colleagues about their spouse and to refrain from discussing work issues with their spouse. These behaviors may amplify the level of dissatisfaction that wives feel towards their relationships, resulting in higher levels of marital instability. Alternatively, women who experience job status leakage might be motivated to assist their husbands’ job status advancement, seeking out career development or networking opportunities that would benefit their husbands’ career advancement. These behaviors could nullify dissatisfaction in marriages and result in lower levels of marital instability.

Future research should also examine other emotions that women may feel about their husbands’ job status. In this study, I conceptualized job status leakage to reflect contempt, embarrassment and frustration towards their husbands’ job status – these emotions are powerful and negative. It is likely that women in high status jobs may feel a wide range of emotions about their husbands’ job status, and these should be further explored. In certain situations, high job status women may feel disappointed that their husbands did not achieve high levels of job status, but they may not feel the intensity of contempt towards their husbands’ job status. Alternatively, some women may feel positively about their husbands’ job status, even if it is lower than that of their own. They
may feel pride and admiration towards their husbands’ job status, in that he might have his own unique skills, even if they do not translate into higher job status position. Finally, the manner in which women perceive their success to be shared with their spouse, rather than an individual accomplishment, may moderate the type of emotions that high job status women feel towards their husbands’ job status. When women perceive their status success to be a joint success, they might be less likely to feel intense, negative emotions towards their spouses’ job status, and alternatively, when they see their success as an individual achievement, the resulting emotions may be more intense and negative.

Future research should also examine the impact that culture may have on the relationship between job status leakage and marital instability. This study examined women in high job status positions in North America and questions of culture were not included in the study. The possibility that culture may have an influence on how women in high job status positions experience job status leakage is plausible, given that there are numerous influencing elements of national culture, educational and social policies, and organizational processes arising from different cultures that can impact how women achieve high status jobs (Omar & Davidson, 2001). The phenomenon of job status leakage may be a North American experience and replicating this model in cross-cultural settings is a necessary step for future research.

This study was limited to women in high job status positions in heterosexual relationships. As indicated earlier, the goal of this study was not to achieve generalizability, but to isolate the job status leakage experience for women who have higher levels of job status relative to their husbands. Having established this experience as a predictor of marital instability in the context of hypogamous marriages, future
research should examine whether this experience exists in other types of marriages, for example in same-sex marriages or in marriages where husbands have higher levels of job status than their wives. The assumption is that the violation of gender norms is what makes it particularly difficult for women to have higher levels of job status relative to their husbands. Same-sex marriages, and traditional marriages, would not reflect the same deviation from normative expectations. However, as traditional gender norms change, males in high job status may desire female partners of equal job status. Perhaps in modern marriages, men with high job status who feel that they have married beneath them, in hypergamous marriages, will experience similar emotions and psychological processes that do high job status women.

Finally, emotional support did not moderate the relationship between job status leakage and relationship satisfaction amongst this sample, despite emotional support’s significant correlation with instrumental support. This warrants further examination. One possibility is that women in high job status positions seek out emotional support from alternative sources, such as peers and friends (Ruderman, Ohlott, Panzer, & King, 2002), however only one’s spouse can provide the instrumental support necessary to buffer the relationship between job status leakage and relationship satisfaction. Future research should examine the moderating effects that high job status women’s relationships external to work and family may play in their work-life experiences.

**Practical Implications**

This research offers several practical implications. Women who aspire to high job status positions should be aware that not all aspects of having status in the workplace are positive. Inherently, there may be costs to one’s personal life that are rarely discussed.
Given the findings of this study, I suggest that discussing the importance of one’s family choices be emphasized early in women’s climb to the top. Opportunities to educate and outline the possible costs to one’s personal life of achieving high status exist within training opportunities for women in programs that are geared towards high status occupations: MBA programs, medical and law school, and professional development workshops geared toward the advancement of women in the workplace. Incorporating honest conversations about women’s expectations and choice of partner should be the norm.

Given this suggestion, I would be remiss if I did not highlight that this study is not a “women’s issue” – men who are married to women in these types of job status positions are equally impacted, such that they too might experience the effects of marital instability. This is an issue that impacts couples – not isolated individuals. Honest discussions about the changing nature of women in the workforce and how this can impact family dynamics are important for both partners to experience.

Finally, this study highlights an undervalued role in society – the importance of males as supportive husbands of their wives. As evidenced in the study, when husbands provided high levels of instrumental support, the relationship between job status leakage and satisfaction was non-significant. In couples where husbands provide the necessary support for their wives’ careers, happier marriages occur. However, society continues to place a stigma on men who take a backseat to their wives’ careers (Rosin, 2012). Gender roles continue to persist suggesting that childrearing is a woman’s responsibility. Much work is needed at the societal, organizational and family level to reduce the social stigma attached to husbands who are primarily responsible for domestic duties.
Conclusion

The results of this study suggest that the emotions and psychological experiences of women in high job status positions relative to their spouses play an important role in marital functioning. By conceptualizing women’s job status as an important contextual aspect of the work and family experience, this study adds significantly to understanding the unique psychological experience of women in high job status, how this relates to marital instability and aspects of the work and family that moderate the strength of this relationship. If replicated using longitudinal analyses, the results of this study will provide a new way of examining the junction between work and family and highlighting the importance that job status can have on this intersection.
2.5 References


Table 2-1: Three-factor structure rotated factor matrix loadings

<table>
<thead>
<tr>
<th>Variable</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel proud of my husband’s job.</td>
<td>.88</td>
<td>.23</td>
<td>.17</td>
</tr>
<tr>
<td>My colleagues respect the type of work my husband does.</td>
<td>.79</td>
<td>.15</td>
<td>.23</td>
</tr>
<tr>
<td>I admire my husband’s work.</td>
<td>.74</td>
<td>.23</td>
<td>.32</td>
</tr>
<tr>
<td>Most of my close friends respect my husband’s career.</td>
<td>.69</td>
<td>.31</td>
<td>.26</td>
</tr>
<tr>
<td>My husband’s job has a great deal of personal meaning to me.</td>
<td>.56</td>
<td>.07</td>
<td>.31</td>
</tr>
<tr>
<td>I am proud when my husband accompanies me to work events.</td>
<td>-.50</td>
<td>-.18</td>
<td>-.19</td>
</tr>
<tr>
<td>I wish my husband had picked a job that gets more respect.</td>
<td>.31</td>
<td>.80</td>
<td>.10</td>
</tr>
<tr>
<td>I feel my husband should find a more respectable job.</td>
<td>.26</td>
<td>.79</td>
<td>.06</td>
</tr>
<tr>
<td>My husband’s work makes me look bad.</td>
<td>.18</td>
<td>.79</td>
<td>-.15</td>
</tr>
<tr>
<td>I am embarrassed by my husband’s job.</td>
<td>.30</td>
<td>.77</td>
<td>-.11</td>
</tr>
<tr>
<td>My husband’s job impedes my future career success.</td>
<td>-.01</td>
<td>.64</td>
<td>-.17</td>
</tr>
<tr>
<td>My husband is not proud of his job status.</td>
<td>.09</td>
<td>.54</td>
<td>-.02</td>
</tr>
<tr>
<td>I would be happier if my children chose a career path similar to mine than to my husband’s.</td>
<td>-.01</td>
<td>.52</td>
<td>.26</td>
</tr>
<tr>
<td>My husband’s job brings me status.</td>
<td>.31</td>
<td>-.17</td>
<td>.73</td>
</tr>
<tr>
<td>My husband’s job makes me look good at work.</td>
<td>.39</td>
<td>-.07</td>
<td>.64</td>
</tr>
<tr>
<td>Other’s are impressed with my husband’s career choice.</td>
<td>.50</td>
<td>.29</td>
<td>.62</td>
</tr>
<tr>
<td>I consider my husband and I as a “power couple.”</td>
<td>.35</td>
<td>-.13</td>
<td>.47</td>
</tr>
</tbody>
</table>

(N=180)
Table 2-2: Item loadings – single factor scale

<table>
<thead>
<tr>
<th>Variable</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am embarrassed by my spouse’s job.</td>
<td>0.88</td>
</tr>
<tr>
<td>My spouse’s job impedes my future career success.</td>
<td>0.68</td>
</tr>
<tr>
<td>I wish my spouse had picked a job that gets more respect.</td>
<td>0.75</td>
</tr>
<tr>
<td>I am embarrassed when my spouse accompanies me to work events.</td>
<td>0.80</td>
</tr>
<tr>
<td>I feel that my spouse should find a more respectable job.</td>
<td>0.78</td>
</tr>
<tr>
<td>My spouse’s job takes away from my own job status.</td>
<td>0.84</td>
</tr>
<tr>
<td>My spouse is not proud of his job status.</td>
<td>0.66</td>
</tr>
<tr>
<td>My spouse’s work makes me look bad.</td>
<td>0.87</td>
</tr>
<tr>
<td>My spouse’s job does not bring me status.</td>
<td>0.59</td>
</tr>
<tr>
<td>I would be happier if my children chose a career path similar to mine rather than that of my spouse.</td>
<td>0.37</td>
</tr>
</tbody>
</table>

(N=199)
Table 2-3: Descriptive Statistics, Correlations and Reliabilities – Sample 2

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Status Leakage</td>
<td>1.81</td>
<td>.77</td>
<td>.92</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Husband Job Status</td>
<td>5.76</td>
<td>1.95</td>
<td>-.29**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Gender Ideology</td>
<td>2.51</td>
<td>1.25</td>
<td>.61**</td>
<td>-.01</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Instrumental</td>
<td>3.35</td>
<td>.90</td>
<td>-.28**</td>
<td>.15</td>
<td>-.23**</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Emotional</td>
<td>3.68</td>
<td>.75</td>
<td>-.32**</td>
<td>.29**</td>
<td>-.24**</td>
<td>.62**</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>6. GHQ</td>
<td>3.23</td>
<td>.56</td>
<td>.02</td>
<td>.31**</td>
<td>.05</td>
<td>.31**</td>
<td>.31**</td>
<td>.90</td>
</tr>
</tbody>
</table>

Internal consistency (α) data appear in italics on the diagonal
(N=199); **p < .01
Table 2-4: T-Test comparisons

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean – Corporate Executive Group</th>
<th>Mean – University Executive Group</th>
<th>Mean Difference</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>41.93</td>
<td>44.91</td>
<td>-2.98</td>
<td>2.61**</td>
</tr>
<tr>
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<td>3.67**</td>
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(N=209): **p < .01; *p < .05
Table 2-5: Descriptive Statistics, Correlations, and Reliabilities

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Internal consistency (α) data appear in italics on the diagonal; (N=209); * p < .05
Table 2-6: Results for Hypotheses 1 & 2

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(N=209)
Table 2-7: Results for Hypotheses 3-6

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(N=209)
Chapter 3

Manuscript 2
On top of the world? CEO status comparisons and longevity

Abstract

Holding the highest status positions within organizations should afford those individuals the highest levels of rewards and benefits from status. Yet, relative status comparisons impact longevity. When Chief Executive Officers (CEOs) compare their status relative to their counterparts, might these status comparisons result in consequences to their longevity? Drawing on previous work on status differences and longevity, I use a retrospective cohort analysis to examine four competing hypotheses that examine status comparisons and longevity of winners from Financial World magazine’s “CEO of the Year” contest. The predictions of the study are largely unsupported, and implications and future research suggestions are discussed.
3.1 Theoretical Development

“Sanford I. Weill has to be on top. The new corporate offices of his growing brokerage firm – now known as Shearson Loeb Rhoades – will tower as high over New York City as he can: in the top six floors of the World Trade Center’s south tower. And when he learns he is ‘only’ a silver medal winner in this year’s Financial World’s ‘CEO of the Year’ survey, his disappointment dissolves in a grin when he’s told that, no, that doesn’t rule him out for the gold medal next year.” (Financial World, 1980, p. 26).

Sanford I. Weill, former Chairman of Shearson Loeb Rhoades enjoyed the highest occupational status. With an education from Cornell University, a top position on Wall Street, and a salary to match, there was little question that he was at the top of the status pyramid. Despite his position, his disappointment at not winning the gold medal in Financial World magazine’s “CEO of the Year” competition is evident. Why would someone with such high status be disappointed in such a minor difference in status? After all, Sanford I. Weill’s status relative to the general population places him near the very top. When considering his own status, however, he is not comparing himself to most of the population – his status is determined on his relative ranking to others like himself. By winning “only” the silver medal instead of the gold, one of his compatriots is of even higher status. Second-place damaged his ego - is it also possible that this miniscule status differential affected his health and longevity?

Research had repeatedly demonstrated that status differences have a real influence on people’s longevity, with those in low status positions at increased risk of mortality (e.g. Marmot, 2004; Mirowsky & Ross, 2000; Sorlie, Blacklund, & Keller, 1995). Social determinants of health and longevity (see Braveman, Egerter & Williams, 2011 for review) suggest that non-medical factors such as attitudes, beliefs, behaviors and personal factors influence longevity, and one such determinant is status. While socioeconomic
status differences, which reflect disparities in income, occupation and education, consistently predict longevity (for a review, see Elo, 2009; Haan, Kaplan & Syme, 1989), status differences within shared SES levels have material implications on health and longevity.

In a series of studies conducted by Sir Michael Marmot, now referred to as the Whitehall II Studies, over 10,000 British civil servants were examined to determine whether social class differences within the same organization predict longevity. Throughout the over 500 studies conducted on the Whitehall I and II data (for more information, please see: [http://www.ucl.ac.uk/whitehallII/history](http://www.ucl.ac.uk/whitehallII/history)), a linear relationship emerged between status position and health and longevity. Those in lower status gradients (messengers and clerical workers) experience the worst health and shortest longevity, and those at the very top have the best health and longest lifespan (e.g. Bosma, et al., 1997; Marmot & Shipley, 1996). This is attributed to psychosocial factors related to one’s position in the status hierarchy: being in higher positions of status provides individuals with greater control and autonomy, levels of self-esteem, respect, social relations, and sense of purpose, ultimately predicting well-being and longevity (Marmot, 2004).

Given that those at the top of status hierarchies enjoy the best health and longevity, one may think that Sanford Weill has nothing to worry about. Being CEO of a top North American company, experiencing the highest levels of prestige, prominence, and respect, would surely affirm that he belongs to this top status gradient. CEOs earn substantially higher salaries than their employees (Hayward & Hambrick, 1997) and the general population (Liberto, 2011). They receive extravagant corporate perks (Brush,
2007) and are frequently highlighted in popular media and press (Malmendier & Tate, 2009). Yet, as a group, CEOs are less homogenous than one might think, and there is considerable variation among CEOs in income, incentives, public recognition, and value and size of the organization over which they control (Finkelstein, Hambrick, & Cannella, 2006; Hayward, Rindova, & Pollock, 2004; John & Qian, 2003). When CEOs interpret their own status position, they do so by evaluating their own status levels relative to other CEOs. Despite being themselves high in status, might those status differences pose threats to Sanford Weill’s longevity?

Understanding whether status differences between CEOs predicts longevity is the central question of this study. While CEOs should reap the most status rewards, their status comparisons against other CEOs may come with costs to their longevity, depending on which CEO they choose as their basis for comparison. Drawing from work on status comparisons and psychological factors associated with health and longevity and social comparison theory, I predict that status differences within the highest levels of status predict longevity. I examine this question through a retrospective cohort archival study; examining relative status rankings of medal winners from 1975-1985 Financial World magazine’s “CEO of the Year” contest.

Conceptual Background and Hypotheses Development

Status comparisons and psychosocial factors of longevity

As discussed, status is a socially determined ranking of individuals based on their relative social worth and prestige (Henrich & Gil-White, 2001; Washington & Zajac, 2005). Status is relational: to understand social positions, comparisons of attributes,
abilities or possessions must be made relative to important others (Magee & Galinsky, 2008).

How people evaluate their status can have a powerful influence on the self (Wrzesniewski, Dutton & Debebe, 2003), which in turn affects self-confidence, self-worth and sense of meaning, that later predict health and longevity (Marmot, 2004; Marmot et al., 1997 Stinson, et al., 2008; Sedikides, Gregg, Rudich, Kumashiro & Rusbult, 2004). Downward status comparisons (Wills, 1981), where individuals evaluate their status as being higher than others, can foster higher levels of self-esteem, sense of meaning, optimism, and purpose, which facilitate greater well-being (Adler, Epel, Castellazo & Ickovics, 2000; Bailis, Chipperfield, & Helgalson, 2008; Bailis, Chipperfield, & Perry, 2005; Haslam, Jetten, Postmes, & Haslam, 2009; Hu, Adler, Godlman, Weinstein & Seeman, 2005) and increased longevity (Kopp, Skrabksi, Rethelyi, Kawachi, & Adler, 2004). In contrast, upward status comparisons, where people evaluate their status as being lower than others, leads to lowered self-esteem and feelings of inadequacy, frustration and disappointment that can lead to poor health (Boyce & Oswald, 2012; Marmot, Siegrist, & Theorell, 2009; Sedikides, et al., 2004), higher risks to cardiovascular and autoimmune health (Kubzanksky, Kawachi, & Sparrow, 1999; Singh-Manoux, Marmot, & Adler, 2003; Marmot et al., 1997) and mortality (Chida & Steptoe, 2008).

