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Illuminating Pay Secrecy: Construct Clarification and an Exploration of Effects via the Incentive and Sorting Tracks

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Illuminating Pay Secrecy:
Construct Clarification and an Exploration of Effects via the Incentive and Sorting Tracks

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in Business Administration

by

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ABSTRACT

Pay secrecy is a burgeoning debate in compensation research. On one side of the debate, it is argued that pay secrecy is a useful and beneficial practice because it can prevent potential dissatisfaction and destructive competition possible when people make unfavorable pay comparisons. On the other side, it is argued that pay secrecy is undesirable because it obscures the motivational properties of pay and does not prevent people from making pay comparisons, nor safeguard them from the resulting dissatisfaction. Despite the popularity of pay secrecy in organizations today, extant research has failed to provide any definitive answers as to whether secrecy is a beneficial pay communication practice. For both academics and practitioners, the effects of pay secrecy largely remain unclear. The current dissertation represents one attempt to address these shortcomings.

First, this dissertation seeks to clarify our comprehension of the pay secrecy construct. Toward this end, problems in existing research are outlined, including the conflation of outcomes that often occurs in pay secrecy studies. As a remedy, the incentive and sorting effects of compensation are introduced as distinct theoretical tracks for separating secrecy's effects. The pay secrecy construct is further elucidated by building on prior work (Holtzen & Gupta, 2014) to develop a comprehensive matrix of pay secrecy.

Second, this dissertation aims to enhance and refine our understanding of the effects of pay secrecy. Using the incentive and sorting tracks, motivation and satisfaction dynamics are explored in conjunction with other relevant compensation system characteristics. This approach allows us to discern the underlying mechanisms that uniquely affect motivation/performance in the context of expectancy theory, and satisfaction/turnover in terms of equity theory principles. To provide a more nuanced examination of the unique behavioral responses to these dynamics,

functional versus dysfunctional effects are explored by conceptualizing the effects as two separate continua. Within this framework, functional effects occur both when desirable behaviors are promoted and when undesirable behaviors are hindered. Conversely, dysfunctional effects manifest when desirable behaviors are hindered and when undesirable behaviors are promoted. This distinct conceptualization allows for a comprehensive examination of the extensive range of responses that secrecy may elicit.

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CHAPTER 1

INTRODUCTION

Pay is powerful. Adequate pay provides individuals with the means to satisfy a variety of needs (Lawler, 1971), ranging from lower-order concerns such as food and shelter (Maslow, 1943) to social status and other higher-order needs (Frank, 1999). Research consequently indicates that pay is a compelling motivator (Rynes, Gerhart, & Minette, 2002). Despite the importance of pay to individuals, it is also a topic of conversation that many organizations prefer their employees avoid. Although pay discussions are legally-protected as a concerted employee activity (National Labor Relations Act, 1935; Gely & Bierman, 2003), organizations often aim to discourage employee discussions about pay concerns by limiting employee access to vital pay information through a variety of pay secrecy policies (Colella et al., 2007; Belogolovsky & Bamberger, 2014).

Studies suggest that policies of pay secrecy are prevalent in organizations today. Almost half of all workers in the U.S. are strongly discouraged or contractually forbidden from discussing pay with coworkers (Institute for Women's Policy Research, 2011). Managers and organizations generally support secrecy, claiming it minimizes social comparisons and destructive competition among employees (Burroughs, 1982). Even employees themselves may favor secrecy. For workers in the U.S., the taboo nature of discussing pay is a deep-seated belief, evidenced by the "squirm factor" (Lytle, 2014: 30) that often accompanies compensation discussions. Together, these complementary forces have produced an environment in which many organizations regularly operate under a veil of secrecy when communicating pay information.

Despite the widespread use and acceptance of pay secrecy, our current understanding of both the construct and its effects remains limited. Despite lacking a generally-accepted definition for what constitutes “pay secrecy,” both scholars and practitioners have focused instead on uncovering its effects. These efforts have yielded perplexing results. On the one hand, evidence suggests that when organizations choose to limit the pay information that is formally shared, employees still discuss pay with one another (Day, 2012) but may form grossly incorrect assumptions about the pay of others (Lawler, 1965, 1966, 1967; Milkovich & Anderson, 1972). On the other hand, transparency in pay communication has been found to elicit strong feelings of envy toward higher-paid others, causing lower-paid individuals to withhold helping behaviors that could benefit the organization and its employees (Bamberger & Belogolovsky, 2017). In the debate over the possible effects of pay secrecy, published evidence exists for both sides.

Despite the popularity of secrecy policies in organizations today, research on its effects has produced conflicting results, and a comprehensive definition of the construct remains elusive. In short, our understanding of pay secrecy largely remains secret. Our ability to understand the nuances of the construct and its effects has been limited by superficial expositions of pay secrecy in existing research. While there appears to be a growing interest in the topic, both among academic researchers (e.g., Bamberger & Belogolovsky, 2017; Marasi, Wall, & Bennett, 2018; Scheller & Harrison, 2018; Smit & Montag-Smit, 2018) and compensation professionals (e.g., Lytle, 2014; Trotter, Zacur, & Stickney, 2017), theoretical development has lagged behind empirical investigations. By taking a step back to focus on construct definition and theory development, this dissertation represents one attempt to address these limitations. The purpose of the current investigation is therefore two-fold.

First, this dissertation seeks to clarify the construct of pay secrecy. Extant research provides several disparate conceptualizations of the construct. Though there is some degree of consensus that pay secrecy theoretically represents a continuum of information (Burroughs, 1982; Collela et al., 2007), scholars have largely circumvented more precise theoretical development to instead focus on empirical examinations of secrecy's effects. In order to identify the impediments to theoretical development, the remainder of this chapter outlines some of the major problems in existing pay communication research. In Chapter 2, organizational justice concepts are then used to build on the prior work of Holtzen and Gupta (2014) to conceptualize pay secrecy as the intersection of two continua of information – a distributive continuum that communicates information about pay outcomes, and a procedural continuum containing information about pay processes.

Second, this dissertation aims to enhance and refine our understanding of the effects of pay secrecy on critical employee behaviors and attitudes. As a remedy to the conflation of outcomes that occurs in many extant empirical investigations of the topic, I contend here that distinct theoretical tracks are needed to untangle the separate influence of different forms and degrees of pay communication. Toward this end, the incentive and sorting effects of compensation are introduced as pertinent frameworks for separating secrecy's distinctive effects. By using the proposed pay secrecy matrix as a theoretical framework, this dissertation investigates how different combinations of distributive and procedural pay information may alter the established incentive and sorting properties of performance-based pay. Using these distinct theoretical tracks, I then explore how different forms of secrecy may uniquely affect motivation and performance in the context of expectancy theory (Chapter 3), and attraction, satisfaction, and turnover using principles of equity and discrepancy theories (Chapter 4). Finally, Chapter 5

discusses implications and limitations of the dissertation, and presents suggested directions for empirical testing of the stated propositions and other future research.

Statement of the Problem

A review of the literature highlights several problems currently plaguing pay communication research. First, no consensus on a definition for the construct has been reached. Furthermore, empirical specifications have failed to match the many theoretical conceptualizations of pay secrecy that exist in the literature. More specifically, despite a general agreement that pay secrecy/transparency is best represented as a continuum of shared information (Burroughs, 1982; Colella, Paetzold, & Wesson, 2007; Marasi & Bennett, 2016; Marasi, Wall, & Bennett, 2018), most empirical operationalizations continue to measure secrecy as though it were binary. Experimental studies often utilize secrecy versus transparency conditions, with transparency manipulated as nothing more than the dissemination of participants' pay amounts (e.g., Greiner, Ockenfels, & Werner, 2011), often by code number alone (e.g., Bamberger & Belogolovsky, 2017; Belogolovsky & Bamberger, 2014). Such binary distinctions oversimplify the broad range of pay information that an organization can choose to communicate.

Survey measures of pay secrecy are similarly deficient. For example, Rosenfeld (2017) measured pay secrecy with a single item, and classified answers into transparent (i.e., wage and salary information is public and/or can be discussed in the workplace) and secret categories (i.e., discussion of wage and salary information is discouraged and/or formally prohibited). Measures targeting the specific dimensions of pay secrecy have also been developed. Distinctions have been made regarding employee versus organizational restriction of pay information (Marasi et al., 2018), the separate influences of policies and rules, organizational enforcement, and norms

that shape perceived organizational pay secrecy (Noy, 2007), and preferences for the sharing and seeking of information during information exchange (Smit & Montag-Smit, 2018). Despite these efforts, consensus on the definitive dimensions of pay secrecy remains elusive.

Finally, pay secrecy research has been limited by its simultaneous consideration of multiple outcomes. Examples of conflated outcomes found in the literature include satisfaction with pay and motivation for promotion (Lawler, 1966, 1967), satisfaction with pay and the perceived performance-reward relationship (Thompson & Pronsky, 1975), job performance and job satisfaction (Futrell & Jenkins, 1978), and pay satisfaction and affective commitment (Day, 2012). Often yielding conflicting results, these conflated findings continue to be relied upon to debate the merits of secrecy versus transparency. On one side of the debate, it is argued that pay secrecy is a useful and beneficial practice because it prevents the dissatisfaction and destructive competition that arises when people make unfavorable pay comparisons. On the other side, it is argued that pay secrecy is undesirable because it obscures the motivational properties of pay while also failing to prevent people from making pay comparisons with one another.

The pay secrecy debate has been hindered by the above limitations, producing a muddled understanding of both how and why secrecy impacts employee attitudes and behaviors. This practice perpetuates the contention that secrecy produces either invariably positive or negative outcomes for organizations and their employees. Although early research examined motivation and satisfaction dynamics simultaneously, compensation theory suggests that distinctive mechanisms may operate independently to influence distinct outcomes. This is not a novel concept in compensation research.

Pay exerts its influence through two unique mechanisms. The *incentive effect*, or the degree to which pay influences motivation among individual employees (Milkovich, Newman, &

Gerhart, 2014), explains how pay influences productivity and performance in current employees while holding attributes of the workforce constant (Rynes, Gerhart, & Parks, 2005). In contrast, *sorting effects* are used to describe how pay can alter an organization's workforce composition by attracting and retaining the most capable employees (Gerhart & Rynes, 2003; Lazear, 1986). Together, the incentive and sorting effects explain how performance-based pay can be used to attract, retain, and motivate higher-performing employees.

In attempting to untangle the effects of pay secrecy on employee attitudes and behaviors, the study of separate incentive and sorting properties arises as a suitable approach. Focusing on the incentive effect allows for an emphasis to be placed on performance and other outcomes driven by motivational forces. Conversely, a focus on sorting mechanisms allows for a separate examination of turnover, attraction, and other outcomes driven by satisfaction, equity, and perceptions of fit. Examining these two paths in isolation allows us to pinpoint the unique mechanisms that interact with the communication of pay information to influence motivation, satisfaction, and more distal behavioral outcomes. When effects are studied separately via these two tracks, clearer insight into the differential effects of secrecy becomes possible.

In summary, in order to understand its effects, we must first clarify what constitutes pay secrecy. Toward this end, this dissertation aims to illuminate the construct of pay secrecy by building a coherent theoretical framework. In turn, this framework is then used to investigate how different forms of secrecy may alter the incentive and sorting properties of performance-based pay, and how these effects influence employee attitudes and behaviors. By pausing to focus on the theoretical precision of a pay secrecy matrix, this dissertation develops a testable framework that can be used to clarify and guide future empirical work in the pay secrecy domain.

CHAPTER 2

ELUCIDATION OF THE PAY SECRECY CONSTRUCT

Overview

Chapter 2 aims to clarify the construct of pay secrecy by addressing some specific shortcomings of prior research. Toward that end, pertinent pay terminology is first reviewed, and boundary conditions for the current investigation are presented. Organizational justice concepts are then invoked to expand the skeletal pay secrecy matrix developed by Holtzen and Gupta (2014). In contrast to the historically binary conceptualization and measurement of pay secrecy, the matrix produces nine distinct cells. The information content of each cell is then individually examined to explore the distinct forms of secrecy that can arise when different combinations of pay information are communicated to varying degrees. Next, the possibility of secrecy in other areas of HRM is considered by exploring the construct of performance secrecy. Finally, to begin untangling the conflated outcomes of prior empirical research, expectancy theory and equity theory are introduced as appropriate frameworks for investigating how pay secrecy affects the incentive and sorting properties of performance-based pay raises.

Pay Terminology

Organizations must compensate employees in exchange for their labor. While this suggests that compensation is a relatively straightforward exchange between employer and employee, compensation is “complex and often confusing” (Gerhart & Rynes, 2003: 1), both in theory and in practice. This complexity and confusion arise, in part, because organizations facing similar environmental conditions often make very different compensation decisions regarding base pay, bonus pay, and long-term incentives (Gerhart & Milkovich, 1990). Not only

do compensation strategies and practices vary across organizations, research indicates that employees may hold quite divergent perceptions of the same compensation system. For example, employees may view compensation as a return in exchange for the work performed, a reward for a job well done, or as an entitlement for being an organizational member (Milkovich, Newman, & Gerhart, 2014).

Because pay varies in both form (e.g., through compensation design, administration, and other elements dictated by business strategy; Gerhart & Rynes, 2003) and how that is perceived by employees (Milkovich et al., 2014), a precise definition of “pay” must precede clarification of the pay secrecy construct. Broadly defined, employee compensation represents “all forms of financial returns and tangible services and benefits employees receive as part of an employment relationship” (Milkovich et al., 2014: 13). As shown below in Figure 1, total compensation is comprised of two principal components: *direct cash* compensation, including base pay, increases to base pay, and other financial returns, and *indirect benefits* such as pensions, medical insurance, and other tangible benefits and services (Milkovich et al., 2014).

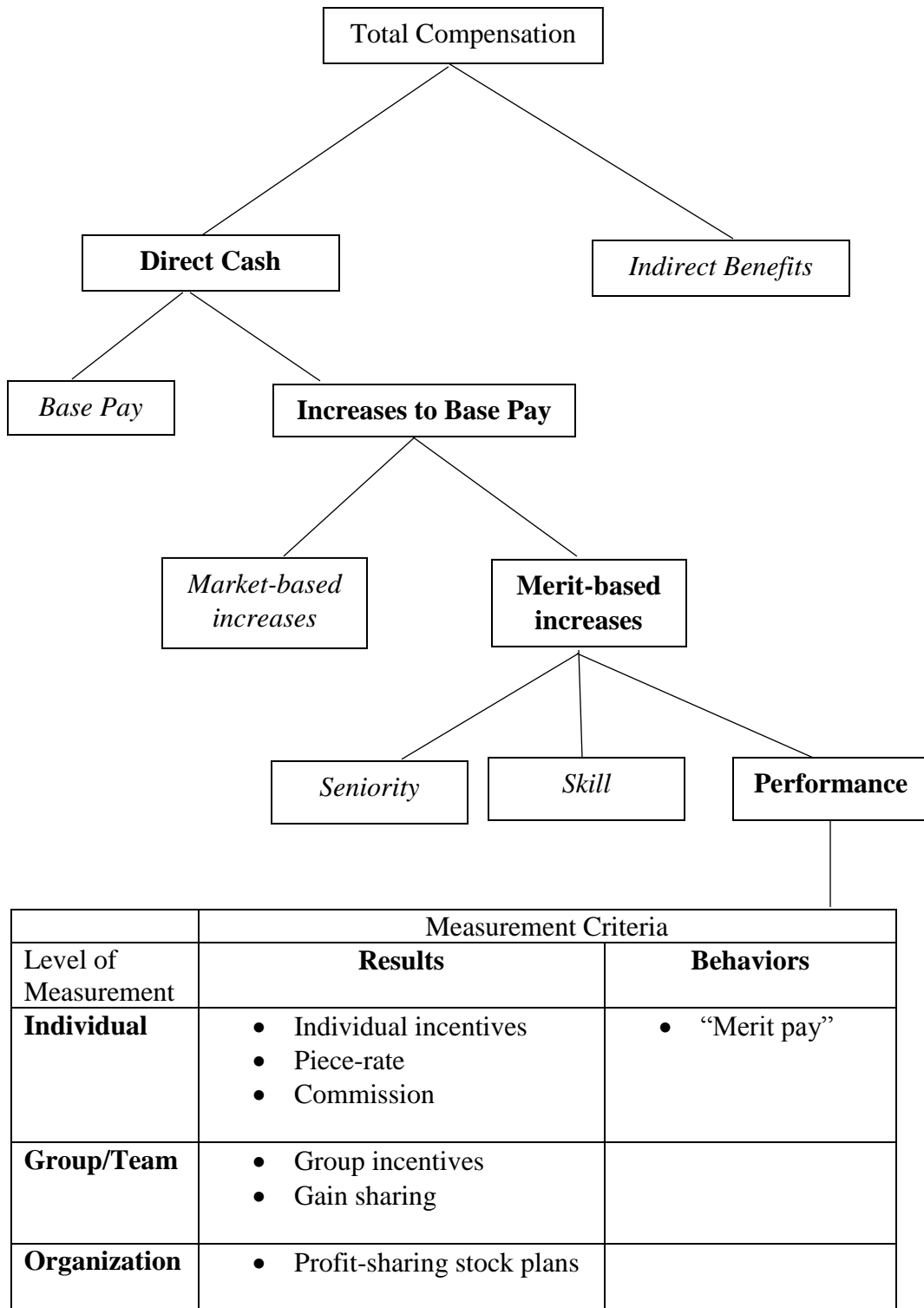


Figure 1
Pay Definition Figure

Direct Cash Compensation versus Indirect Benefits

Despite the noted paucity of attention directed to employee benefits as a topic of investigation in the HRM literature (Dulebohn, Molloy, Pickler, & Murray, 2009), available evidence suggests that indirect benefits may fail to elicit the same effects on employee attitudes and behaviors as does direct cash compensation. For example, Milkovich and colleagues (2014) note that “no strong data exist linking benefits level and employee productivity” (p. 440). Furthermore, no cumulative evidence suggests a relationship between benefit coverage and turnover (Williams & MacDermid, 1994). Taken together, the available research provides no evidence to indicate that indirect benefits have clear incentive and sorting effects.

Compared to direct cash compensation, benefits are also perceived differently by employees. Many benefits (e.g., employer-sponsored health insurance, pensions, contributions to retirement and health savings accounts, etc.) are not performance-contingent but are instead awarded primarily for organizational membership and tenure (Heneman, Ledford, & Gresham, 2000). As a result, employees may view some benefits as rights or entitlements (Williams, 1993; Weathington & Tetrick, 2000). Other benefits (e.g., social security benefits for retired workers) are legally required and standardized (Dencker, Joshi, & Martocchio, 2007). Because employees can view benefits as entitlements and/or legal requirements, organizations may find obscuring benefits information through secrecy to be efficacious.

In contrast to the dearth of benefits research (Dulebohn et al., 2009), an abundance of empirical evidence demonstrates that financial incentives are strongly and positively related to individual performance (for recent reviews, see Gerhart & Fang, 2014; Gupta & Shaw, 2015). In short, there is “overwhelming meta-analytic evidence that incentives drive behavior and that the effect is substantial” (Gerhart & Fang, 2014: 42). Additional quantitative summary studies have

found a negative relationship between pay and turnover (Cotton & Tuttle, 1986; Griffeth, Hom, & Gaertner, 2000). Collectively then, the available research indicates that direct cash compensation has clear incentive and sorting properties that shape employee performance and turnover. In contrast, benefits do not exhibit these same effects (Milkovich et al., 2014) and may be more difficult to obscure through secrecy as a result of government regulation and standardization (Dencker et al., 2007). The foregoing suggests that indirect benefits do not warrant inclusion when investigating how secrecy influences the incentive and sorting properties of pay. Direct cash compensation is instead the more appropriate focus.

Base Pay versus Increases to Base Pay

Direct cash compensation has two distinct components – base pay and the various increases that can be made to base pay. ***Base pay*** is provided to employees in exchange for their labor (Milkovich et al., 2014). The specific base pay amount is determined using a combination of internal (e.g., job evaluation) and external (e.g., market survey) worth assessments of the job or the work performed (Heneman, Ledford, & Gresham, 2000). Consequently, base pay rates are attached to the job itself rather than to personal characteristics of individual employees (Gerhart & Milkovich, 1990). For example, although the 2015-2016 national average base salary for new assistant professors of engineering (\$83,000) was close to one-and-a-half times that for new assistant professors of English (\$57,000), this difference is more a reflection of pay gaps between academic disciplines rather than the personal characteristics of individuals who occupy these jobs (Jaschik, 2016).

Despite this seemingly straightforward definition, base pay can be conceptualized and defined in several different ways. While some define base pay as that part of an individual's pay that is based on the job, others view it as the prior year's pay amount (of which performance-

based raises and other increases will be a percent). Regardless of the definition that is used, base pay is primarily job-based. However, other features such as the individual's prior performance and pay negotiations may also be incorporated. Thus, these considerations are all built into an individual's base pay rate.

In part because base pay is job-based (Gerhart & Milkovich, 1990), it is also less likely to be kept secret. When setting base pay, organizations can choose to match, lead, or lag the rates paid by competitors (Klaas & McClendon, 1996). These choices are often strategic. For example, a lead pay level policy that pays higher wages than the competition can be used to attract higher quality applicants that require reduced training time if hired, thereby shortening vacancy periods (Gerhart & Rynes, 2003). Benefits of these strategic choices may be lost if organizations do not disclose base pay information. Furthermore, even if an organization prefers this information to remain secret, several websites (e.g., Salary.com, Glassdoor.com, and Payscale.com) allow users to publicly share base pay information for a variety of jobs and organizations.

In contrast to the job-based nature of base pay (Gerhart & Milkovich, 1990), *increases to base pay* are often more person-based and variable (Milkovich et al., 2014). Increases may be given for market-based factors, reflecting changes in the cost of living or other geographic differences (Milkovich et al., 2014). Increases to base pay may also be distributed based on merit. In contrast to the more narrowly-defined, traditional "merit pay" plans (i.e., raises given based on the individual's rated performance in a previous time period; Heneman, 1990, 1992), here the term "merit-based increases" is used in a broader sense to describe pay increases that are given for a variety of merit-based reasons. For example, many Korean companies distribute merit bonuses based on seniority to promote loyalty and commitment to the organization (Kwon,

Kim, Kang, & Kim, 2008). Other firms distribute merit increases for skill or knowledge acquisition, as when teachers are given increases for demonstrating the skills and knowledge thought to be requirements for improving student performance (Heneman, Milanowski, Kimball, & Odden, 2006). However, my focus here is on merit increases that are distributed on the basis of performance.

Performance-Based Pay Increases

Performance-based pay increases are common in organizations today. A 2018 survey of public companies in the U.S. cites performance as the top reason for distributing pay raises (PayScale Compensation Best Practices Report, 2019). Accordingly, a preponderance of the research conducted on the incentive and sorting properties of compensation has focused on performance-based pay (see Cadsby et al., 2007 for a summary). When pay increases are performance-based, employees are rewarded for their performance contributions, as opposed to seniority, need, equality, or other non-performance factors (Cappelli, 1999; Castilla & Benard, 2010). To refine this broad definition, performance-based pay increases can be further divided along several dimensions, including performance measurement criteria (results- versus behavior-based measures) and the level at which performance is measured and at which pay increases are distributed (Gerhart & Rynes, 2003; Gerhart & Fang, 2014). Understanding the nuances of these differences is imperative, as variations along these dimensions are later proposed to have differential effects on employee attitudes and behaviors.

Performance Measurement Criteria

Performance-based pay increases can be categorized by the criterion that is used to measure performance. Performance criteria may be linked to results, which are often based on

objective measures requiring little to no judgment (Murphy, 2008). For example, paying tree planters using a per-tree-planted piece rate system directly links planters' effort with their earnings (Paarsch & Shearer, 1999). Objectivity makes results-based measures desirable, but they are often criticized for exhibiting criterion deficiency in failing to measure the full range of performance-related behaviors (Austin & Villanova, 1992; Murphy, 2008).

Performance measures can also emphasize behaviors (Milkovich et al., 2014). In contrast to results-based measures that are primarily objective (Murphy, 2008), behavior-based measures may be either objective (e.g., number of employee absences) or subjective (e.g., supervisory ratings of subordinate performance). Subjective measures are often criticized for relying on "the evaluative judgment of fallible judges" (Murphy, 2008: 149), which can allow biases to affect performance ratings (Murphy & Cleveland, 1995). Subjective measures may also capture behaviors outside the domain of task performance, a phenomenon known as criterion contamination (Austin & Villanova, 1992; Murphy, 2008).

Implicit in prior studies of performance measurement is that the criteria – whether results- or behavior-based – are known to employees. When the communication of pay information is restricted through secrecy, performance measurement criteria information may also be obscured, altering the incentive and sorting properties of performance-based pay. For example, if sales employees paid on the basis of sales volume are told neither the raise amount nor the criteria used to distribute pay (i.e., distributive and procedural secrecy in the matrix framework, detailed later in this chapter), the incentive effect may fail to motivate increased sales if a clear link between pay and performance is not perceived.

Research indicates that different performance criteria can motivate a range of behavioral responses (Lawler & Rhode, 1976). While some behaviors may be functional for the

organization, others are decidedly not. For example, a study of department store employees being paid on the basis of sales volume (a results-based, objective measure of performance) found that while total sales initially increased, employees also ignored many unmeasured and unrewarded functions of the job such as stocking and arranging merchandise (Babchuk & Goode, 1951). In contrast, behavior-based measures may elicit different responses, as occurs when production workers intentionally work at a slower pace when time-study rate setters are present (Whyte, 1955). Results- and behavior-based criteria may therefore elicit different behavioral responses (through motivation via the incentive effect, or through affective mechanisms via the sorting effect) depending on the combination of pay information that is communicated.

Level of Performance Measurement

In addition to performance measurement criteria, a second aspect of performance-based pay increases that warrants discussion is the level (a) at which performance is measured and (b) at which pay increases are distributed. Performance-based pay increases can be based on performance measured at the level of the individual, group/team, and/or the organization. For example, individual performance may be rewarded through commission or piece rate plans (Gerhart & Rynes, 2003). Group, team, or unit performance may be emphasized through gainsharing, where bonus payouts are given for performance gains at the facility level (Hollensbe & Guthrie, 2000). Finally, organizational performance may be emphasized through profit-sharing, with payouts for meeting organization-wide profitability targets such as return on assets or net income (Gerhart, Rynes, & Fulmer, 2009).

The level at which performance is measured may not always match the level at which the corresponding performance-based pay increase is distributed. To illustrate, consider profit-sharing, a performance-based increase that is distributed on the basis of organization-wide

profitability measures (Gerhart et al., 2009). While profitability increases may be *measured* at the organizational level, actual pay increases may be *distributed* according to performance differences at the level of the individual or group. The basis for this distribution depends on established allocation rules – equity versus equality – that specify the criteria for reward distribution (Leventhal, 1976). An equity allocation rule distributes rewards based on the performance contribution of each individual, whereas an equality allocation rule distributes equal shares of the reward to all (Conroy, Gupta, Shaw, & Park, 2014).

Applying allocation rules to profit-sharing, for example, means that pay increases are determined by performance measured at the *organizational* level, but distributed at the *individual* level. If an equity allocation rule is used, an employee with relatively higher individual performance receives a larger share of the profit-sharing pool. In contrast, if increases are distributed according to an equality allocation rule, each individual receives an equal share of the profit-sharing pool, regardless of differences in individual performance. Similar issues occur at the level of the team or group. For example, pay increases can be determined by *team* performance, but may then be distributed according to differences in *individual* performance (i.e., an equity allocation rule), or distributed equally to all team members regardless of individual performance (i.e., an equality allocation rule).

Prior research indicates that secrecy alters an allocator's behavior when distributing rewards. Understanding levels issues of performance measurement and reward allocation is therefore crucial for exploring the incentive and sorting properties under varying degrees of secrecy. For example, Leventhal and colleagues found that when pay information was kept secret, allocators tended to increase the difference between rewards distributed to high and low performers (Leventhal, Michaels, & Sanford, 1972), indicating a preference for more equity-

based allocations under secrecy. In contrast, when information about reward distribution was fully disclosed to study participants, allocators increased the rewards of low performers (Leventhal et al., 1972), suggesting that transparency may prompt a more equal distribution of rewards.

Just as transparency in pay communication can alter allocation decisions, so too may it alter the motivation- and satisfaction-related outcomes of these decisions. For example, a manager in an organization with a high degree of transparency (e.g., specific distributive and specific procedural transparency, as illustrated in Cell 9 of the matrix and discussed in detail in the following sections) may distribute rewards with the goal of motivating individual performance. Because overrewarding the under-contributors (i.e., lower performers) may prevent dissatisfaction and disruptive behaviors among other employees (Goode, 1967; Steiner, 1972), managers may be more likely to invoke an equality allocation rule and distribute pay increases equally across all employees – in part, because pay information is absolutely transparent. Nevertheless, the same equality allocation rule that pleases low performers may have negative effects on the satisfaction and motivation of high performers, whose individual performance contributions have gone unrewarded.

Summary

Based on the preceding arguments, the theoretical propositions presented in this dissertation are restricted to performance-based pay raises for several reasons. First, pay-for-performance (PFP) is ubiquitous in both practice and research. PFP has received the preponderance of scholarly attention in both the compensation literature generally (e.g., Gerhart & Fang, 2014), and pay secrecy research specifically (e.g., Belogolovsky & Bamberger, 2014; Greiner, Ockenfels, & Werner, 2011; Thompson & Pronsky, 1975). In many organizations

today, salary increases are often tied to performance ratings or ranking (WorldatWork, 2016). Understanding how secrecy alters PFP therefore has important implications, both theoretically for management scholars, and practically for organizations and managers.

Second, performance-based pay increases are the focus here because they are more likely to both (a) affect individual responses to the incentive and sorting properties of compensation, and (b) be obscured through secrecy. Individuals seek and monitor information about their progress in the workplace, and the direction and rate of change of allocation decisions such as pay increases are often more salient with individual employees than static base pay considerations (Hsee & Abelson, 1991). Because research also indicates considerable variability in individual reactions to pay raises (Mitra, Gupta, & Jenkins, 1997), performance-based pay increases therefore represent a particularly appropriate domain for studying the range of attitudinal and behavioral outcomes that may arise when varying degrees of pay secrecy interact with other compensation system elements to influence motivation and satisfaction. Before turning to a detailed exposition of the pay secrecy construct, two additional boundary conditions for this dissertation must be addressed.

Boundary Conditions

Executive Compensation

The compensation literature makes a clear distinction between executive compensation and the pay of rank-and-file employees, for several reasons. First, executive pay differs in magnitude. The average CEO of the 350 largest U.S. firms in 2017 received \$18.9 million in compensation, roughly 271 times that of the \$58,000 earned by the average U.S. worker (Mishel & Schieder, 2017, 2018). Similarly, executive pay is unique in form. Executive compensation packages, on average, are comprised of approximately 40% base pay and short-term bonuses, with the remaining 60% taking the form of long-term incentives such as stock options (Krantz & Hansen, 2012; Milkovich et al., 2014). The pay of rank-and-file employees relies much less on stock-based components (National Center for Employee Ownership, 2014).

Executive compensation also receives a relatively high degree of regulatory scrutiny and public interest, making it difficult for organizations to keep executive pay information secret. Many organizations must now disclose the ratio of their CEO's pay to that of their median employee (Dodd-Frank Act, 2010), and public interest in executive compensation ensures the topic is a near-constant presence in news headlines (e.g., Jensen and Murphy, 1990). Differences in magnitude and form, combined with increased regulatory scrutiny and public interest suggests that executive compensation has unique secrecy issues that fall outside the scope of this dissertation. As such, the theorizing and propositions presented here are limited to non-executive, rank-and-file employees.

Geographic and Cultural Constraints

Many HR practices are culture specific, affecting how organizations in varied locations choose to design and administer employee pay (Townsend, Scott, & Markham, 1990).

Organizations in the U.S. have a “pronounced incidence” of individual pay-for-performance (Gooderham, Fenton-O’Creevy, Croucher, & Brookes, 2015: 1483), attributable in part to a highly individualistic culture (Hofstede, Hofstede, & Minkov, 2010). In contrast, collectivist cultures exhibit a preference for rewards being distributed equally among group members (Hui, Triandis, & Yee, 1991). Because collectivist cultures may place less emphasis on pay-for-performance, a highly individualistic culture such as exists in the U.S. presents a more appropriate domain for understanding how secrecy affects the incentive and sorting effects of performance-based pay raises.

Differences in national culture also affect how employees perceive and respond to pay generally, and pay secrecy specifically. For example, employees in highly individualistic cultures such as the U.S. often associate personal success with financial status (Hofstede, 1980), and may therefore exhibit a “deep seated belief that talking about pay is taboo” (Lytle, 2014: 30). These beliefs and preferences reinforce workplace and cultural norms in the U.S. that largely support secrecy in pay discussions (Bierman & Gely, 2004). Other cultures have different norms, and pay secrecy may be a culturally bound construct (Colella et al., 2007).

Studying the effects of pay secrecy cross-culturally could prove a fruitful direction for future research. However, it falls outside the scope of this dissertation’s focus on how pay secrecy interacts with additional elements of the compensation system to influence motivation, satisfaction, and behavioral outcomes via the incentive and sorting effects. While an organization is capable of altering its pay communication and other compensation policies,

cultural influences on behavior persist. As secrecy and its effects are clarified, then the influence of culture and other individual differences can be incorporated. For the purposes of this dissertation, propositions are restricted to rank-and-file (non-executive) U.S. employees. With relevant terminology and boundary conditions defined, I now turn to a clarification of the pay secrecy construct.

Development of the Pay Secrecy Matrix

“Pay secrecy” or “pay openness” have traditionally been treated as binary. However, pay secrecy/openness may be best conceptualized as the intersection of two continua of information that vary in complexity. Recent surveys support this perspective. In the IWPR (2011) survey, restrictions in pay communication varied: 31% of U.S. workers reported that pay discussions with coworkers were discouraged, and 19% reported that they were formally prohibited and punishable (IWPR, 2011). Employees also do not view pay secrecy as binary. Lawler (1981) reported that employees did not want individual bonus amounts publicized, but the majority supported public disclosure of both the range (57%) and the size (60%) of bonuses. Almost all (92%) also wanted bonus processes clarified (Lawler, 1981).

Variations in the conceptualization of pay secrecy are also evident in empirical research. Lawler (1965, 1966) defined transparency as information on pay scales (without information on individual pay), Futrell and Jenkins (1978) defined it as information about low and high merit raise amounts, the overall average raise amount, and salary levels based on tenure, while Mahoney and Weitzel (1978) defined transparency as compensation ranges and midpoints for adjacent managerial levels. Thus, a binary view of pay secrecy does not correspond with theoretical and empirical viewpoints; it also does not correspond with managerial practice or employee perceptions.

Several authors have acknowledged that pay secrecy theoretically involves some continuum of information. Burroughs (1982), one of the first to explicitly recognize pay secrecy as non-binary, identified four (rather than two) levels of pay secrecy, but his analysis was mostly practitioner oriented: 1) “Type Red” organizations, in which employees receive no formal information regarding pay (with the exception of their own pay); 2) “Type Orange” organizations, in which pay ranges and medians for certain jobs are made available, as is information regarding the factors that were used to determine pay; 3) “Type Yellow” organizations, in which employees are told both the size of raises, as well as which employees receive them; and 4) “Type Green” organizations, in which the specific pay levels for unique individuals are made public.

Burroughs’ exposition represents some progress but is limited in capturing the complexity of pay secrecy in two ways. First, only a most basic description of the four proposed types of organizations is provided. This likely oversimplifies the reality of pay secrecy. A more critical shortcoming is that the categories relate solely to the characteristics of pay and who is receiving it, while essentially ignoring the processes through which pay is determined. Put differently, the four categories address the “what” and the “who” of pay secrecy while essentially ignoring the “how” and “why”. Alternatively, paralleling justice research, the categories represent “distributive” (Adams, 1965) pay issues while ignoring “procedural” (Greenberg, 1987, 1990; Leventhal, 1980; Thibaut & Walker, 1975) ones.

Recent investigations into pay secrecy have done little to remedy this shortcoming. For example, Colella et al. (2007) acknowledge Burroughs’ exposition while agreeing that pay secrecy “is best understood along a continuum...conceptualized as representing the amount of information about pay available to employees” (p. 57). Despite this recognition, Colella et al.

(2007) offer no additional theorizing as to the specific information content of such a continuum. Contemporary research has attempted to further refine the continuum content. For example, Marasi and Bennett (2016) proposed a 2x2 matrix illustrating pay secrecy as the intersection of two continua reflecting the degree to which organizations disseminate pay information (“organizational restriction”) and the extent to which employees are allowed to discuss pay information with one another (“employee restriction”). This conceptualization again overlooks key parts of the secrecy construct. Here, distributive information expresses “who” is sending and receiving pay information, but the specific type of information being shared is disregarded. Procedural information regarding how and why pay is determined is not addressed.

Despite a lack of consensus regarding the information content of a pay secrecy continuum, scholars have begun to develop and validate scales for measuring the construct. Noy (2007) conceptualized pay secrecy as having two distinct forms, including pay secrecy initiated and maintained through employees’ individual motives and intentions, and pay secrecy that is initiated and maintained by the organization through structure, strategy, and policy decisions. In the same study, a measure for Perceived Organizational Pay Secrecy (POPS) was developed and validated (Noy, 2007), though a literature search fails to find the scale in any subsequent published research. Most recently, a series of studies by Smit and Montag-Smit (2018a, 2018b) have focused on developing scales that capture employee preferences for the communication of pay information. In the first study, the authors conceptualize pay secrecy policy as the interaction of two dimensions determined by the organization: *pay non-disclosure* (i.e., regulating the amount of information that can be shared about employee pay distributions) and *pay communication restriction* (i.e., restricting employees’ ability to discuss pay with one another; Smit & Montag-Smit, 2018a). In a second study, the authors investigate employee

motives to exchange pay information by developing and validating a Pay Information Exchange Preferences scale. Across eight samples, evidence supported the conceptualization of employee pay communication preferences as *pay information seeking preference* (driven by instrumental motives such as uncertainty reduction and justice concerns) and *pay information sharing preference* (driven by social motives, including relationship management and reputation preservation; Smit & Montag-Smit, 2018b).

The foregoing review suggests that two separate continua are necessary for a comprehensive conceptualization of pay secrecy. Prior work has largely focused on identifying the source or motives of *who* controls the dissemination of pay information (e.g., Marasi & Bennett, 2016; Noy, 2007), or understanding employee preferences toward the communication of pay information (e.g., Smit & Montag-Smit, 2018a, 2018b). In contrast, my focus here is on clarifying the distinct information that can be shared (or obscured) when pay communication is relatively more open (or secret). As originally developed by Holtzen and Gupta (2014), one continuum is needed to address the range of information that can be communicated with respect to “people” or distributive information (i.e., linking pay to specific individuals). Another is needed to address the range of information that can be communicated with respect to “process” or procedural information (i.e., the specific means through which pay is determined). Within each continuum, the range of information can also vary, from none to general, to the most specific. Combining the two information dimensions with varying degrees of openness, a matrix of pay secrecy emerges as shown below in Figure 2.

		PROCEDURAL Pay Information		
		<i>None</i>	<i>General</i> Pay raise measurement criteria	<i>Specific</i> Pay raise formulas
DISTRIBUTIVE Pay Information	<i>None</i>	<p>(1)</p> <p>Absolute pay secrecy</p> <ul style="list-style-type: none"> • Distributive information secret (own pay raise amount known) • Procedural information secret 	<p>(2)</p> <ul style="list-style-type: none"> • Distributive information secret (own pay raise amount known) • Pay raise measurement criteria open 	<p>(3)</p> <ul style="list-style-type: none"> • Distributive information secret (own pay raise amount known) • Pay raise formulas open (in addition to measurement criteria)
	<i>General</i> Pay raise ranges and medians for jobs	<p>(4)</p> <ul style="list-style-type: none"> • Pay raise ranges and medians for jobs open • Procedural information secret 	<p>(5)</p> <ul style="list-style-type: none"> • Pay raise ranges and medians for jobs open • Pay raise measurement criteria open 	<p>(6)</p> <ul style="list-style-type: none"> • Pay raise ranges and medians for jobs open • Pay raise formulas open (in addition to measurement criteria)
	<i>Specific</i> Exact pay raise amounts and names of recipients	<p>(7)</p> <ul style="list-style-type: none"> • Pay raise ranges and medians for jobs open • Exact pay raise amounts and names of recipients open • Procedural information secret 	<p>(8)</p> <ul style="list-style-type: none"> • Pay raise ranges and medians for jobs open • Exact pay raise amounts and names of recipients open • Pay raise measurement criteria open 	<p>(9)</p> <p>Absolute pay transparency</p> <ul style="list-style-type: none"> • Pay raise ranges and medians for jobs open • Exact pay raise amounts and names of recipients open • Pay raise formulas open (in addition to measurement criteria)

Figure 2
Pay Secrecy Matrix

Distributive Pay Information

The proposed matrix challenges the traditional premise that pay secrecy is a unidimensional and binary phenomenon. By conceptualizing pay secrecy as the interaction of two continua of distributive and procedural pay information, the matrix goes beyond simply recognizing pay secrecy as a continuum (e.g., Colella et al., 2007) to explicitly specify the information content of the pay secrecy construct. The organizational justice literature provides guidance in this regard. In justice research, *distributive* justice refers to the perceived fairness of outcome distributions or allocations (Adams, 1965; Homans, 1961; Colquitt, Conlon, Wesson, Porter, & Ng, 2001), while *procedural* justice describes the perceived fairness of the processes used in determining outcomes (Greenberg, 1987, 1990; Leventhal, 1980; Thibaut & Walker, 1975). Paralleling this distinction, the pay information contained in the matrix consists of a distributive continuum (communicating information about pay raise *outcomes*) and a procedural continuum (with information about pay raise administration and decision-making *processes* communicated). When these two continua are crossed, it produces nine unique forms of pay secrecy.

Just as the organizational justice literature has established that fairness perceptions have different dimensions with unique correlates (Colquitt et al., 2001), the compensation literature must consider that the communication of pay information also has separate dimensions. For example, research has shown that the distinction between different forms of justice “arises naturally in people’s cognitions” (van den Bos, Vermunt, & Wilke, 1997: 95), suggesting that people form different cognitive evaluations depending on whether the outcomes or processes of a specific situation or event are the primary focus. Therefore, making a distinction between the

communication of distributive versus procedural pay information aligns with this cognitive distinction between outcome and process.

Research in organizational justice has shown that distributive and procedural justice are distinct constructs, though not independent of one another (Ambrose & Arnaud, 2005). For example, meta-analyses have produced correlations between measures of distributive and procedural justice that ranged from .57 to .77 (Cohen-Charash & Spector, 2001; Colquitt et al., 2001; Hauenstein et al., 2001). One explanation for the interrelatedness of the two constructs is the “substitutability effect” (Lind, 2001). The substitutability effect suggests that different facets of justice can substitute for one another when individuals judge a situation, such that “if procedural fairness information is available...and distributive fairness information is missing, the procedural information is used” (Ambrose & Arnaud, 2005: 70). Similarly, distributive and procedural pay information may exhibit a similar substitutability effect when individuals form perceptions about performance-based pay raises. Before exploring the interaction between the communication of distributive and procedural pay information, a separate description of each of the two continua is warranted.

Secret Distributive Pay Information

Even when no distributive information about pay raise outcomes is formally communicated by the organization, individuals still know the amount of their own pay raise. This represents absolute distributive pay secrecy, as no formal information about the pay raise amounts of others is shared. With formal distributive pay information secret, the accuracy of informal information about who receives what amount of performance-based pay increases could vary widely. Drawing on work from Smit and Montag-Smit (2018b), the exchange of pay information in the workplace unfolds in three ways. First, individuals can search available pay

data to the extent that the organization has made it available (Smit & Montag-Smit, 2018b).

With absolute distributive secrecy however, no information about the pay raise amounts of others is formally available.

One alternative option for obtaining pay information is through direct conversation between coworkers (Colella et al., 2007). However, pay is often a taboo topic (Lytle, 2014), with discussions limited by concerns for privacy and conflict avoidance that can arise when specific pay outcomes of unique individuals are made public (Bierman & Gely, 2004). As a result, individuals working in organizations with absolute distributive secrecy may feel uncomfortable directly discussing pay with coworkers. As an alternative, employees may turn to workplace gossip, defined as informal and evaluative talk about a member of the organization who is not present (Brady, Brown, & Liang, 2017). As Smit and Montag-Smit note (2018b), workplace gossip allows individuals to “obtain pay information without hazarding the social costs of probing taboo topics (Wert & Salovey, 2004)” (p.542). Taken together, even when distributive pay information is formally secret, individuals can still turn to other sources – including direct conversations *with* coworkers or indirect gossip *about* others – to obtain distributive pay information. However, the possibility of receiving invalid and inaccurate information through these informal sources is likely to be high, as research indicates that employees are not always truthful when discussing pay (Rynes, Gerhart, & Minette, 2004).

General Distributive Pay Information

Moving down the distributive axis of the matrix, organizations may choose to disclose *general distributive* pay information by sharing the ranges and medians of pay increases for distinct job categories. This general level of distributive openness has been examined in prior research. For example, Subbarao and deCarufel (1983) investigated fairness perceptions among

university employees following a collective bargaining agreement requiring the minimum and maximum salaries of university ranks to be made public. Similarly, Mahoney and Weitzel (1978) studied manufacturing employees in a company where compensation ranges and midpoints for immediately adjacent levels were public. In a series of experimental studies (Bamberger & Belogolovsky, 2010; Bamberger & Belogolovsky, 2017; Belogolovsky & Bamberger, 2014), pay openness was operationalized as sharing information about the pay of fellow participants. Because these pay amounts were not linked to unique individuals but were instead “listed by code numbers in order to ensure privacy” (Belogolovsky & Bamberger, 2014: 976), this experimental manipulation typifies the communication of general distributive pay information.

In each of the above studies, sharing information about pay ranges and medians represents general distributive transparency because it communicates broad information about pay raise outcomes. It also provides information about the organization’s pay structure, or the internal alignment of pay (raise) amounts for jobs of differential worth (Milkovich et al., 2014). With general distributive information open, employees can compare their own pay raise amount to the minimum, maximum, and median raise amount for their organizational rank (e.g., Subbarao & deCarufel, 1983) or adjacent levels (e.g., Mahoney & Weitzel, 1978). As a result, individuals can clearly see if their pay raise amount is above or below the median, and near the top or bottom of the range.

The communication of general distributive information is common in both research (e.g., Mahoney & Weitzel, 1978; Subbarao & deCarufel, 1983) and practice. With the proliferation of several third-party websites, the extent to which general distributive information is publicly available has significantly increased. For example, the popular recruiting site Glassdoor allows

individuals to anonymously report pay-related information including “salaries, wages, tips, bonuses, and hourly pay based upon employee reports and estimates” (www.glassdoor.com). This self-report data is then compiled to produce a searchable database where prospective applicants can view general distributive pay information (e.g., salary ranges arranged by job title) across a variety of organizations. To monitor the accuracy of these anonymous self-reports, the company uses a two-step process of both technological and human moderators to review content (www.glassdoor.com). Even if the reported distributive information is accurate, individuals still lack the formal *procedural* information needed to understand why their own pay is above or below the reported averages.

Specific Distributive Pay Information

Finally, the most specific distributive pay information that can be shared occurs when an organization communicates the specific raise amount and name of each recipient. Though sharing unique raise amounts may prompt privacy and conflict concerns (Bierman & Gely, 2004), several organizations already share this information – either with the general public and/or organizational members. For example, public universities in the U.S. are subject to a requirement that salaries of individual faculty members be publicly accessible (Day, 2011). In contrast, other organizations only share specific distributive information internally among organizational members. For example, the Seattle-based Molly Moon’s Homemade Ice Cream company circulates an internal spreadsheet with the compensation amounts received by each individual at its seven locations (Belle, 2019). Similarly, the popular natural grocer Whole Foods allows employees to easily look up salary and bonus information for any other employee, up to and including the CEO (Griswold, 2014). Specific pay raise amounts, when tied to uniquely identifying information, communicates the most explicit *distributive* pay information

regarding who makes what. However, a range of procedural pay information may also be communicated, and it is to this issue I turn next.

Procedural Pay Information

Prior pay secrecy research has focused almost exclusively on the communication of distributive pay information, including pay scales and levels (Lawler, 1966, 1967), pay ranges for adjacent managerial levels (Milkovich & Anderson, 1972), pay ranges and midpoints (Mahoney & Weitzel, 1978), and salary minimum and maximums by position rank (Subbarao & deCarufel, 1983). Similarly, organizational justice scholars first focused on distributive justice concerns before proposing that procedural justice, or the perceived fairness of the processes used to determine outcome distribution, had been disregarded (Greenberg, 1987, 1990; Leventhal, 1980; Thibaut & Walker, 1975). As shown on the horizontal axis of the pay secrecy matrix, the procedural pay information continuum represents the extent to which information is shared about *how* and *why* pay raises are determined and distributed. Again, different degrees of procedural pay information may be communicated, ranging from no information to the most specific.

Secret Procedural Pay Information

When no procedural information is communicated, individuals lack any formal information about pay raise processes. Research indicates this absolute procedural secrecy may be relatively common, as “employees understand what it is they receive, but are not as sure of the process used to make this determination” (Mulvey et al., 2002: 36). As with conditions of absolute distributive secrecy, employees experiencing absolute procedural secrecy may turn to direct conversations with coworkers (Colella et al., 2007), workplace gossip (Brady et al., 2017),

or other informal sources to better understand how and why their own pay raise amounts were determined. This informal information may be inaccurate.