Notably, status comparisons and its outcomes on health and longevity are most meaningful when made against relevant and similar others (Akinola & Mendes, 2013; Anderson, Kraus, Galinsky, & Keltner, 2012; Ghaed & Gallo, 2007). As such, how do
CEOs compare their status against relevant and similar others so that their status comparisons trigger meaningful psychological factors that predict longevity?

How do CEOs evaluate their status?

As discussed, social comparison theory suggests that the similarity, availability, and relevance of others are important in selecting social referents (Festinger, 1954; Kulik & Ambrose, 1992; Levine & Moreland, 1987). In organizational contexts, the selection of referents may vary based on people’s positions in organizations. In making social comparisons, those at higher organizational levels typically choose referents external to the organization, whereas lower status employees select referents within organizations (Andrews & Henry, 1963; Goodman, 1977; Kulik & Ambrose, 1992).

This implies that CEOs evaluate their status relative to other CEOs, rather than to others within their organization (Kulik & Ambrose, 1992; Oldham, Kulik, Ambrose, Stepina, & Brand, 1986; Shin, 2009). Consistent with social comparison theory (Festinger, 1954), when CEOs evaluate their comparative worth they compare themselves to those with whom they are most similar and who are the most relevant—other CEOs. As Donaldson and Lorsch note, “the desire to win or excel takes the form of an almost personal comparison with peers and friends who are CEOs of other companies” (1983; p. 23).

One way for CEOs to determine their status relative to other CEOs is through certification contests. Certification contests are “competitions in which actors in a given domain are ranked based upon performance criteria that are accepted by key stakeholders as being credible and legitimate” (Wade, Porac, Pollock, & Graffin, 2006, pp. 644). These contests provide clear and comparable attributions of relative standings (Elsbach &
Kramer 1996; Graffin & Ward, 2010; Graffin, Pfarrer, & Hill, 2012) and signal comparative quality and hierarchical ordering of actors within a specific field (Frey, 2006; Graffin et al., 2012).

Certification contests are a useful measure of status, as they combine individual judgments on predetermined standardized criteria (Wade et al., 2006). For CEOs, these contests are of high importance, as these rankings allow for meaningful status comparisons. When CEOs are ranked highly, it affirms higher status relative to their relevant peers, because the rankings are vetted, accepted, and viewed by key stakeholders, and can affect CEO behaviors and behaviors of company stakeholders (e.g. Graffin, Wade, Porac, & McNamee, 2008; Malmendier & Tate, 2009; Wade et al., 2006; Wade, Porac, Pollock, & Graffin, 2008). I argue that these rankings can go beyond behavioral outcomes and influence CEO’s longevity, as these public status evaluations can trigger powerful psychological factors that impact mortality, even for those at the highest status gradients.

**Status comparisons within the highest occupational levels**

While longevity differences attributed to status rankings of CEOs has not yet been examined, retrospective cohort studies have used similar public and noteworthy contests to study the longevity of individuals within high status gradients. Longevity differences attributed to status in these high levels have provided mixed results: Nobel Prize winners, Emmy award winners, and award winning Cricket masters live longer than their nominated colleagues (Boyle, 2008; Link, Carpiano & Weden, 2013; Rablen & Oswald, 2008). However, Academy Award Actors, Screenwriters, Baseball Hall of Famers, and presidential candidates in the USA experience no additional longevity relative to their
nominated counterparts (Abel & Krueger, 2005; Link et al., 2013; Sylvestre, Huszti, & Hanley, 2006; Wolkewitz, Allignol, Schumacher, & Beyersmann, 2010).

While retrospective cohort studies that examine status and longevity have yielded mixed findings, interest in the question remains. In the examples cited above, discrepancies in findings may be associated with the status competitions themselves, in that they included only winners and non-winners. Status is not dichotomous, but is continuous, reflecting rankings or orderings in social systems (Washington & Zajac, 2005). Understanding status rankings relative to others in an ordered structure may be more important in capturing the evaluative nature of status that predicts longevity, than assuming that status is dichotomous. Thus, it is imperative to study status differences within the highest levels where rank orderings are made available.

**Hypotheses development**

In recognizing the possible limitations of prior retrospective cohort studies that examined the dichotomous nature of status in predicting longevity (winners versus non-winners), I propose a more nuanced understanding of the relationship between status differences and longevity within CEOs. I argue that how status is construed by CEOs predicts longevity, and suggest that this relationship be examined through a multiple hypotheses perspective. As originally proposed by Chamberlains to the U.S. Academy of Science in 1890 (reprinted in *Science*, 1965), this perspective suggests we avoid biases associated with singular perspectives and instead compare multiple explanations of the phenomenon in question. As Chamberlains suggested:

> In following a single hypothesis, the mind is led to a single explanatory hypothesis. But an adequate explanation often involves the coordination of several agencies, which enter into the combined results in varying proportions. The true explanation is therefore necessarily complex. (1890; 1965; pp. 3).
Building upon Chamberlain’s proposal, I will explore competing explanations for the relationships between high status systems and longevity. By doing so, I respond to calls to follow Chamberlain’s method (Gray & Cooper, 2010; Wall & Wood, 2005), and build upon other organizational behavior scholars who have used this method (e.g. Raver & Nishii, 2010; Restubog, Bordia, Tang, & Krebs, 2010; Sosik, Godshalk, & Yammarino, 2004). I offer four separate hypotheses that suggest that the ways in which CEOs evaluate their status influences longevity.

For the purpose of this study, I use Financial World magazine’s “CEO of the Year” contest winners from 1975-1985, which is described in greater detail in the methods section. In the interest of understanding the development of hypotheses, this particular contest takes into consideration different degrees of status. The judges have a separate list for each industry (approximately 65 industries), and three CEOs are recognized for their achievements within each industry. One is awarded the bronze medal, which recognizes this CEO as the best within his or her industry. The other two CEOs are awarded Certificates of Distinction. From the 65 bronze medal winners, approximately 11 CEOs are awarded silver medals, and then finally, of those silver medalists, a single gold medal is awarded, signifying the CEO of the year.

This contest allowed for a publicized status hierarchy of the United States’ best CEOs. The analysts who judged this competition considered every CEO of major U.S. companies. Great publicity was associated with winning the award - and thus also, with not being a winner. Each of the bronze medalists and certificates of distinction winners had their names listed in the magazine. Silver medalists each had a one-page article written about them that included a small photo. Gold medalists were pictured on the
cover of the magazine, and had a feature article written about them with multiple photographs included. A gala dinner was held in New York City at which award winners were recognized. Details of the awards were also circulated to public relations departments, and members of Boards of Directors received mailings from *Financial World* informing them that their CEO was a winner (Graffin et al., 2008). Finally, many CEOs took significant pride in winning these awards, noting their awards in press releases, media announcements and biographies. CEOs could win awards numerous times, and over the course of the contest’s 22 years (1975-1997), CEO rankings could change over time, such that CEOs could enter the contest at the lowest award level, certificate of distinction, but later win higher. CEOs could also come into the contest at higher levels, such as a gold medal, but then fall to lower level medal wins. Alternatively, CEOs could enter the contest at any of the four levels but receive no subsequent medal wins. The nature of the contest allows for distinctive ways of conceptualizing status differences, which might then impact longevity differently.

**Status has a linear relationship with longevity.** The first two hypotheses I propose reflect the perspective of Marmot and his colleagues, where increasing up social status gradients improve longevity (e.g. Bosma et al., 1997; Marmot, 2004; Marmot, Rose, Shipley, & Hamilton, 1978; Marmot & Shipley 1996). Building upon this work, I suggest a nuanced perspective where social status differences within the same gradient (e.g., where all CEO’s lie within the same gradient) also predict longevity.

Given that status is a rank ordering, I suggest that the rank order of awards will have a linear relationship with longevity. Being ranked higher than others can stimulate the types of positive psychological factors that promote greater health behaviors and, in
turn, longevity. CEOs in the contest are already at the pinnacle of status in their domain, and it is probable that they place significant value on their roles. Their role as CEO is a core part of their identity, and they put in considerable effort towards their jobs and their organizations. Where their status lies relative to other CEOs can impact their sense of self (Wrzesniewski et al., 2003). Those who rank higher than others will feel that their efforts are being appropriately rewarded (Marmot, 2004), and the positive effects of downward status comparisons can result in self-esteem, sense of purpose, and superiority that promotes greater health, well-being and overall longevity. When ranking lower in status than other CEOs, they can experience frustration and disappointment that their efforts are not appropriately acknowledged, and feel inadequate and have lower self-esteem, all of which can be detrimental to health and longevity (Marmot et al., 2009).

I suggest that the level of CEOs first award in the contest may be an important predictor of longevity. The first award has a signaling effect (Frey, 2006), such that Financial World Magazine is publicly recognizing CEOs in their contest for the very first time, and this earliest ranking is critical. Initial status rankings tend to be sticky, where people’s first impressions of status often remain permanent regardless of new information (Podolny, 2005) and people can maintain status levels over time, regardless of performance (Szmatka, Skoveretz & Berger, 1997; Washington & Zajac, 2005). Initial psychological factors of self-esteem and sense of purpose that CEOs infer from those inaugural comparisons may be the most valuable in predicting longevity. Those denoted as higher in status at the earliest stage of the contest could derive the most positive psychological benefits, establishing higher levels of self-esteem, sense of purpose, and self-worth that predict greater longevity. Those who begin the contest at lower status
levels may focus on being inadequate relative to other CEOs, fixating on those initial feelings of inferiority, therefore producing detrimental psychological factors that negatively influence their longevity. Therefore, I predict that:

_Hypothesis 1: The level of CEO’s first award predicts their longevity._

While the first award is meaningful, CEOs can be entered into this contest numerous times. Status, in this sense, can change over time, such that CEOs could enter the contest at the lowest award level, but be ranked at higher levels over the course of their career. CEOs might make the most meaningful status interpretation at that highest ranked level. In this sense, it is not the first award that predicts longevity, but the highest level ever attained. As one’s career evolves, status roles can change, and in turn, affect self-concept (Ashforth, 2001). People may interpret their status relative to others by reflecting, not on their initial status position, but how high was their final position (Sturges, 1999). Rather than fixating on initial status levels, CEOs may capitalize on their highest status achievement, which determines their levels of positive psychological factors predicting longevity. Alternatively, the longevity of CEOs who do not reach such overall higher status rankings might be negatively impacted. After their first award win, CEOs are more attentive to the contest, and use subsequent award years as social comparisons to evaluate how they are doing relative to their peers (Shah, 1998). When some CEOs do not move upwards in the contest, but see that others are capable of ameliorating their status positions, those lower status CEOs will experience frustration, inferiority, and disappointment that their efforts are not being acknowledged in the same manner. These emotions will threaten their sense of self and self-esteem, which in turn, negatively impacts their longevity.
In this contest, it is plausible that CEOs derive psychological benefits that impact longevity by comparing their overall highest level of status to others at the lower ends of the status hierarchy. Therefore, I suggest that a rival, plausible hypothesis is that the highest level of award won predicts longevity.

**Hypothesis 2: The highest award ever won by CEOs predicts their longevity.**

The first two hypotheses assume that differences in status levels have a linear relationship with longevity such that one’s ordering in the contest, either at first award or overall highest award, has a positive relationship with longevity. These hypotheses assume that award levels are the most meaningful way for CEOs to make inferences about their status relative to others. However, it could also be that the *accumulation* of status over time, regardless of level, is more important in predicting CEO’s longevity.

Being recognized over a sustained period of time conveys additional information about one’s status. Repeated recognition demonstrates that these CEOs were able to maintain high status levels and accumulate intangible status resources (Song, 2011; Wegener, 1991). This conceptualization is important given that greater acquisition of status should bring with it increased positive psychological resources (Gallo, Espinosa, & Shivpuri, 2009). Being acknowledged with awards consistently whilst in the upper echelons of the social hierarchy would repeatedly affirm that a CEO continues to be perceived as ranking higher than others in the salient social order. This sustained position and accumulation of status resources should result in greater levels of psychological factors that predict longevity. Alternatively, infrequent or transitory acknowledgement, such as being awarded status only once or twice, may signal status loss, with all its negative consequences (Marr & Thau, 2013), which might threaten CEO
self-esteem and self-worth. Therefore, I predict that repeated awards should have a positive impact on longevity, such that the more awards won, the longer one lives.

**Hypothesis 3: The total number of awards won by CEOs predicts longevity.**

Finally, although CEOs have the opportunity to win awards repeatedly, only some CEOs win awards more than once. Only winning an award once might be experienced or viewed as a loss of status, both by the winner and others, as the contest is public with significant media coverage. When CEOs win one year but do not receive any further awards, both CEOs and important others such as Boards of Directors, shareholders, and top management teams will be aware of CEOs fallen status positions.

Losing status can threaten one’s sense of self and self-worth (e.g. Marr & Thau, 2013; Pettit, Yong, & Spataro, 2010). Losing status can be particularly detrimental as it might become a self-fulfilling prophecy, such that when people experience status loss, they see it as self-threatening, which in turn has a negative effect on performance (Marr & Thau, 2013), making it difficult to climb back up the social ladder.

When CEOs win awards only once, the lack of repeated recognition signifies a loss in status levels. Whereas they once attained the highest public status recognition with important others, not winning subsequent awards means that they are removed from that status level. This might be particularly painful for CEOs, as those in high status positions are more concerned with maintaining their status rank than are those lower in status (Blader & Chen, 2011). CEOs who fall out of that highest status gradient are likely to experience threats to their self-worth, sense of purpose, and self-esteem, and in turn, that loss of status will have a negative effect on longevity.

**Hypothesis 4: Winning an award only once has a negative effect on CEOs longevity.**
To reduce the possibility of plausible, rival hypotheses I control statistically for certain variables. First, I control for CEO’s marital status, as married men live longer than those who are not married (Brockmann & Klein, 2004; Doherty et al., 2002; Waite & Gallagher, 2002). Second, to ensure that status rankings are inferred with respect to the awards won and not external status recognition, I control for the number of times that CEOs are mentioned in the *New York Times*. Third, I control for the size of the organization and the value of the organization at the time that CEOs won their first award. Fourth, I use a time-dependent covariate that controls for the age at which CEOs won their first award.

### 3.2 Methods

**Measures**

**CEO Status.** To capture the status rankings of CEOs, I used the certification contest “CEO of the Year” from *Financial World* magazine. For more information on the magazine, please see [http://en.wikipedia.org/wiki/Financial_World](http://en.wikipedia.org/wiki/Financial_World).

*Financial World* magazine was one of North America’s longest running business magazines, operating from 1902 until 1998. The magazine had a circulation of more than 500,000 (Graffin et al., 2008; Malmendier & Tate, 2009). In 1975, the magazine introduced its “CEO of the Year” contest, which set out to recognize and honor the top corporate officer who “has made the most significant contribution to his company, his industry, his business in general, and the community at large” (Berton, 1975, p. 16). In doing so, they created what eventually became the oldest and most systematic contest of its kind (Graffin et al., 2008).
Financial World magazine set out clear parameters to determine how to select specific CEOs to be recognized in the competition, focusing on four criteria (Berton, 1975, p.16):

1) During the preceding year, this corporate chief so managed his company’s affairs that it was among the leaders in the standard analytic measurement tools of performance. Given the limitation of the economy in general and his industry in particular, his company was able to effect a high rate of return on investment capital, a big increase in net income, best management of debt, etc.

2) The executive so managed his company that it increased its position in its field significantly or maintained its position in spite of general adversity.

3) This chief executive has assembled an effective working team to surround him and that corporate affairs are run smoothly with creativity, innovation, and dynamism. Morale in his company is high in response to his leadership.

4) This chief executive has not only been responsible for input into his company but has contributed significantly to his industry and/or his community and the nation at large.

Based on these criteria, Financial World magazine used a group of approximately 40 analysts, all specialists in their respective fields, to select the top chief executive officer in their respective industry groups according to above criteria. There were approximately 65 industry fields, ranging from Aerospace to Transportation Motor Carriers. In addition, analysts selected two runners up in each field, thus having three top CEOs in each respective industry. These numbers meant that, on average, approximately 195 CEOs were selected for awards each year. CEOs could win awards more than once, and many CEOs were selected for awards numerous times.

After selection of the bronze medal winners, research directors and top analysts from Wall Street’s largest investment houses would narrow the field to the top ten to 12 CEOs who would be awarded Financial World’s silver medal. These CEOs were deemed to have excelled across all different criteria above. Finally, a board of independent judges would select a single winner out of the silver medalists to be awarded “CEO of the Year”,

and the gold medal. With the systematic ranking of certificates of distinction, bronze, silver and gold medalists, the “CEO of the Year” contest reflects linear status levels.

The contest ran from 1975 until 1997. For the purpose of this study, I examined CEOs who were awarded a certificate of distinction or one of the three medals between 1975 until 1985, yielding a sample size of approximately 1,080 individual winners. I selected the years 1975 - 1985, as the outcome variable is longevity. Including award winners after that date would increase the likelihood of many still being alive, thereby limiting variance in the outcome measure. However, for all CEOs in this sample who won their first awards between 1975-1985, I included all of the awards that they had ever won, up to and including the final year of the contest (1997). I did so to ensure that any additional status comparative information that CEOs could have gained by winning awards after 1985 were included in the data set.

Longevity. To measure longevity, I collected dates of birth and death (when available) for all CEOs in the contest. To do so, I collected the obituaries for CEOs from archives of the business section of the New York Times, Financial Times, Chicago Tribune and Los Angeles Times. I verified these dates using the website www.ancestry.com as well as on company or alumni university websites. To calculate their longevity gained due to awards won in the contest, survival years were denoted as year of death subtracted by first year CEOs won an award in the contest. For CEOs who have not yet died, their survival years were calculated as the last year that data were collected (2012) subtracted by their first year in the contest. Finally, where no information was available about their date of birth, CEOs were eliminated from the analyses (N=279), leaving a total of N=801 CEOs in the data set.
**Control variables.** Several control variables were included in the analyses. Marital status was collected through the use of obituary data, media press releases and the website Ancestry.com. I collected the valuation of companies and number of employees at the year that CEOs won their first award through the Wharton Research Data Services where Compustat Annual Financial Records are available. The frequency with which CEOs are mentioned in the *New York Times* was collected through the *New York Times* archival search function.

There were only three females CEOs recognized during the years 1975-1985. For analytic purposes, I excluded these women from the sample, limiting my sample to male CEOs.

**Data Analysis**

I used survival analyses to examine the hypotheses of this study. Survival analysis is a frequently used method in biostatistics and epidemiology though less frequently applied in organizational behavior research (for recent exceptions, see Hom Mitchell, Lee, & Griffeth, 2012; Kammeyer-Mueller, Wanberg, Rubenstein, Song, 2013). Survival analyses should be used when the outcome variable reflects time until an event occurs (Kleinbaum & Klein, 2005). As I am interested in depicting time in years until CEOs die after first being included in the “CEO of the Year” contest, survival analysis is the appropriate statistical technique.

Like other statistical procedures, survival analysis has complexities that need to be confronted. Most important is that, as seen in my data set but inherent in almost all survival time analysis data sets, some participants will not have experienced the event at the end of data collection. Some CEOs who received awards during 1975-1985 are still
alive. Alternatively, current information may not be available, as a result of which I cannot comment on their survival. In typical regression analyses, when information about the outcome variable is unavailable, these cases would often be dropped (Morita, Lee, & Mowday, 1993). In contrast, survival analysis can handle incomplete outcome data by categorizing them as right-censored where participants “true survival time is equal or greater than observed survival time” (Kleinbaum & Klein, 2005, pp. 7). To manage right-censored cases, it is necessary to create a categorical dummy variable that identifies which cases are censored and which cases received the event of interest. For the purpose of my study, I identified all CEOs who are either still alive or where information about their survival time is unavailable (N = 307) and remaining CEOs were coded to reflect that they had died (N = 494).

While survival analysis procedures have a wide range of techniques (for review please see Kleinbaum & Klein, 2005; Singer & Willett, 2003), I use the Extended Cox-Proportional Hazards Model with time-dependent covariates to understand whether survival time can be explained by status differences inferred from the “CEO of the Year” contest. The Cox-Proportional Hazards model examines the effects of multiple covariates on survival time. In many ways, Cox-Proportional Hazards models are similar to linear regression, as they describe the relationship between an independent variable and a dependent variable, controlling for possible confounding covariates (Morita et al., 1993). The key difference concerns the outcome of interest – whereas in linear regression, the outcome variable is a continuous variable, in survival analysis, the outcome of interest is the time to an event. One limitation associated with Cox-Proportional Hazards models is that they assume that all explanatory covariates are time independent. Given the nature of
my data set and hypotheses, it is necessary to use an extended version of the Cox-Proportional Hazards model, such that it can allow for time-dependent covariates.

Specifying a time-dependent covariate in an Extended Cox-Proportional Hazards model offers the ability to control for the fact that CEOs enter the contest at different times, and are at different ages upon entry. This variance means that the age at which CEOs first enter the contest is a time-dependent covariate. Controlling for this variable is vital to the understanding of Cox-Proportional Hazards models – without including the variable as a control, inflated results could emerge. In addition, including this time-dependent covariate controls for the immortality bias (Sylvestre, et al., 2006; Hanley & Forster, 2013), a common concern in survival analysis. Not controlling for the immortality bias (which is crediting survival time before an intervention or event occurs, Hanley & Forster, 2013) could exaggerate any longevity benefits (Sylvestre et al., 2006). In this data set, not controlling for the immortality bias would mean crediting the number of years CEOs lived prior to winning their first award as additional survival years. By specifying in the model that age at first entry into the contest is a time-dependent covariate, any longevity extending-benefits acquired upon receiving an award are obtained without crediting CEOs years prior to entry into the contest.

Taken together, the data analytic strategy for the research questions in this study involves using Extended Cox-Proportional Hazards modeling with time-dependent covariates to examine how status comparisons of CEOs predict longevity. I computed four separate Extended Cox-Proportional Hazards model with a time-dependent covariate reflecting age at time of first award, and including covariates of the year the first award was won, and the number of mentions in the New York Times. The separate models will
examine the way that status comparisons can be made based on the hypothesized predictions.

A problem inherent with Extended Cox-Proportional Hazards models with time-dependent covariates is that when any covariate data are missing, the models automatically drop those cases from the analyses. Given that there are data missing regarding size and value of companies and the marital status of CEOs, I first test each of the models separately, and then retest models with the inclusion of additional covariates to determine whether they help to refine the models.

3.3 Results

Means, standard deviations and correlations between variables are presented in Table 3-1.¹

I computed four separate Extended Cox Proportional Hazards models controlling for the year of the first award, number of times mentioned in *New York Times*, and the time-dependent covariate for age at time of first award in the first block of each model. Each separate model was computed with the main exploratory variable reflecting the hypothesized relationship. The results of the simple models are found in Tables 3-2 to 3-5. To refine the four hypothesized models, I again computed the models adding the additional covariates of marital status, size of company at year of first award and value of company at year of first award in a stepwise progression. In doing so, the number of CEOs included in these models drops to $N = 576$. The results of these relationships appear in Tables 3-6 to 3-9.

¹ In survival analysis, it is traditional to run survival plots to visualize whether there are any survival differences between groups. These plots can only be run when the predictor variables are categorical as is found in Hypotheses 1, 2, and 4 of this study. While these survival plots provide little interpretive meaning, the survival plots can be found in Appendix E.
In the first model, the main explanatory variable was the level of first award won in the contest compared to the baseline award won, which was certificate of distinction. The results suggest that regardless of whether CEOs win a bronze ($\beta = -.01$, n.s.), silver ($\beta = .06$, n.s.) or gold ($\beta = -.24$, n.s.), the level of CEOs first award does not explain longevity. Adding in the additional covariates did not change the results, as the models remained non-significant (bronze = $\beta = -.03$, n.s.; silver = $\beta = -.09$, n.s; gold = $\beta = -.35$, n.s). No support is provided for Hypothesis 1.

The second model included the highest award level won by CEOs as the main explanatory variable. Again, the results suggest that the highest level of award won has no bearing on CEOs longevity: Compared to the baseline measure of winning a certificate of distinction, winning a bronze ($\beta = -.25$, n.s.), silver ($\beta = -.27$, n.s.) or gold ($\beta = -.37$, n.s.) does not explain longevity for CEOs. Including the additional covariates did not change this pattern of findings (bronze = $\beta = -.26$, n.s.; silver = $\beta = -.30$, n.s; gold = $\beta = -.39$, n.s) providing no support for Hypothesis 2.

The third model tested whether the accumulation of awards increases CEO’s longevity. The number of awards won was found to be a significant predictor ($\beta = -.08$, p < .01). However, the number of awards won had a negative relationship with longevity, opposite to what was predicted in Hypothesis 3. Specifically, the more awards won, the lower the longevity. When entering in the additional covariates, the relationship between amount of awards and longevity remained negative and significant ($\beta = -.08$, p < .01).

Finally, the fourth model tested whether winning an award only once would negatively impact greater longevity. Winning an award more than once was not related to
longevity ($\beta = .16, \text{ns}$). When adding the additional covariates, the relationship remained unchanged ($\beta = .17; \text{n.s}$) again, providing no support for Hypothesis 4.

### 3.4 Discussion

In this study, I set out to examine whether very small status differences between CEO’s could predict longevity. I offered four varying conceptualizations of status comparisons that could explain differences in life span between CEOs. First, I predicted that CEOs’ very first award level could impact longevity. Second, I predicted that the highest level of award ever won could explain differences in longevity. Third, I predicted that the accumulation of numerous awards over time would positively impact longevity. Last, I predicted that winning the award only once would negatively impact longevity.

None of the hypotheses were supported. There were no significant differences between CEO rankings and longevity, either at the time of their first award, or their highest award won. There was a significant relationship between the total number of awards and longevity. However, contrary to my hypothesis, this relationship is negative, suggesting that the more awards CEOs win, the shorter their longevity. Finally, there were no significant differences in CEO longevity between CEOs who won an award only once versus those who won an award multiple times.

While the results of this study do not support the four hypotheses, important inferences can still be drawn from the results. First, this study is consistent with other examinations of status differences within high status levels where no survival differences were found, such as between Academy Award Winners and nominees (Sylvestre et al., 2005; Wolkewitz et al., 2010), Academy Award winning screenwriters and nominees (Redelmeier & Singh, 2001b), and baseball hall of famers and players (Abel & Krueger,
2005; Link et al., 2013). The results of my study suggest that there may be no longevity differences due to status comparisons between CEOs. One possibility is that at the very highest levels of status, status differences within-level do not trigger the psychological factors of self-esteem, self-worth, and sense of purpose that contribute to longevity. Additionally, when people reach the very highest status gradients, status differences may not predict meaningful psychological threats, such as feelings of inferiority and frustration that are typically derived from lower status evaluations. These findings suggest that there may be boundary conditions to the health benefits of being ranked higher than others in status, such that within the very highest gradients, these differences cease to be meaningful.

This study did yield a relationship between winning multiple awards and longevity. Rather than supporting the initial hypothesis, however, the opposite was found, such that winning multiple awards detracted from longevity. While not predicted, this may yet be an important idea for post hoc exploration. While status positions tend to be relatively stable (e.g. Anderson, Keltner & Kring, 2001), status rank is dynamic and can fluctuate over time (Bendersky & Shah, 2012). One possibility is that CEOs who won repeated awards might have had to invest considerable resources to maintain their high status positions. Conservation of Resources theory (Hobfoll 1989; 2001) suggests that people have a finite level of resources, and depleting those resources can have a negative effect on health and longevity (e.g., Segerstrom, Al-Attar, & Lutz, 2012; Wells, Hobfoll & Lavin, 1999). The significant and negative relationship between the number of awards that CEOs won and their longevity may suggest that CEOs who won repeated awards expended considerably more resources to maintain their status, and over time, this
investment of resources took a toll on their well-being and on their longevity. These findings may signal an important cost to having high status – that once individuals achieve these status levels, it becomes difficult to stay in those positions, and the costs to retaining high status can be detrimental to health and longevity. The post hoc nature of this explanation however, requires that future research confront this directly.

**Strengths, Limitations, and Future Research**

Inherent in this study are many strengths. First, status differences amongst CEOs remains an understudied area of management. To study psychological processes of CEOs (a sub-sample of the management population difficult to access using traditional research designs) requires unique and novel methods of study. For example, to study CEO narcissism, Chatterjee and Hambrick (2007) used proxy measures to capture the inflated egos of CEOs, such as the prominence of CEO’s photo in annual reports. Others have used biographic information to code and rate CEO’s levels of transformational leadership, narcissism and core self-evaluation (Resick, Whitman, Weingarden, & Hiller, 2009). In this study, I used a status-ranking contest as a proxy for status comparisons at the highest levels of CEO status and numerous sources to retrieve biographical information regarding CEO’s longevity. Through this unique method of study, I attempted to examine status differences and longevity of CEOs.

A key strength of this study was the conceptualization of time as an outcome variable, and the use of statistical analyses that are not traditional in the management literature. Numerous calls have been made for management scholars to incorporate the use of time in studies of organizational behavior (e.g. Ancona, Goodman, Lawrence, & Tushman, 2001; George & Jones, 2000), including in studies of leadership (Bluedorn &
Jaussi, 2008). In my study, the outcome of interest was the amount of time a CEO gains in his lifetime due to status evaluations. In order to study time in this nature, it required the use of survival analysis, a useful but underutilized form of statistical analysis in the management literature (Morita et al., 1993), thus responding to calls to incorporate temporal outcomes in studies of organizational behavior.

Finally, this second study examines longevity of leaders – a rarely studied area of leadership. Scholars are typically interested in understanding how leaders influence subordinates well-being (e.g., Arnold, Turner, Barling, Kelloway, & McKee, 2007; Kelloway, Turner, Barling, & Loughlin, 2012) but less consideration has been given to understanding leaders’ own health. This is an important omission, as leaders’ well-being can play an important role in the quality of their leadership behaviors (Byrne et al., 2013). There are few empirical studies examining CEO’s well-being (see Cooper, Gavin & Quick, 2008 for a review of factors associated executive health), and to my knowledge, this is one of the first studies examining CEO longevity. Given that CEO health and their mortality can have both strategic and financial influences on company performance (Nguyen & Nielsen, 2010; Perryman, Butler, Martin, & Ferris, 2010), any research examining CEO health and longevity is an important area of exploration.

Like all research, this study is not without its limitations. Most notably, I used archival data, which precludes the ability to collect all plausible intervening variables. Using obituary data to measure longevity provides only publicly available information, thus preventing the acquisition of individual health or hereditary factors that may impact longevity. An additional limitation to this study was that not all CEOs experienced the event of interest in this study – in other words, many CEOs remained living at the end of
data collection. While a typical concern in survival analysis and was adequately handled through the use of censored analyses, had all CEOs passed away by the end of data collection, this would allow for greater refinement of the models tested.

A final statistical limitation of this study is worth noting. Status rankings in this contest are dynamic – CEOs entered in and out of the contest itself, and in and out of levels within the contest through the duration of the contest’s existence. The four hypotheses that were tested in this study utilized static status comparisons, however it is possible that psychological factors fluctuated along with status changes, which would imply that CEO status rankings are not based on award level groupings, but rather on their entry in and out of the categories. This time-dependent status fluctuation is a concern associated with many time-dependent survival analyses (see Hanley & Forster, 2013 for review). The ability to test this explanation is beyond the scope of the data, given that the vast majority of CEOs either won only once, and that most CEOs won awards at the level of certificate of distinction, likely creating large issues of multicollinearity.

Despite the lack of support for the original hypotheses in the study, it would be premature to conclude that status differences between CEOs are of no consequence, and future research remains warranted. One possibility is that contest rankings do not fully capture status comparisons as conceptualized in this study. A more in-depth understanding as to how CEOs compare their status to others may be necessary. Using qualitative studies to interview CEOs to gain greater knowledge of against whom they compare themselves, and how those comparisons influence their well-being would be an important area for future research.
The counterintuitive finding that winning multiple status awards has a negative relationship with longevity might suggest that future research examine status maintenance from a Conservation of Resource perspective (Hobfoll, 2001). Given that the drive for status is seen as a fundamental human need (Barrick, Steward, & Piotrowski, 2002; Frank, 1985), people will exert considerable resources to enhance and maintain status levels. While people’s efforts may be rewarded with higher levels of status resources, evidence exists that this may also come at a cost to their performance (Bendersky & Shah, 2012). The results of this study suggest that the maintenance and achievement of high status may be costly through the depletion of resources, which could negatively impact health and longevity. Future research should examine the efforts it takes to maintain status levels and how those efforts may come at a cost to health and longevity.

Finally, research should examine how status loss might influence CEO longevity. Currently, research focuses largely on the benefits of high status – but understanding what happens when people lose their status is an emerging area of research (e.g. Marr & Thau, 2013; Pettit, et al., 2010). Losing status at the CEO level may be particularly painful – when people are at the very highest levels of status, they have a much longer way to fall in status hierarchies. While research supports the notion that status loss can negatively impact performance (Marr & Thau, 2013), research should examine what happens to CEO’s well-being and longevity when they experience status loss, where it may be that losing status may be worse than never having had it at all.

**Conclusion**
The results of this study do not support a positive relationship between CEO status rankings and longevity. The one significant unpredicted finding (namely, the negative relationship between winning many awards and longevity) might suggest that attempts to maintain high status levels take a toll on CEO’s longevity. Future research should explore this relationship, and continue to examine how status differences between CEOs can impact other aspects of psychological factors and well-being. Being at the very top of the status ladder does produce innumerable benefits, but the effects and costs of within-level status differences of those at the highest levels is an area that is still underexplored. Though this study found little support for any positive effects of higher rankings within high-levels of status, this remains an area ripe for future exploration.
3.5 References


Doherty, W. J., Galston, W. A., Glenn, N. D., Gottman, J., Markey, B., Markman, H. J., ...

... & Wallerstein, J. (2002). Why marriage matters: Twenty-one conclusions from the social sciences. *Institute for American Values*.