General Procedural Pay Information

An organization may choose to communicate general procedural information about the pay raise process. For example, employees may be told when to expect pay raises and how raises are determined (Miner, 1974), which may include sharing information about the raise basis and the measurement criteria used to determine pay increases. By communicating this general procedural information, an organization can improve the accuracy of performance expectations among employees. As noted earlier, when performance is the basis for pay raise distribution, measures can be categorized as either results-based (and often objective) or behavior-based (including objective and/or subjective measures). Communicating this general procedural information clarifies employees' understanding of both the basis (e.g., performance) for pay increases and the specific type of measure (e.g., results- or behavior-based) that is used for evaluation. When individuals do not know which criterion is used to distribute pay raises, they may be "unable to alter behavior to meet the criterion adequately" (Gupta, 1980: 816). Sharing general procedural information about pay raise measurement criteria can therefore clarify performance expectations and improve role clarity, or an individual's understanding about the task and social interaction behaviors expected on the job (Beehr, 1976; Ritter, Matthews, Ford, & Henderson, 2016; Rizzo et al., 1970).

Furthermore, general procedural information may be shared by the organization to clarify, explain, and/or justify compensation decisions. This may include disclosing the principles and rationale behind the design of pay raises, as well as explaining why certain performance measures were selected for this variable pay component (Scott, Sperling,

McMullen, & Bowbin, 2008). Taken together, general procedural pay information can enhance the accuracy of employees' performance expectations and clarify the specific results and/or behaviors that are required for a pay raise.

Specific Procedural Pay Information

Finally, an organization may choose to communicate specific procedural information, including the unique formulas used to determine pay raise amounts. Again, some organizations already do this. Buffer, a tech startup company, publicly shares both salaries (i.e., specific distributive information) and the formulas used to determine these amounts (Lytle, 2014), the latter of which is an example of specific procedural information. The Buffer formula indicates that all company salaries are benchmarked to a single city, and that multipliers are added for cost of living, role, and experience (“The Next Evolution of Transparent Salaries,” 2018). This provides employees with the most specific procedural information available – the precise calculations used to determine pay amounts – and therefore represents absolute procedural transparency.

Although the Buffer Benchmark provides a formula for pay *levels*, formulas could also be shared to further clarify performance expectations by indicating how pay raise amounts are determined. For example, salespeople who are told that raise amounts are determined by multiplying the number of an individual's annual sales by \$x should have a more accurate understanding of how performance is determined (annual sales numbers), as well as the relative value or importance of this aspect of performance in determining the overall raise amount. In this example, performance and subsequent raises are determined entirely by the individual's sales numbers, suggesting that the organization views individual sales as the most important aspect of performance. If *performance* information is also openly communicated (an issue

explored in more detail at the end of this chapter) individuals can then use open specific procedural information to calculate the specific raise amounts received by unique others. This example illustrates the interactive nature of the two matrix dimensions.

When specific procedural information is shared, an organization's espoused pay policy should be more consistent with its actual pay policy. With procedural secrecy, an organization can make claims that it distributes performance-based raises (i.e., its espoused pay policy) when in fact it may distribute raises for any variety of non-performance-related factors (i.e., the organization's enacted pay policy). Because people make inferences based on the behaviors of others, employees may turn to the enacted or visible pay policies for confirmation that it is in alignment with the espoused policy. For example, an employee who is told that raises are based on performance may question the truthfulness of this formal information if coworkers receiving raises also exhibit poor performance behaviors (e.g., arriving late, making visible mistakes, etc.). Enacted policies therefore reflect an organization's "ideals embodied by its actions" (Okulicz-Kozaryn, Holmes, & Avery, 2014: 1302), communicating important information about the results and/or behaviors that are valued and rewarded. When specific procedural information is open, employees can clearly see if the stated pay policy is congruent with the actual pay increases received.

Summary

In summary, prior pay secrecy research has been limited by its near exclusive focus on the study of pay levels and other distributive information. This narrow focus does not match the broad scope of pay information that an organization can potentially share with its employees. To clarify the construct, pay secrecy is conceptualized here as the communication of varying degrees of distributive and procedural pay information. For conceptual precision, the preceding

sections have treated the communication of distributive and procedural pay information as if the two constructs were orthogonal. In reality, these two dimensions of pay information interact.

Pay Secrecy Form: Content Across Cells

A principal benefit of the proposed framework is that it allows for an examination of the interactive effects that arise from the *formal* communication of different combinations of distributive and procedural pay information. When accurate distributive and procedural pay information is formally communicated by the organization, individuals should hold more accurate perceptions regarding both the outcomes of and procedures behind pay raise decisions.

Cell 1: No Distributive, No Procedural Information

Cell 1 represents *absolute (formal) pay secrecy*, or the least amount of pay information an organization can officially provide. No distributive information regarding the pay raise amounts of others is communicated, nor is any procedural information shared about the processes used to determine pay raises. Employees formally know the amount of their own raise only. If employees seek informal information from other sources (e.g., through workplace gossip; Brady et al., 2017), the probability of obtaining inaccurate information is likely to be high. An example of the absolute secrecy in Cell 1 can be found in the experimental laboratory simulation conducted by Greiner and colleagues, where the communication of pay information was manipulated to create private versus public conditions (Greiner, Ockenfels, & Werner, 2011). Participants in the private pay condition were “told only their own wage” (Greiner et al., 2011: 237), reflecting the absolute pay secrecy described in Cell 1.

Cell 2: No Distributive, General Procedural Information

As an alternative to absolute secrecy, an organization may choose to disclose general procedural information while keeping distributive pay information secret. As a result of distributive secrecy, individuals still know only the amount of their own raise. However, the communication of general procedural information should clarify some of the processes used to determine the individual's own pay raise amount. For example, employees may be told when to expect raises, as well as how raises are determined (Miner, 1974).

When pay increases are based on performance, information about the performance measurement criteria can also be shared. In a laboratory study investigating the effects of secrecy on individual task performance, Bamberger and Belogolovsky (2010) informed participants in the secret pay condition that bonus pay would be awarded for earning points by successfully turning rows into "gold" in a "magic stone" game, accomplished by matching adjacent rows of stones according to color, shape, or both (p. 975). By clearly communicating that pay raises are based on a specific performance measurement criterion (i.e., points awarded for turning rows into gold) as well as how to influence the measure (i.e., matching adjacent stones according to color and/or shape), this general procedural information clarifies how and why pay raise amounts (known only to each individual) are determined.

Cell 3: No Distributive, Specific Procedural Information

Cell 3 represents distributive secrecy combined with specific procedural transparency. An organization using Management by Objectives (MBO) could fall in this cell. Under MBO, supervisors and their subordinates agree on specific objectives that are to be achieved in a certain time period, at the end of which the two will assess the employee's performance in relation to the

achievement of the agreed upon objectives (Drucker, 1954; Patten, 1976). Though MBO may not necessarily be tied to pay *raise* decisions, communicating this combination of information provides specific information regarding the processes (i.e., the achievement of agreed-upon objectives) used in determining pay. As a result of distributive secrecy however, employees still lack formal information regarding others' raise amounts. In Cell 3, individuals must continue to rely on what they *know* they make and what they *think* others make (Lawler, 1967), despite having accurate knowledge of specific pay raise processes.

Cell 4: General Distributive, No Procedural Information

In Cell 4, general distributive information such as pay raise ranges and medians is open but procedural pay information is secret. Several examples of this form of secrecy can be found in the literature. For example, Lawler (1965) investigated three government agencies where “some information about management pay scales was released, but each manager’s exact salary was kept confidential” (p. 18). Similarly, Mahoney and Weitzel (1978) surveyed managers in a large Canadian manufacturing organization who were told only “compensation ranges and midpoints, particularly for immediately adjacent managerial levels” (p. 246-247). Finally, Milkovich and Anderson (1972) investigated the extent to which supervisors disclosed to subordinates the pay range for their own level and one level above, as well as the median salary for their current level. Each of the above examples reflects the general distributive openness (e.g., pay range and median information) and procedural secrecy of Cell 4.

Cell 5: General Distributive, General Procedural Information

In Cell 5, general information about both people and processes is communicated. The communication of general distributive information may include sharing pay raise ranges and

medians for certain jobs. More detailed information tying unique individuals to specific pay raise amounts remains secret. General procedural information illuminates the processes used to determine raise amounts, and may include sharing information about measurement criteria and other general features of the pay raise distribution process. For example, Beer and Gery (1972) developed a 6-item measure to capture participants' pay system knowledge. Three items asked whether participants knew their salary grade classification, and the range minimum and maximum – both reflective of general distributive pay information. Another three items assessed participants' knowledge of general procedural information such as the type and frequency of merit increases (Beer & Gery, 1972).

With general information about both pay raise outcomes and the processes used to determine those outcomes communicated, Cell 5 provides the minimum combination of information that individuals need to form accurate pay perceptions. As a result of general distributive transparency, individuals working under this form of pay secrecy should better understand how their pay raise amount compares to the raise median and range. Combined with general procedural transparency, individuals in Cell 5 also have some information with which to evaluate *why* their pay raise amount is high or low. For example, individuals in the Beer and Gery (1972) study can see if their own pay raise amount is near the top or bottom of the range for their salary grade classification. If this information is combined with accurate procedural information about the type of merit increases provided (e.g., clarifying pay basis and measurement), individuals should better understand the reasoning behind the relative position of their own raise amount. As a result, the accuracy of pay-related perceptions should improve.

Cell 6: General Distributive, Specific Procedural Information

Although individuals in Cell 6 do not know the specific raise amounts of others, pay raise ranges and medians for jobs are open (i.e., general distributive transparency). Specific procedural information is also transparent, and may include the sharing of pay raise formulas or other details of the pay raise process beyond measurement criteria information. This form of pay secrecy appears in Thompson and Pronskey's (1975) comparative study of two companies. In the "partially public" company, the pay communication policy "was to reveal almost everything about pay except the amount paid to each individual" (p. 69). Information shared included salary ranges and averages (i.e., general distributive information), as well as the factors that constitute performance and the performance levels necessary to attain certain raises (i.e., specific procedural information). When all procedural information has been formally shared, as well as "everything...except the amount paid to each individual" (Thompson & Pronskey, 1975: 69), secrecy of the Cell 6 variety is present.

Individuals in Cell 6 have a general sense of the pay raise outcomes received by others as a result of open raise ranges and medians for different job categories. Specific procedural transparency means these individuals should also have accurate information about the decision-making processes behind these outcome determinations. For example, individuals in the Thompson and Pronskey (1975) study who indicated they understood both the factors that constitute performance and the performance levels necessary for raise attainment should theoretically have an accurate understanding of the relationship between pay and performance. Thus, individuals in Cell 6 who receive a below-average pay raise should be able to infer that the relatively lower raise amount is the result of relatively poorer performance.

Cell 7: Specific Distributive, No Procedural Information

In Cell 7, the exact pay raise amount given to each individual is open, reflecting specific distributive transparency. However, the processes used to determine these raise amounts remain secret. As a result, employees know only *what* raise amounts were received, but are not told *why*. Cell 7 secrecy is typical of many public universities in the U.S., where there is a legal requirement that individual salary amounts be publicly accessible (Day, 2011). Although this legal requirement does not guarantee that employees actually view this information (Day, 2011), individuals in this example do have access to the specific pay amounts of other individuals.

Again, the value of the matrix framework is that it allows for the exploration of the interactive effects of different combinations of distributive and procedural pay information. In Cell 7, the combination of information communicated may be particularly problematic. With procedural secrecy in place, individuals may make inferences or turn to informal sources such as workplace gossip (Brady et al., 2017) to understand why certain individuals received specific pay raise amounts (which are known to be accurate through specific distributive transparency). With procedural information secret, even if pay raises are distributed on the basis of performance, individuals cannot accurately know this to be true. Instead of viewing raises as determined by performance-driven factors such as effort, work quality, and/or productivity, individuals may instead be inclined to attribute pay raises to non-performance factors. These non-performance factors may be perceived as legitimate (e.g., education, training, job experience and responsibility, etc.) or not (e.g., favoritism, politics, and nepotism).

If pay raise differentials are attributed to illegitimate factors when procedural information is secret, individuals may assume that the dispersion of pay raise amounts is *non-performance-based* (Gupta et al., 2012). While performance-based dispersion (Gupta et al., 2012) is generally

motivating for individuals and creates positive outcomes for organizations (see Downes & Choi, 2014, for a recent summary of empirical findings), illegitimate and non-performance-based dispersion is unlikely to elicit positive behavioral responses. The communication of procedural information may correct help correct inaccurate employee perceptions, but only if the underlying pay system indeed has legitimate performance factors as the raise basis.

Cell 8: Specific Distributive, General Procedural Information

In Cell 8, employees know the exact pay raise amount given to each individual (i.e., specific distributive transparency), but only general procedural information is communicated. Again, public universities in the U.S. can be used to illustrate. With the requirement that salaries be made publicly accessible (Day, 2011), distributive information is open. General procedural information is also communicated about the procedures used to determine pay raise amounts. For instance, employees at one public university were told that all salary increases must be merit based and distributed according to supervisory performance appraisal ratings (Day, 2011). When combined with the legal requirement that salary amounts be public (i.e., specific distributive information), this secrecy of the Cell 8 variety occurs. As a result of this information combination, individuals in Day's (2011) study, for example, can clearly see who received what amount of pay. They also know the specific performance basis (i.e., merit) and the criteria used to measure it (i.e., supervisory performance appraisals). In a PFP system, this combination of specific distributive and general procedural information further clarifies the relationship between pay and performance. As a result, the accuracy of pay-related perceptions should improve.

Cell 9: Specific Distributive, Specific Procedural Information

Finally, Cell 9 represents *absolute (formal) pay transparency*. Here, employees have access to both specific distributive and specific procedural pay information that is accurate. Buffer, the tech start-up that posts salaries and pay formulas online (Lytle, 2014), illustrates absolute formal transparency in pay communication. The company's publicly accessible "Transparency Dashboard" posts salary amounts (listed by individual name and location, representing specific distributive information), along with the current pay formula ("The Next Evolution of Transparent Salaries," 2018). Absolute transparency also appears in the Thompson and Pronsky (1975) comparative study in the "public" group of sales division employees in both companies. Because sales employees were paid using a commission plan, and the "amount of commission per dollar sales was known and monthly sales for each individual was published" (Thompson & Pronsky, 1975: 69), the unique pay amount of each individual can be calculated.

In Cell 9, individuals can make direct comparisons between their own raise amount and the raises received by unique others. As a result of specific distributive transparency, these comparisons should be based on accurate information. The addition of specific procedural information communicates why these amounts were received. For example, consider two salespersons working at a commission rate of \$5 per sale. Salesperson A makes 100 sales while salesperson B makes 200 sales. With the combination of pay information found in Cell 9, it becomes easy to calculate that salesperson A received twice as much pay when compared to salesperson B (i.e., \$1,000 versus \$500). Also known is that salesperson A received twice as much pay *because* his or her sales were double the sales of salesperson B (i.e., 200 versus 100). The communication of specific, accurate information related to both the distributive and procedural aspects of pay raise allocation should clarify the link between pay and performance.

As a result, individuals' pay-related perceptions should be more accurate in Cell 9 than in any other matrix cell.

Summary

As illustrated across the nine matrix cells, pay secrecy can take many forms, depending on the combination of distributive and procedural information that an organization chooses to formally communicate. The matrix framework adds value to the pay secrecy literature by reconceptualizing what was once viewed as a binary phenomenon as a multi-faceted construct. It goes beyond simply acknowledging pay secrecy as a continuum of information to delineating the specific information content of each continua, and – perhaps most notably – interactions between the two.

Secrecy in Other Areas of Human Resource Management (HRM)

The near-exclusive focus of secrecy research in the HRM literature has been the communication of pay information. Extant research has failed to consider that secrecy may exist in other areas of HRM, separate from, or perhaps even in addition to policies of pay secrecy. In particular, when pay raises are distributed on the basis of performance, the stated goals of using a pay secrecy policy may be achieved by obscuring performance information instead. The following section addresses performance secrecy in more detail.

Performance Secrecy

Several scholars have implicitly suggested the existence of a performance secrecy construct. For example, Miner (1974) defined pay openness, in part, by whether the organization communicates *how* pay raises are determined. Similarly, Day's (2011) study of pay communication policies in a public U.S. university measured transparency, in part, by determining whether written information about *how* pay is determined was provided to employees. Just as secrecy in pay communication can alter perceptions of the relationship between pay and performance (Bamberger & Belogolovsky, 2010), secrecy in the communication of performance information may similarly cloud these perceptions. The primary difference is that while performance secrecy obscures the *performance* component of the performance-pay link, pay secrecy obscures the *pay* component of the relationship. Nevertheless, the end result remains the same – the perceived link between performance and pay may be obscured.

Secrecy in the communication of performance-related information has appeared in extant measures of pay secrecy. For example, a 10-item “Perceived Pay Secrecy Policies” measure

developed by Day (2012) includes two items assessing the degree to which management either explicitly or implicitly discourages the discussion of performance appraisal ratings with other employees. If pay is based on performance appraisals, then knowing the ratings of individual employees becomes critical in assessing whether performance improvements lead to a pay raise (i.e., the performance-outcome expectancy; Vroom, 1964; Lawler, 1973). One of the few empirical studies to explicitly incorporate performance secrecy was conducted by Fossum (1976), who explored individual reactions to pay and performance communications. For this quasi-experimental study, subjects completed a data coding exercise to examine the effects of both pay (public versus private) and performance feedback (public versus no feedback) on satisfaction. Though none of the stated hypotheses were supported or statistically significant, Fossum's (1976) work represents one of the few attempts to explicitly consider performance secrecy as a distinct construct.

More recent empirical work in the pay secrecy domain suggests that performance secrecy warrants further examination. In a series of lab studies, Bamberger and Belogolovsky (2010; Belogolovsky & Bamberger, 2014) used a binary pay communication manipulation. Individuals in the *secret* condition were given information about the absolute level of their own individual performance and bonus pay only, while individuals randomly assigned to the *open* condition were also provided information about the pay of fellow experimental group members. However, the authors chose to disseminate performance information "listed by code-numbers in order to ensure privacy" (Bamberger & Belogolovsky, 2010: 976). This design choice is problematic, as code numbers obscure the identifying information individuals need to make direct performance-pay comparisons with others. For instance, participants in the open condition of both studies were also told that unrestricted group e-mails could be sent to other participants. In the 2010

study, 95% of participants in the open condition disclosed pay-related information (typically their code number) to at least one other group member (Bamberger & Belogolovsky, 2010: 976). Similarly, 90% of participants in the open pay condition of the 2014 study disclosed pay- and performance-related information (again, most often their assigned study code number; Belogolovsky & Bamberger, 2014: 1716). These results indicate that participants in the secret condition both desired and sought out the information needed to make direct performance-pay comparisons with others.

Taken together, the evidence indicates that performance information is capable of being obscured. Aside from the studies noted here, management scholars have not systematically explored the possibility of a performance secrecy construct. Similar to the pay secrecy framework, one can imagine a matrix of performance secrecy that arises from the restriction of distributive performance information, procedural performance information, or both. In turn, performance secrecy may be used to achieve the benefits of asserting a policy of pay openness, while still obscuring critical information needed to assess the true relationship between performance and pay. As an example of how performance secrecy may be used to achieve the same effects of pay secrecy, Cell 1 of a hypothetical performance secrecy matrix is considered below.

Performance Secrecy as a Substitute for Pay Secrecy

Absolute *performance* secrecy exists when organizations formally provide no distributive or procedural *performance* information to employees. While employees working under absolute *pay* secrecy will still know the exact amount of their own pay raise (as a direct function of being the recipient), employees working under absolute performance secrecy may or may not know the specifics of their own performance. For example, even when employees are supposed to receive

performance ratings during annual performance reviews, not all supervisors conduct such discussions in practice (Day, 2011). Similarly, the Federal Privacy Act of 1974 requires that federal government employees and contractors be given access to personnel records, including performance appraisal data. However, no federal law grants all employees the right to access their personnel files, and no law requires employers to send the complete file in its entirety (“Access to Personnel Files: 50 State Laws,” 2016). When employees do not know *who* received *what* performance rating, this reflects absolute distributive secrecy in the communication of performance information.

In addition to distributive performance secrecy, Cell 1 of a performance secrecy matrix also includes secrecy in the communication of procedural performance information. When no information about the performance appraisal process is provided, employees may not clearly understand *how* and *why* performance appraisal decisions are made. For example, an organization may choose to obscure the specifics of who is in charge of conducting appraisals, or to restrict information regarding the appeals process available for addressing performance appraisal disputes.

Taken together, distributive and procedural secrecy in the communication of performance information may be used to achieve the same effects of a pay secrecy policy. For example, consider an organization that distributes pay raises to all employees receiving an “excellent” appraisal rating. If the organization chooses to obscure procedural performance information, employees are unlikely to understand the performance appraisal process (i.e., what behaviors or results justify a rating of “excellent”). Combined with distributive performance secrecy, employees in Cell 1 of the performance secrecy matrix do not know the exact rating of their own or others’ performance. This combination of secrecy in the communication of performance

information produces a situation that is conceptually similar to that which is illustrated in Cell 1 of the pay secrecy matrix.

Investigating the Effects of Pay Secrecy

Construct clarification is but one step towards illuminating pay secrecy. The specific mechanisms through which secrecy affects outcomes of interest remain unclear. The pay secrecy matrix developed here provides a framework for beginning to understand how different combinations of pay information may alter employee behaviors and attitudes traditionally associated with the incentive and sorting effects of performance-based pay. In general, as we move from left to right or top to bottom in the pay secrecy matrix (Figure 2), the “line of sight” (Gerhart & Rynes, 2003; Lawler & Jenkins, 1992) between performance and individual pay raises should strengthen, and motivation should improve. Beyond this observation, many questions remain unanswered. For example, what are the specific behavioral outcomes associated with sharing different types and degrees of pay information? Are employees motivated to perform, even when pay information is secret? Are employees more or less satisfied when different combinations of pay information are communicated?

To explore these questions, the subsequent chapters of this dissertation invoke two theories – expectancy theory and equity theory – to isolate and explore the incentive and sorting properties of performance-based pay raises in the context of secrecy. First, expectancy theory (Vroom, 1964; Lawler, 1973) is used in Chapter 3 to investigate how motivation, performance, and other behaviors associated with the incentive effect may be altered when different forms of secrecy are present. Next, equity theory (Adams, 1963, 1965) and discrepancy theory (Lawler, 1971, 1981) are adopted in Chapter 4 to explore how satisfaction and equity perceptions are

influenced by the communication of pay information to alter the attraction and retention mechanisms of the sorting effect.

Motivation and Behavior via the Incentive Effect

When an organization's goal is to improve performance, pay-for-performance (PFP) is often adopted as a compensation strategy. Improvements in organizational performance stem from the incentive and sorting properties of PFP that operate at the individual level. The incentive effect describes how PFP affects productivity and performance in current employees while holding attributes of the workforce constant (Rynes, Gerhart, & Parks, 2005; Gerhart & Fang, 2014). Evidence supporting the incentive effect of PFP is well-documented, with positive effects on performance and productivity reported. For example, a 10-study meta-analysis conducted by Locke and colleagues found that productivity increased an average of 30% following the introduction of individual pay incentives (Locke, Feren, McCaleb, Shaw, & Denny, 1980). Similar results were also found in a qualitative summary analysis indicating that financial incentives have a positive effect on performance quantity, with similar effect sizes across studies conducted in the laboratory, field, and simulations (Jenkins, 1986). One of the dominant theories used to explain the positive incentive effect of PFP on performance and productivity is expectancy theory.

Expectancy Theory

Expectancy theory (Lawler, 1973, 1981; Vroom, 1964) is an individual-level, choice-based theory of motivation. In short, it argues that an individual's motivation to choose to exert effort toward a certain course of action is influenced by the multiplicative combination of three factors: 1) the effort-performance (E→P) expectancy (i.e., the subjective probability that a

particular level of effort will lead to a particular level of performance), 2) the performance-outcome ($P \rightarrow O$) expectancy, also referred to as “instrumentality” (i.e., the subjective probability that a particular behavior will lead to a particular outcome), and 3) the perceived attractiveness (or “valence”) of the outcome. Taken together, these components form an equation where motivational force (MF) is determined by the multiplicative association among the three factors: $MF = [E \rightarrow P * \sum (P \rightarrow O * V)]$.

All three factors are critical, but in the context of pay secrecy, $P \rightarrow O$ beliefs (i.e., $P \rightarrow \text{Pay}$ expectancies) are especially germane. Although the theory allows for the incorporation of several outcomes (as indicated by the summation in the equation), the current investigation is restricted to the specific outcome of performance-based pay raises. As such, only $P \rightarrow \text{Pay}$ expectancies are relevant. Because this dissertation is focused on the singular outcome of performance-based pay raises, the inclusion of valence as a theoretical mechanism of motivation becomes redundant. This is because pay raises are almost always desirable (i.e., relatively attractive, motivating, satisfying, etc.). For example, while we know that a \$1,000 raise has a higher valence (i.e., is more motivating, satisfying, etc.) than a \$100 raise, there are no real differences to contrast – except magnitude – when considering performance-based pay raises as the only outcome of interest. If multiple outcomes were considered here, valence would be expected to vary across different outcomes and would therefore be a sensible component to include.