Table 3-1: Descriptive Statistics, and Correlations

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<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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<tbody>
<tr>
<td>1. Survival time</td>
<td>25.94</td>
<td>8.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2. Age first award</td>
<td>56.14</td>
<td>7.51</td>
<td>-.46**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. First Year</td>
<td>1978.9</td>
<td>3.27</td>
<td>-.13**</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. NY Times</td>
<td>83.35</td>
<td>197.37</td>
<td>.03</td>
<td>.01</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
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<td>5. Marriage</td>
<td>0.91</td>
<td>0.09</td>
<td>-.02</td>
<td>-.05</td>
<td>-.02</td>
<td>.04</td>
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<td>6. Employees</td>
<td>34.62</td>
<td>73.89</td>
<td>-.07</td>
<td>-.02</td>
<td>.30**</td>
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<td>7. Valuation</td>
<td>38.00</td>
<td>73.89</td>
<td>.01</td>
<td>.01</td>
<td>.09*</td>
<td>.19**</td>
<td>.01</td>
<td>.04</td>
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<td>8. First Level</td>
<td>1.36</td>
<td>0.59</td>
<td>-.08*</td>
<td>-.03</td>
<td>.12**</td>
<td>-.02</td>
<td>.06</td>
<td>-.05</td>
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<td>9. Highest Award</td>
<td>1.64</td>
<td>0.75</td>
<td>.06</td>
<td>-.16**</td>
<td>-.11**</td>
<td>-.22**</td>
<td>-.02</td>
<td>.10**</td>
<td>-.09*</td>
<td>.65**</td>
<td></td>
<td></td>
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<td>10. Single award</td>
<td>0.55</td>
<td>0.49</td>
<td>.13**</td>
<td>-.18**</td>
<td>-.22**</td>
<td>.14**</td>
<td>.01</td>
<td>.08**</td>
<td>-.10**</td>
<td>.14**</td>
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<td>11. # Awards</td>
<td>2.49</td>
<td>2.17</td>
<td>.19**</td>
<td>-.28**</td>
<td>-.16**</td>
<td>.18**</td>
<td>.02</td>
<td>.07</td>
<td>-.10**</td>
<td>.13**</td>
<td>.13**</td>
<td>.61**</td>
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(N=801); * p < .05; ** p < .01
Table 3-2: Extended Cox Proportional Hazards Models with limited covariates –
Hypothesis 1

<table>
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<th>Hypothesis 1: First award predicts longevity</th>
<th>Coefficient</th>
<th>df, Chi Square</th>
<th>Δ Chi Square</th>
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<tr>
<td><strong>Step 1</strong></td>
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<tr>
<td>Time Covariate Age</td>
<td>.01**</td>
<td>3, 240.73**</td>
<td></td>
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(N = 801); *p < .05; ** p < .01
**Table 3-3: Extended Cox Proportional Hazards Models with limited covariates – Hypothesis 2**

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(N = 801); *p < .05; ** p < .01
Table 3-4: Extended Cox Proportional Hazards Models with limited covariates – Hypothesis 3

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(N = 801); *p < .05; ** p < .01
Table 3-5: Extended Cox Proportional Hazards Models with limited covariates – Hypothesis 4

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(N = 801); *p < .05; ** p < .01
Tables 3-6: Extended Cox Proportional Hazards Models with all covariates – Hypothesis 1

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(N = 576); *p < .05; **p < .01
Tables 3-7: Extended Cox Proportional Hazards Models with all covariates – Hypothesis 2

**Hypothesis 2: Highest award predicts longevity**

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(N = 576); *p < .05, ** p < .01
Tables 3-8: Extended Cox Proportional Hazards Models with all covariates – Hypothesis 3

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(N = 576); *p < .05; **p < .01
Tables 3-9: Extended Cox Proportional Hazards Models with all covariates – Hypothesis 4

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(N = 376); *p < .05; **p < .01
Chapter 4

Manuscript 3

A little status goes a long way:
Envy mediates the effect of status dispersion on ostracism

Abstract

The relational nature of status implies that to have high status, there must be others of lower status. The relational costs of those status dynamics are the focus of this study. I predict that in the presence of status dispersion, those of lower status will experience envy, which in turn predicts ostracism towards others and perceived ostracism in social situations. In a two-part experimental study using student participants, the results demonstrate a curvilinear relationship between status dispersion and perceiving ostracism as transmitted through envy. Only small status differences need to be present for envy to emerge, which predicts feeling ostracized in virtual interactions. Implications and future research suggestions are discussed.
4.1 Theoretical Development

*We might do better to distance ourselves, both practically and emotionally, from those whom we consider to be our equals but yet who have grown richer than us. (De Botton, 2004; pp. 43).*

Aspiring for higher status is a fundamental human motive (Barkow, 1975; Barrick, Steward, & Piotrowski, 2002), and, as discussed, acquiring social status has innumerable benefits including greater health and longevity (Marmot, 2004), access to resources (Gallo & Matthews, 2003) and overall happiness and life satisfaction (Pinquart & Sorensen, 2000; Easterlin, 2001; Oswald, 2004). As previously noted, status is relational and can only be evaluated through comparison of attributes, abilities or possessions relative of others. An unfortunate side effect is that in the presence of high status, lower status referents must exist (Blau & Scott, 1962). As noted by De Botton, in the presence of higher status others, lower-ranking individuals’ painful emotions can make it easier to stay away from higher status individuals than to be reminded of their success.

Despite De Botton’s (2004) comment, little is empirically understood about the emotions and behaviors of those who are evaluated at the lower end of status comparisons. In the presence of individuals who have higher status, how do lower status individuals feel and react towards their high status counterparts? I suggest that, despite the advantages associated with higher status, lower status positions may trigger painful emotions, and that the individuals holding these positions might subsequently engage in negative interpersonal behaviors targeted against high status others, and themselves. Specifically, I suggest that perceiving others as having higher status can trigger ostracism
of high status counterparts through envy. In addition, I suggest that feeling envious of others’ higher status might also lead to feeling excluded in social interactions.

In this study, I draw on social comparison theory (Festinger, 1954) to predict that attention to one’s status position relative to others can trigger envy in lower status individuals. I suggest that this effect is not monotonic, and using competing hypotheses (Chamberlains, 1890, 1965), I propose that that the amount of status dispersion is important in predicting envy in lower status individuals. I also propose that envy mediates the relationship between status dispersion and ostracism – such that those at the lower end of status comparison experience envy, as a result of which they are more likely to ostracize others, and see themselves as the target of others’ ostracism. I test these ideas in a laboratory experiment.

**Conceptual Background and Hypotheses Development**

**Status dispersion**

Status dispersion reflects differences between individuals regarding the status they hold relative to each other (Phillips, Rothbard, & Dumas, 2009). As has been discussed, people compare discrepancies between their attributes, possessions and positions through social comparison processes (Festinger, 1954). Smith (2000) suggests that the underlying human need for social comparison is clearly linked to status comparisons. By examining where one exists in status hierarchies, social comparison-based evaluations might be strong indicators in understanding how well or how poorly people feel they rank on elements that determine their social standing. In making unfavorable comparisons, people are more likely to think that there is something about
themselves that is the cause of the discrepancy. As Smith states (2004), “It matters, and often matters profoundly, how we compare with others“ (pp. 44).

It is the evaluative nature of the self in status comparisons that influences social relations. The degree of status dispersion affects interpersonal dynamics (Berger, Cohen & Zelditch, 1972; Ridgeway & Walker, 1995), and the quality of relationships between people (Lincoln & Miller, 1979; McPherson & Smith-Lovin, 1987; Wuthnow, 2003). When people are of the same status, they enjoy better relationships, develop more informal friendships, and encounter fewer barriers to communication (Blau, 1977; McPherson & Smith-Lovin, 1987). In contrast, when people are of different status levels, relationships can be negatively affected. Differences in status levels alter the degree to which friendships are formed, communication patterns arise, and the judgments of others are created (Blau, 1977; Cuddy, Fiske & Glike, 2008; Chattopadhyay, 1999; Konrad, Winter, & Gutek, 1992). Just why status dispersion alters social relations may be related to the emotional reactions that arise from evaluating oneself as lower in status relative to another. Social comparisons predict self-conscious emotions (Greenberg, Ashton, & Ashkanasy, 2007), which can be experienced in reaction to other people’s success, with painful emotions resulting from upward social comparisons (Leary, Koch, & Hechenbleikner, 2001). I focus on one of those self-conscious emotions that can follow upward social comparisons of status, namely envy.

**Envy**

Envy is an unpleasant, often painful emotion characterized by feelings of inferiority, hostility and resentment (Smith & Kim, 2007). Envy occurs when people lack others superior qualities, achievements or possessions, and they either desire it or wish
that others did not have it (Parrott & Smith, 1993). It is conceptualized as a blended emotion, such that it reflects emotions towards others (hostility and resentment) as well as emotions directed towards the self (inferiority) (Smith & Kim, 2007; 2008).

Envy is a predictable consequence of social comparison (Fiske, 2011). Research has shown that when an unfavorable social comparison is made, a sense of inferiority can result (e.g. Parrott, 1991; Parrot & Smith, 1993), as can a sense of resentment or ill will towards the envied party (Salovey & Rodin, 1984; Silver & Sabini, 1978). When participants were asked to make social comparisons between themselves and others who had fared better in laboratory studies, be it a comparison to idealized female bodies (Friederich et al., 2007) or same sex peers with superior credentials (Takahashi, Kato, Matsuura, Mobbs, Suhara, & Okubo, 2009), envy was a consistent by-product. Envy is also the painful but often unconscious consequence of status comparisons, where those in high status positions unintentionally create emotional pain in their lower status comparators. Those at the lower end of the status continuum are often unable discount the attractiveness of high status positions, nor can they ignore the frustration that they experience when they realize that the goal they wish to achieve is bestowed upon more fortunate others.

**What is the nature of the relationship between status dispersion and envy?**

Envy is a predictable consequence of unfavorable status comparisons (Fiske, 2011). In attending to status discrepancies, those at lower ends of continuaums are likely to feel envious of other people’s status. In exploring this relationship, I investigate how much of a discrepancy needs to exist for envy to result, and offer several different alternatives. We know from previous research that the benefits of status increase monotonically (e.g.,
Marmot, 2004). As the degree of status differences increase, the people at the bottom of status hierarchies are likely to experience greater levels of envy.

This suggests a clear, monotonic relationship. I suggest that this relationship would best be examined using the multiple hypotheses perspective as suggested by Chamberlain (1890; 1965) and discussed in detail in Study 2 in this dissertation. This method responds to calls for theory refinement (e.g. Gray & Cooper, 2010; Pierce & Aguinis, 2013). In this third study, the multiple hypothesis perspective responds to appeals that novel (and often linear) theories are not the only way to develop theory, and that we should conduct research and stage competitive tests that identify the boundaries and limitations of theories (Edwards, 2010). I propose two competing non-linear hypotheses that suggest that the amount of status dispersion matters, and must be understood to appreciate when envy might emerge.

**Are large amounts of status dispersion required to trigger envy?** One possibility is that status differences need to be large enough for those of lower status to care; if they are hardly noticed or provide little additional status benefits, they are unlikely to trigger any negative comparisons. Thus, only when people perceive themselves to be substantially lower in status might feelings of envy be triggered (Smith & Kim, 2007).

Previous laboratory research that has manipulated envy has asked participants to evaluate themselves against idealized comparisons. For example, female college students had their brain responses measured when they were asked to compare their own bodies to those of fashion supermodels. Neuroimaging responses and self-reported measures indicated that, when asked to make comparisons of their bodies to women who had
idealized body types, participants’ anterior cingulate cortices, the emotional portion of the amygdala, responded at very high levels, correlating significantly with self-reports of envy and anxiety (Friederich et al., 2007). Other research manipulates schadenfreude, a form of envy where people feel happy when envied others experience misfortune (Smith, Powell, Combs & Schurtz, 2009). Asking participants to visualize someone at the highest levels of status (including business executives and high ranking investment bankers) getting soaked by taxi drivers elicits higher levels of schadenfreude than does visualizing the same events occurring to average citizens (Cikara & Fiske, 2012). While these studies have successfully manipulated envy and schadenfreude, the triggers – supermodels, executives and investment bankers - were at the pinnacle of status on self-relevant domains. Given that envy is a blended emotion consisting of both hostility and inferiority, people may need to feel that the levels of status dispersion are large enough to feel substantially inferior to others to produce resentment of higher status others. If status differences are minute, lower status individuals may recognize that whilst their status levels differ, those higher are afforded few additional benefits or rewards. Thus, the marginal status differences would not warrant feeling resentful towards those in higher status positions, nor do they trigger one’s feelings of inferiority, as the status differences matter so little. This would suggest that status dispersion and envy share a non-monotonic relationship, where the amount of status dispersion must be large in order for lower-status others to feel envious.

**Are small amounts of status dispersion sufficient to trigger envy?** In contrast, even the smallest status differences might trigger envy. While the studies above refer to comparators who were at the very peak of their status on the relevant domains (i.e.
supermodels and executive business people), other studies have demonstrated that envy can be elicited through upward social comparisons based on more minute differences (Cohen-Charash, 2009; Moran & Schweitzer, 2008; Schaubroeck & Lam, 2004). Social comparison theory suggests that people tend to compare themselves with similar others (Festinger, 1954), and envy may be most painful when the comparisons are made to those most analogous to oneself (Smith & Kim, 2007). Small status differences may be sufficient, with those at the bottom of the status comparison feeling that the more favorable status ranking could or should have been theirs, making the envious reactions particularly painful. While minimal status differences provide those higher in status with little additional benefits, they are enough for those lower in status to note that others are doing better than themselves. From this perspective, I suggest that status dispersion may also have a non-linear relationship with envy, but in this case, even small amounts of status dispersion are sufficient to trigger envy in those holding lower status.

The three competing relationships are visually represented in Figure 4-1.

*Hypothesis 1:* Upward status comparisons are positively related to envy.

*Hypothesis 1a:* Large amounts of status dispersion are required to trigger envy.

*Hypothesis 1b:* Small amounts of status dispersion are sufficient to trigger envy.
The consequences of envy are vast (see Tai, Narayanan, & McAllister, 2012 for review) and can be targeted towards others and the self. Those experiencing envy can engage in harmful behaviors directed towards others such as social undermining (Duffy, Scott, Shaw, Tepper, & Aquino, 2012), or derogating or harming others (Cohen-Charash, 2009; Salovey & Rodin, 1984; Silver & Sabini, 1978; Tesser, 1991). Alternatively, other studies indicate that people turn inwardly when they experience envy, feeling shame (Smith Eyre, Powel, & Kim, 2006; Smith, Combs, & Thielke, 2008), frustrated desire (Smith & Kim, 2007) lower self-esteem (Exline & Zell, 2008) and depression and anxiety (Cohen-Charash, 2009; Salovey & Rodin, 1984). These inward emotions suggest that after feeling envy, people may engage in behaviors directed towards oneself, rather than behaviors directed towards others.

The blended-nature of envy may help explain why its consequences could be dual-focused, engaging in behaviors directed towards others and the self. I argue that
being envious of others’ high status predicts a behavior where enviers can engage in actions targeted to bring down high status referents, and also perceive others’ actions that are directed towards feeling inferior about the self. Specifically, when individuals envy others’ high status, they will ostracize those high status targets while also feeling that they themselves are excluded in social interactions.

**Ostracism**

Ostracism is defined as being ignored and excluded, can occur without explanation or overt negative attention (Williams, 2007), and reflects an act of omission where people fail to socially engage others (Robinson, O’Reilly, & Wang, 2013). Ostracism can be physical (e.g., separation from others, ranging from being separated by a room to banishment or exile), or social (e.g., people are ignored in the physical presence of others). Ostracism behaviors vary, from partial ostracism reflecting minimal social interactions, monosyllabic responses to questions, or little acknowledgment when spoken to, through to complete ostracism, involving total absence of communication, language or eye contact (Williams & Sommer, 1997). Ostracism can also be either behavioral, in which people willingly and intentionally exclude others in social situations, or a desired behavior, where individuals plan to do so in future interactions. Given that behavioral ostracism is a particularly harsh form of exclusion and runs counter to many social norms (Marr, Thau, Aquino, & Barclay, 2012), people may privately wish to ostracize in future social interactions, but may not publicly do so.

Ostracism as an outcome has received significant attention in the social sciences (see Williams, 1997, 2007 for reviews). Ostracism is a painful experience – it threatens four of the central human needs, namely the need for self-esteem, belonging, control, and
a meaningful existence (Williams 2007). Being ostracized by others decreases self-esteem (Leary, Tambor, Terdal, & Downs, 1995; Sommer, Williams, Ciarocco, & Baumeister, 2001; Williams, Bernieri, Faulkner, Grahe, & Gada-Jain, 2000), increases sadness and anger (Williams & Zadro, 2005), and impairs logical reasoning (Baumeister, Twenge, & Nuss, 2002). People’s reactions to ostracism vary; those who are ostracized may react with aggression (Twenge, Baumeister, Tice & Stucke, 2001), behave in less pro-social ways, offer fewer citizenship behaviors (Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007), or engage in self-defeating behaviors such as procrastination or poor decision-making (Twenge, Catanese, & Baumeister, 2002).

While much is known regarding the outcomes of ostracism, its antecedents are understudied (Ferris, Brown, Berry, & Lian, 2008; Scott & Thau, 2013; for exception, see Robinson et al., 2013). This may be due in part to the way in which ostracism has been conceptualized. Ostracism is typically studied from the perspective of the target. This is partly a methodological artifact, in that it is far easier to manipulate ostracism and report the outcomes from the target’s perspective, than to ask people to voluntary exclude others from social interactions (see Williams 2007 for the paradigms and manipulations of ostracism). Perhaps more importantly, focusing only on the outcomes of ostracism neglects the relational nature of the behavior. Ostracism involves two parties, a perpetrator who chooses to exclude or ignore someone else, and a target that is being excluded. This positions ostracism as a dynamic exchange between a perpetrator and a victim, and like abusive supervision where both supervisors and subordinates have a role to play in supervisors’ aggressive behaviors towards subordinates (Herschcovis & Rafferty, 2012), both roles in the interaction should be acknowledged. I predict that given
that envy comprises both hostility and inferiority, it will mediate the effect of status
dispersion and ostracism, where people ostracize high status others and believe that they
even themselves are being excluded from social interactions.

**Envy leads to future ostracism: behaviors.** Recent research examining victim
precipitation has identified the conditions under which victims consciously or
unconsciously trigger their own harm (Aquino & Thau, 2009; Tepper, Moss & Duffy,
2011). Much of this research suggests that people precipitate their own harm by being
aggressive (Aquino & Bradfield, 2000; Aquino & Byron 2002), uncivil (Scott, Restubog,
& Zagenczyk, 2013; Wu, Wei, & Hui, 2011), high in negative affectivity (Aquino,
Grover, Bradfield, & Allen, 1999; Duffy, Show, Scott, & Tepper, 2006; Matthiesen &
Einarsen, 2001), or lower in self-esteem (Einarsen, Raknes, & Matthiesen, 1994; Vartia,
1996). However, individuals can also unconsciously trigger their own misfortune by
simply being better than average. Studies show that people become victims of harmful
behaviors by making others feel poorly by standing out amongst peers, or being a “tall
poppy” and demonstrating superior abilities (Kim & Glomb, 2010; Lam Van der Vegt,
Walter, & Huang, 2011; Mouly & Sankaran, 2002; Namie & Namie, 2000).

Ostracism may be a unique way of harming those who are deemed superior.
Social exclusion can be punitive and used to reinforce social norms, especially when
members deviate or stand out from the group (Williams, 2004). Those lower in status and
who feel envious of others’ higher social positions may use ostracism as a way to restore
the status imbalance. In social situations where group members violate social norms by
holding superior status, they serve as painful reminders to lower status others that they
have what they wish to have but do not. Behaviorally ostracizing someone high in status
during social interactions protects lower status individuals from further pain by minimizing the reminder of what they lack, and serve as a reprimand for being superior. Therefore, I predict:

**Hypothesis 2:** The relationship between status dispersion and behavioral ostracism perpetrated against high status others is mediated by envy.

**Envy leads to future ostracism: intentions.** Behavioral ostracism is a particularly harsh form of social exclusion (Marr et al., 2013). Ostracizing others is difficult, because normative group influences guide people to include others in social interactions (Williams et al., 2000), and even when privately, people may want to exclude others from their interactions, they will conform to group norms (Hackman, 1992) and include others in social situations. Those who feel envious of high status others may wish to ostracize those who make them feel inferior, but refrain from so doing due to group norms. Instead, they may be more likely to intend to exclude them from future social events to reduce their own pain and punish those higher in status. Intending to exclude someone from future interactions is less overt than behavioral ostracism, and hence psychologically safer. Therefore:

**Hypothesis 3:** The relationship between status dispersion and intentions to ostracize high status others is mediated by envy.

**Envy leads to future ostracism: feeling ostracized.** As discussed, envy is a blended emotion consisting of negative affect towards the self (inferiority) and towards others (hostility). Hostility and inferiority are difficult emotions to experience, and can lead people to seek out information to justify their feelings of subordination and ill-will (Smith & Kim, 2007). In social situations where people feel envious of others’ high status, they can try to rationalize their painful envy by making hostile attributions about
others behaviors, and seeing themselves as victims of social exclusion. Indeed, there is growing evidence that victims not only play a role in their mistreatment, but also actively seek out information to characterize themselves as victims of relationship threatening and aggressive behaviors (Chan & McAllister, 2013; Ickes, Dugosh, Simpson, & Walsh, 2003; Marr, Thau, Aquino, & Barclay, 2012). For example, in situations where people are faced with ambiguous stimuli, some are motivated to make sinister attributions about other’s intentions as a way to reduce uncertainty (Marr et al., 2012).

Relatedly, when people experience envy towards high status others, they may make similar attributions in order to justify feeling badly about themselves (inferior) and badly towards high status others (hostility). Those who feel envious can be motivated to believe that high status others are, in fact, excluding them in order to legitimate painful emotions. Feeling ostracized may be a particularly discreet way of rationalizing envy as ostracism is difficult to see by others, is covert and a subjective experience (Robinson, et al., 2013; Williams, 2007). I predict that when low status individuals feel envious of others’ status; they are more likely to feel that they are being ostracized themselves.

*Hypothesis 4: The relationship between status dispersion and perceiving ostracism is mediated by envy.*

The hypothesized relationships of the study are depicted in Figure 4-2.
Finally, to enhance the validity of the study I introduce various statistical controls to reduce the possibility of plausible, rival hypotheses. First, I will control statistically for dispositional status striving to reduce the possibility that any findings are a function of between-individual dispositional differences (Anderson & Kilduff, 2009). Second, I will control for dispositional envy, as research indicates a positive relationship between dispositional envy and episodic envy (Cohen-Charash, 2009). Last, given that envy is typically considered a private emotion and not one to which people freely admit (Smith & Kim, 2007), it is important to recognize and control for the possible role of impression management.

4.2 Methods

I conducted a randomized, between group experiment with 219 undergraduate students in their first and second year of business school; 55% of this sample were female, and 45% in their first year. All participants were asked to participate in two
separate phases lasting 30 minutes each, in return for which they received a 1.0 course credit, and were entered into a draw for a $500 gift certificate to the campus bookstore.

**Procedures**

**Phase one.** Participants were told that this study was about talent and recruitment strategies and was being conducted on behalf of top management consulting firms. In the first phase, participants worked in the lab in groups of 25. Participants watched a video of an actor who explained that he was hired to do research on behalf of top management consulting firms to assess the business and career status potential of first and second year students. He informed participants that in the first phase of the study, they would be measuring participants’ individual career status potential using case questions. In the second phase, they would gather information about participants’ individual and group behaviors using online simulation exercises. The “consultant” gave participants brief information about the validity of the case questions, how they would be scored and that the information would be kept confidential. The link to this full video and the verbatim script appear in Appendix F. Participants were then asked to answer two case questions, with five minutes allocated per case, and subsequently responded to brief questionnaires.

**Phase two.** Two weeks later, participants returned to the lab in groups of 25. Using headphones with their laptops, participants privately watched a second video clip of the same actor. The actor explained that the purpose of the study was to provide participants with feedback on their individual status potential based on their responses to the case questions. The video link and script to the second phase of the experiment is in Appendix G. Students were told that their case scores were matched to their student numbers, and after entering their student numbers into the online system, they were given
their results. All participants received the same score of 50%, indicating that they had average business potential. Then participants were told that they were to begin the online simulation with two other players from the study, and that they would assume the role of Player B. Participants were then given information about two other participants with whom they would be completing the online simulation.

The information that participants received about the players in the simulation was based on one of the three conditions to which participants were randomly assigned:

In the control condition, the equal status group, participants were told that both Player A and Player C were business students in the same undergraduate program and had received scores of 50% on their individual case studies, indicating average and equal status.

In the first experimental condition, the small status dispersion group, participants were told the same information about Player C (i.e., 50%), however they were told that Player A had received a score of 60% on the individual case study, indicating marginally higher status than the other two participants.

In the second experimental condition, the large status dispersion group, participants were told the same information about Player C (i.e., 50%), however Player A had received a score of 90%, indicating much higher status. Prior to beginning the online simulation with these players, participants were asked to respond to a variety of questions.

Participants were then asked to play an online simulation. I modified cyberball, an experimental online game often used to manipulate ostracism (Williams, Yeager, Cheung, & Choi, 2012), so that the online confederate players throw the ball to each
other player an equal number of times. The participants in the study were able to throw the ball to whomever they wished, and participants were instructed to throw the ball to the person with whom they most wanted to associate. Each of the participants’ ball tosses to each player was recorded and the simulation lasted a total of 30 throws.

After completing the simulation, participants responded to a final set of questionnaires, completed a thorough debrief assuring them that any status differences were not real and that the simulation was played with computer confederates, and left the classroom.

**Measures**

All scales used in this study are presented in Appendix H. All variables were measured at phase two unless noted otherwise.

**Status dispersion.** Status dispersion conditions were randomly assigned to participants, and numerous manipulation checks were undertaken to ensure the validity of the experimental conditions. Participants were asked to report their case scores as well as the scores of their group members, and participants were given an open-ended question about how they felt about their case scores. Participants were also asked to report who held the highest level of status in their group. Finally, participants completed the subjective social status measure (Singh-Manoux, Adler, & Marmot, 2003), where they reported their own status relative to others on a ladder with nine rungs, and then reported the status of the others in the group on similar ladders.

**Episodic envy.** Participants’ level of envy was measured after receiving information about the status differences in the group. I measured envy using six of the
eight-items from the episodic envy scale (Cohen-Charash, 2009)², responding on a scale from 1 (not characteristic at all) to 9 (extremely characteristic). Participants were asked to answer this scale with reference to each person in their online group. A sample item is: “I feel a desire to have what person ____ has.”

**Ostracism.** Three different aspects of ostracism were measured: behavioral ostracism, intentions to ostracize, and perceptions of ostracism.

**Behavioral ostracism.** Following Wesselman et al. (2013), I manipulated cyberball to provide a behavioral measure of ostracism. I recorded the number of times that the participant threw to Player A and Player C. As Player A’s status was manipulated to be higher, behavioral ostracism would be reflected by fewer throws to Player A, divided by the total number of throws.

**Intentions to ostracize.** I developed a five-item scale of intentions to ostracize³ that presents participants with a number of hypothetical scenarios, and asks them who from the group they would ostracize. A sample item is: “Everyone from this group task decides to go for a drink on Friday afternoon. Who would you least like to sit next to?” Participants could select either Player A or Player C.

**Perceptions of ostracism.** After completing cyberball, participants were asked to report the degree to which they felt ostracized using the five-item needs belonging scale (Williams, 2009). A sample item was “I felt rejected.” Participants rated how they felt on a scale of one (not at all) to five (extremely).

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² Two items from the scale were excluded as in a previous pilot, one item was deemed extreme (I feel some hatred for person X); and the other item was excluded as many participants did not understand the item “I feel rancor towards person X.”

³ These items were developed and revised with the help of my supervisor and four other graduate students.
Control variables. I controlled for participants’ level of status striving using a modified version of the status striving scale (Barrick, Steward, & Piotrowski, 2002), where participants responded to the ten-item questionnaire on a scale from one (strongly disagree) to five (strongly agree). A sample item was “I focus my attention on being the best student in the commerce program.” I also controlled for dispositional envy (Smith, Parrott, Diever, Hoyle & Kim, 1999), where participants rated the eight-items on a scale from one (strongly disagree) to five (strongly agree). A sample item from this scale is: “Feelings of envy constantly torment me.” Finally, I controlled for participants’ levels of impression management using the Paulhus impression management scale (1998) where participants responded to the 20-item measure on a scale from one (not true) to seven (very true). A sample item from this scale is: “When I hear people talking privately, I avoid listening.” Both status striving and dispositional envy were collected at phase one and impression management was collected at phase two.

Data Analysis

The four hypotheses in the study suggest an indirect effects model, with both linear and alternative hypotheses proposing nonlinear paths, where the relationship between status dispersion and ostracism is mediated through envy. Tests of such mediated hypotheses are often based on two assumptions: (1) That to support mediation, the direct effect from the initial independent variable to the dependent variable must be significant; and (2) That the relationship between paths, from independent variable to mediating variable to dependent variable are linear. However, these assumptions have now been challenged (see Hayes & Preacher, 2010; MacKinnon, Lockwood, Hoffman, West & Sheets, 2002; Preacher & Hayes, 2004).
First, as discussed in Study 1 of this dissertation, the need for a significant relationship between the independent and the dependent variable is no longer necessary, and that mediational analyses should now be based on formal significance tests of the indirect effects, using the Sobel test (Preacher & Hayes, 2004; Cole, Walter, & Bruch, 2008).

Second, almost all mediational analyses are based on the assumption of linear paths (Hayes & Preacher, 2010). Until recently, testing non-linear pathways in mediational models contained numerous statistical concerns (e.g. Hayes 2009; MacKinnon et al., 2002; Preacher & Hayes, 2004). Recently, Hayes and Preacher (2010) developed a computational technique that allows for estimating indirect effects that allow the relationships between causal variables and outcomes to be nonlinear, which they refer to as instantaneous indirect effects where model pathways can be non-linear, quadratic terms. This computational approach tests for mediational effects based on formal significance tests of the indirect effects. Therefore, all non-linear data analyses in this study were simultaneously analyzed using the MedCurve technique (Hayes & Preacher, 2010).

To analyze the hypothesized relationships in this study, it was first essential to test the linear model. I used Hayes (2013a) SPSS Process model macros to examine mediation with status dispersion predicting the three outcomes of ostracism (behavioral, ostracism, intentions to ostracize, and perceived ostracism) as mediated through envy. To avoid problems associated with non-normal distributions, I used bootstrapping, which is a resampling method and discussed in detail in Study 1 of this dissertation. Mediation is significant if the 95% bias corrected confidence intervals for the indirect effects do not
include zero (Hayes, 2013b). If any of the three tests of mediation are found to be significant, then the next step is to test for non-linear relationships.

To test for non-linear pathways in mediated models, a separate SPSS Macro titled MedCurve (Hayes & Preacher, 2010; Hayes 2013a) examines the instantaneous indirect effects of the independent variable on the dependent variable through the mediated variable, where the instantaneous indirect effect is denoted by $\Theta$. MedCurve can quantify the change in the ostracism variables as mediated through envy at various levels of status dispersion (Hayes & Preacher, 2010), by testing for values of status dispersion at the mean, and one standard deviation below and above, reflecting equal, small and large status dispersion. If a linear relationship exists, then the values of the instantaneous indirect effects will follow the same direction and indicate a consistent linear pattern. If a non-linear relationship exists at a specific value of status dispersion, the values of the instantaneous indirect effects will go in the opposite direction, indicating that its effects on the dependent variable cease to be predict additional significant variance.

Once the point estimates of the instantaneous effects at the selected values of the status dispersion are obtained, it is necessary to determine whether the effects are significantly different from zero. Using 5000 bootstrapping confidence intervals, 95% bias-corrected confidence interval values are obtained for the values of the independent variable on the dependent variable transmitted through the mediator. If zero is outside the lower limit (LLCI) and upper limit confidence intervals (ULCI) for the pathways tested, and at one of the values for the independent variable, the pathways are non-significant, this would indicate full support of a curvilinear relationship, such that there are no
discernable effects for the independent variable on the dependent variable through changes in the mediator.

**Manipulation Checks**

First, to ensure participants believed the manipulation, I excluded any students who, in responding to the question “How did you feel upon receiving your case score?” gave answers that cast doubt on the validity of the study (i.e. “skeptical”; “bogus”; “fake”). I also verified that students were able to accurately recount their own case study score at the end of the experiment, which all players did reporting scores of 50%. In addition, I excluded players who reported any issues with the online simulation (i.e. their computers froze, they could not get the simulation to load properly). After these initial manipulation checks, 28 cases were dropped and I was left with 191 participants, 55 (45% male) participants in the equal status group, 62 (55% male) participants in the small dispersion group, and 74 participants (38% male) in the large dispersion group.

As a check of the status manipulations, an ANOVA was computed on the item that asked participants to denote who in the group had the highest level of status (where participants chose either Player A = 1; Player B = 2; Player C=3). Significant differences were found (F (2, 167) = 12.72, p < .01), such that almost all players in the small status dispersion group and the large status dispersion group selected player A as the player with the most status (M = 1.05, SD = .23 for the small status dispersion group; M = 1.06, SD = .24 for the large status dispersion group), as compared with the equal status group where players were more likely to select any of the participants as having the most status (M= 1.92, SD = .49). Post-hoc LSD tests indicated significant mean differences between the equal and small dispersion group (mean difference = .86, p < .01) and the equal and
the large dispersion group (mean difference = .85, p < .01), but, as to be expected, no differences were found between the small and large dispersion group (mean difference = -.01, n.s.).

ANOVA were also used to compare the levels of status of Participant A on the subjective status ladder (Singh-Manoux et al., 2003), to ensure that perceived status differences were distinguishable across groups. This resulted in a main effect for subjective status of Participant A across groups (F (2, 151) = 67.37, p < .01), where equal status group participants assigned Participant A average status (M=5.73, SD = 1.39), small status dispersion group participants gave Participant A above average status (M=7.58, SD = 1.19) and large status dispersion group participants gave Participant A high status (M=8.55, SD = .668). Post-hoc LSD tests indicated significant differences between all groups: equal and small status dispersion group (mean difference = -1.84, p < .01); equal and large status dispersion group (mean difference = -.28, p < .01), and small and large dispersion group (mean difference = -.97, p < .01).

4.3 Results

Means, standard deviations, correlations and reliabilities for the key variables appear in Table 4-1. For all analyses presented, as recommended by Hayes (2013b), only unstandardized coefficients are presented.