Pay secrecy obscures pay-related perceptions by restricting the communication of distributive and procedural pay information. As a result, the accuracy of two determinants of $P \rightarrow \text{Pay}$ expectancies – the objective situation and communication from others (Lawler, 1973) – may be affected. It should be noted that while $P \rightarrow \text{Pay}$ expectancies have additional

determinants, these are not relevant to the current discussion. For example, $P \rightarrow$ Pay expectancies are also determined by an individual's past experience in similar situations (Lawler, 1973). However, an individual's past experience with pay received in previous jobs is unlikely to have any bearing on pay perceptions in the current employment arrangement. $P \rightarrow$ Pay expectancies are also influenced by beliefs about internal versus external locus of control (i.e., beliefs about the responsiveness or controllability of one's environment; Rotter, 1966; Lawler, 1973). Locus of control is an individual difference. Because this dissertation focuses on system characteristics related to secrecy, emphasis is placed on the objective situation and communication from others as the primary determinants of $P \rightarrow$ Pay expectancies.

First, pay secrecy affects $P \rightarrow$ Pay expectancies by clouding a person's perception of the objective situation. As Lawler (1973) notes, "Sometimes... a person's perception of the situation is not accurate, and as a result the objective situation may not completely determine a person's...expectancies" (p. 68). As the matrix illustrates, pay secrecy may be used to restrict the amount of distributive and/or procedural pay information that an individual receives. When this information is restricted, it should influence how an individual perceives (and ultimately responds to) the objective situation.

Empirical evidence supports this contention. It also suggests that when individuals misperceive the objective situation when pay information is restricted, these misperceptions may exhibit a predictable pattern of perceived wage compression. Early studies found that individuals tended to overestimate the pay of peers and subordinates while also underestimating the pay of their superiors (Lawler, 1965, 1966, 1967). In a later study of exempt employees in a Canadian manufacturing organization, Mahoney and Weitzel (1978) also found that the majority of respondents overestimated the pay of their peers and subordinates, but that respondents were

equally split between over-and under-estimation of superiors' pay. While the specific direction of these perceptions (i.e., over- versus under-estimation) may vary depending on the referent other that is selected for comparison (e.g., subordinate/peer versus superior), the available evidence indicates that secrecy can alter an individual's perception of the objective situation.

Second, pay secrecy may also affect $P \rightarrow \text{Pay}$ expectancies by influencing communication from others (Lawler, 1973). Research on incentives indicates that communication from others helps employees develop beliefs about the consequences of high productivity (e.g., that an individual's high productivity may cause other workers to resent and reject the high producer; Whyte, 1955). When pay information is secret, individuals may rely more heavily on informal information obtained from communications with others. For example, a study of employees in an organization that discouraged any discussion of salary except between supervisor and subordinate found that these individuals were significantly less likely to make pay comparisons exclusively within the company (Thompson & Pronsky, 1975). One possible explanation for this behavior is that secrecy influences communication with others within the organization, forcing individuals in more secretive organizations to turn to outside sources for pay information.

When secrecy clouds perceptions of $P \rightarrow \text{Pay}$ expectancies, motivational force should be affected. This theoretical contention has received some empirical support. For example, employees in an organization with both merit pay and pay secrecy perceived a moderate relationship between pay and performance until the organization became more open about pay, at which time employees' perceptions of the $P \rightarrow \text{Pay}$ relationship increased significantly (Lawler, 1971). Because employees are likely to be more committed to tasks for which a clear $P \rightarrow O$ contingency is perceived (Naylor, Pritchard, & Ilgen, 1980; Vroom, 1964), pay secrecy may have negative effects on individual motivation by obscuring the relationship between

performance and pay. The Bamberger and Belogolovsky studies (2010, 2014) suggest a negative effect of pay secrecy on task performance that is mediated by perceived instrumentality (i.e., the $P \rightarrow \text{Pay}$ expectancy), though the relationship may be moderated by individual differences (e.g., tolerance for inequity; Bamberger & Belogolovsky, 2010). These effects may be further influenced by additional elements of the compensation system.

Compensation System Characteristics

Pay communication is only one characteristic of an organization's compensation system. As with any system, it is doubtful that the different components operate in isolation. For example, Belogolovsky and Bamberger's laboratory study (2014) found that while secrecy had a negative effect on individual task performance (mediated by performance-pay instrumentality perceptions), this negative effect was amplified with relative (versus absolute) pay determination criteria and attenuated with objective (versus subjective) performance assessment. These results indicate that other aspects of the compensation system (i.e., pay determination criteria, performance assessment measures, etc.) may interact with secrecy to alter motivation and performance

The matrix framework presented here allows for the incorporation of neglected system elements into the study of secrecy and motivation. Turning to the expectancy calculation for motivational force, $[E \rightarrow P * \sum (P \rightarrow O * V)]$, pertinent compensation system characteristics emerge. For example, because "P" or performance is included as a component of both expectancy ($E \rightarrow P$) and instrumentality ($P \rightarrow \text{Pay}$), performance characteristics are relevant.

Influenceable performance measures are those that an individual believes he or she can alter or influence through action. All else equal, measures that are perceived as being more

influenceable should strengthen the $E \rightarrow P$ expectancy, or the belief that a specific amount of effort will result in a certain level of performance (Vroom, 1964; Lawler, 1973, 1981). For example, consider a factory worker whose organization awards a \$1 raise if 1,000 units are produced annually. If a worker feels capable of producing 1,000 units annually, the $E \rightarrow P$ expectancy strengthens, increasing the overall motivational force to exert effort toward producing 1,000 units. However, the communication of varying degrees of distributive and procedural pay information may obscure the perceived influenceability of the performance measure, producing inaccurate $E \rightarrow P$ perceptions. For example, if procedural pay information is secret, it is less likely that individuals have the needed information to determine if the measurement criteria are influenceable. When procedural secrecy combines with transparent specific distributive information (i.e., Cell 7 of the matrix), individuals can see others' pay raise amounts but lack the accurate information to know why these amounts were awarded. In the absence of accurate procedural information, individuals may attribute high raise amounts to non-performance factors such as nepotism or organizational politics. The inaccurate inferences may later motivational force and subsequent behavior.

Summary

The restricted communication of pay information can alter employee perceptions, including (a) $P \rightarrow \text{Pay}$ expectancies, by altering how the objective situation is perceived, as well as communication from others; and (b) $E \rightarrow P$ expectancies, by influencing the perceived influenceability of the performance measure. Taken together, these perceptions drive an individual's overall motivational force to follow a certain course of action (Vroom, 1964; Lawler, 1973, 1981) and can be used to predict behavioral choice. Just as expectancy theory can be used to highlight the psychological mechanisms that drive motivation, so too can equity

theory (Adams, 1965) and discrepancy theory (Lawler, 1971) be used to explore an individual's affective responses when secrecy alters equity perceptions and satisfaction.

Satisfaction and Behavior via the Sorting Effect

In addition to its incentive effect, PFP also functions as a sorting device that identifies and attracts the most capable employees (Gerhart & Rynes, 2003). Through this sorting effect, PFP “improves performance not by changing the behavior of current employees, but rather by changing who the current employees are (and what attributes they bring to the organization)” (Gerhart & Fang, 2014: 45). For example, in a study of automobile glass installation workers, a 44% increase in productivity was noted following the switch from salary to an individual piece rate pay system (Lazear, 1999, 2000). Approximately half of this productivity improvement was the result of less productive workers leaving the organization and being replaced by new, more productive individuals (Lazear, 1999, 2000). This illustrates the complementary forces of attraction and retention that drive the sorting effect. Similarly, a multi-wave survey study of key informants in a sample of independent grocery stores found that quit rates of poor performers (those whose job performance was in the lowest 20%) were higher when pay was dispersed and explained by the use of a pay-for-performance system (Shaw, 2015). In turn, the quit rates of these poor performers were associated with increased organizational performance. For high performers (those with job performance in the top 20%), quit rates were highest when pay was compressed and a PFP system was *not* used. Although quit rates of these high performers were unrelated to organizational performance, Shaw (2015) suggests that this may be a feature of the grocery store industry used for sampling. This industry is typically viewed as low-skill (Shaw, 2015), lacking the outlying “star performers” whose individual performance has a disproportionate influence on organizational performance (Aquinis & O’Boyle, 2014).

In short, research on the sorting effect indicates that employees are uniquely attracted to, and retained by, different compensation systems. When a compensation system links pay to employee inputs (i.e., through the use of PFP), human capital advantages can increase “by attracting and retaining higher-ability, better-performing employees” (Trevor, Reily, & Gerhart, 2012: 586). PFP not only attracts high performers. As the Shaw (2015) study illustrates, PFP also encourages low performers to voluntarily turnover (Cadsby, Song, & Tapon, 2007). Studies indicate that employees who choose to leave an organization are generally poorer performers than their counterparts who remain (Harrison, Virick & William, 1996), especially when pay is based on individual performance (Milkovich et al., 2014). To understand how the communication of pay information alters the attraction and retention mechanisms as the sorting effect, equity theory and discrepancy theory arise as complementary theoretical frameworks.

Equity Theory

Equity theory is primarily concerned with fairness in reward allocations (Adams, 1963, 1965), while discrepancy theory has been used to make specific predictions about the determinants of pay satisfaction (Lawler, 1971). Together, the two theories are appropriate for investigating how secrecy - through its effect on individual perceptions of fairness or feelings of pay raise satisfaction – may influence the sorting mechanism of PFP. According to Adams (1963, 1965), equity theory is a theory of social exchange that suggests individuals assess their *outcomes* (including pay) in relation to their *inputs*, which can include education, experience, training, and effort. Next, individuals compare their own outcome/input or O/I ratio to that of a referent other, chosen for the purpose of making salient comparisons because they are “comparable to the comparer on one or more attributes” (Adams, 1965: 280). Because of this comparison process, fairness and equity judgments are relative rather than absolute. During this

relative assessment, if an individual perceives his or her O/I ratio as being equal to that of the selected referent, then equity is said to exist. Conversely, if the ratios are viewed as unequal, perceptions of inequity result and the individual experiences emotional distress.

The specific type of emotional distress that is experienced depends on the unique type of inequity that is perceived. First, *positive inequity* or overreward occurs when an individual's O/I ratio is perceived as being greater than that of the comparison other (Adams, 1965). The affective response to positive inequity is often guilt for failing to pull one's weight, or unworthiness for the disproportionate amount of outcomes received (Perry, 1993; Scheer, Kumar, & Steenkamp, 2003). The distress caused by these feelings of guilt or unworthiness then motivates the individual to restore balance through a variety of behavioral and/or psychological techniques (Adams, 1965). For example, an individual experiencing positive inequity may distort perceptions of inputs and outcomes to restore balance and remove feelings of guilt.

Second, *negative inequity* occurs when an individual's O/I ratio is perceived as being less than that of the referent other. Here, the individual perceives he or she is being underrewarded and experiences feelings of deprivation or being cheated (Adams, 1965; Perry, 1993), or perhaps even hostility from being "shortchanged" (Scheer et al., 2003: 304). The negative feelings associated with perceived underreward again motivate the individual to restore balance towards equity. For example, an individual who feels underrewarded may reduce the amount of effort put into the job to alter self inputs and restore equity (Adams, 1965). Conversely, underrewarded individuals may also choose to remove themselves from the situation by exiting the organization through voluntary turnover.

In short, inequity perceptions create dissatisfaction and prompt cognitive dissonance (Heneman & Judge, 2000). Cognitive dissonance, or the psychological discomfort that is

experienced when expectations or normative rules are violated, in turn motivates the individual to restore balance by invoking certain behavioral or cognitive tools (Festinger, 1954, 1957). To restore equity, individuals may alter the inputs and outcomes of the self and/or the referent other, distort perceptions of inputs and outcomes, choose a different referent other for comparison, or leave the situation entirely (Adams, 1965). While leaving the situation entirely often manifests as turnover, organizational performance only improves if low performers are leaving and simultaneously being replaced by more productive workers. Several questions remain unanswered. For example, under what pay communication conditions are poor performers likely to leave and better performers likely to stay? When dissatisfied workers remain, what other behavioral responses may arise when attempting to restore equity? Chapter 4 explores these questions in detail.

Exploration of Outcomes

Research indicates that pay communication practices have behavioral implications beyond individual task performance and employee attraction and retention (e.g., employees' tendency to offer help; Bamberger & Belogolovsky, 2017). By isolating the psychological mechanisms of motivation from the affective responses driven by perceived inequity and pay raise satisfaction, distal behavioral outcomes beyond performance and turnover can be considered. Behavioral outcomes can be broadly categorized as functional or dysfunctional – a seemingly straightforward distinction. Functional outcomes arise from “good” behaviors, or actions that are desirable from the organization’s point of view (e.g., task performance, organizational citizenship behaviors). In contrast, dysfunctional outcomes result from “bad” behaviors, or actions that are undesirable from the perspective of the organization (e.g.,

counterproductive work behaviors). In the context of motivation, dysfunctional outcomes also occur when the system motivates no behavior at all.

This binary distinction may oversimplify the range of behaviors that can result when pay secrecy clouds individual perception. To conduct a more nuanced examination of these behavioral responses, a comprehensive understanding of functional versus dysfunctional effects is warranted. Toward this end, behavioral outcomes are conceptualized here as comprising two separate continua. One continuum illustrates the range of desirable behaviors that can occur, while a separate continuum illustrates the range of undesirable behaviors that may result. Taken together, these continua can be used to delineate functional versus dysfunctional effects. Functional effects occur in two instances: both when desirable behaviors are promoted, and when undesirable behaviors are hindered. Conversely, dysfunctional effects manifest when desirable behaviors are hindered, and undesirable behaviors are promoted.

The benefits of this conceptualization of outcomes or effects are two-fold. First, it facilitates a thorough exploration and categorization of behaviors that arise, in part, in response to the varying types of secrecy illustrated by the matrix. As such, it provides a starting point for developing a typology of behavioral outcomes that result when inaccurate pay information distorts employee perceptions. It has long been recognized that pay can have unintended consequences (e.g., Kerr, 1975; Lawler & Rhode, 1976), though empirical evidence on the topic has been “less systematic and organized” (Gerhart, Rynes, & Fulmer, 2009: 276). The proposed outcome conceptualization is a useful step toward remedying this deficiency. It can easily be extended into the broader compensation literature to systematically explore and organize the many unintended, dysfunctional consequences of pay.

A second benefit of this conceptualization is that it allows for perspective to be considered when determining if a given behavior is functional. Simply put, the same behavior that is dysfunctional for the organization may be largely functional when viewed from the perspective of the individual actor. For example, consider an organization with a known policy of awarding only the top-ranking performer in each work team with a pay raise. This policy of “one raise per team” may motivate individuals to engage in destructive competition with team members, in the hopes of becoming the top performer and sole recipient of the pay raise. At the individual level, this behavior may be viewed as having functional ends (i.e., increasing motivation and performance), albeit achieved through dysfunctional means (i.e., encouraging undermining and other behaviors associated with destructive competition). The conceptualization of effects presented here makes it possible to explore *when* certain behaviors are functional or dysfunctional, and *for whom* they are so. Before exploring these outcomes in the following chapters, undesirable behavior must first be defined.

Defining Undesirable Behavior

Deviance, counterproductive work behavior (CWB), and a host of other “bad behaviors” in organizations (Griffin & Lopez, 2005: 988) can be encompassed under the category of undesirable behavior. CWB and other bad behaviors refer to intentional (versus accidental) behaviors that are possibly injurious to the organization and/or organizational members (Griffin & Lopez, 2005; Spector & Fox, 2005). CWB has traditionally been conceptualized as a reactive, emotion-driven response to workplace events (Spector & Fox, 2010). For example, the stressor-emotion model (Spector & Fox, 2005) views CWB as arising from negative emotions experienced when environmental conditions known as job stressors are perceived by the individual (Spector, 1998). It is now recognized that some CWB may be motivated by more

instrumental concerns, arising from “cold cognitions, plans, and personal or professional strategies” (Fox & Spector, 2010: 94). This distinction between reactive versus instrumental CWB can be aligned with the incentive and sorting properties of PFP, to refine the range of behaviors that an organization may view as undesirable.

Both perspectives of CWB share perceptual processes as a common factor (Fox & Spector, 2010). Using the incentive effect, employee perceptions can be framed around the components of motivation using expectancy theory (Vroom, 1964; Lawler, 1973). Undesirable behaviors that are triggered by cognitive mechanisms of motivation can therefore be viewed as instrumentally motivated. This is because perceptions of instrumentality ($P \rightarrow \text{Pay}$), expectancy ($E \rightarrow P$), and valence (Vroom, 1964; Lawler, 1973) require some level of cognitive evaluation on the individual’s part. The individual must take time to cognitively consider if they are capable of performing at the desired level (i.e., $E \rightarrow P$), if performing at a certain level will be followed by a pay raise (i.e., $P \rightarrow \text{Pay}$), and if the expected pay raise is a relatively desirable outcome (i.e., valence).

In contrast to the cognitive mechanisms and instrumental outcomes associated with the incentive path, the sorting path illustrates how perceptions of inequity can trigger affective responses such as anger or guilt (Adams, 1963, 1965). Undesirable behaviors that are triggered by affective responses are therefore more likely to be reactive in nature. In contrast to the “cold cognitive” approach of the incentive path, this “hot affective” (Fox & Spector, 2010: 93) response to inequity is likely to be more emotion-based and reactionary. When individuals engage in comparison processes with referent others, affective responses such as hostility (following perceived underreward; Scheer et al., 2003) or guilt (following perceived overreward; Scheer et al., 2003; Perry, 1993) may result. Because the key to reactive CWB is the trigger of

negative workplace emotions (Neuman & Baron, 2005), undesirable behaviors that are triggered by these affective mechanisms are more likely to be immediate and impulsive as opposed to the more calculated, instrumental forms of behavior that arise when cognitive mechanisms dominate (Fox & Spector, 2010). Taken together, undesirable behavior can be defined here as behavior that is intentional and causes harm to an organization and/or its members, with either instrumental motives (when motivation is the driving force), or reactive motives (when different combinations of (in)equity and (dis)satisfaction are perceived). In contrast, desirable behavior can be conceptualized as intentional behaviors that benefit the organization and/or its members.

Summary

Chapter 2 clarifies the construct of pay secrecy and sets the stage for an exploration of its effects on employee behaviors and attitudes. Conceptualizing secrecy as a matrix of distributive and procedural information restriction can help direct the field away from the historically binary conceptualization that has plagued past research. Furthermore, empirical studies have focused on investigating how secrecy influences performance (e.g., Bamberger & Belogolovsky, 2010, 2014), satisfaction (e.g., Mahoney & Weitzel, 1978), or some combination of the two (e.g., Futrell & Jenkins, 1978). By instead conceptualizing behavioral outcomes as either broadly functional (i.e., promoting desirable behaviors and hindering undesirable ones) or dysfunctional (i.e., hindering desirable actions and promoting undesirable behaviors), the range of potential responses to pay secrecy can be thoroughly investigated. Finally, integrating instrumental and reactive motives from the CWB literature (e.g., Spector & Fox, 2010) aligns these behaviors with the incentive and sorting properties of PFP that frame the remainder of this dissertation.

CHAPTER 3

PAY COMMUNICATION AND THE INCENTIVE EFFECT

Overview

With construct clarification addressed, this manuscript now turns to an exploration of the effects of pay secrecy on employee behaviors and attitudes. Historically, the simultaneous examination of multiple outcomes has been an impediment to the development of pay secrecy research. Conflicting findings have left academics and practitioners with an incomplete understanding of how pay communication impacts outcomes of interest. Distinct theoretical mechanisms may facilitate clarification. To untangle the convoluted effects of prior research, the incentive and sorting properties of PFP have been selected as suitable tracks for examining the discrete dynamics of motivation and satisfaction.

Toward this end, Chapter 3 uses the incentive effect to emphasize performance and other behavioral outcomes driven by motivation. Extant empirical investigations of the relationship between pay secrecy and performance are first reviewed, and findings from both macro and micro levels of analysis are discussed. Expectancy theory is then invoked to explore how specific motivational mechanisms may be differentially affected when varied forms of secrecy are present. By examining how pay communication combines with additional elements of the compensation system to influence the distinct perceptual components of motivational force (i.e., $E \rightarrow P$ expectancy, $P \rightarrow O$ expectancy, and valence; Lawler, 1973, 1981; Vroom, 1964), a range of functional and dysfunctional effects can be examined. Taken together, Chapter 3 investigates how secrecy in pay communication influences individual perceptions, and how these altered perceptions can in turn alter the established incentive effect of PFP.

Pay Communication and Performance: Empirical Evidence

A substantial amount of empirical evidence indicates that PFP can have a positive impact on individual performance and productivity via the incentive effect (for recent reviews see Gerhart & Fang, 2014; Shaw & Gupta, 2015). Because “individual motivation theories presuppose that accurate information is critical” (Shaw & Gupta, 2002: 909), an implicit assumption underlying studies of the incentive effect is that accurate pay information is known. This assumption disregards the reality that the communication of pay information may be obscured. As a result, several questions remain unanswered. For example, is the communication of accurate distributive and procedural pay information a necessary condition for the incentive effect to motivate performance? Through what mechanisms does pay communication influence employee motivation? What types of behaviors are likely to result when different characteristics of compensation systems are present? Before exploring how the communication of pay information can alter the motivational properties of PFP, a review of performance-focused studies from the pay secrecy literature is prudent.

Pay secrecy research has been plagued by a noted dearth of empirical studies. A review of the extant literature yields only five studies (i.e., Bamberger & Belogolovsky, 2010; Belogolovsky & Bamberger, 2014; Futrell & Jenkins, 1978; Greiner et al., 2011; Tremblay & Chênevert, 2008) that explicitly measure performance and some degree of secrecy or transparency in the communication of pay information. This paucity of empirical work has produced contradictory findings that provide little insight into the performance implications of pay communication policies. Furthermore, investigations aimed at uncovering the mediating psychological mechanisms behind these effects have been neglected. To begin remedying these shortcomings, a review of the empirical findings associated with the pay secrecy-performance

relationship is provided below. Because both the level of measurement and level of analysis have implications for organizational theory and research (Rousseau, 1989), findings are categorized by the level at which performance is measured (i.e., macro or micro).

Macro-Level Studies

Studies investigating the relationship between pay secrecy and organizational performance are rare. One exception comes from a survey study of Canadian private sector industries that examined the effects of transparency of information on two measures of organizational performance (i.e., productivity, and a perceptual measure of market performance) and three indicators of HR performance (i.e., turnover, and two perceptual measures of work climate and discretionary effort; Tremblay and Chênevert, 2008). Transparency of information was measured by asking HR executives to rate six items, including the extent to which the organization discloses administrative procedures on how pay levels and pay raises are fixed, whether employees are discouraged from disclosing their pay to colleagues, and if managers are well-informed of pay policies (p. 280). Results indicate that greater transparency of information is negatively associated with market performance and positively related to work climate, though only for sampled firms with high technological intensity. However, neither relationship was statistically significant, and transparency was not significantly related to any of the three indicators of HR performance. Tremblay and Chênevert (2008) suggest these findings emerged because information transparency may reduce the discretion that managers have in allocating rewards, such that they lack “the freedom to recognize the most productive employees and contributors” (p. 295) when pay information is public. Although employees working in technology-intensive firms are more likely to be paid on the basis of individual performance (Balkin & Gomez-Mejia, 1984), differentials between individual performance and subsequent rewards

may be minimized to reduce potential employee conflict when pay information is transparent (Tremblay & Chênevert, 2008).

While these findings suggest that transparency of information may have both positive and negative effects for organizational-level performance indicators, the outcome measures selected by Tremblay and Chênevert (2008) impede a clear interpretation of effects. Instead of using a direct measure of market performance (e.g., comparing ROI or other objective measures of organizational performance to industry standards), respondents were instead asked to compare the performance of their own firm (based on indicators including growth in sales, profitability, market share, and marketing) to that of the industry. This subjective measure may not accurately reflect a firm's objective market performance. Furthermore, the questionnaire design of the study does not permit causal inferences, and reverse causality is possible (Shadish, Cook, & Campbell, 2002). For example, while transparency of information could have negative effects on perceived market performance, it may also be that firms with lower market performance are simply more inclined to be transparent in the sharing of information. Furthermore, there is no theoretical reason to expect a direct effect of transparency on organizational performance. It is therefore more plausible to suspect that transparency moderates additional elements of the pay system, rather than having a direct influence on organizational performance. For example, pay communication may alter individuals' perceptions of motivational antecedents, including the perceived relationship between performance and subsequent pay, and the relative size of pay raise amounts. Any individual performance detriments resulting from these altered pay perceptions may carry over into negative effects for organizational performance.

The pay dispersion literature also contains several studies exploring how the communication of pay information may affect the performance of organizations. Pay dispersion

refers to the degree of variation in pay that exists in a collective (Gupta, Conroy, & Delery, 2012; Downes & Choi, 2014). Some scholars contend that professional sports teams – with their public pay and performance information – are an appropriate arena for investigating the effects of transparent pay information on organizational performance. With performance information public, both the individual and organizational performance of professional athletes and their teams can be determined (e.g., by operationalizing team performance as the percentage of games each team wins in a given year; Bloom, 1999; Sirmon, Gove, & Hitt, 2008). Using the proposed matrix framework, the public salaries of professional athletes represent specific distributive pay transparency, accurately communicating who makes what in terms of individual compensation. However, procedural information as to how these pay amounts were determined remains secret (i.e., Cell 7 in the matrix).