To first test whether status dispersion had a linear relationship with envy towards higher status participants, comparisons of the participants exposed to different status dispersion levels were tested. A significant main effect emerged (F (2, 188) = 47.4, p < .01), such that participants in the large status dispersion condition rated their levels of envy as higher (M = 4.67, SD = 1.18) than participants in the small status dispersion
condition \(M = 3.73, \ SD = 1.98\) and participants in the equal status condition \(M = 1.59, \ SD = 1.98\). Given that the conditions of participants reflected ordinal variables, such that there is a clear ordering of the conditions, weights were appropriately assigned to each group, such that the control group where status was equal was assigned a 1, the small status dispersion group was assigned a 2, and the large status dispersion group was assigned a 3. Then, it was necessary to compute simple linear regression analyses to test for a linear relationship between status dispersion and envy. Controlling for status striving disposition, dispositional envy, and impression management, the results support a linear relationship between status dispersion and envy \((\beta = 1.53, p < .01; R^2 = .40)\), providing support for Hypothesis 1.

**Indirect effects models**

Three models were computed to test a simple linear mediation analysis using ordinary least squares path analysis to assess whether status dispersion had an indirect effect on the three forms of ostracism as transmitted through envy. In each set of analyses, status striving disposition, dispositional envy, and impression management were included as covariates. Full results are provided in Table 4-2.

**Model 1: Status dispersion’s indirect effect on behavioral ostracism through envy.** No support was provided for the indirect effects of status dispersion on behavioral ostracism through envy, as the indirect effect was non-significant, indicated by the Sobel test that showed the 95% bias-corrected confidence intervals did include zero \((95\% \ CI; \ LLCI = -.08, \ ULCI = .38)\), providing no support for Hypothesis 2.

**Model 2: Status dispersion’s indirect effect on intentions to ostracize through envy.** Testing the second model involved examining the indirect effects of status
dispersion on future intentions to ostracize as mediated through envy. The results again provided no support for this model, as the indirect effect was non-significant, with a Sobel test confirming that that bootstrapped 95% bias-corrected confidence intervals included zero (95% CI; LLCI = -.01, ULCI = .02), providing no support for Hypothesis 3.

**Model 3: Status dispersion’s indirect effect on perceiving ostracism through envy.** For the third model, mediation analyses were computed to test the effects of status dispersion on perceptions of ostracism through envy. In support of Hypothesis 4, status dispersion was found to have an indirect effect on perceived ostracism through envy: the indirect effect was positive ($\beta = .16$, $p < .05$), such that as status dispersion increased, so too did levels of perceived ostracism as felt through envy. Bootstrap results confirmed the Sobel test, with bootstrapped 95% bias-corrected confidence intervals around the indirect effect not containing zero (95% CI; LLCI = .05, ULCI = .28). Thus, Hypothesis 4 was supported.

Figure 4-3 provides the regression results of the mediation model.
Non-linear indirect effects model.

As only the linear model reflecting the indirect effects of status dispersion on perceived ostracism through envy was supported, this was the only model tested for non-linear effects (Hypothesis 1a and 1b). Regression coefficients for the non-linear model can be found in Table 4-3. Using MedCurve, I specified a quadratic term for the pathway between status dispersion and envy and examined the instantaneous indirect effects (\(\Omega\)) at specific values of status dispersion, namely at the mean and one standard deviation above and below the mean, reflecting equal, small, and large levels of status dispersion. A non-linear relationship exists, as the instantaneous indirect effects levels indicate positive relationships between status dispersion and felt ostracism mediated through envy at the level of shared status dispersion (\(\Omega_X = 1.29\)) = .34, at small status dispersion levels (\(\Omega_X\) ** p < .01 level; * p < .05 level
=2.09\(= .16\) but not at the large status dispersion levels (\(\Theta_{X=2.91}= -.01\))\(^4\). This provides no support for Hypothesis 1a, but does support for Hypothesis 1b, given that the change in direction of the relationship occurs at the large status dispersion level, suggesting that only small amounts of status dispersion are necessary to indicate high levels of envy.

To determine whether the effects are significantly different from zero, 5000 bootstrapping bias-corrected confidence intervals were obtained for the levels of status dispersion on perceptions of ostracism transmitted through envy. All results for instantaneous indirect effects of status dispersion on perceived ostracism through envy can be found in Table 4-4. At both the equal status level (95% CI; LLCI = .13, ULCI = .56) and the small status dispersion level (95% CI; LLCI = .07, ULCI = .26), the 95% bias-corrected confidence intervals did not include zero, indicating support for the relationship between status dispersion and envy at those levels, however at the large status dispersion level, the 95% bias-corrected confidence intervals did include zero (95% CI; LLCI = -.19, ULCI = .14), indicating further support for the non-linear indirect effects of status dispersion on ostracism as mediated through envy. Given that the break in the relationship occurs at the maximum status dispersion level, the results show full support for Hypothesis 1b and Hypothesis 4.

### 4.4 Discussion

Despite the benefits of having high status relative to others, the negative consequences triggered in lower status others have received less investigation. This study

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\(^4\) Note that the values for equal status dispersion, small status dispersion and large status dispersion are not equidistant from the point estimates. This reflects that the distribution of students within each group was not equally distributed, and is due to chance based on exclusion of students following manipulation checks.
contributes to this gap in the research, where in an experimental design, I examined the effects of envy and ostracism in the presence of different levels of status dispersion.

The results of this study suggest that status dispersion has an indirect effect on ostracism transmitted through envy. More specifically, status dispersion has a non-linear relationship with ostracism, such that only small status differences need to be present in order for envy to exist which then lead to perceptions of being ostracized. Additional status dispersion has no discernable impact on levels of envy. Those who feel envy are more likely to see themselves as being ostracized in an online social interaction, even when the interaction is manipulated so that all participants are included in the interaction equally. I found no significant relationships between envy and ostracizing others, using behavioral or future intentions to ostracize.

**Theoretical Contributions**

The results of this study add to the growing literature on status by focusing on the interpersonal dynamics of those holding lower status. What is most pronounced about the findings of this study is that it requires only small levels of status dispersion to trigger envy, and further increasing the level of status dispersion does not incrementally impact levels of envy. This finding adds to our understanding of status dispersion as a predictor of envy, and refines the nature of this relationship, demonstrating that it is curvilinear, and only small amounts of status dispersion need to be present in order for envy to emerge.

Adding to the recent research interest in the outcomes and antecedents of envy, my study highlights the powerful role of envy. Envy is, by nature, a blended emotion, combining feelings of resentment and hostility (Smith & Kim, 2007). When evaluating
oneself as lower in status relative to others, those two emotions spur envy towards higher status others. While many studies have shown that envy triggers outcomes that can be framed as malicious, such as social undermining (Duffy, Scott, Shaw, Tepper & Aquino, 2012), or used as a form of motivation (Cohen-Charash, 2009), this study speaks to how envy can be a reflection of the self. When feeling envious of high status others, participants did not act maliciously towards them as predicted, but rather saw themselves as victims of ostracism. These results suggest that when those lower in status feel envy, they may engage in self-defeating behaviors, such as perceiving oneself as being excluded. Given that this study used a tightly controlled experiment where participants were included equally in the online simulation, the fact that envy would lead participants to believe they were being ostracized speaks to the self-reflective nature of envy.

Plagued with feelings of inferiority due to status dispersion as well as hostility towards those who have what they want, envy can lead participants to make inferences about others’ behavior and cast themselves as victims, perhaps as a way to rationalize their feelings of inferiority and ill-will towards others.

Finally, this study adds to the theoretical understanding of the antecedents to ostracism, an under-researched area of the literature. While I originally hypothesized that envying others would trigger the exclusion of high status individuals, the results suggest that this may not be the case. Instead, those who feel envy report being ostracized, even when they were not. This contributes to understanding the affective dispositions and states of those who report victimization. Aquino and Bradfield (2000) found that those high in negative affect were more likely to report being victims of indirect aggression, and suggest that those high in negative affectivity are more likely to make hostile
attributions or interpret stimuli more negatively than others and report higher levels of victimization. Similarly, Marr et al. (2012) suggest that certain people have a dispositional motivation to seek out threatening information when faced with social uncertainty. The findings from this study suggest that those who envy may interpret stimuli more negatively or seek out threatening information, thus reporting higher levels of felt ostracism during a task where ostracism did not occur. Caution is inferred with this finding, as I do not wish to diminish or belittle the powerful effects that ostracism can have, whether interpreted erroneously or otherwise. Rather, the findings highlight the importance of understanding of how emotional factors can contribute to the antecedents of ostracism.

**Strengths, Limitations, and Future Research**

Inherent in this study are numerous strengths. First, given that this study was a randomized experiment, it allowed for a tightly controlled design, where the only differences that participants experienced were the amounts of status dispersion. This allows for causal inferences to be made such that status dispersion does predict self-reports of ostracism through felt levels of envy. Given that envy was measured prior to participating in the online simulation, this excludes plausible rival hypotheses that feeling ostracized can predict envy.

The only difference between conditions was the amount of status dispersion between players. Players had no further distinguishing information about their team members, thereby minimizing any other potential status markers such as gender, age, or physical appearance. The controlled nature in which information was delivered about participants speaks to how the presence of minute status differences can trigger envy,
given that no other status markers were present to highlight or confound levels of status present.

In addition, the nature of the online simulation allowed for a tightly controlled, anonymous social interaction using cyberball as an outcome variable, rather than as a manipulation of ostracism. Wesselman et al. (2013) also used cyberball as an indicator of inclusion rather than a way to manipulate exclusion, and my study builds upon this work. Using cyberball as the online simulation provided a context in which participants would be more likely to engage in ostracism behaviors. Engaging in ostracism in face-to-face situations violates social norms and can be considered particularly threatening (Marr et al., 2012). Using cyberball, participants could anonymously exclude others, limiting face-to-face consequences of violating any social norms. Additionally, given that those experiencing online ostracism feel similar negative reactions to those experiencing face-to-face ostracism (Filipkowski & Smyth, 2012; Kessner, Wesselman, Law, & Williams, 2012), using cyberball as an outcome variable of ostracism was particularly appropriate. While I did not find any significant differences in throws made to high status versus same status players, I believe that cyberball can be used as an outcome variable in other experiments that position ostracism as an outcome variable. In addition, using cyberball in the manner conducted in this study is the first (to my knowledge) that has tried to simultaneously measure behavioral ostracism towards others as well as perceptions of being ostracized. As ostracism as an outcome variable of any form is understudied (Williams, 2007), including multiple forms of ostracism as a behavioral variable, a future intentions variable, and a perceived variable are strengths of this study.
Despite the strengths of this study, some limitations must be noted. First, this study was conducted in a short time period – initial feelings of participant’s envy predicted their perceptions of ostracism. Over time, it is possible that participants’ envy may diminish, thus resulting in less felt ostracism. Alternatively, participants who felt ostracized following the online simulation may seek out other information to interpret and inform their experience. Understanding whether these same patterns replicate over time is a question ripe for further research. Second, the duration of the online simulation was short, lasting a total of 30 throws between participants. The number of throws was consistent with the typical time frame associated with the use of cyberball (see Williams, 2007), however the short-term duration also limits opportunities for which any participant can enact behavioral ostracism towards high status players.

This study prompts many ideas for future research. First, this study was conducted on a student sample with participants in their first and second year of university. This sample was appropriate for the design of this study, as first and second year students have less exposure to research studies and were therefore less likely to seek out possible deception in the study. In addition, as the students were all similar in age and education, this made the status differences more salient. Future research should explore whether the results replicate across different samples to enhance the results generalizability.

Second, other possible mediating variables should be studied in future research, and the salience of the status markers would be an important next step to consider. This study examined status dispersion through the lens of future career status scores, which would be characterized as highly salient to first and second year commerce students. It may be that salience of status markers moderate the relationship between status
dispersion and envy. Future research could also explore different types of status markers, and measure the degree to which those status markers are deemed important by participants, to understand whether the curvilinear nature of the relationship between status dispersion and envy replicates or is moderated by status marker salience.

Additionally, I focused on episodic envy (Cohen-Charash, 2009), and controlled for dispositional envy (Smith et al., 1999). However, it is plausible that people predisposed to feeling envy may find the effects of status dispersion to be more painful and may perceive even higher levels of episodic envy than those who do not have this envious disposition. Dispositional envy therefore may moderate the relationship between status dispersion and envy. Given that the model in this current paper tested a mediating model with non-linear paths, I was unable to test for this moderation effect, however future research should examine this relationship separately.

Finally, I uncovered a relationship between status dispersion and perceived ostracism that was independent of ostracizing others. Whether this effect replicates beyond the laboratory remains to be assessed (Williams, 2007).

**Practical Implications**

While this study was tested using a student sample, its practical implications should be considered. Status differences are ever-present in relationships, be they with peers, colleagues, classmates, or acquaintances. Status dispersion, and its resulting emotional reactions and behaviors, are perhaps an unavoidable component to relationships. In order to mitigate these painful emotions for those who hold lower status than others, care must be taken in relationships to minimize these status differences. In this study, status differences, even when small, were highlighted to participants, making
differences noticeable. One way to minimize the painful effects that status differences can have in relationships is to downplay their importance, and highlight shared status achievements, rather than individual ones. This may run counter normative to certain contexts, for examples in organizations typified by status indicators such as job titles, organizational work charts, and pay scales (Magee & Galinsky, 2008; Pfeffer, 1998). Organizations should be mindful of the emotional consequences associated with these status differences and work at minimizing status dispersion within teams and organizations.

**Conclusion**

The Greek philosopher Onasander long ago said, “Envy is a pain of mind that successful men cause their neighbors.” (50AD). While this was said approximately two millennia ago, status differences continue to trigger envy. Those in high status position may reap numerous benefits, but an unintended cost is that they cause pain to lower status compatriots. Status matters, and the results of this study suggest that even a little status goes a long way when it comes to envy. The behaviors that result from envying others due to status differences reflects the internalizing nature of envy, whereby participants do not externalize their pain in behaviors against others, but perceive themselves as victims of ostracism. If replicated on different samples, the results of the current study will have provided a new way of looking at status dispersion, envy and ostracism.
4.5 References


Table 4-1 - Descriptive statistics, correlations and reliabilities

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td>1. Impression Management</td>
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<td></td>
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<td>.02</td>
<td>.90</td>
<td></td>
<td></td>
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<td>4. Status dispersion</td>
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<td>.02</td>
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<td>.56**</td>
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<td>.04</td>
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<td>.09</td>
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<tr>
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<td>.09</td>
<td>.72</td>
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<td>8. Felt Ostracism</td>
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<td>.17**</td>
<td>.03</td>
<td>.01</td>
<td>.21**</td>
<td>-.15*</td>
<td>-.09</td>
<td>.82</td>
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Internal consistency (α) data appear in italics on the diagonal (N = 191); *p < .05; **p < .01
Table 4-2: Results of Indirect Effects Model (Hypotheses 2, 3 and 4)

<table>
<thead>
<tr>
<th>Hypothesis 2: Status dispersion predicts behavioral ostracism mediated through envy</th>
<th>Outcome: Envy</th>
<th>Outcome: Behavioral Ostracism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variables</strong></td>
<td><strong>Coefficients</strong></td>
<td><strong>LLCI</strong></td>
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<td>-.54</td>
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<td>-</td>
</tr>
<tr>
<td>Direct Effect X on Y</td>
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<td>-.49</td>
</tr>
<tr>
<td>Indirect Effect X on Y</td>
<td>.14</td>
<td>-.08</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypothesis 3: Status dispersion predicts ostracism intentions mediated through envy</th>
<th>Outcome: Envy</th>
<th>Outcome: Ostracism Intentions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variables</strong></td>
<td><strong>Coefficients</strong></td>
<td><strong>LLCI</strong></td>
</tr>
<tr>
<td>Status Dispersion</td>
<td>1.54</td>
<td>1.24</td>
</tr>
<tr>
<td>Status Striving</td>
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<td>.17</td>
</tr>
<tr>
<td>Dispositional Envy</td>
<td>.53</td>
<td>.20</td>
</tr>
<tr>
<td>Impression Management</td>
<td>-.22</td>
<td>-.53</td>
</tr>
<tr>
<td>Envy</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Direct Effect X on Y</td>
<td>.09</td>
<td>.02</td>
</tr>
<tr>
<td>Indirect Effect X on Y</td>
<td>-.03</td>
<td>-.01</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypothesis 4: Status dispersion predicts perceived mediated through envy</th>
<th>Outcome: Envy</th>
<th>Outcome: Perceived Ostracism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variables</strong></td>
<td><strong>Coefficients</strong></td>
<td><strong>LLCI</strong></td>
</tr>
<tr>
<td>Status Dispersion</td>
<td>1.54</td>
<td>1.24</td>
</tr>
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<td>Status Striving</td>
<td>.49</td>
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<tr>
<td>Dispositional Envy</td>
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</tr>
<tr>
<td>Impression Management</td>
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<td>-.53</td>
</tr>
<tr>
<td>Envy</td>
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<td>-</td>
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<tr>
<td>Direct Effect X on Y</td>
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<td>Indirect Effect X on Y</td>
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<td>.05</td>
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\((N = 191)\)
Table 4-3: Results of non-linear mediation

<table>
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<tr>
<th>Variables</th>
<th>Outcome: β on Envy</th>
<th>Outcome: β on Perceived Ostracism</th>
</tr>
</thead>
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<td>Status Dispersion</td>
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<td>-1.0</td>
</tr>
<tr>
<td>Quadratic term Status Dispersion</td>
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<tr>
<td>Status Striving</td>
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<tr>
<td>Dispositional Envy</td>
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<td>.04</td>
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<tr>
<td>Envy</td>
<td>-</td>
<td>.29**</td>
</tr>
</tbody>
</table>

(N = 191); *p < .05; **p < .01
Table 4-4: Instantaneous Indirect Effects - Status Dispersion on Perceptions of Ostracism Through Envy

<table>
<thead>
<tr>
<th>Levels - Status Dispersion</th>
<th>$\Theta$</th>
<th>LLCI</th>
<th>ULCI</th>
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</thead>
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<td>2.908</td>
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(N = 191)
Chapter 5

General Discussion

The goal of my dissertation was to examine some of the costs with high status. As discussed in the first chapter, the traditional research perspective on status promotes its benefits. While those benefits are undoubtedly important, the costs of having high status cannot be ignored. Understanding the negative outcomes are important if we are to gain a comprehensive perspective of the nature and consequences of having status and in this dissertation, I explore some of those costs. I found that women who hold high job status and experience job status leakage are more likely to experience marital instability (Study 1); I showed that maintaining high status can unexpectedly come at a cost to longevity (Study 2); and last, I found that having even slightly elevated status can cause envy in others, leading them to feeling ostracized (Study 3). Together, these three studies confirm that having high status can come with negative costs to the self and to others.

These three studies advance the literature on status in different ways. First, they respond to calls encouraging researchers to empirically investigate different aspects of organizational status (Magee & Galinsky, 2008). Across the studies, I proposed that having higher status than others can result in counterintuitive effects, where the benefits afforded by higher social positions can be contrasted with costs to oneself and to others. In so doing, I responded to aforesaid calls and confirm that given specific contexts, referents and research questions, status can indeed be a burden.

I used a relational perspective in conceptualizing status and emphasized the importance of the referent comparison. In so doing, the three studies in my dissertation
highlight the need to specify referents for status evaluations, as those comparisons can result in negative and unexpected outcomes associated with having high status.

My dissertation also advances the literature by examining status within the context of different literatures, methodologies, and samples. Throughout this dissertation, status was grounded within work-family literature, longevity research, and empirical literature on envy and ostracism. Using three different samples, namely, women in positions of high job status, award-winning CEOs, and undergraduate university students, I developed a more comprehensive picture of status and its consequences. Last, I used three different methodologies (a field study, a retrospective cohort analysis, and an experimental study). This use of diverse literatures across distinct samples using multiple methodologies uncovered some of negative consequences that arise from high status.

This dissertation also advanced the status literature by explicitly stating or inferring the referent in status evaluations. As highlighted throughout this dissertation, status is relative and can only be determined by comparing one’s status position to lower or higher referents. Frequently, status referents are ambiguous; however the studies in this dissertation emphasized the importance of specific comparisons. Whereas most downward comparisons tend to result in positive outcomes (Brown, Ferris, Heller & Keeping, 2008; Wilson & Ross, 2000), making downward job status comparisons to one’s spouse negatively impacts marital instability. When comparing themselves with the vast majority of the population, CEO’s will almost always be evaluated at the highest status level – unless they compare their status with other CEOs. Where CEOs’ stand
relative to other CEOs may be important. Finally, small status differences amongst peers can be detrimental to emotions and views of the self, as demonstrated by the results of the third study. Taken together, explicitly identifying with whom people evaluate their status helps gain further understanding of negative outcomes associated with having status.

Limitations & Future Research

As with all research were some limitations in all three studies. First, I used single-source data in Studies 1 and 3. The next logical step for Study 1 is to validate the job status leakage model with external data (e.g., from husbands’ of high job status wives). Accordingly, understanding the within-group effects of envy and ostracism in the presence of status dispersion would be an important next step for Study 3, suggesting that future research should examine the same relationships at the group level, collecting data from all participants in groups characterized by status dispersion.

A second limitation inherent to all three studies is that they were all conducted within North America. National culture can have a strong impact on micro-processes in organizations (see Gelfand, Erez, & Aycan, 2007 for review), and the experience of high status is likely not immune to moderating influences of national culture. For example, countries differ in level of power distance (Hofstede, 2001), which reflects the extent to which people accept that unequal distribution of power (and in turn status) is legitimate (Hofstede, 1997). Cultures low in power distance place less importance on status than do cultures high in power distance (Huberman, Loch, & Önçüler, 2004). The samples in this dissertation were drawn from Canada and the United States – with both countries
considered low in power distance (Hofstede, Hofstede, & Minkov, 2010). As a result, any findings from these studies may underestimate the costs of having high status. Future research should explore the moderating role of national culture in the relationships uncovered in this study.

Findings from this dissertation open numerous avenues for future research. Further investigations should be undertaken to understand other costs associated with having status. For example, high status typically affords individuals high levels of social support; the results of Study 1 and 3 suggest status has consequences for people’s relationships. How might status negatively impact workplace relationships? While people tend to want to be associated with higher status others (Lin, 1990), it can also elicit envy. How can people overcome their feelings of envy towards high status others so that they can reap the benefits associated with high status affiliations? Future research should examine this juxtaposition and examine potential moderators that weaken the relationship between status differences and envy so that lower status others can benefit from relationships with higher status counterparts.

The results of Study 2, which showed that the accumulation of status awards had a negative relationship with longevity, suggest an interesting area for future research. To maintain high status throughout the duration of the contest may have taken a considerable investment of personal resources on the part of CEOs. Doing so could have depleted CEOs’ personal resources, and negatively impacted their longevity, hinting at a self-defeating loss strategy (Hobfoll, 2001). According to the Conservation of Resources
theory, people must invest resources to acquire additional resources (Hobfoll, 1989). CEOs may need to expend vast personal resources to maintain their status that result in other health problems (Schaufeli & Bakker, 2004). This idea has been examined from an economic perspective (i.e., “Keeping up with the Jones”), where consumers expend and deplete financial resources in other to maintain status and appearances (Christen & Morgan, 2005). While the acquisition and maintenance of status levels can be a personal resource unto itself, future research should examine whether costs to one’s personal resources are worth gains provided by having status.

Noting that people must invest considerable resources to maintain status levels speaks to the dynamic nature of status (DeBotton, 2004). Future research should explore the health and relationship consequences of falling from high status. Recent research suggests that when people lose status, they experience decreases to their self-worth and diminished performance levels (Marr & Thau, 2013), however the consequences to relationships and well-being have yet to be explored. Research examining status loss may benefit from findings regarding retirement and layoffs. For example, individuals who retire (and lose their organizational status position) are more likely to experience depression (Kubicek, Korunka, Raymo, & Hoonakker, 2011) and increase problematic drinking behaviors (Bacharach, Bamberger, Biron, Horowitz-Rozen, 2008). When experiencing job loss, people are vulnerable to greater health risks and poorer well-being (Flint, Bartley, Shelton, & Sacker, 2013; Strully, 2009). These experiences may be similar for individuals who fall from high status positions as they lose resources such as
social support, sense of purpose, prestige and respect that was previously afforded to
them. Future research should examine both the psychological and personal costs to
health, well-being and relationships that are associated with loss of status.

**Practical Implications**

Taken together, the results of my three studies have some implications for those in
positions of high status, and those who strive for high status. The benefits of high status
are well-known (e.g., Marmot, 2004), and one of the major reasons people aspire for
ever-higher status. However, a complete picture of what high status entails should be
available to individuals so that they can make informed choices about what costs they are
willing to incur. Ideally, this information should be available to individuals early in their
careers – for example, incorporating a comprehensive picture about the full range of
consequences of having high status could be provided during the process of
organizational socialization, or in executive education programs.

Important information is also yielded for organizations. Organizations are
saturated with status markers (Magee & Galinsky, 2008; Pfeffer, 1998), yet costs
associated with status markers are largely unknown to organizations. Organizations that
legitimize status hierarchies, for example through “employee of the month” awards, pay
dispersion, or sharp distinctions in resources such as office space and furniture, need to
be aware of the benefits and costs of holding status. Providing organizations with access
to this information would enable them to make informed decisions about whether or not
to develop, reinforce, or challenge status hierarchies in organizations.
Conclusion

The goal of my dissertation has been an investigation of counterintuitive consequences associated with having status. Across three studies, results supported the notion that having high status may yield unintended but important negative outcomes not traditionally considered. While the findings that holding high status can have negative consequences for longevity, and marital and interpersonal relationships await replication across different samples and countries, they provide a more complete picture to status, and an impetus for future research.
5.1 References


Appendix A

Job Status Leakage Items – Study 1

On a scale from 1 = strongly disagree to 5 = strongly agree, please indicate how much you agree with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My husband’s job has a great deal of personal meaning for me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel proud of my husband’s job.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. My husband’s job makes me look good at work.</td>
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</tr>
<tr>
<td>4. My colleagues respect the type of work my husband does.</td>
<td></td>
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<tr>
<td>5. I would be happier if my children chose a career path similar to mine rather than that of my husband.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I am embarrassed by my husband’s job.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7. My husband’s job impedes my future career success.</td>
<td></td>
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</tr>
<tr>
<td>8. I wish my husband had picked a job that gets more respect.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Others are impressed with my husband’s career choices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I am proud when my husband accompanies me to work events.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I admire my husband’s work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I feel that my husband should find a more respectable job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>13. My husband’s job brings me status.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I consider my husband and I as a “power couple”.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. My husband is not proud of his job status.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Most of my close friends respect my husband’s career.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. My husband’s work makes me look bad.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Appendix B**

**Items - Confirmatory Factor Analysis - Study 1**

On a scale from 1 = strongly disagree to 5 = strongly agree, please indicate how much you agree with the following statements.

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I would be happier if my children chose a career path similar to mine rather than that of my spouse.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I am embarrassed by my spouse’s job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. My spouse’s job impedes my future career success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I wish my spouse had picked a job that gets more respect.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I am embarrassed when my spouse accompanies me to work events.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I feel that my spouse should find a more respectable job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. My spouse’s job takes away from my own job status.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. My spouse is not proud of his job status.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. My spouse’s work makes me look bad.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. My spouse’s job does not bring me status.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix C

Measures - Discriminant Validity - Study 1

GENDER IDEOLOGY

Please respond to the following statements using the scale of 1 = strongly disagree to 7 = strongly agree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>When jobs are scarce, men should have more right to a job than women.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If a woman earns more money than her husband, it’s almost certain to cause problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I think that a woman has to have children in order to be fulfilled?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A university education is more important for a boy than for a girl.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I were to have only one child, I would rather it be a boy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On the whole, men make better political leaders than women do.</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

GENERAL HEALTH QUESTIONNAIRE

Please rate the following items on a scale of 1 = much worse than usual to 5 = better than usual.

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you recently been able to concentrate on whatever you’re doing?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you recently lost much sleep over worry?</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Have you recently felt that you are playing a useful part in things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you recently felt capable of making decisions about things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you recently felt constantly under strain?</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Have you recently felt you couldn’t overcome your difficulties?</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Have you recently been able to enjoy your normal day-to-day activities?</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Have you recently been able to face up to your problems?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you recently been feeling unhappy and depressed?</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Have you recently been losing confidence in yourself?</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you recently been thinking of yourself as a worthless person?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Have you recently been feeling reasonably happy all things considered?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**SPOUSAL SUPPORT**

Please rate the degree to which you agree with each item on a scale from 1 = strongly disagree to 5 = strongly agree.

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>My husband burdens me with things that he should be able to handle on his own. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I have a tough day at work, my husband tries to cheer me up. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I had to go out of town for my job, my husband would have a hard time managing household responsibilities. (I)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>My husband is interested in my job. (E)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>My husband leaves too much of the daily details of running the house to me. (I)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>My husband doesn’t want to listen to my work-related problems. (E)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>If my job gets very demanding, my husband will take on extra household responsibilities. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My husband seems bored when I talk about my job. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I have to work late, I can count on my husband to take care of everything at home. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My husband enjoys hearing about my achievements at work. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I’m having a difficult week at my job, my husband tries to do more of the work around the house. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My husband is happy for me when I am successful at work. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My husband does his fair share of household chores. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I look to my husband for reassurance about my job when I need it. (E)</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

(I) = Instrumental support item
(E) = Emotional support item

**SUBJECTIVE STATUS LADDER**

Think of this ladder as representing where people rank in status. At the top of the ladder are people who are the best off – those who have the most status, the most prestige, and the most promise. At the bottom are the people who are the worst off – who have the
least status, the least prestige and the least promise. The higher you are on this ladder, the
closer you are to people at the very top and the lower you are, the closer you are to the
bottom. Where would you put yourself on the ladder, relative to the others in this team?
Appendix D

Full Measures - Study 1

First, to ensure you are eligible to participate in this study, please respond to the following two items.

1) I am: female/male
2) I am currently married Y/N
3) I am living with a heterosexual common law partner for at least one year. Y/N

How old are you? ________ (in years)

If married, how long have you been married? ________ (in years)

If not married but in common-law relationship, how long have you been living together? ________ (in years)

Do you have children? Y/N?

JOB STATUS LEAKAGE

On a scale from 1 = strongly disagree to 5 = strongly agree, please indicate how much you agree with the following statements. (modified slightly – testing a subscale of the original measure).

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am embarrassed by my spouse’s job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I wish my spouse had picked a job that gets more respect.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I am embarrassed when my spouse accompanies me to work events.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I feel that my spouse should find a more respectable job.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. My spouse’s job takes away from my own job status.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. My spouse is not proud of his job status.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. My spouse’s work makes me look bad.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. My spouse’s job does not bring me status.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MARITAL INSTABILITY

Please indicate the degree of frequency that you have experienced the following items, using the scale of 0 = never; 1 = ever; 2 = within the last three years; 4 = now.

<table>
<thead>
<tr>
<th>Item</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have thought about living apart from my spouse.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I thought my marriage was in trouble.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have talked to others about marital problems.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have talked to my family about marital problems.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have talked to my friends about marital problems.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My spouse has talked to others about marital problems.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My spouse thought our marriage was in trouble.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have thought about divorce.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My spouse has thought about divorce.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Either myself or my spouse has thought seriously about divorce.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I favour getting a divorce.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My spouse favours getting a divorce.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have initiated conversations about divorce.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I favour divorce more than my spouse.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have discussed consulting an attorney about divorce.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have discussed division of property with my spouse.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have discussed problems of living apart from my spouse.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have discussed filing or I have actually filed a petition for divorce.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I have discussed divorce with a family member who approves.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My spouse and I have experienced separation.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I think that my marriage is worse now than it was three years ago.</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

COUPLES SATISFACTION INDEX

Please indicate the degree of happiness, all things considered, of your relationship

<table>
<thead>
<tr>
<th>Extremely unhappy</th>
<th>Fairly Unhappy</th>
<th>A Little Unhappy</th>
<th>Happy</th>
<th>Very Happy</th>
<th>Extremely Happy</th>
<th>Perfect</th>
</tr>
</thead>
</table>

Most people have disagreements in their relationships. Please indicate below the approximate extent of agreement of disagreement between you and your partner for each item on the following list.

<table>
<thead>
<tr>
<th>Item</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>More often than not</th>
<th>Occasionally</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general, how often do you think that things between you and your partner are going well?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Our relationship is strong.</td>
<td>Not at all true</td>
<td>A little true</td>
<td>Somewhat true</td>
<td>Mostly true</td>
<td>Almost completely</td>
<td>Completely true</td>
</tr>
<tr>
<td>My relationship with my partner makes me happy.</td>
<td>Not at all true</td>
<td>A little true</td>
<td>Somewhat true</td>
<td>Mostly true</td>
<td>Almost completely true</td>
<td>Completely true</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>-----------------</td>
<td>--------------</td>
<td>---------------</td>
<td>------------</td>
<td>-----------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>I have a warm and comfortable relationship with my partner.</td>
<td>Not at all true</td>
<td>A little true</td>
<td>Somewhat true</td>
<td>Mostly true</td>
<td>Almost completely true</td>
<td>Completely true</td>
</tr>
<tr>
<td>I really feel like part of a team with my partner.</td>
<td>Not at all true</td>
<td>A little true</td>
<td>Somewhat true</td>
<td>Mostly true</td>
<td>Almost completely true</td>
<td>Completely true</td>
</tr>
<tr>
<td>How rewarding is your relationship with your partner?</td>
<td>Not at all</td>
<td>A little</td>
<td>Somewhat</td>
<td>Mostly</td>
<td>Almost completely</td>
<td>Completely</td>
</tr>
<tr>
<td>How well does your partner meet your needs?</td>
<td>Not at all</td>
<td>A little</td>
<td>Somewhat</td>
<td>Mostly</td>
<td>Almost completely</td>
<td>Completely</td>
</tr>
<tr>
<td>To what extent has your relationship met your original expectations?</td>
<td>Not at all</td>
<td>A little</td>
<td>Somewhat</td>
<td>Mostly</td>
<td>Almost completely</td>
<td>Completely</td>
</tr>
<tr>
<td>In general, how satisfied are you with your relationship?</td>
<td>Not at all</td>
<td>A little</td>
<td>Somewhat</td>
<td>Mostly</td>
<td>Almost completely</td>
<td>Completely</td>
</tr>
</tbody>
</table>

For each of the following items, select the answer that best describes how you feel about your relationship. Base your responses on your first impressions and immediate feelings about the item.

<table>
<thead>
<tr>
<th>Interesting</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
<th>Boring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bad</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Good</td>
</tr>
<tr>
<td>Full</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>Empty</td>
</tr>
<tr>
<td>Sturdy</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>Fragile</td>
</tr>
<tr>
<td>Discouraging</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Hopeful</td>
</tr>
<tr>
<td>Enjoyable</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>Miserable</td>
</tr>
</tbody>
</table>

**CAREER COMMITMENT**

On a scale from 1 = not at all to 7 = very much, please indicate how much you agree with the following statements.