Extant pay dispersion research has produced conflicting findings about the effect of transparency on organizational performance. For example, Bloom's (1999) study of MLB players found that horizontal pay dispersion (i.e., differences in pay among people performing similar jobs; Gupta, Conroy, & Delery, 2012; Shaw, 2015) was associated with winning a lower percentage of games in the previous season. This suggests a negative effect of transparent pay dispersion on organizational performance. However, a recent study of MLB players found the opposite effect (Hill, Aime, & Ridge, 2017). Specifically, MLB teams with a high degree of pay dispersion saw an increase in the percentage of games won in the previous season, but this positive effect on organizational performance only occurred when pay and resource dispersion were both congruent and visible. The findings therefore suggest that "pay transparency must go hand-in-hand with performance transparency" (Hill et al., 2017: 3), providing further evidence of the performance secrecy construct discussed in Chapter 2.

While public pay and performance data make sports teams an attractive domain for pay communication research, transparency is a constant in these studies. To provide insight into how the communication of different types and degrees of pay information may influence organizational performance, the results from these transparent sports team studies can be contrasted with research conducted in organizational settings that traditionally have more secrecy in the communication of pay information. For example, a survey study of organizations in two industries (i.e., motor carrier and concrete pipe organizations) found that pay dispersion had a positive effect on organizational performance when individual incentives were used, though this positive effect was attenuated in more interdependent work settings (i.e., the concrete pipe industry, which requires sequential interdependence for performance; Shaw, Gupta, & Delery, 2002). Thus, Bloom's (1999) study of MLB players suggests a *negative* effect of transparent dispersion on organizational performance. In contrast, Shaw and colleagues' results suggest that in more secretive settings, pay dispersion has a *positive* effect on organizational performance when individual incentives are used in a work setting with less interdependence (e.g., truck drivers in the motor carrier industry; Shaw et al., 2002).

In summary, macro-level studies of the relationship between pay transparency and organizational performance have produced conflicting findings. While sports teams have been used to investigate the effects of transparency on organizational performance indicators, this may be problematic because transparency is a constant in sports samples. Though research conducted in work settings with less pay and performance transparency can be contrasted with the findings from sports team samples, the "black box" explaining how the communication of pay information influences organizational performance remains unclear. Evidence suggests that transparency moderates other pay system elements – such as pay dispersion, the use of individual

incentives, and task interdependence (e.g., Shaw et al., 2002) – to influence organizational performance. To begin untangling these interrelated phenomena, a review of micro-level studies of pay secrecy and individual performance may clarify the transparency-performance relationship as it exists at higher levels of analysis.

Micro-Level Studies

A preponderance of the empirical research on pay secrecy – both in the economics and management literatures – has been conducted at the individual level. In economics, the efficiency wage model has been used to investigate how workers may withhold effort when they perceive their wages as unfair (Akerlof & Yellen, 1990). Because perceived fairness is based in part on perceptions of coworkers' wages (Frank, 1984), the efficiency wage model suggests that transparency in the communication of pay information may clarify these perceptions. For example, business students in an experimental laboratory simulation were assigned to either a private pay condition (and told only their own wage) or to a public pay condition, wherein subjects were told not only their own wages, but also the wages of other participants (though it should be noted that the authors did not disclose if this information was shared using non-identifying information such as pay ranges or participant code numbers; Greiner, Ockenfels, & Werner, 2011). Participants in both conditions were paid identical wages in the first round, and then given either a 60% wage increase (“high wage” condition), or a 60% wage decrease (“low wage” condition) in the following round. This increase or decrease was applied either to the pay rate per number of forms completed during the simulation exercise (i.e., piece rate pay) or to a flat payoff amount (i.e., flat wage condition, with a pay amount equal to the average payoff from the piece rate condition). In the public wage condition, individuals receiving a 60% increase with piece rate payment had higher performance quality, while those receiving a 60% decrease in

piece rate pay exhibited more shirking (i.e., improving performance quantity at the expense of quality). In the private wage condition, there were no significant performance differences between any of the conditions (high/low wages, or piece rate versus flat rate).

Greiner and colleagues (2011) suggest that the findings provide “evidence that the transparency of wage dispersion strongly affects performance: with public information, increasing wages promotes effort of high earners, and lowering wages leads to more shirking” (Greiner et al., 2011: 238). However, this interpretation is problematic. Assigned wage change conditions (i.e., the 60% increase or decrease in wages following round one) were arbitrarily administered. Furthermore, the authors note that “subjects could not assess their own performance relative to others” (p. 236), making direct pay-performance comparisons with another participant impossible. As a result, the observed effects of transparency on performance quality and quantity may be attributable to the arbitrary introduction and removal of wages, rather than the transparency of pay information itself. While this would not be an issue if the experimental design controlled for this, Greiner and colleagues indicate that the only control was for subjects’ ability (measured as performance in the first round). Based on the available information provided by the study authors, interpretation of the results is limited.

In the management literature, Lawler’s (1965, 1966, 1967) survey work in several organizations has heavily influenced investigations into the relationship between pay secrecy and individual performance. Notably, none of the original studies include an actual measure of performance; only satisfaction and the accuracy of pay-related perceptions were directly measured. The now widely cited performance findings are based largely on inferences and theoretical conjecture posed by Lawler. For example, in a study of four organizations with a policy of keeping management compensation information secret, personnel managers provided

incorrect estimates when asked to guess the pay of others (Lawler, 1965, 1966). More specifically, managers in these organizations with more restrictive pay communication policies tended to systematically overestimate the pay of peers and subordinates, while simultaneously underestimating the pay of their superiors.

In contrast to managers in more secretive organizations, managers in three government agencies with published pay scale information made more accurate comparisons (Lawler, 1965, 1966). Based on these findings, Lawler suggests that the systematic over- and underestimation of others' pay may have negative motivation effects for two desirable behaviors. First, promotion-seeking may be negatively affected because underestimating the pay of superiors makes those positions appear less desirable. Second, task performance may be negatively affected because overestimating the pay of peers and subordinates creates the perception that one's own pay is comparatively lower, which may be interpreted as negative performance feedback (Lawler, 1965, 1966). In a later study, the proposed negative effect of pay secrecy on motivation was directly tested (Lawler, 1967). In an organization with "a policy of strict secrecy with respect to pay levels" (Lawler, 1967: 184), manufacturing employees who overestimated the pay of superiors self-reported that promotion was relatively unimportant. These employees also indicated that they believed job performance (measured as effort, productivity, and quality of performance) was relatively unimportant in determining pay (Lawler, 1967), suggesting that secrecy may influence perceptions of the relationship between performance and subsequent pay (i.e., the $P \rightarrow \text{Pay}$ expectancy; Lawler, 1973, 1981; Vroom, 1964).

Taken together, these findings suggest that pay secrecy may negatively impact motivation, and ultimately, individual performance. Viewed in the context of expectancy theory, if individuals do not believe that performance is important in determining pay (which can occur

when pay-related information is restricted; Lawler, 1967), the belief that performance will lead to pay as an outcome (i.e., the P→Pay expectancy; Lawler, 1973, 1981; Vroom, 1964) is unclear. As a result, the perceived P→Pay expectancy may fail to accurately reflect the true strength of the relationship between performance and pay. All else equal, when the perceived link between performance and pay is perceived as relatively weak or unimportant, motivation for performance should decrease.

To test this theoretical proposition, Futrell and Jenkins (1978) conducted a field experiment among pharmaceutical salespersons. The experimental manipulation consisted of the introduction of a new pay policy, whereby salespersons were given the individual low and high merit raise amounts, as well as the overall average merit raise amount for the previous year. Each salesperson's performance evaluation was also made available for review by other salespersons (again, highlighting the importance of considering the extent to which performance information is also communicated). In the experimental (open) condition, salespersons had both higher job performance (based on supervisory ratings of five items), and were also more satisfied with their pay, promotion policies, and work than salespersons in the control group. While this suggests that open pay and performance information are positively related to job performance ratings and satisfaction, the specific mechanisms that drive these effects were not considered.

Recent empirical work has started to investigate the psychological mechanisms that mediate the effects of pay communication on individual performance. In two separate experimental studies (Bamberger & Belogolovsky, 2010; Belogolovsky & Bamberger, 2014), participants were invited to play a "magic stones" game as part of a lab-based simulation to earn money. In both studies, pay communication was manipulated to create a secret condition (wherein individuals received information about their own performance and bonus pay only) and

a partially open condition (where the pay – but not performance – of other participants was shared by code number). In each study, perceived instrumentality (i.e., $P \rightarrow$ Pay expectancy) was also measured as the “percentage of total pay that an individual perceives to be contingent on performance” (Bamberger & Belogolovsky, 2010: 977). Participants were first asked to estimate the likely bonus associated with both a low and a high level of performance. The difference between the estimated bonus amounts of the two conditions was then calculated as a proportion of total pay to capture perceived instrumentality, or the relationship between performance and pay (Bamberger & Belogolovsky, 2010: 977).

Results from these two studies provide insight into the cognitive mechanisms that may explain the relationship between pay communication, motivation, and performance. In the first study (Bamberger & Belogolovsky, 2010), individual task performance was significantly lower in the secret pay condition than in the (partially) open pay condition, and this negative effect was partially mediated by perceived instrumentality. However, this negative effect on task performance only occurred among individuals who were less tolerant of inequity (measured via equity sensitivity, a dispositional construct reflecting individual sensitivity to the presence or absence of equity in social exchange; Bamberger & Belogolovsky, 2010: 965). While the authors also tested perceived fairness (both informational and procedural) as potential mediators, the hypothesized relationships were not supported. The non-significance of fairness as a potential mediator of the secrecy-performance relationship suggests that equity and fairness considerations may operate through separate mechanisms distinct from motivation. This issue is explored in detail in the following chapter.

A second laboratory study using the same protocol (Belogolovsky & Bamberger, 2014) also found that individual task performance was lower in the secret pay condition. Again, this

negative effect was mediated by perceived instrumentality. Moderating effects revealed that the negative effect of secrecy on individual task performance was amplified when pay determination criteria were relative, and attenuated when performance assessment was objective. While this provides evidence that other system elements may moderate the secrecy-performance relationship, the impact of these elements on specific components of motivation remain unclear.

Taken together, a negative relationship between pay secrecy and individual performance has been theoretically postulated (e.g., Lawler, 1965, 1966, 1967), and empirical evidence provides tentative support for this contention (e.g., Bamberger & Belogolovsky, 2010; Belogolovsky & Bamberger, 2014; Futrell & Jenkins, 1978). Although instrumentality perceptions (i.e., the relationship between pay and performance) may partially explain secrecy's negative influence on motivation (e.g., Bamberger & Belogolovsky, 2010; Belogolovsky & Bamberger, 2014), the P→Pay instrumentality represents just one piece of motivational force. This narrow focus on instrumentality perceptions has ignored how pay communication may influence additional motivational mechanisms, including the E→P expectancy (Lawler, 1973, 1981; Vroom, 1964). By incorporating the full expectancy model into an investigation of the secrecy-performance relationship, we can begin to understand how specific psychological mechanisms of motivation are impacted by the communication of pay information.

Summary

While the incentive effect of PFP can motivate performance and productivity among employees (Rynes et al., 2005; Gerhart & Fang, 2014), studies often assume that accurate pay information is known. In the pay secrecy domain, scholars have investigated how variations in the communication of pay information may impact motivation and individual performance. While extant studies provide a starting point, several issues have impeded further theoretical

development. For example, causal inferences regarding the relationship between pay secrecy and performance have been limited to a handful of experimental studies (e.g., Greiner et al., 2011; Bamberger & Belogolovsky, 2010; Belogolovsky & Bamberger, 2014), with most studies in the literature utilizing survey methodology instead. While extant work provides tentative guidance for theory development, the exact nature of pay secrecy's influence on motivation and performance remains unclear.

A second and more serious impediment to theoretical development is that mediating mechanisms of the pay communication-performance relationship have only recently been considered (e.g., Bamberger & Belogolovsky, 2010; Belogolovsky & Bamberger, 2014). In the few instances where these psychological mechanisms have been investigated, it has often been in isolation (e.g., the inclusion of instrumentality perceptions but no other motivational mechanisms in the Bamberger and Belogolovsky studies). Theory has neglected to consider how secrecy may impact other elements of motivation (besides the $P \rightarrow \text{Pay}$ expectancy) to alter individual performance. Potential behavioral outcomes beyond performance have largely been ignored (for an exception, see Bamberger and Belogolovsky, 2017). These empirical deficiencies may be attributed in large part to the absence of a cohesive theoretical framework that is well-suited to investigating how the communication of pay information alters PFP's incentive effect. To begin exploring how the incentive effect operates when the communication of pay information is restricted, expectancy theory is used to examine the perceptual and cognitive components that drive motivational force.

Exploration of Incentive Effects

Individuals in organizations “are often forced to choose among a number of behaviors that are relatively attractive” (Lawler, 1973: 66). Expectancy theory is an individual-level theory

of motivation that can be used to predict the specific type of behavior an individual is likely to choose. Generally, the most probable course of action is that with the highest motivational force (that is, the highest $[E \rightarrow P * \sum (P \rightarrow \text{Pay} * V)]$; Lawler, 1973; Vroom, 1964). In the context of performance-based pay raises, individuals should be more motivated to choose performance if they believe effort will lead to the desired level of performance (i.e., high $E \rightarrow P$ expectancy), if they believe that performance is likely to be followed by a pay raise (i.e., high $P \rightarrow \text{Pay}$ expectancy), and if that raise is perceived as relatively desirable (i.e., high valence). Conversely, if individuals feel less capable of performing at the desired level (i.e., low $E \rightarrow P$), are unsure if performance will be followed by a raise (i.e., low $P \rightarrow \text{Pay}$), and if the raise is seen as relatively less desirable (i.e., low valence), motivational force to exert effort toward performing should decrease, and performance becomes a less likely course of action. It is important to note that given the multiplicative nature of the expectancy formula, if either of the two components – ($E \rightarrow P$) or the sum of ($P \rightarrow \text{Pay} * V$) – are not present to some degree, there will be no motivational force (Lawler, 1973). That is, if an individual does not believe that any amount of effort will lead to performance (i.e., $E \rightarrow P$ is zero), and/or does not believe that at least some desirable raise will follow performance (i.e., the sum of [$P \rightarrow \text{Pay} * V$] is zero), then motivational force will also be zero.

It is also important to highlight the distinction between theoretical and actual motivational force. As noted above, the *theoretical* motivational force of expectancy theory states that the motivation to choose to exert effort toward a certain course of action will be highest when individuals feel relatively capable of achieving a desired level of performance ($E \rightarrow P$), and when they believe that performing at that level will be followed by a desirable pay raise ($P \rightarrow \text{Pay} * V$). This can be contrasted with *actual* motivational force (i.e., an individual's

choice to exert effort toward a certain course of action). Because the different components of theoretical motivational force are perceptual in nature, one would expect that as perceptions of a particular compensation system increase in accuracy, so too would the accuracy of predictions about actual motivational force also increase. This means that across the nine cells of the proposed matrix framework, *actual* motivational force could be the same or vary widely – it depends on the interaction of perceptual accuracy with the expectancy theory components of *theoretical* motivational force.

The communication of pay information can influence the accuracy of the perceptual antecedents of *theoretical* motivational force. Using the pay secrecy matrix developed in Chapter 2, the remaining sections of this chapter explore how different combinations of distributive and procedural pay information can alter perceptions of expectancy (E→P) and instrumentality (P→Pay) to influence motivation dynamics and performance outcomes. In short, the interactive effects of communicating different combinations of distributive and procedural pay information are proposed to alter the accuracy of P→Pay perceptions by influencing its two antecedents (i.e., perceptions of the objective situation and communications from others). The following sections first explore the separate influences of distributive and procedural pay information on P→Pay perceptions. Next, a cell-by-cell analysis of the matrix framework is conducted to understand how the nine distinct combinations of pay information may differentially alter motivation and the incentive effect.

P→Pay Expectancies and the Communication of Pay Information

The P→Pay expectancy is the motivational mechanism most likely to be influenced by the interaction of distributive and procedural pay information. Transparency in the communication of pay information should enhance the *accuracy* of the P→Pay expectancy.

While distributive information clarifies pay raise outcomes, procedural pay information communicates details about performance and the standards to which pay raises are tied. Depending on the type (distributive v. procedural) and degree (none, general, specific) of pay information that is shared, the accuracy of the P→Pay expectancy may vary. Before exploring the interactive effects of the matrix framework, the separate effects of distributive and procedural pay information on P→Pay accuracy are first considered.

Distributive Pay Information

The P→Pay expectancy encompasses an individual's subjective probability assessment of the consequences of a course of action (Lawler, 1973). For example, if a factory worker believes that producing 1,000 units annually will be followed by a \$1/hour raise, the P→Pay expectancy will be relatively strong and motivational force to produce 1,000 units should increase. Conversely, if an individual is unsure if the organization will distribute a \$1/hour raise if 1,000 units are produced, the P→Pay expectancy weakens, and – all else equal – the motivational force to produce 1,000 units decreases.

Distributive pay information communicates particulars about pay raise outcomes, or *who* makes *what* raise amount. When distributive pay information is absolutely secret, individuals know only the amount of their own pay raise. With this absolute distributive secrecy, information about the pay raise amounts of others remains unknown, and individuals are therefore only capable of accurately assessing the link between their own pay raise and own level of performance.

As described in Chapter 2, the communication of distributive pay information influences two determinants of the P→Pay expectancy – the objective situation and communication from

others (Lawler, 1973). When an organization formally shares no distributive pay information, individuals may turn to other sources to obtain the information needed to form $P \rightarrow \text{Pay}$ expectancies. For example, individuals may make inferences about the objective situation (i.e., the true relationship between performance and pay) by estimating the distributive pay information of others. This is problematic, as research indicates that individuals can be inaccurate when estimating others' pay in the absence of formally communicated pay information (Lawler, 1965, 1966, 1967). As a result of these "inaccurate guesses" (Lawler, 1965: 18), individuals' perceptions of the objective situation and subsequent inferences about the relationship between their own performance and pay raise may be inaccurate as well. Communication from others may further exacerbate these inaccurate perceptions.

For example, suppose a recently hired factory worker is often seen by coworkers arriving late and leaving early, and has been found napping in the office on several occasions. Although the worker did not receive a raise last year (the objective situation), the individual continues to brag about receiving a \$3/hour raise. In the absence of accurate distributive information to the contrary, other employees may be inclined to believe this informal communication. The inaccurate information suggests that the focal individual – despite *appearing* to be a low performer – received a higher pay raise. Even though this information is objectively untrue, with distributive secrecy, employees lack the accurate information needed to challenge informal sources.

Furthermore, if it is believed that a low-performing employee received a high pay raise, this inaccurate information may weaken the $P \rightarrow \text{Pay}$ expectancy of an otherwise strong PFP system. All else equal, a weaker $P \rightarrow \text{Pay}$ expectancy lowers motivational force, reducing the likelihood that the factory workers will be motivated to exert the effort of producing 1,000 units

to receive a raise. In this example, motivational force for the desirable behavior of productivity is hindered by absolute distributive secrecy. This outcome is dysfunctional for both the individual and the organization. For the individual, lower motivational force to produce 1,000 units reduces the likelihood that effort will be exerted toward productivity, and receiving a raise becomes less likely. Similarly, it is dysfunctional for the organization to have employees who are less motivated to perform.

Transparency in the communication of accurate distributive pay information could be used to clarify the link between performance and pay, improving the accuracy of $P \rightarrow \text{Pay}$ expectancies. First, organizations may choose to communicate *general* distributive information about pay raises by sharing pay raise ranges and medians for different jobs. In the preceding example, perhaps factory workers actually received pay raises ranging from \$.50 to \$2 per hour, with a median increase of \$1. Sharing this general distributive information would make it readily apparent that the employee claiming to have received a \$3/hour raise is being untruthful (as it is now known that the highest raise received was \$2/hour). When accurate information is formally communicated, employees are better equipped to challenge perceptual inaccuracies.

Second, organizations may choose to communicate *specific* distributive information by sharing the exact raise amounts given to unique individuals. If our hypothetical factory made specific distributive information transparent, workers could clearly see that the employee in question received no raise. This accurate information should strengthen the belief that pay raises are indeed based on performance (i.e., high $P \rightarrow \text{Pay}$ expectancy), since it becomes clear that the employee who is believed to be a low performer received no pay raise. All else equal then, motivational force for productivity should increase.

When pay raise amounts are listed individually by name, this reflects specific distributive transparency. However, if no procedural information is also communicated, the reasons as to why these amounts were given remain unknown (i.e., Cell 7 of the matrix). Specific distributive transparency without corresponding procedural transparency creates a precarious situation. Here, individuals can clearly see who made what, but it is unclear if raises were distributed on the basis of performance. To some extent, individuals may be able to infer the performance level of others (e.g., noticing that an employee leaves early and arrives late). Without accurate procedural information however, these inferences may again be based on informal information that is inaccurate.

Returning to the hypothetical employee in question, perhaps the worker's individual performance last year was not sub-par, and instead a newly instituted policy mandating a one-year pay freeze for all new hires is the true reason a pay raise was not given. If specific distributive information is communicated, individuals could easily see that the employee in question received no pay increase. However, without any procedural information to indicate why no raise was given, individuals may continue making inaccurate attributions. For example, perhaps the employee has been working extra hours and performing at a very high level, but this has negatively affected the employee's sleep patterns. When procedural information is not formally communicated, individuals may be disgruntled that a seemingly low-performing coworker has not been terminated. To further enhance the accuracy of $P \rightarrow \text{Pay}$ assessments, the communication of specific distributive information should be accompanied with the communication of at least general procedural pay information. Together, this provides employees with the information needed to make more accurate assessments of the relationship between both their own pay and performance as well as the performance-pay relationship of

other organizational members. When specific distributive information and general procedural information are both communicated, individuals can clearly see not only who made what, but they also have general insight as to why these raise amounts were given. Based on the preceding arguments it is proposed that:

*Proposition 1: When pay raises are based on performance, the communication of **general distributive** pay information improves the accuracy of the $P \rightarrow \text{Pay}$ expectancy for performance.*

*Proposition 2: When pay raises are based on performance, the communication of **specific distributive** pay information improves the accuracy of the $P \rightarrow \text{Pay}$ expectancy for performance, so long as **general procedural** pay information is also communicated.*

Procedural Pay Information

Procedural pay information communicates *how* and *why* distributive pay raise decisions are made. With absolute procedural secrecy, individuals lack any accurate information about the processes used to distribute pay increases. To illustrate how secrecy in the communication of procedural pay information can impact $P \rightarrow \text{Pay}$ expectancies, consider the following scenario involving employees in a medical research facility. Assume employees are told that individual performance-based pay raises will be distributed, but no additional information is provided. This situation represents absolute procedural secrecy. While individuals may feel capable of conducting medical research (i.e., high $E \rightarrow P$), they lack the information needed to form accurate assessments of the probability that conducting research will be followed by a raise (i.e., $P \rightarrow \text{Pay}$). In the absence of accurate procedural information, individuals may seek informal information from other sources, including communication with others.

When no procedural pay information is communicated, individuals lack accurate information about the processes used to determine pay raise amounts. For example, although the medical researchers have been told that performance-based pay raises will be disbursed, they have no information about the specifics of performance measurement. Without knowing how performance is measured (e.g., via results- or behavior-based criteria) individuals may find it difficult to alter their behavior to influence the measures to which the pay raise is tied. For example, one of the researchers may believe that “performance” means the publication of research in top-tier outlets (reflective of performance quality). Another researcher may believe that the total number of publications in a given year determines performance (reflective of performance quantity). In contrast to what the researchers *believe* constitutes performance, pay raises are actually distributed based on supervisory performance ratings. In the absence of this procedural pay information, the researchers are motivated to exert effort toward courses of action (i.e., those associated with performance quality v. quantity) that do not influence the true performance measure (i.e., subjective supervisory ratings) used to distribute raises.

For pay raises to motivate performance, general procedural information must be communicated to clarify performance expectations. For example, the medical researchers may be told that pay raises are distributed based on supervisory ratings of two behaviors: observed collaboration and attendance. By sharing measurement criteria information, individuals should have a clearer understanding of *how* to perform, improving the accuracy of the P→Pay expectancy. With general procedural information transparent, the medical researchers should understand that collaboration and attendance – as rated by supervisors – are the measures used to determine pay raise distribution. As a result, individuals can direct their effort toward engaging in these exact behaviors, increasing the likelihood of receiving a performance-based pay raise.

In this instance, the outcome is functional for both the individual and the organization. For the individual researcher, focusing on the desirable behaviors of collaboration and attendance should increase the likelihood of successfully influencing the performance measure to receive a raise (a functional outcome). For the organization, this outcome is also functional because employees should be more motivated to engage in the specific performance behaviors that the organization values. Based on the preceding arguments it is proposed that:

*Proposition 3: When pay raises are based on performance, the communication of **general procedural** pay information improves the accuracy of the $P \rightarrow \text{Pay}$ expectancy for performance.*

Finally, an organization may communicate specific procedural pay information. Here, pay raise formulas may be shared, further clarifying the link between performance and pay. For example, medical researchers may be told that supervisory ratings of collaboration account for 80 percent of the subsequent raise amount, while attendance comprises the remaining 20 percent. This sends a signal to employees that collaboration is the more valued component of performance. All else equal, with specific procedural information communicated, individuals should be more motivated to engage in behaviors that are weighted heavier in the pay raise formula. Again, this desirable behavior is functional for both the individual (whose behaviors are focused on influencing the measure of performance that carries a higher weight in the determination of pay raises) and the organization (that should have employees who are motivated to perform well on the performance measures most valued by the organization). It is therefore proposed that:

*Proposition 4: When pay raises are based on performance, the communication of **specific procedural** pay information improves the accuracy of the $P \rightarrow \text{Pay}$ expectancy for performance further.*

The communication of both distributive and procedural pay information clarifies the link between performance and pay raise amounts. Whereas distributive information provides information about the pay raise as an *outcome* of performance, procedural information communicates details about performance measurement and other processes that underlie the distribution of pay raises. The strength of the P→Pay expectancy depends on the underlying pay system. For example, procedural transparency will have no benefits for motivation and performance if supervisors actually give the highest raises to their favorite employees instead of the highest performers. Transparency is not a substitute for a well-designed PFP system. The propositions presented here assume that the underlying pay system indeed distributes pay raises based on performance.

Pay Communication & the Incentive Effect Across Cells

In addition to affecting the accuracy of P→Pay expectancies, the communication of different combinations of distributive and procedural pay information are expected to have different incentive effects across each of the matrix cells. Generally speaking, perceptual accuracy of the expectancy components for motivation (i.e., E→P and P→Pay) should improve as one moves from left to right, or from top to bottom in the matrix framework. The following sections explore each cell in detail.

Cell 1: No Distributive Information, No Procedural Information

With absolute secrecy in Cell 1, individuals formally know only the amount of their own pay raise, though they lack the procedural information needed to understand how or why this amount was received. Given this combination of pay information, each perceptual component of motivational force has a high probability of being inaccurate. E→P is likely to be inaccurate due

to procedural secrecy, as individuals will have a difficult time accurately assessing if they can perform if no information about what constitutes “performance” is communicated. Distributive secrecy in Cell 1 means that individuals have no accurate distributive information to which they can compare their own raise amount. As a result, individuals will be unable to accurately determine if their own raise is relatively large or small.

P→Pay perceptions in Cell 1 are also likely to be inaccurate. Although individuals in Cell 1 know the amount of their own pay raise, procedural secrecy means that no formal information about the raise determination process (e.g., pay raise basis, measurement criteria, etc.) has been formally shared. As a result, individuals will have an accurate perception of the amount of their own raise, but they will not understand why this amount was received. Any perceptions of performance criteria characteristics (e.g., influenceability, results- v. behavior-based criteria) are likely to be inaccurate. Communication from others may further distort the accuracy of P→Pay expectancies. Due to distributive secrecy, individuals can claim to have received a larger (or smaller) raise than was actually received. With procedural secrecy, they can also attribute the stated raise amount to any number of factors, legitimate (e.g., performance, effort, attendance) or not (e.g., politics).

To summarize, all components of motivational force are likely to be inaccurate with the absolute pay secrecy found in Cell 1. With both distributive and procedural secrecy, individuals are incapable of accurately assessing the situation to determine if a course of action is something of which they are capable (E→P), and if it will be followed by a pay raise (P→Pay). In Cell 1, motivation for performance (and any other course of action) depends entirely on the accuracy of informal information obtained. Because the accuracy of this information may vary, specific predictions about behavioral choice in Cell 1 cannot be inferred. Any potential benefits of using

PFP to motivate performance are likely to be lost. Distributive secrecy allows individuals to claim they received any raise amount, while procedural secrecy provides the opportunity to attribute the stated raise amount to any number of factors. In short, with absolute pay secrecy in Cell 1, all perceptions of motivational force are expected to be more inaccurate than in any other cell of the matrix. It is therefore proposed that:

Proposition 5: When distributive secrecy and procedural secrecy occur in conjunction (Cell 1), perceptions of (a) $E \rightarrow P$ and (b) $P \rightarrow \text{Pay}$ will be more inaccurate than in any other cell of the matrix.

Cell 2: No Distributive Information, General Procedural Information

In Cell 2, individuals still formally know the amount of their own raise only. However, the addition of general procedural information means that individuals should have an accurate understanding of the pay raise basis and how it is measured. If performance is the basis, general procedural transparency enhances the accuracy of perceptions about performance criteria, including whether the criteria are believed to be influenceable, and based on results and/or behaviors. Though individuals still do not have accurate information about the raise amounts received by others, general procedural transparency should ensure they have a more accurate understanding as to why their own raise amount was received (e.g., performance, and how that performance is measured).

The combination of information communicated in Cell 2 should improve the accuracy of some perceptions associated with motivational force. Distributive secrecy means that perceptions of others' raise amounts may still be inaccurate, as individuals cannot accurately see if their own raise is relatively high or low in comparison to the raise amounts received by others.

However, the addition of general procedural pay information should improve the accuracy of $E \rightarrow P$ perceptions. When accurate information about performance criteria is communicated, individuals should have more accurate perceptions of whether they will be able to perform at the desired level. The accuracy of $P \rightarrow \text{Pay}$ perceptions should also improve in Cell 2. The objective situation can be perceived more accurately, as individuals have accurate information as to how their own raise amount was determined. Nevertheless, communications from others are likely to be just as inaccurate as in Cell 1. Again, distributive secrecy means that individuals can still claim to have received a larger or smaller raise than was received. General procedural transparency, however, means that individuals can no longer claim to have received the stated raise amount for any reason (because information about both pay raise basis and measurement criteria is formally communicated).

Taken together, perceptions of motivational force in Cell 2 are more accurate than those found in Cell 1. General procedural transparency should permit individuals to make relatively accurate assessments of the situation to determine if a course of action is something of which they are capable ($E \rightarrow P$). Finally, the combination of pay information communicated in Cell 2 means that $P \rightarrow \text{Pay}$ perceptions of one's own objective situation should be relatively accurate. Communications from others are still likely to be inaccurate, as individuals can lie about their own pay raise amounts, and the accuracy of this communication from others cannot be verified due to distributive secrecy. If PFP is used, the incentive effect is more likely to motivate performance than in Cell 1. However, distributive secrecy makes it likely that the full motivational benefits of PFP will still go unrealized because individuals are unable to determine if higher levels of performance are indeed rewarded with a higher pay raise. Based on the preceding, it is proposed that:

Proposition 6: When distributive secrecy occurs in conjunction with general procedural transparency (Cell 2), perceptions of (a) $E \rightarrow P$ and (b) the relationship between one's own performance and pay raise ($P \rightarrow \text{Pay}$) will be more accurate than those in Cell 1.

Cell 3: No Distributive Information, Specific Procedural Information

In Cell 3, distributive secrecy combines with specific procedural transparency. Pay raise formulas are open, as is information about the basis for pay raise determination and measurement criteria. Though individuals still do not have accurate information about the raise amounts received by others, they have the most accurate understanding as to why their own raise amount was received. Specific procedural information communicates how performance is defined and measured, and pay raise formulas indicate how the different facets of performance combine to determine the total pay raise amount.

Because of distributive secrecy, $P \rightarrow \text{Pay}$ expectancies based on communications from others may remain inaccurate. Similarly, communications from others may be inaccurate, as distributive secrecy means that individuals can still claim to have received larger or smaller raise amounts. The addition of specific procedural information, however, means that individuals can no longer claim to have received the stated raise for any reason. Pay raise formulas clearly show the degree to which different facets of performance account for the total raise amount.

The communication of specific procedural information should therefore improve the accuracy of motivation-related perceptions. Because pay formulas and performance criteria characteristics are communicated through specific procedural transparency, individuals can now accurately perceive if a measure is influenceable and based on results or behaviors. As a result, $E \rightarrow P$ perceptions should remain accurate. $P \rightarrow \text{Pay}$ expectancies determined by perceptions of

the objective situation should be the most accurate. In contrast to the general procedural information communicated in Cell 2, specific procedural information clarifies – to the greatest extent possible – the relationship between pay and performance.

Together, perceptions of motivational force in Cell 3 are slightly more accurate than in Cell 2. Specific procedural transparency means that individuals can make accurate assessments of the situation to determine if a course of action is something of which they are capable ($E \rightarrow P$) and that will be followed by a pay raise ($P \rightarrow \text{Pay}$). While individuals in Cell 3 can accurately assess their own $P \rightarrow \text{Pay}$ expectancies, they lack any formal distributive information to corroborate the accuracy of these perceptions *unless* performance information is also made available (i.e., performance transparency, introduced in Chapter 2).

In Cell 3, the incentive effect of PFP should motivate performance. Although distributive secrecy allows others to still provide false information about their own pay raise amounts, the addition of specific procedural transparency may allow for the unique raise amounts of others to be calculated, but only if performance information is also communicated by the organization (e.g., making individual sales numbers public if the commission rate per sales is already known through specific procedural transparency). Based on this information, $P \rightarrow \text{Pay}$ perceptions should be more accurate in Cell 3 than in Cell 2. The preceding arguments lead to the following propositions:

Proposition 7: When distributive secrecy occurs in conjunction with specific procedural transparency (Cell 3), perceptions of (a) $E \rightarrow P$ and (b) the relationship between one's own performance and pay raise ($P \rightarrow \text{Pay}$ for the self) will be more accurate than in Cells 1 or 2.

Cell 4: General Distributive Information, No Procedural Information

Individuals in Cell 4 know not only their own raise amount, they also know how this amount compares to the raise range and median communicated through general distributive transparency. Procedural secrecy prevents individuals from understanding how or why these amounts were determined. Together, the combination of pay information communicated in Cell 4 means that individuals will understand if their own raise amount is high or low compared to the raise range and median, but they may not accurately understand why.

The components of motivational force are likely to be inaccurate in Cell 4. Procedural secrecy makes it difficult for individuals to accurately assess whether they can perform at a desired level (i.e., $E \rightarrow P$). Procedural secrecy increases the likelihood that $P \rightarrow \text{Pay}$ perceptions of both the self and others will be inaccurate. Furthermore, this combination of general distributive transparency and procedural secrecy creates a dangerous situation in Cell 4. Individuals can see if their own raise amount is relatively high or low, but they lack the procedural information needed to accurately understand why. Even if PFP is used, high performers may attribute their high raise to any number of factors. For example, perhaps a salesperson believes that raises are distributed based on objective sales numbers. With procedural secrecy, the salesperson may be motivated to improve sales numbers even though in reality – and unbeknownst to the salesperson – raises are determined by subjective supervisory ratings of customer service behaviors. As a result, the combination of pay information found in Cell 4 may motivate individuals to engage in alternative behaviors beyond the performance that is being measured (e.g., focusing on sales numbers, while the organization actually rewards customer service behaviors). This outcome is dysfunctional for both the individual (who is redirecting effort towards a facet of performance

that is not measured nor rewarded), and for the organization (that must now contend with employees who may not be motivated to perform the desired behaviors).

Taken together, individuals in Cell 4 cannot accurately determine if a course of action is something of which they are capable ($E \rightarrow P$). They also cannot accurately assess if the course of action is likely to be followed by a raise ($P \rightarrow \text{Pay}$). The probability for dysfunctional outcomes is high in Cell 4 due to the combination of distributive transparency and procedural secrecy. With PFP, individuals who receive higher raises in Cell 4 will not understand why a higher raise was received. As a result, they may be motivated to continue pursuing whatever course of action they believe is being rewarded. In contrast, individuals who receive lower raises may be unmotivated to alter their behavior because they lack the procedural information needed to understand that their low raise was the result of poor performance. Alternatively, the recipients of lower raises may also be motivated to engage in whatever course of action they believe is associated with a larger raise. They may also engage in reciprocal deviance (Kemper, 1966) if they believe their psychological contract – the terms and conditions of the reciprocal employment relationship (Rousseau, 1989, 1995) – has been violated or breached (Robinson, 1996).

In summary, the incentive effect is unlikely to motivate performance when pay information of the Cell 4 variety is communicated. $E \rightarrow P$ and $P \rightarrow \text{Pay}$ perceptions will be just as inaccurate as they were in Cell 1 under absolute pay secrecy. While individuals can see if their own raise amount is relatively high or low, they lack the procedural information to understand why. Even if PFP is used, recipients of higher raises will not know this is the result of high performance, and a higher raise may fail to motivate continued high performance. Individuals who receive lower raises will not understand this is due to poor performance and may be unmotivated, motivated to engage alternative performance behaviors that are not rewarded by the

organization (i.e., hindering desirable behaviors), or motivated to engage in reciprocal deviance to retaliate against an unexplained low raise (i.e., promoting undesirable behaviors). Taken together, it is proposed that:

Proposition 8: When general distributive transparency occurs in conjunction with procedural secrecy (Cell 4), perceptions of (a) $E \rightarrow P$ and (b) $P \rightarrow \text{Pay}$ will be less accurate than in Cells 2 and 3.

Proposition 9: The combination of distributive transparency and procedural secrecy increases the likelihood that dysfunctional outcomes will be motivated.

Cell 5: General Distributive Information, General Procedural Information

In Cell 5, general information about both pay raise amounts and processes are formally communicated. Together, this means that individuals will know if their own raise amount is relatively high or low in comparison to the raise range and median (due to general distributive transparency, and they will also have an accurate understanding as to why (due to general procedural transparency). Cell 5 represents the first instance in the matrix framework where some degree of both distributive and procedural pay information are communicated.

Perceptions related to motivation should be relatively accurate in Cell 5. General procedural transparency means that individuals should have more accurate perceptions of whether they will be able to perform at the desired level ($E \rightarrow P$). Finally, $P \rightarrow \text{Pay}$ perceptions determined by the objective situation are more accurate than in Cell 4, as individuals have the procedural information needed to understand why a relatively high or low raise amount was received. However, communication from others may still produce inaccurate $P \rightarrow \text{Pay}$ perceptions when individuals turn to other organizational members to make inferences about the

relationship between performance and pay within the organization. Without specific distributive transparency, individuals can still be untruthful about their own raise amount that was received.

With this combination of information, individuals in Cell 5 can make relatively accurate assessments of whether a course of action is something of which they are capable ($E \rightarrow P$) and that will be followed by a pay raise ($P \rightarrow \text{Pay}$). Individuals can make accurate self-assessments of the relationship between performance and pay. However, they lack the specific distributive information needed to make more accurate assessments of the relationship between performance and pay. Taken together, the components of motivational force in Cell 5 should be more accurate than in Cells 1 through 4, leading to the following proposition:

Proposition 10: When general distributive transparency occurs in conjunction with general procedural transparency (Cell 5), perceptions of (a) $E \rightarrow P$, and (b) the relationship between one's own performance and pay raise ($P \rightarrow \text{Pay}$ for the self) will be more accurate than in Cells 1 through 4.

Cell 6: General Distributive Information, Specific Procedural Information

Many of the perceptual determinants of motivation are just as accurate in Cell 6 as in Cell 5. General distributive transparency allows individuals to accurately determine the relative size of their raise in comparison to the raise range and median. Similarly, the sharing of pay raise formulas should allow individuals to accurately determine if they can perform at the desired level ($E \rightarrow P$). $P \rightarrow \text{Pay}$ perceptions in Cell 6 should be more accurate than in previous cells, as open pay raise formulas allow individuals to see how the different performance facets contribute to the total pay raise amount. This allows individuals to make more specific $P \rightarrow \text{Pay}$ assessments of the relationship between different facets of performance and subsequent raises.

While assessments of the performance-pay relationship of the self should be the most accurate, communications from others are likely to remain inaccurate given the pay information that is communicated in Cell 6. While individuals still do not know the unique raise amounts received by others, they do have general information about the range and median of pay raises that were distributed. The addition of specific procedural transparency means that individuals can no longer claim to have received a raise for any reason – pay raise formulas clearly show the degree to which different facets of performance account for the total raise amount. Depending on the type of performance measure that is used and whether performance information is also communicated, individuals in Cell 6 may be able to make relatively accurate calculations of others' pay raise amounts. For example, factory workers in a Cell 6 organization may have specific procedural information that a \$1/hour raise is given for every 1,000 units produced. If production numbers are also made public (i.e., specific distributive *performance* transparency), then the raise amounts received by unique individuals can be calculated.

In summary, individuals in Cell 6 should have accurate perceptions of whether a certain course of action is something of which they are capable ($E \rightarrow P$) and if it will be followed by a pay raise ($P \rightarrow \text{Pay}$). While individuals can make accurate self-assessments of the relationship between performance and pay, they still lack the specific distributive information needed to make accurate assessments of the relationship between others' performance and others' pay raises. As a result of the combination of information found in Cell 6, the components of motivational force are more accurate than in Cells 1 through 5. Based on the preceding, it is therefore proposed that:

Proposition 11: When general distributive transparency occurs in conjunction with specific procedural transparency (Cell 6), perceptions of (a) $E \rightarrow P$ and (b) the relationship between

one's own performance and pay raise ($P \rightarrow \text{Pay for the self}$) will be more accurate than those in Cells 1 through 5.

Cell 7: Specific Distributive Information, No Procedural Information

In Cell 7, individuals know the exact raise amounts received by others, but they lack the procedural information needed to accurately understand why these amounts were received. Individuals are able to see if their own raise amount is higher or lower than the raises received by distinct individuals. However, just as in Cell 4, procedural secrecy prevents individuals from accurately understanding how or why these raise amounts were determined.

The perceptions that drive motivational force and behavioral choice are likely to be based on inaccurate information in Cell 7. Without any procedural information, individuals will have a difficult time accurately determining if they can perform at a desired level, making $E \rightarrow P$ expectancies inaccurate. Despite the addition of specific distributive information, perceptions of the relationship between one's own performance and subsequent pay ($P \rightarrow \text{Pay}$) should be relatively inaccurate. Procedural secrecy ensures that they do not accurately understand why their raise amount was received, or why it is relatively high or low when compared to the raises of others (e.g., performance or some other factor).

The second determinant of $P \rightarrow \text{Pay}$ perceptions – communication from others – is also likely to be inaccurate given the combination of pay information communicated in Cell 7. Individuals may attribute a high or low raise to any number of factors, and share these attributions through communications with others. Unlike Cell 4, the communication of specific distributive information in Cell 7 means that individuals can now direct reciprocal deviance (Kemper, 1966) toward unique individuals. For example, if employee A receives a raise that is

twice the amount of employee B's raise, employee B can make a broad range of attributions for employee A's higher raise (known to be accurate in Cell 7, due to specific distributive transparency). If employee B believes that A's higher raise was due to illegitimate factors such as favoritism, employee B may retaliate against employee A directly. This outcome is dysfunctional for both the organization (that would prefer retaliation and other counterproductive behaviors be minimized) and for the individual employees. For employee B, this situation hinders desirable performance behaviors while also promoting undesirable behaviors such as retaliation. For employee A, desirable performance behaviors may be hindered while attempting to manage the repercussions of employee B's retaliatory behavior.

In summary, though distributive transparency in Cell 7 means that individuals can see the unique raise amounts received by others, procedural secrecy means that they lack the information needed to accurately understand why any of these raise amounts were received. Individuals may make false attributions as to why raises were received. Because uniquely identifying distributive pay information has been shared, individuals in Cell 7 may be motivated to target other employees who they believe have received higher pay for illegitimate reasons. Individuals who receive lower raise amounts will not understand why a low raise was received. As a result, they may be unmotivated, motivated to engage in non-performance behaviors, or perhaps even be motivated to engage in reciprocal deviance targeting the unique individuals who have received higher raises. Based on the preceding arguments, it is proposed that:

Proposition 12: When specific distributive transparency occurs in conjunction with procedural secrecy (Cell 7), perceptions of (a) $E \rightarrow P$ and (b) $P \rightarrow \text{Pay}$ will be more inaccurate than in Cells 1 through 6.

Cell 8: Specific Distributive Information, General Procedural Information

In Cell 8, the unique raise amounts of all individuals are known, as is information about pay raise basis and measurement criteria. Together, this means that individuals in Cell 8 can compare their own raise amount to that received by unique others; however, the addition of general procedural information means that individuals now have a more accurate understanding as to why this amount was received (e.g., performance, and the measurement criteria used).

Perceptions that drive motivational force and behavioral choice in Cell 8 should be more accurate than in Cells 1 through 7. With performance criteria information communicated through general procedural transparency, individuals should have more accurate perceptions of whether they will be able to perform at a desired level ($E \rightarrow P$). Similarly, general procedural transparency also means that $P \rightarrow \text{Pay}$ perceptions should be accurate. Perceptions of the objective situation will be more accurate than in Cell 7, as individuals now have the formal information needed to understand why their own raise amount is high or low compared to the unique raise amounts of others. Communications from others should also produce more accurate $P \rightarrow \text{Pay}$ expectancies. In Cell 8, individuals know the exact raise amounts received by others, and the sharing of general procedural information means that individuals will be able to see if pay is based on performance, and if so, how that performance is measured. With this information open, communications from others are more likely to be accurate – individuals can no longer claim to have received any raise amount, for any reason.

Together, the perceptual components of motivational force in Cell 8 are accurate in Cell 8. General procedural information about pay raise basis and measurement criteria allows individuals to more accurately assess if a certain course of action is something of which they are capable ($E \rightarrow P$). Specific distributive transparency means that individuals should have accurate

assessments of whether performance will indeed be followed by a pay raise ($P \rightarrow \text{Pay}$). In contrast to Cell 5, individuals in Cell 8 have the specific distributive transparency needed to make accurate assessments of the relationship between their own performance and pay (influencing perceptions of the objective situation that drive $P \rightarrow \text{Pay}$ expectancies), as well as between the performance of others and others' raises.

In summary, Cell 8 is the first cell to combine specific distributive transparency with the sharing of general procedural information. As a result, not only can individuals see if their raise amount is high or low when compared to the unique raise amounts of others, they also have the general procedural information needed to understand why these amounts were received. Because individuals know the unique raise amounts of others, they can make more accurate assessments of the relationship between performance and pay within the organization. Together, the perceptions that drive motivational force in Cell 8 should be more accurate than in Cells 1 through 7. Only the addition of specific procedural information (i.e., Cell 9, or absolute pay transparency) can further improve perceptual accuracy.

Proposition 13: When specific distributive transparency occurs in conjunction with general procedural transparency (Cell 8), perceptions of (a) $E \rightarrow P$, and (b) $P \rightarrow \text{Pay}$ will be more accurate than in Cells 1 through 7.

Cell 9: Specific Distributive Information, Specific Procedural Information

Cell 9 illustrates absolute pay transparency, wherein both specific distributive and specific procedural pay information are formally communicated by the organization. As a result, individuals know the exact raise amounts received by all other employees, and open pay raise

formulas mean they now have the most specific understanding as to why they these raise amounts were received.

With absolute pay transparency, all perceptual determinants of motivational force are the most accurate. Because the exact raise amounts of all employees are public, individuals can make the most specific comparisons of the raise amounts received. With specific procedural transparency, individuals should have accurate perceptions of whether they can perform at the desired level ($E \rightarrow P$), as determined by perceptions of the performance criteria such as the perceived influenceability of the measure. Finally, $P \rightarrow \text{Pay}$ perceptions should be more accurate than in any other cell of the matrix. In addition to accurate perceptions of the objective situation, individuals should also have accurate perceptions based on communication from others. The combination of pay information communicated in Cell 9 means that individuals can no longer lie about the raise amount received, nor can they lie about why the amount was received. All pay information is open and available.

Taken together, the perceptual components of motivational force will be the most accurate when transparency of the Cell 9 variety is present. Individuals can make the most accurate assessments of whether a certain course of action is something of which they are capable ($E \rightarrow P$) and if it will be followed by a pay raise ($P \rightarrow \text{Pay}$). When specific information about raise amounts are communicated in conjunction with the specific calculations used to determine these amounts, individuals should have the most accurate perceptions. If raises are indeed based on performance, high performers should see that they are highly paid in relation to others, and will understand how different facets of performance contribute to the total raise amount. As a result, they should be motivated to continue performing at a high level to receive high raises in the future. Similarly, low performers will see that they receive smaller raises and

will understand how the different facets of performance contribute to their total raise amount. Individuals who receive smaller raises should be motivated to improve performance, as this combination of pay information improves the accuracy of $P \rightarrow \text{Pay}$ perceptions of both the self and others. When employees can accurately see how performance is measured, have accurate information about the unique raise amounts of others, *and* can see how different facets of performance contribute to the total raise amount, the incentive effect of PFP is able to motivate performance. Taken together, it is therefore proposed that:

Proposition 14: When specific distributive transparency and specific procedural transparency occur in conjunction (Cell 9), perceptions of (a) $E \rightarrow P$, and (b) $P \rightarrow \text{Pay}$ will be more accurate than in any other cell of the matrix.