<table>
<thead>
<tr>
<th>My career is one of the most important things in my life.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>I regularly consider what I could do to get ahead at work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
The ambitions in my life mainly have to do with my career.

My career plays a central role in my life.

I think that I should have a successful career.

I am prepared to do additional tasks when this benefits my career.

### SPOUSAL SUPPORT

Please rate the degree to which you agree with each item on a scale from 1 = strongly disagree to 5 = strongly agree.

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>My spouse burdens me with things that he should be able to handle on his own. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I have a tough day at work, my spouse tries to cheer me up. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I had to go out of town for my job, my spouse would have a hard time managing household responsibilities. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My spouse is interested in my job. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My spouse leaves too much of the daily details of running the house to me. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My spouse doesn’t want to listen to my work-related problems. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If my job gets very demanding, my spouse will take on extra household responsibilities. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My spouse seems bored when I talk about my job. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I have to work late, I can count on my spouse to take care of everything at home. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My spouse enjoys hearing about my achievements at work. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I’m having a difficult week at my job, my spouse tries to do more of the work around the house. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My spouse is happy for me when I am successful at work. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My spouse does his fair share of household chores. (I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I look to my spouse for reassurance about my job when I need it. (E)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(I) = Instrumental support item

(E) = Emotional support item

### GENDER IDEOLOGY
Please respond to the following statements using the scale of 1 = strongly disagree to 7 = strongly agree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>When jobs are scarce, men should have more right to a job than women.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If a woman earns more money than her husband, it’s almost certain to cause problems.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that a woman has to have children in order to be fulfilled?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A university education is more important for a boy than for a girl.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I were to have only one child, I would rather it be a boy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On the whole, men make better political leaders than women do.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IMPRESSION MANAGEMENT SCALE – SHORT FORM**

Using the scale below as a guide, write a number beside each statement to indicate how true it is. 1 = not true; 4 = somewhat true; 7 = very true.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>I never cover up my mistakes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>There have been occasions when I have taken advantage of someone. (R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I always obey laws, even if I’m unlikely to get caught.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have said something bad about a friend behind his/her back. (R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I hear people talking privately, I avoid listening.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have received too much change from a salesperson without telling him or her. (R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I was young I sometimes stole things. (R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have never dropped litter on the street.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I never look at sexy books or magazines.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have done things that I don't tell other people about. (R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have pretended to be sick to avoid work or school. (R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I don't gossip about other people's business.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**STATUS COMPARISONS**
Think back to when you first met your spouse. At that time, where you would position your job status relative to his?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Significantly lower</td>
<td>Somewhat lower</td>
<td>About the same</td>
<td>Somewhat higher</td>
<td>Significantly higher</td>
</tr>
</tbody>
</table>

Thinking about your spouse’s job status now, where would you position your job status relative to his:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Significantly lower</td>
<td>Somewhat lower</td>
<td>About the same</td>
<td>Somewhat higher</td>
<td>Significantly higher</td>
</tr>
</tbody>
</table>

What is your annual salary?

- [ ] Below $24,999 a year
- [ ] Between $25,000 and $44,999
- [ ] Between $45,000 and $59,999 a year
- [ ] Between $60,000 and $74,999 a year
- [ ] Between $75,000 and $89,999 a year
- [ ] Between $80,000 a year $94,999 a year
- [ ] Between $95,000 and $109,999 a year
- [ ] Between $110,000 and $124,999 a year
- [ ] Between $125,000 and $139,999 a year
- [ ] Between $140,000 and $154,999
- [ ] Between $155,000 and $169,999 a year
- [ ] Between $170,000 and $184,999 a year
- [ ] Between $185,000 and $199,999 a year
- [ ] Between $200,000 and $224,999 a year
- [ ] Between $225,000 and $249,999 a year
- [ ] Between $250,000 and $274,999 a year
- [ ] Between $275,000 and $299,999 a year
- [ ] Between $300,000 and $349,999 a year
- [ ] Between $350,000 and $399,999 a year
- [ ] Over $400,000 a year

What is your approximate household income (combining your income with your spouse’s income)?

- [ ] Below $24,999 a year
- [ ] Between $25,000 and $44,999
- [ ] Between $45,000 and $59,999 a year
- [ ] Between $60,000 and $74,999 a year
- [ ] Between $75,000 and $89,999 a year
- [ ] Between $80,000 a year $94,999 a year
☐ Between $80,000 a year $94,999 a year
☐ Between $95,000 and $109,999 a year
☐ Between $110,000 and $124,999 a year
☐ Between $125,000 and $139,999 a year
☐ Between $140,000 and $154,999
☐ Between $155,000 and $169,999 a year
☐ Between $170,000 and $184,999 a year
☐ Between $185,000 and $199,999 a year
☐ Between $200,000 and $224,999 a year
☐ Between $225,000 and $249,999 a year
☐ Between $250,000 and $274,999 a year
☐ Between $275,000 and $299,999 a year
☐ Between $300,000 and $349,999 a year
☐ Between $350,000 and $399,999 a year
☐ Between $400,000 and $449,999 a year
☐ Between $450,000 and $499,999 a year
☐ Between $500,000 and $549,999 a year
☐ Between $550,000 and $599,999 a year
☐ Between $600,000 and $649,999 a year
☐ Between $650,000 and $699,999 a year
☐ Between $700,000 and $749,999 a year
☐ Between $750,000 and $799,999 a year
☐ Between $800,000 and $849,999 a year
☐ Between $850,000 and $899,999 a year
☐ Between $900,000 and $949,999 a year
☐ Between $950,000 and $999,999 a year
☐ Over $1,000,000 a year
Appendix E
Survival Plots – Study 2

Hypothesis 1
Hypothesis 2
Hypothesis 4

repeated award
once
more than once
Hi everyone,

My name is Paul Andrews and I am a senior consultant working with some of the top management-consulting firms in North America, including Bain, McKinsey and the Boston Consulting Group. I have been hired to spearhead a project to redevelop the recruitment strategies that these consulting firms use to recruit new talent as well as test new online recruitment software. Currently, Bain, McKinsey and BCG tend to recruit heavily from the top business schools in the United States and the highest ranked commerce programs in Canada, including the Queen’s Commerce program. We strive to hire the best candidates and my team is tasked with doing a complete review of the consulting firms’ talent management strategies.

Working alongside Alyson Byrne and Professor Julian Barling, I am spearheading a research project at Queen’s University to gain greater understanding of the talent level of the Queen’s Commerce program and to pilot software for an online recruitment simulation test. The first part of this study involves evaluating the individual talent level here at Queen’s Commerce. Based on previous market data, we have developed case questions that give us insight into the types of talent that succeed at the very highest level at Bain, McKinsey and BCG. These are the top management consulting firms in North America, hiring only those with the most potential for high level success and career status. We are asking for your help in understanding the depth of talent at Queen’s University by answering a number of case questions.

Please read the case questions carefully. You will have five minutes to answer each question. While five minutes per case question is not a long period of time, studies have repeatedly shown that the best candidates are able to develop a strong, well thought out answers within this amount of time. These are the types of people who can think on their feet and be critically analytic in times of pressure, and this correlates to high levels of job success and career status.

You will also be asked to answer a series of questionnaires; this is to help us gather greater understanding of the types of personalities that are represented in the Queen’s Commerce program. Please answer these questions as honestly as you can – there are no right or wrong answers, as the consulting firms I am working with look for a wide variety of people and personalities.

After you have completed the questionnaires, my project team and I will analyze your case responses. Based on your answers, we will be able to predict who is most likely to be successful and achieve a high status position at management consulting firms. When you come back for the second part of this study, your scores will be given to you at that time.
On behalf of Alyson Byrne and Professor Barling, I would like to thank you for your participation in this study – it is greatly appreciated.

URL: http://tinyurl.com/study3part1
Appendix G

Script and Video Link, Part 2 - Study 3

Hi everyone,
My name is Paul Andrews, as I mentioned before, I am working as a consultant for top management consulting firms of McKinsey, Bain and BCG to review their talent management strategies. The last time I saw you, you provided responses to case questions and personality questionnaires that are incredibly helpful for our review. We appreciate that you have returned for the second part of this study. This part of the study focuses on testing software, where we have developed a simulation test for recruitment purposes. I will describe that in more detail in a few minutes.

Before we get to the second part of this study, I promised you that I would reveal to you how you did in the case questions. As mentioned in the first part of the study, these case questions have been used at McKinsey, Bain and BCG to predict who is most likely to get recruited. The candidates who score well on these tests tend to be the most successful candidates and they achieve the highest level of status in their firms. The recruitment divisions that I am working with suggest that the analyses of these types of cases are some of their strongest predictors for future status in their companies, as well as overall future status in the corporate world.

We have analyzed your scores and matched them to your name and student number Please click on the link below, enter in your name and student number, and your score will be revealed to you.

CLIP FINISHES

Students get scores online – then participants click on a 3rd video clip.

NEXT CLIP STARTS

Paul Andrews speaks again through video clip:

Just to ensure that you all understand how to interpret these scores, I have some charts that reflect data from the consulting firms. These types of questions have been used for decades, and the teams have a very systematic way of evaluating people’s responses. Overall, a typical representation of how well the average person typically scores on these types of questions are indicated on this chart here.
However, while this reflects the average population, as I discussed earlier, these firms tend to hire only those with the best and brightest potential. Here is a typical distribution of the scores that are hired by the consulting firms I represent.

Figure 4 - Typical distribution on selection exercises

Figure 5 - Scores of Candidates Hired at Top Management Firms

As you can see, those who do exceptionally well on these case questions tend to be most successful overall. So thank you very much for all of you who have participated in the case questions, and congratulations to those of you who did so well. I know that there are
some of you in this room who have scored within the 90-100% range – these are excellent scores and you are to be commended.

Ok, this concludes the first part of the review for talent management. As I mentioned earlier, we are looking to pilot simulation test software that we hope to use for future recruitment strategies. We have developed an online ball tossing game – while this may seem like a silly way to recruit talent, there is a large body of literature and empirical evidence that suggests that these rather silly games are actually excellent predictors of talent selection. I’m not sure how familiar you are with the leadership selection and talent literature, but Bernard Bass, one of the greatest leadership researchers of our time, created one of the most commonly known selection techniques. He would place groups of people in a room with a silly but complex task, and tell people to figure it out. They were given no further instructions – however, researchers would watch them through one way mirrors and select people based on how well they demonstrated leadership abilities in solving silly tasks.

Now, as modern technology has greatly advanced, we are asking you to participate in a similar but online task. Before arriving today, we have placed you in teams of three people. In a minute, you will be given brief background information on everyone in the group. You will then be asked to answer a few questions before starting the simulation.

One final note before I let you get to work – please take this task seriously. I recognize that online simulations can often appear to be just an online game or that participants do not want to take the simulation seriously. Nonetheless, they are very useful, and very important to our company. We ask that you treat them as seriously as possible as this information is pertinent to our company for future recruitment.

Thank you again for your participation in this project. Please now enter your name and student number to begin the final part.

URL first half: http://tinyurl.com/study3part2
URL second half: http://tinyurl.com/study3part3
Appendix H

Full Measures - Study 3

DEMOGRAPHICS

1. Please indicate your sex:
   Male    Female

2. Please indicate how old you are:
   ______________ years

EPISODIC ENVY

You will answer the following scales about each person in your simulation group. Please rate each item on the extent to which it accurately describes your emotions towards the person you have identified. You will answer the scale twice, answering questions about each person separately. Please use a scale of 1 – 9, with 1 = Not at all characteristic of how I feel to 9 = Extremely characteristic of how I feel.

<table>
<thead>
<tr>
<th>Feeling lacking some of the things that person _____ has.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have resentment or bitterness against person _____</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>I feel a desire to have what person _____ has</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Envious of person _____</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>I feel that person _____ has things going better for him/her than I do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>I feel resentment or ill will towards person _____</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

INTENTIONS TO OSTRACIZE

Please indicate your initial reactions to the following scenarios. Again, please just use the person’s letter name.

You have to take a 6-hour flight – who in this group would you least want to sit next to for the duration of the flight? A C
You are awarded a gift certificate to your favorite restaurant however; the A C
gift certificate is for a dinner with three people. Who from this group would you not invite to join?

Your friend is having a party next week and tells you to invite one other from this group task – who would you not invite to this party?

Everyone from this group task decides to go for a drink on Friday afternoon. Who would you least like to sit next to?

Who from this group would you least like to work with again?

FEELING OSTRACIZED

For each question, please indicate the ranking that best represents the feelings you were experiencing during the game, ranging from 1 = Not at all to 5 = Extremely.

<table>
<thead>
<tr>
<th>I felt “disconnected.”</th>
<th>1 2 3 4 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I felt rejected.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I felt like an outside.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I felt like I belonged to the group (R)</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I felt the other players interacted with me a lot. (R)</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

STATUS STRIVING*

Please record how you feel on the following items, ranking whether you: 1 – Strongly Agree; 3 = Neither Agree nor Disagree; of 5 = Strongly Agree

<table>
<thead>
<tr>
<th>I focus my attention on being the best student in the commerce program.</th>
<th>1 2 3 4 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I set personal goals for doing better in the commerce program than anyone else.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I often compare my school accomplishments against other students’ accomplishments</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Every day, I try to be the most successful student in the commerce program.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I never give up trying to perform at a higher level than others.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I expend a lot of effort to develop a reputation as a high achiever.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I always try to be the highest performer.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I get excited about the prospect of being the most successful student in my classes.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I care a lot about being the best in the commerce program.</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>I am challenged by a desire to perform better academically than my classmates.</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

DISPOSITIONAL ENVY*
Please record how you feel on the following items, ranking whether you: 1 – Strongly Agree; 3 = Neither Agree nor Disagree; of 5 = Strongly Agree

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is so frustrating to see some people succeed so easily.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The bitter truth is that I generally feel inferior to others.</td>
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<tr>
<td>Feelings of envy constantly torment me.</td>
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<tr>
<td>I am troubled by feelings of inadequacy.</td>
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<tr>
<td>I feel envy every day.</td>
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<tr>
<td>It somehow doesn’t seem fair that some people seem to have all the talent.</td>
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<tr>
<td>No matter what I do, envy always plagues me.</td>
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<tr>
<td>Frankly the success of my peers makes me resent them.</td>
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</tr>
</tbody>
</table>

**IMPRESSION MANAGEMENT**

Please indicate how characteristic or descriptive each of the following statements is of you.

Please use the following rankings to evaluate each statement:
1 = very uncharacteristic of me, extremely non descriptive;
2 = rather uncharacteristic of me, quite non descriptive;
3 = somewhat uncharacteristic of me, slightly non descriptive;
4 = neither uncharacteristic nor characteristic of me, neutral;
5 = somewhat characteristic of me, slightly descriptive;
6 = rather characteristic of me, quite descriptive;
7 = very characteristic of me, extremely descriptive.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I sometimes tell lies if I have to.</td>
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<tr>
<td>2. I never cover up my mistakes.</td>
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<tr>
<td>3. There have been occasions when I have taken advantage of someone.</td>
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<td>4. I never swear.</td>
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<tr>
<td>5. I sometimes try to get even rather than forgive and forget.</td>
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<tr>
<td>6. I always obey laws, even if I’m unlikely to get caught.</td>
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<tr>
<td>7. I have said something bad about a friend behind his or her back.</td>
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<tr>
<td>8. When I hear people talking privately, I avoid listening.</td>
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<tr>
<td>9. I have received too much change from a salesperson without telling him or her.</td>
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</tr>
<tr>
<td>10. I always declare everything at customs.</td>
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<tr>
<td>11. When I was young I sometimes stole things.</td>
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<tr>
<td>12. I have never dropped litter on the street.</td>
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<tr>
<td>13. I sometimes drive faster than the speed limit.</td>
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</tr>
</tbody>
</table>
14. I never read sexy books or magazines.  
15. I have done things that I don’t tell other people about.  
16. I never take things that don’t belong to me.  
17. I have taken sick-leave from work or school even though I wasn’t really sick.  
18. I have never damaged a library book or store merchandise without reporting it.  
19. I have some pretty awful habits.  
20. I don’t gossip about other people’s business.

<table>
<thead>
<tr>
<th>MANIPULATION CHECKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) What was your score on the potential cases? _____</td>
</tr>
<tr>
<td>2) Who had the highest level of status in your group? _____</td>
</tr>
<tr>
<td>3) In one word, what was your reaction to your score? ____________________________</td>
</tr>
</tbody>
</table>

Think of this ladder as representing where people rank in status. At the top of the ladder are people who are the best off – those who have the most status, the most prestige, and the most promise. At the bottom are the people who are the worst off – who have the least status, the least prestige and the least promise. The higher you are on this ladder, the closer you are to people at the very top and the lower you are, the closer you are to the bottom. Where would you put yourself on the ladder, relative to the others in this team? Please place a large X on the rung where you stand.

____________________________

Yourself
Again, think of this ladder as representing where people rank in status. At the top of the ladder are people who are the best off – those who have the most status, the most prestige, and the most promise. At the bottom are the people who are the worst off – who have the least status, the least prestige and the least promise. Where would you put the other people in the group on this ladder? Please label each ladder with the letter name of each person in the group and place a large X on the run where they stand.

* Items collected at Time 1 of experiment; all other measures were collected at Time 2 of experiment.