Summary

The matrix framework is useful for understanding how the communication of distinct combinations of pay information influence the incentive effect. As illustrated in the preceding sections, perceptual accuracy of the motivational determinants for performance are most accurate when both specific distributive and specific procedural pay information are transparent. To the extent that less pay information is formally communicated, individuals can be expected to hold more inaccurate perceptions of $E \rightarrow P$ and $P \rightarrow \text{Pay}$ expectancies. The different incentive effects proposed for the nine matrix cells are summarized in Figure 3 below.

		PROCEDURAL Pay Information		
		<i>None</i>	<i>General</i> Pay raise measurement criteria	<i>Specific</i> Pay raise formulas
DISTRIBUTIVE Pay Information	<i>None</i>	(1) Absolute pay secrecy E→P inaccurate (procedural secrecy) P→Pay • Self = inaccurate (procedural secrecy) • Others = inaccurate (distributive and procedural secrecy)	(2) E→P accurate (general procedural transparency) P→Pay • Self = accurate (general procedural transparency) • Others = inaccurate (distributive secrecy)	(3) E→P accurate (specific procedural transparency) P→Pay • Self = most accurate (specific procedural transparency) • Others = inaccurate (distributive secrecy)
	<i>General</i> Pay raise ranges and medians for jobs	(4) E→P inaccurate (procedural secrecy) P→Pay • Self = inaccurate (procedural secrecy) • Others = inaccurate (procedural secrecy)	(5) E→P accurate (general procedural transparency) P→Pay • Self = accurate (general distributive and procedural transparency) • Others = inaccurate	(6) E→P accurate (specific procedural transparency) P→Pay • Self = most accurate (specific procedural transparency) • Others = inaccurate
	<i>Specific</i> Exact pay raise amount given to each individual	(7) E→P inaccurate (procedural secrecy) P→Pay • Self = inaccurate (procedural secrecy) • Others = inaccurate (procedural secrecy)	(8) E→P accurate (general procedural transparency) P→Pay • Self = accurate (general procedural transparency) • Others = accurate (general procedural transparency)	(9) Absolute pay transparency E→P accurate (specific procedural transparency) P→Pay • Self = most accurate (specific procedural transparency) • Others = most accurate (specific procedural transparency)

Figure 3
The Expectancy Matrix

Pay Communication & Performance Going Forward

Pay systems communicate information. Understanding the effects of different pay communication policies on motivation and performance are imperative if we are to fully understand the “informational value of compensation” (Bartol & Locke, 2000: 135). Using the components of motivational force outlined by expectancy theory, a series of propositions have been posited to suggest that transparency in the communication of pay information can have positive effects on performance and other desirable behaviors, primarily by clarifying the accuracy of $P \rightarrow \text{Pay}$ expectancies. However, the proposed benefits of transparency will only be realized if the underlying pay system has been appropriately designed. First, for pay to motivate performance in a PFP system, pay raises must indeed be distributed on the basis of performance. Research suggests this is less common than one may think. For example, a survey of 335 employees in an organization that claims to use PFP found that only 35% agreed with the following statement: “If my performance improves, I will receive better compensation” (HayGroup, 2002, as cited in Gerhart et al., 2009). Another 38% of the respondents disagreed with the statement. This indicates that the perceived relationship between performance and pay ($P \rightarrow \text{Pay}$) may not be as strong as many organizations using PFP believe.

A second factor likely to influence the relationship between pay communication and performance is the degree to which transparency is accepted by individuals. In a survey of several organizations both with and without transparency in the communication of pay information, 77% of the managers surveyed supported secrecy (Lawler, 1967). However, this preference toward secrecy may be changing, as a more recent study found that 55% of managers favored some form of transparency in the communication of pay information (Patton, 2015). With few exceptions (e.g., Lawler, 1965; Schuster & Coletti, 1973), scholars have yet to

investigate how individual preferences for or against transparency in the communication of pay information can influence motivation, performance, and other behaviors through the incentive effect.

Individual preferences are likely to be an important moderator of the degree to which individuals accept the open sharing of pay information, and the extent to which transparency can facilitate positive effects for motivation and performance. If individuals are more tolerant of pay information being freely communicated, then more open pay systems may become more readily accepted. Individual acceptance of open pay communication can also be an indicator of the strength of the underlying PFP system. For example, an organization may want to consider how high and low performers would react if pay information was made more open. If high performers (who should receive higher performance-based pay raise amounts) are predicted to react favorably, this could be interpreted as a sign that the underlying pay system has established a strong connection between performance and pay. Alternatively, if low performers (who should receive lower performance-based pay raises) are instead predicted to react favorably, this would suggest that the PFP system has fundamental design issues. Transparency with a weak PFP system may have disastrous consequences. It could amplify the negative motivational effects of a PFP system with an already weak relationship between performance and pay.

Finally, moving forward, it would be beneficial if the effects of pay communication on performance continue to be studied in conjunction with other elements of the compensation system. As illustrated here, these different system components do not operate in isolation and instead combine to influence motivational force. The effects of different pay communication policies are likely to be contingent on other aspects of the system including characteristics of the performance measure used to distribute raises. Individual performance may not be easily

measurable in many modern organizations, as even “individual” performance is often to some extent a joint product reflecting both individual effort and “that of many others” (Zenger, 2016: 3). If the communication of pay information is intended to enhance the accuracy of perceived P→Pay expectancies, organizations must also ensure that performance is clearly and accurately measured.

Chapter 3 Summary

In summary, Chapter 3 investigates how pay communication influences motivation and performance through the incentive effect. By openly sharing a combination of distributive and procedural pay information, organizations may be able to improve the accuracy of individual P→Pay expectancies. If the underlying pay system is indeed based on performance, transparency can be used to strengthen the degree to which individuals believe that pay is distributed on the basis of performance. However, transparency in the communication of pay information may also make compensation inequities more salient (Zenger, 2016). To explore the potential affective reactions to pay inequities and how pay communication affects these perceptions, Chapter 4 turns to an exploration of how pay raise satisfaction and pay raise equity perceptions interact with the communication of pay information to influence turnover and other behaviors associated with the sorting effect.

CHAPTER 4

PAY COMMUNICATION AND THE SORTING EFFECT

Overview

Chapter 4 investigates how the communication of different combinations of pay information may alter the attraction and retention forces of PFP's sorting effect. First, the influence of pay information on attraction via perceptions of fit or congruence are explored using the attraction-selection-attrition or ASA framework (Schneider, 1987). Next, a brief review of the empirical studies investigating the relationship between pay communication and satisfaction is provided. Finally, principles of equity theory (Adams, 1965) and discrepancy theory (Lawler, 1971, 1981) are used to investigate how pay communication influences perceptions of equity and satisfaction to alter the behavioral responses of turnover and retention.

The Sorting Effect of PFP

Before exploring how the communication of pay information influences applicant attraction and employee retention, a brief discussion of how the sorting effect *should* function is prudent. The sorting effect describes how compensation can alter an organization's workforce composition by influencing the type of individuals who are attracted to and choose to remain with the organization (Gerhart & Rynes, 2003). When pay is based on individual performance, individuals with "higher performance motivation/aspiration/ability or higher actual performance" are more likely to be attracted to and remain with the organization (Fang & Gerhart, 2012: 1181). Accordingly, organizations can use PFP to help attract and retain higher-performing individuals.

Implicit in the use of PFP as a sorting device is the assumption that applicants and employees have both accurate and complete information about the organization's compensation system. The sorting benefits of using PFP may go unrealized if individuals lack the information needed to determine if pay is indeed based on performance, and to what degree it is so. In the

following sections, the pay secrecy matrix is used as a framework for investigating how the communication of pay information can influence the attraction and retention forces of the sorting effect.

Attraction & Self-Selection

During the recruitment and selection process, organizations aim to attract high-quality applicants, or individuals with the ability and disposition to produce more than a lower-quality applicant (Cadsby, Song, & Tapon, 2007). Though an organization's open pay system is unlikely to be the deciding factor in job choice decisions, research suggests that compensation does play an important role in applicant perceptions of job attractiveness and job search choice (Rynes, 1987; Cable & Judge, 1994). Compensation can therefore be used as a recruitment tool (Rynes, 1987), with different pay systems likely to attract different types of applicants. Studies suggest that performance-based pay in particular may be more attractive to individuals who possess certain traits indicative of high-performance capability, including need for achievement (Bretz, Ash, & Dreher, 1989) and cognitive ability (Trank Rynes, & Bretz, 2002). Similarly, an experiment by Dohmen and Falk (2011) found that university students who self-selected into a variable performance-based pay condition correctly solved multiplication problems faster (i.e., productivity) and had a higher GPA in high school (i.e., ability) than individuals who self-selected into the fixed pay condition. Collectively, empirical evidence suggests that performance-based pay can be used to attract applicants who are capable of high levels of performance.

Compensation attracts potential applicants during the recruitment process through two complementary forces. First, pay acts as an "important signaling device" (Gomez-Mejia, Berrone, & Franco-Santos, 2010: 104) indicating the type of applicant an organization seeks to

recruit and retain. For example, a non-profit organization that aims to recruit cooperative team members may choose a team-based reward system, while a for-profit financial firm may use individual performance incentives to attract competitive applicants who can achieve high levels of individual performance. These different pay systems send unique signals to applicants about the results and/or behaviors that are desired and rewarded. While team-based pay may signal that cooperation and team performance are valued, the use of individual incentives instead communicates that individual performance is prioritized. Because pay can “communicate so much about an organization’s philosophy, values, and practices” (Rynes, 1987: 190), the open communication of accurate pay information should enhance the accuracy of the signals it is intended to transmit.

Next, applicants receive and interpret these signals, influencing the individual’s attraction to an organization. According to the attraction-selection-attrition or ASA model (Schneider, 1987), individuals are differentially attracted to organizations based on “implicit judgments of the congruence between those organizations’ goals...and their own personalities” (Schneider, Goldstein, & Smith, 1995: 749). Generally, applicants prefer organizations with attributes and values that align with their own personal characteristics and preferences (Cable & Judge, 1994; Judge & Bretz, 1992). When assessing this alignment, individuals form subjective assessments of the degree of perceived fit between their own personal characteristics and those of the organization (Kristof, 1996; Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005). This person-environment or P-E fit can be broadly defined as “the compatibility between an individual and a work environment that occurs when their characteristics are well matched” (Kristof-Brown, Zimmerman, & Johnson, 2005: 281). Perceptions of P-E fit are important in predicting applicant attraction, with a meta-analysis of 71 studies indicating that subjective

perceptions of fit were one of the strongest predictors of attitudinal attraction outcomes including job pursuit intentions, job-organization attraction, and acceptance intentions (Chapman et al., 2005).

Consequently, perceptions of fit are one of the primary psychological mechanisms that can be used to explain the relationship between the signals pay that information communicates and an individual's degree of attraction to the organization. However, when the communication of distributive and procedural pay information is restricted, both the intended signals and subsequent perceptions of P-E fit or congruence may be inaccurate. In the following sections, the pay secrecy matrix provides a framework for understanding how the communication of pay information affects the perceptual accuracy of two components of P-E fit.

Distributive Pay Information & Needs-Supply (N-S) Fit

One component of P-E fit is needs-supply (N-S) fit, or “judgments of congruence between employees' needs and the rewards they receive in return for their service and contributions on a job” (Cable & DeRue, 2002: 875). Because distributive pay information clarifies perceptions of who receives what pay raise amounts, the communication of accurate distributive pay information should enhance the accuracy of applicants' N-S fit perceptions. For example, a firm with secrecy of the Cell 4 variety communicates only general distributive information including pay raise ranges and medians for jobs (e.g., current salespersons receive average raises between \$1,000 and \$3,000 annually). This general distributive information provides accurate information about the potential pay raise amounts that *could* be received. The communication of specific distributive information provides even more detailed information about raise amounts currently received by employees. When distributive pay information is communicated, assessments of N-S fit should be more accurate. When applicants have accurate

information about pay raise outcomes they should be able to more accurately infer if known raise ranges (or specific raise amounts) could potentially satisfy their financial needs. As a result, perceptions of N-S fit should more accurately reflect reality. The preceding arguments lead to the following proposition:

Proposition 1a: The communication of distributive pay information improves the accuracy of N-S fit perceptions.

Procedural Pay Information & Demands-Ability (D-A) Fit

Demands-ability or D-A fit describes the extent to which an individual's knowledge, skills, and abilities are commensurate with those required of the job (Kristof-Brown, Zimmerman, & Johnson, 2005). When accurate procedural pay information is communicated, applicants should have a better understanding of the specific knowledge, skills, and abilities that are rewarded by the organization through performance-based pay increases, thereby improving the perceptual accuracy of D-A fit. For example, a sales organization may communicate general procedural information to indicate that a pay raise is awarded for every 100 sales (i.e., Cell 5, when combined with the above general distributive pay information that indicates a pay raise range between \$1,000 and \$3,000). Given the combination of pay information that is communicated in Cell 5, applicants now accurately know that the results-based, objective criterion of number of sales is used to determine pay raise amounts that average between \$1,000 and \$3,000 per year. With procedural information communicated, applicants should be capable of more accurately assessing whether the rewarded demands of the job are congruent with their own knowledge, skills, and abilities (i.e., "Do I have the requisite knowledge, skills, and abilities to make 100 sales?"). Taken together, it is therefore proposed that:

Proposition 1b: The communication of procedural pay information improves the accuracy of D-A fit perceptions.

Summary

The communication of distributive and procedural pay information can enhance the accuracy of individuals' fit perceptions, a critical psychological mechanism involved in the attraction process. When distributive pay information is communicated, the accuracy of N-S fit perceptions should improve, because applicants can more accurately determine if the potential pay raise amounts will satisfy their financial needs. Returning again to the importance of considering the *interactive* effects that occur when combinations of pay information are communicated, the addition of procedural pay information should enhance perceptual accuracy of D-A fit. In short, the ability of PFP to attract high-quality applicants is contingent upon the communication of accurate distributive and procedural pay information. Nevertheless, attracting high-quality applicants is only half of the sorting equation – PFP and the communication of pay information also influences an individual's intent to stay with an organization or to leave. It is to this issue I turn next.

Pay Communication and Pay Satisfaction

Most published studies investigating the effects of pay secrecy on individual-level outcomes related to turnover and retention have focused on the mediating mechanism of pay satisfaction, or the overall positive or negative affect individuals feel regarding their pay (Miceli & Lane, 1991). When these feelings are positive, pay satisfaction is experienced as a “pleasurable or positive emotional state resulting from the appraisal of one’s pay situation” (Locke, 1976: 1304). Though individuals can have different affective reactions to the various dimensions of pay (including pay level, pay raises, pay structure and administration, and benefits; Heneman & Schwab, 1985), this dissertation focuses on reactions to the communication of information about performance-based pay *raises*. Accordingly, emphasis here is placed on pay *raise* satisfaction, or the positive or negative affect that individuals have toward their own pay raise. Research concerning the pay communication-satisfaction relationship can be divided into three distinct phases, each emphasizing different mediating mechanisms and outcomes.

Phase 1: Pay Satisfaction and Perceptual Accuracy. Early research concerning individuals’ affective reactions to pay secrecy focused on understanding how secrecy affects satisfaction, specifically by altering the accuracy of individuals’ pay-related perceptions. In a series of surveys with personnel managers, Lawler (1965, 1966) found that managers in organizations with a “policy of keeping management compensation secret” (1965: 18) and who believed their pay was too close to the pay of those above and below them, were more dissatisfied with their own pay (Lawler, 1965, 1966). In a follow-up study conducted in a manufacturing company with “a policy of strict secrecy with respect to pay levels” (Lawler, 1967: 184), only the incorrect estimation of peers’ pay was associated with increased dissatisfaction.

Subsequent studies reported both positive and negative effects of transparency on pay satisfaction. For example, in a field experiment of pharmaceutical salesmen, Futrell and Jenkins (1978) found that satisfaction with pay was higher following the introduction of a new pay policy that shared information on both raises (i.e., individual low and high merit raise amounts, along with the overall average for the previous year) and base pay (i.e., salary levels). In contrast, Mahoney and Weitzel (1978) found that satisfaction with compensation amount, comparison, and administration was unrelated to the accuracy of pay perceptions, even when compensation ranges and midpoints were shared.

Other studies found a negative relationship between transparency and pay satisfaction. When Lawler's study design (1965, 1966) was replicated in an organization with a relative degree of transparency (including open pay ranges and medians), results indicated that managers who correctly estimated the salaries of their peers were also the most dissatisfied (Milkovich & Anderson, 1972). Building on this work, research in the second phase began to incorporate *pay equity perceptions*, or the extent to which employees believe their pay is fair (Martin & Peterson, 1987).

Phase 2: Pay Equity Perceptions. Empirical research indicates that equity perceptions may be one of the primary mechanisms linking the communication of pay information and affective responses to pay. For example, Manning and Avolio (1985) studied university employees' reactions following the open publication of salary information in the campus newspaper. Although correlational analyses found a negative relationship between pay disclosure and salary equity perceptions ($r = -.28, p < .01$), equity perceptions are likely more dependent on the underlying pay system rather than the mere disclosure of pay information.

In contrast, more recent work suggests a positive relationship between open pay communication and equity perceptions. For example, Day (2011) investigated the relationship between pay communication policy (both stated and perceived), four justice dimensions (i.e., distributive, procedural, informational, and interactional justice; Colquitt et al., 2001), and pay satisfaction in a sample of public university employees. Structural equation modeling results suggest that when employees believe they receive more pay information (e.g., how pay levels are determined, minimum and maximum pay levels for one's pay grade), they feel more fairly treated on all four justice dimensions. In turn, perceptions of both distributive and procedural justice mediated the relationship between pay communication and pay satisfaction, suggesting that satisfaction with one's own pay depends largely on equity or fairness perceptions of pay outcomes and processes (Day, 2011, 2012). In addition to influencing satisfaction, pay equity perceptions can also impact voluntary turnover (e.g., Summers & Hendrix, 1991) – the primary focus of the third wave of pay communication-satisfaction research.

Phase 3: Satisfaction and Turnover. Research suggests that pay satisfaction is negatively related to both voluntary turnover and its cognitive and behavioral antecedents. For example, a study of public-school teachers found that satisfaction with pay level, pay structure, and pay raise were negatively associated with district-level average teacher turnover intentions to find employment in a setting besides public education (Currall, Towler, Judge, & Kohn, 2005). At the individual level, pay satisfaction was a significant predictor of withdrawal cognitions (including intent to leave and intent to search) across two samples of advertising managers (DeConinck & Stilwell, 2004).

While these results suggest a negative effect of pay satisfaction on turnover intentions and withdrawal cognitions, the availability of accurate pay information may alter this

relationship. For instance, in the laboratory study conducted by Belogolovsky and Bamberger (2014), the secrecy manipulation (i.e., participants given information only about their own pay and performance) had a negative effect on individuals' continuation intentions to participate in additional rounds of the experimental task. Similarly, a field experiment by Card and colleagues investigated how the disclosure of peers' salaries may influence individuals' pay satisfaction and job search intentions (Card, Mas, Moretti, & Saez, 2012). Following the online publication of individual salary amounts for all university employees, those with below-median salaries for their pay unit and occupation reported lower pay satisfaction. Individuals in the lowest pay quartile were also 20% more likely to report searching for a job than their peers working under pay secrecy. For employees paid at or above the unit occupational median, no effect of pay communication on either pay satisfaction or job search intentions was found (Card et al., 2012). These results suggest that while the communication of pay information can influence voluntary turnover and its antecedents, the nature of this relationship may vary depending on the individual's position in the pay structure. Specifically, lower-paid employees may be less satisfied and therefore more likely to leave the organization when pay information is transparent.

Retention & Turnover Intentions

If the organizational performance benefits of selecting high-quality applicants are to be realized, less productive employees must exit the organization to be replaced by these new entrants. Making a distinction between the performance levels of leavers versus stayers allows for a consideration of turnover functionality (Hollenbeck & Williams, 1986), a key feature of the sorting effect. Functional turnover occurs when low performers exit the organization, while dysfunctional turnover occurs when high performers leave (Dalton & Todor, 1979). When PFP

correctly sorts employees, high performers should want to stay, and low performers should want to leave – a situation of functional turnover and retention.

Implicit in the sorting effect's ability to retain high performers is that pay signals the type of employee the organization seeks to retain (Belogolovsky & Bamberger, 2014). When different combinations of distributive and procedural pay information are communicated, the intended signal of PFP (i.e., that the organization rewards performance) may be obscured. Empirical studies suggest a curvilinear performance-turnover relationship, such that turnover is more likely for both high and low performers than for average performers (Trevor, Gerhart, & Boudreau, 1997). However, pay policy features – including pay communication – can influence this relationship. For example, Trevor and colleagues (1997) found that salary growth among a sample of exempt employees moderated the relationship for high performers such that low salary growth predicted extremely high turnover among employees with the highest average supervisor performance ratings.

The primary affective mechanism used to explain the relationship between pay, performance, and turnover is satisfaction (e.g., Dreher, 1982). In short, when pay is contingent on performance (i.e., high reward contingency), poor performers receive less pay and are less satisfied (Podsakoff & Williams, 1986), and should therefore quit at a higher rate than their higher-performing counterparts who receive more pay (Williams & Livingstone, 1994). Implicit in these findings, however, is the assumption that employees *know* that rewards are based on performance. For example, Shaw and Gupta (2007) found that organizational-level quit rates among high-performing truck drivers were lowest when pay was more dispersed, based on performance, and well-communicated (measured through four items including: “Drivers know exactly what they have to do to get pay raises”; “The pay system is clearly communicated”; “Our

drivers have a clear understanding of how their pay is set”; “and “We provide drivers with extensive information any time we make changes to the pay system,” p. 914). When pay system communication was low, pay dispersion was not consistently related to quit patterns.

The Evaluation of Pay Information

Drawing on equity theory (Adams, 1963, 1965) and discrepancy theory (Lawler, 1971), Figure 4 (based on the works of Heneman, 1985; Lawler, 1971; Miceli & Lane, 1991; as compiled by Williams, McDaniel, & Ford, 2007) illustrates how the communication of pay information can influence perceptual accuracy when individuals evaluate pay raise information. It should be noted that the model shown in Figure 4 is not intended to be a complete model of retention and turnover. Instead, Figure 4 illustrates how the communication of pay raise information may influence retention and turnover cognitions (i.e., intent to stay versus intent to turnover).

In short, the communication of pay information has a direct influence on the accuracy of individuals’ perceptions at two points in the model. First, the communication of pay information influences the three antecedents of the perceived pay raise amount that an individual believes he or she should receive. Regardless of accuracy, this information is then used as an evaluative standard for developing perceptions about the pay raise amount individuals believe they *should* receive (“a”). This is then compared to the actual pay raise amount that was received (“b”). When individuals compare their standard (“a”) to the actual raise received (“b”), they form pay raise equity perceptions about the fairness of their pay raise (Martin & Peterson, 1987). Second,

the communication of pay information also influences the relationship between pay raise satisfaction and an individual's intent to remain with the organization.

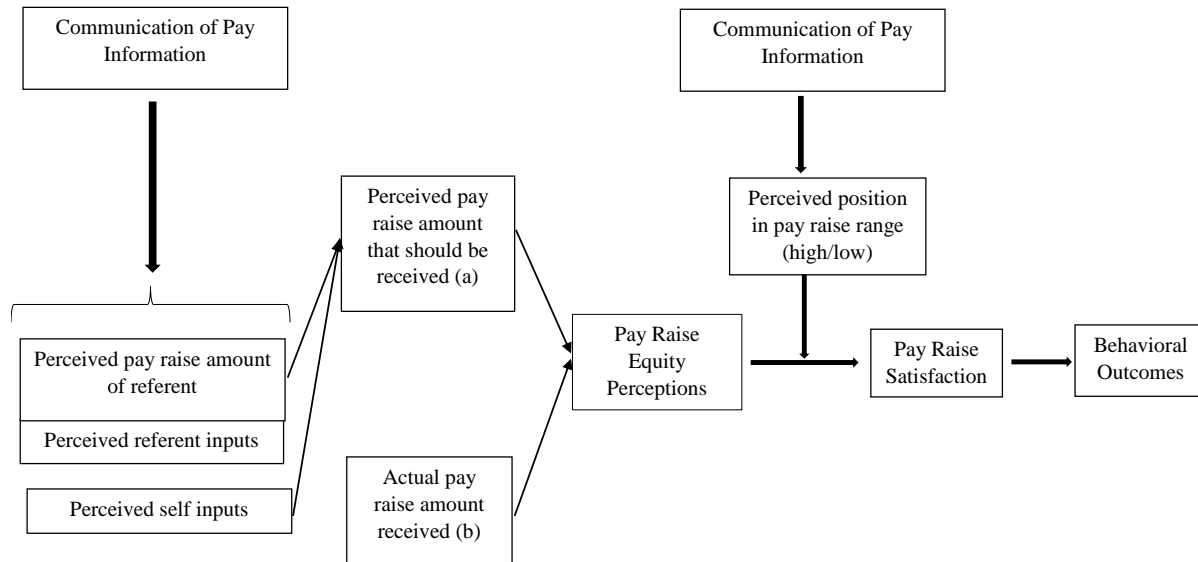


Figure 4

The Communication of Pay Information and the Sorting Effect

The Effect of Pay Information on Pay Raise Equity Antecedents

The communication of pay information affects the *accuracy* of three antecedents of the pay raise amount that individuals believe they should receive. First, distributive pay information can influence the accuracy of employees' perceptions of the *raise amounts received by referents*. Research suggests that when distributive pay information is not openly shared, individuals' estimations of the raise amounts of others can be inaccurate. For example, personnel managers working in organizations with a "policy of keeping management compensation secret" reported more inaccurate guesses of others' salaries than managers working in an organization with some open information about pay scales, but with "each managers' exact salary...kept confidential" (i.e., general distributive transparency; Lawler, 1965: 18). In contrast, when specific distributive

pay information is communicated, individuals know the exact raise amounts of unique individuals.

Second, the communication of procedural pay information can alter the accuracy of the two remaining antecedents of pay raise equity perceptions – the perceived inputs of the self, and the perceived inputs of the referent other. Inputs describe the different “investments” or perceived contributions that an individual brings to the job (Homans, 1961), and can include the employee’s skill, education, experience, and training, as well as effort and job performance (Adams, 1963; Lawler, 1981). The communication of procedural pay information may improve the accuracy of perceptions regarding the perceived raise input requirements – both the inputs required of the self, and the perceived inputs of others. For example, sales representatives may be told that raise amounts are determined by the number of individual subscriptions sold. This general procedural information clarifies input requirements by specifying the pay raise basis and measurement criteria. Specific procedural information and the communication of pay raise formulas further clarify the different weights of these performance inputs required for a raise.

Both equity theory and discrepancy theory posit that pay satisfaction results when pay equity is perceived (Adams, 1965; Lawler, 1971, 1981). When pay raise equity is perceived, individuals believe their raise amount is fair (i.e., the raise amount that should be received is equal to the actual raise amount received, $a = b$). If an equitable raise is also recognized as relatively large in comparison to the raise amounts received by others, pay raise satisfaction should result. However, when an individual lacks the distributive information needed to accurately determine if a raise is relatively high or low, pay raise satisfaction may be based on inaccurate information. It is therefore proposed that:

Proposition 2: The communication of distributive pay information has a positive effect on the accuracy of individuals' perceptions of (a) the pay raise amounts of others and (b) pay raise satisfaction.

Proposition 3: The communication of procedural pay information has a positive effect on the accuracy of individuals' perceptions of (a) inputs of the self and (b) inputs of referent others.

	Pay Raise Equity	Pay Raise Inequity
Pay Raise Satisfaction	High raise + (a = b) <ul style="list-style-type: none"> • Satisfied + fair • Retention 	High raise + (a < b) <ul style="list-style-type: none"> • Satisfied + fair → guilt • Functional inequity reduction <ul style="list-style-type: none"> ○ Increase inputs ○ Decrease outcomes
Pay Raise Dissatisfaction	Low raise + (a = b) <ul style="list-style-type: none"> • Dissatisfied + fair • Turnover intentions 	Low raise + (a > b) <ul style="list-style-type: none"> • Dissatisfied + unfair → anger • Dysfunctional inequity reduction <ul style="list-style-type: none"> ○ Decrease inputs ○ Increase outcomes

Figure 5
Responses to Perceived (In)Equity and (Dis)Satisfaction

Pay Communication and The Sorting Effect Across Cells

As shown in Figure 5, different combinations of perceived pay raise (in)equity and pay raise (dis)satisfaction produce different cognitions (i.e., intent to stay versus intent to turnover) and alternative behavioral responses (i.e., altering inputs and outcomes in accordance with equity theory; Adams, 1965). The following sections investigate the matrix cell-by-cell to explore how the communication of pay information may alter perceptions of pay raise equity and pay raise satisfaction to influence retention and turnover intentions associated with the sorting effect.

Cell 1: No Distributive Information, No Procedural Information

Absolute pay secrecy in Cell 1 means that individuals know only the amount of their own raise. As a result of this absolute secrecy, all three antecedents of pay raise equity perceptions may be inaccurate. Distributive secrecy suggests that individuals will have inaccurate perceptions of the raise amounts received by referents, while procedural secrecy alters the accuracy of perceptions about the performance inputs required for a raise. Together, inaccurate antecedents increase the likelihood that individuals may form inaccurate assessments of the raise amount they believe should be received (“a” in Figure 5). In turn, perceptions of pay raise equity are also likely to be inaccurate. For example, an employee who receives a \$1,000 performance-based pay raise may inaccurately believe the raise was received for obtaining additional education in the past year. Given the absolute secrecy in Cell 1, the individual cannot know that education is not the true basis for pay raise decisions. This produces inaccurate perceptions of the inputs required of the both the self and others needed to receive a pay raise.

In Cell 1, even if PFP is used, high performers will be unable to see that they received a higher raise due to better performance, and may experience pay raise dissatisfaction and contemplate leaving. At the same time, low performers cannot see their raise is low and due to poor performance. If these low-performing individuals are satisfied with their raise amount, they may remain with the organization – a functional outcome for the individual (who is still getting paid despite being a low performer) that becomes dysfunctional when viewed from the organization’s perspective. With the absolute secrecy in Cell 1, PFP may be unable to retain high performers while also encouraging poor performers to exit. Taken together, it is therefore proposed that:

Proposition 4: When distributive secrecy occurs in conjunction with procedural secrecy (Cell 1), perceptions of (a) all pay raise equity antecedents and (b) pay raise satisfaction is more inaccurate than in any other matrix cell.

Cell 2: No Distributive Information, General Procedural Information

In Cell 2, the addition of general procedural pay information means that individuals now know the pay raise basis and measurement criteria. While this enhances the accuracy of perceived inputs of both the self and others, the final antecedent of pay equity perceptions – the perceived pay raise amount of the referent – remains inaccurate due to distributive secrecy. Similarly, perceptions of pay raise satisfaction may also be inaccurate, as distributive secrecy means that individuals will be unable to accurately determine if their own raise amount is relatively high or low. The preceding arguments lead to the following proposition:

Proposition 5: When distributive secrecy occurs in conjunction with general procedural transparency (Cell 2), perceptions of inputs of (a) the referent and (b) of the self are more accurate than in Cell 1. Perceptions of both (c) the referent raise amount and (d) pay raise satisfaction remain as inaccurate as in Cell 1.

Cell 3: No Distributive Information, Specific Procedural Information

In Cell 3, with pay raise formulas open, individuals should have more accurate perceptions of their own inputs and the inputs of others. At the same time, distributive secrecy ensures that individuals in Cell 3 cannot accurately infer their position in the pay raise range. Pay raise satisfaction is therefore likely to be based on inaccurate information. Even if PFP is used to distribute raises, individuals only know the procedural formula used to determine raise amounts. High performers who receive high raises may be dissatisfied because they do not know

their raise is high, and may form intentions to turnover. Similarly, poor performers may be satisfied and intend to stay. This outcome is functional only for the poor performer, who remains satisfied and earning pay. For high performers and the organization as a whole, the outcome is dysfunctional because desired behaviors (e.g., the performance and retention of high performers) are hindered. Taken together, it is proposed that:

Proposition 6: When distributive secrecy occurs in conjunction with specific procedural transparency (Cell 3), perceptions of (a) inputs of the referent and (b) inputs of the self are more accurate than in Cells 1 and 2; perceptions of (c) the referent raise amount and (d) pay raise satisfaction remain as inaccurate as in Cells 1 and 2.

Cell 4: General Distributive Information, No Procedural Information

In Cell 4, individuals know the amount of their own raise as well as the raise range and median, but they lack any procedural information to understand why or how these amounts were determined. Cell 4 is notable as it represents the first instance in the matrix framework where individuals can accurately compare their own raise amount against the raise range to see if it is relatively high or low. While this should improve the accuracy of the information on which pay raise satisfaction is based, perceptions of pay raise equity are likely to be just as inaccurate as with the absolute secrecy found in Cell 1. Despite the general distributive transparency in Cell 4, research suggests that perceptions of others' raise amounts are likely to remain inaccurate (e.g., Lawler, 1965, 1966). Similarly, procedural secrecy obscures any information as to how these amounts were determined, and perceptions of self and referent inputs are likely to be inaccurate.

Given the combination of pay information in Cell 4, dysfunctional outcomes are likely to result for both the individual and the organization. Individuals who receive higher raises may

intend to remain with the organization, though they will not understand the inputs required to receive future performance-based pay raises. Conversely, lower-paid individuals will have no information as to why they received a smaller raise, and may seek to restore equity by engaging in reciprocal deviance (e.g., Kemper, 1966) or other undesirable behaviors. The following proposition summarizes the preceding arguments:

Proposition 7: When general distributive transparency occurs in conjunction with procedural secrecy (Cell 4), perceptions of (a) all pay raise equity antecedents are as inaccurate as in Cell 1; and (b) pay raise satisfaction is more accurate than in Cells 1 through 3.

Cell 5: General Distributive Information, General Procedural Information

Cell 5 is a unique cell in the matrix, as it represents the first time that employees have access to some degree of transparency in the communication of both distributive and procedural pay information. With the addition of general procedural information in Cell 5, individuals should have a more accurate understanding as to *why* their own raise amount is relatively high or low. If performance is the basis for raise determination, individuals now have accurate information as to how performance is measured. This clarifies perceptions of the inputs of both the self and others, improving the accuracy of pay raise equity perceptions.

Cell 5 is also the first instance in the matrix framework where the sorting effect begins to function as intended. Highly-paid individuals can see they received a higher raise and will accurately understand why the raise amount was received. If performance is the basis, these highly paid individuals should be the best performers, and intent to stay becomes the likely response. At the same time, individuals who receive low raises will understand that this was the result of poor performance, and may begin thinking about leaving the organization, perhaps for

another job with higher pay and/or lower performance requirements. In each instance, the outcome is functional for both the individual and the organization – high performers are satisfied and should intend to stay, while low performers are dissatisfied and should therefore consider turning over. Taken together, the sorting effect should largely function as intended in Cell 5, as suggested by the following propositions:

Proposition 8: When general distributive transparency occurs in conjunction with general procedural transparency (Cell 5), perceptions of (a) inputs of the referent and (b) of the self are more accurate than in Cells 1, 2, and 4; (c) perceptions of the referent raise amount remain as inaccurate as in Cells 1 through 4; and (d) perceptions of pay raise satisfaction are more accurate than in Cells 1 through 4.

Proposition 9: Cell 5 represents the minimum distributive and procedural pay information that must be communicated for the sorting effect to retain high performers and encourage the turnover of low performers.

Cell 6: General Distributive Information, Specific Procedural Information

In Cell 6, individuals know how their own raise amount compares to the raise range and median. Because pay raise formulas are open, individuals should have the most accurate understanding of the inputs of both the self and others that are required for a raise. High performers can see not only that they receive higher raises due to higher performance, but the addition of pay raise formulas means that these employees should have the most accurate understanding of how their higher performance inputs result in higher raise outcomes. At the same time, individuals who receive lower raises can use the pay raise formula to make more accurate determinations of whether performance improvements are possible, or if choosing to

turnover and seeking employment elsewhere is the more appropriate response. Based on the preceding arguments, it is therefore proposed that:

Proposition 10: When general distributive transparency occurs in conjunction with specific procedural transparency (Cell 6), perceptions of (a) inputs of the referent and (b) inputs of the self are more accurate than in all previous cells except Cell 3; (c) perceptions of the referent raise amount remain as inaccurate as in Cells 1 through 5; and (d) pay raise satisfaction is more accurate than in Cells 1 through 5.

Cell 7: Specific Distributive Information, No Procedural Information

Cell 7 represents the first matrix cell wherein individuals can directly compare their own raise amount to the raise amounts received by unique others. At the same time, procedural secrecy means that individuals lack the accurate information needed to understand the processes used to determine the known pay raise amounts. If individuals do not understand how raises are determined, they are unlikely to accurately comprehend the inputs required of the self and others for a pay raise. Taken together, the sorting effect of PFP is unlikely to function as intended in Cell 7. Individuals who receive higher raises can clearly see that their raise is higher than the unique raise amounts of others, but they lack any procedural information to understand why. Similarly, employees receiving lower raises will fail to understand why a lower amount was received. Dysfunctional outcomes similar to those predicted in Cell 4 are also predicted here, leading to the following proposition:

Proposition 11: When specific distributive transparency occurs in conjunction with procedural secrecy (Cell 7), perceptions of (a) inputs of the referent and (b) inputs of the self are as inaccurate as in Cells 1 and 4; (c) referent raise amounts and (d) pay raise satisfaction are more accurate than in Cells 1 through 6.

Cell 8: Specific Distributive Information, General Procedural Information

In Cell 8, individuals know not only how their own raise amount compares to the unique raise amounts of others, they should also have a more accurate understanding as to how and why these raise amounts were determined. This makes Cell 8 unique, as this is the first cell in the matrix where all perceptual determinants of pay raise equity and pay raise satisfaction should be accurate. The communication of pay raise basis and measurement criteria information should produce accurate perceptions of both self and referent inputs, as individuals have more accurate information about the pay raise basis and how it is measured. Similarly, specific distributive transparency promotes the most accurate perceptions of referent raises.

Taken together, the combination of pay information that is communicated in Cell 8 allows the sorting effect to function as intended. Not only will high and low performers each recognize their raise amounts as high or low, they can now make direct comparisons with unique others. Furthermore, the addition of general procedural transparency ensures that employees should have a more accurate understanding of the reasoning behind these pay raise amounts. If performance is indeed the basis for raise determination, those individuals who accurately perceive their raise as higher should also be better performers. Assuming these individuals are satisfied with their raise amount, and believe it is equitable in comparison to the amount they should have received, intent to stay should be the most likely sorting response. Conversely, individuals who receive lower raises should also be the poorest performers. If these low

performers find their raise amount to be dissatisfying – yet still believe it is equitably determined – intent to turnover is the most likely response. These arguments lead to the following proposition:

Proposition 12: When specific distributive transparency occurs in conjunction with general procedural transparency (Cell 8), perceptions of (a) all pay raise equity antecedents and (b) pay raise satisfaction will be more accurate than in any other cell of the matrix except Cell 9.

Cell 9: Specific Distributive Information, Specific Procedural Information

The combination of pay information communicated in Cell 9 represents absolute pay transparency. All three antecedents of pay equity perceptions are more accurate here than in any other cell of the matrix. With specific distributive transparency, perceptions of others' raise amounts should be the most accurate, allowing individuals to make direct comparisons with others' raises. Similarly, the communication of specific procedural information includes the sharing of pay raise formulas, allowing individuals to make the most accurate assessments of the inputs of both the self and of others that are required for a raise.

Together, the absolute distributive transparency combined with absolute procedural transparency in Cell 9 provides the best theoretical situation in which the sorting effect can function as intended. When all pay information is transparent – including the unique raise amounts of others – there remains no pay information to be obscured. As a result, individuals who receive relatively higher raise amounts can see that these raise amounts are high. If performance is the basis, these individuals also have the procedural information needed to accurately understand that a higher raise was the result of better performance, should therefore intend to stay with the organization. On the other hand, individuals who receive lower raises can

see their raises are relatively lower and should be dissatisfied. If these low performers believe the raise amount was equitably determined, then intent to turnover is the likely response. However, if inequity is perceived – whether based on accurate information or not – these low performers may be motivated to retaliate through various forms of reciprocal deviance (Kemper, 1966) – an issue addressed in the closing sections of this chapter. It is therefore proposed that:

Proposition 13: When specific distributive transparency occurs in conjunction with specific procedural transparency (Cell 9), perceptions of (a) all pay raise equity antecedents and (b) pay raise satisfaction will more accurate than in any other cell of the matrix.

Summary

In short, both accurate distributive *and* procedural pay information are required for the formation of accurate perceptions of equity and satisfaction associated with performance-based pay raises. High performers are most likely to be retained when they can see that they received a higher raise because they are better performers. Similarly, low performers have the greatest likelihood of voluntary turnover when they can see that a lower raise was received due to poorer performance. However, the unique behavioral response that emerges from individuals' perceptions depends on the specific combination of perceived pay raise (in)equity and (dis)satisfaction .

Sorting Responses & Equity

It is proposed that when perceptions of pay raise *equity* combine with either pay raise satisfaction or pay raise dissatisfaction, individuals will experience retention or turnover intentions associated with the sorting effect. To promote the functional retention of high performers and turnover of low performers, accurate procedural pay information about the

performance-based pay system must be communicated. In contrast, perceptions of *inequity* can combine with pay raise satisfaction or dissatisfaction to prompt a range of behaviors aimed at reducing the perceived inequity. Here, the specific behavioral outcome that is likely to emerge depends on the type of inequity that is perceived. While perceived overreward or positive inequity is likely to produce largely functional outcomes driven by feelings of guilt, negative inequity or underreward may result in reciprocal deviance (Kemper, 1966) and other dysfunctional outcomes driven by feelings of anger or hostility. Before exploring the possible behavioral responses to perceived inequity, the outcomes of pay raise equity perceptions are first discussed.

Pay Raise Equity + Pay Raise Satisfaction → Intent to Stay

When individuals believe they are fairly paid (i.e., pay raise equity is perceived) and also hold positive feelings about their pay raise (i.e., pay raise satisfaction), it is unlikely that they will have a desire to leave a compensation arrangement that is viewed as both fair and satisfying. When no distributive pay information is communicated however, individuals will be unable to accurately infer if their own pay raise is relatively large or small in comparison to others.

When general distributive information is open, individuals should be able to clearly see if their own pay raise amount is above or below the median, and near the top or bottom of the range. Similarly, the addition of specific distributive pay information means that individuals can now see their exact position in relation to the unique pay raise amounts of other employees. When distributive information is open, individuals who receive high raise amounts should understand their raise to be high and should be more satisfied. Similarly, individuals who receive relatively low raises should understand their raise to be comparatively low, and should be relatively less satisfied.

Unless procedural pay information is also communicated, there is no guarantee that satisfied individuals will also be the best performers. Without procedural information, individuals may assume that an above-average raise is attributable to a variety of factors (e.g., legitimate factors such as education or job experience, or illegitimate ones including favoritism or politics). When both general distributive and general procedural information are communicated, individuals can clearly see if a raise amount is high or low *and* can see if that raise is attributable to performance, seniority, or some other factor. If pay is indeed based on performance, individuals who receive the highest raises and are the most satisfied should also be the best performers. Because they perceive their pay raise as fair and are also satisfied, these individuals should intend to stay with the organization and the sorting effect of PFP functions as intended to retain the best performers. Based on the preceding arguments it is proposed that:

Proposition 14: When distributive transparency occurs in conjunction with procedural transparency (Cell 5, 6, 8, or 9) pay raise satisfaction perceptions are accurate. If pay is based on performance, and both pay raise equity and pay raise satisfaction are perceived, high-performing individuals are retained.

Pay Raise Equity + Pay Raise Dissatisfaction → Intent to Turnover

Individuals who believe they are equitably rewarded tend to experience more satisfaction than those who believe they are inequitably rewarded (e.g., Hegtvedt, 1987). And yet, individuals who feel their raise is equitable or fair can still experience dissatisfaction. For example, an individual may believe his or her raise amount is fairly determined, but may still be dissatisfied with the raise amount that was received.

Pay raise satisfaction has been empirically identified as an antecedent of voluntary turnover (Griffeth, Hom, & Gaertner, 2000; Griffeth & Hom, 1995), and is significantly and negatively related to both turnover intentions and actual turnover (Tekleab, Bartol, & Liu, 2005). If general distributive information is communicated, individuals receiving smaller raise amounts have the information needed to see that their raise is relatively low and should be less satisfied. If raises are distributed on the basis of performance – and if this procedural information is also communicated – individuals who receive lower raise amounts should understand this is due to sub-par performance and may consider leaving the organization. The preceding arguments lead to the following proposition:

Proposition 15: When distributive transparency occurs in conjunction with procedural transparency (Cell 5, 6, 8, or 9), pay raise satisfaction perceptions are accurate. If pay is based on performance, and both pay raise equity and pay raise dissatisfaction are perceived, low-performing individuals form turnover intentions.

Summary

In summary, for the sorting effect to function as intended, the communication of both distributive pay information and procedural pay information is needed. At a minimum, this occurs in Cell 5, with general information about both pay outcomes and pay processes communicated. However, perceptual accuracy improves as this information becomes specific. For example, in Cell 9, individuals who receive higher raises should be more satisfied and should also be better performers, and intent to stay is the likely sorting response. At the same time, individuals who receive relatively smaller raises should be less satisfied (and if PFP is used, should also be poorer performers) and may turnover.

Alternative Sorting Responses & Inequity

The above section considered the behavioral sorting outcomes (i.e., turnover intentions) that occur when pay raise equity is perceived. Of course, not every individual will feel that his or her pay raise is fair. The final sections of this chapter explore the behavioral outcomes that occur when positive or negative inequity interact with feelings of pay raise satisfaction or pay raise dissatisfaction about the raise amount received.

Positive Pay Raise Inequity + Pay Raise Satisfaction → Functional Inequity Reduction

Positive inequity or overreward results when the actual raise amount is greater than the amount an individual believes should have been received (i.e., $a < b$). Research suggests that the threshold for experiencing inequity may be higher in situations of overreward (versus underreward), as individuals may “rationalize their overreward as ‘good fortune’ without the attendant distress” (Huseman, Hatfield & Miles, 1987: 228). When distributive pay information is communicated, individuals can see if their own raise amount is relatively high or low in comparison to the raise range and median (i.e., general distributive) or the unique raise amounts received by others (i.e., specific distributive).

Despite the pay raise satisfaction that should be associated with a high raise amount, perceptions of positive inequity or overreward can trigger feelings of guilt for failing to pull one’s own weight, or unworthiness at the disproportionate amount of outcomes received (Scheer, Kumar, & Steenkamp, 2003; Homans, 1974; Perry, 1993). Despite these feelings of guilt, it is difficult to imagine an overrewarded employee feeling guilty to the extent that they are motivated to leave the organization through voluntary turnover. Equity theory instead suggests

that those who experience overreward will be motivated to reduce the perceived inequity by altering the inputs and outcomes of the self and others (Adams, 1965).

As one option, overrewarded employees may increase their own self inputs to restore balance (i.e., moving from a perception of $a < b$ to $a = b$, in Figure 4). For example, an early experiment by Adams and Rosenbaum (1962) recruited subjects to conduct hypothetical employment interviews. Subjects in the overreward condition were given information to suggest that they were not actually qualified for the interviewing task, and conducted more interviews than subjects in the equitable condition. In this case, individuals experiencing overreward increased their own inputs by conducting more interviews to increase *performance quantity*. This response is not a viable option under all performance-based pay plans. As noted by Pritchard and colleagues (1972), increasing one's quantity of performance will not reduce the perceived overreward when a piece-rate pay system is in place (Pritchard, Dunnette, & Gorgenson, 1972). With piece rate pay, pay increases as individual production or performance quantity also increases – this only exacerbates the perceived positive inequity the individual is attempting to balance.

If specific procedural information is communicated, individuals have the accurate information needed to select an appropriate inequity reduction response. To increase inputs, overrewarded individuals may also improve their *performance quality*. For example, the salesperson experiencing positive inequity may attempt to make deeper connections with customers and take more time making the sale to ensure that customers are satisfied. Other behaviors can be used to increase an individual's inputs or contributions to the organization. For instance, organizational citizenship behaviors (OCBs) are discretionary, work-related behaviors that promote effective organizational functioning but that are not related to the formal reward

system (Organ, 1989). Because OCBs are not tied to the reward system, individuals do not receive additional compensation for performing these behaviors. Furthermore, pay equity perceptions are often significantly correlated with OCBs and other extra role behaviors (e.g., Dittrich & Carroll, 1979; Scholl, Cooper, & McKenna, 1987). Accordingly, increasing OCBs and other desirable discretionary behaviors is a viable option for individuals aiming to increase their inputs and reduce perceptions of overreward.

Finally, equity theory also posits that a second behavioral strategy available for reducing positive inequity is to decrease outcomes of the self. However, when the outcome of interest is a pay raise, requesting an outcome reduction becomes unlikely, and individuals should choose behaviors aimed at increasing self inputs to alleviate feelings of guilt. Because individuals feel they are receiving a higher raise than is deserved, any behaviors aimed at increasing inputs should be largely desirable and functional for both the individual and the organization. For example, performing more OCBs is functional for the individual, who should alleviate some feelings of inequity associated with the perceived overreward. This behavior is also functional for the organization, as meta-analytic evidence suggests that OCBs are negatively related to unit-level turnover and costs, while being positively related to many measures of organizational effectiveness (e.g., productivity, efficiency, and profitability; Podsakoff, Whiting, Podsakoff, & Blume, 2009). The preceding arguments lead to the following proposition:

Proposition 16: When individuals feel overrewarded, the communication of distributive transparency in conjunction with procedural transparency (Cell 5, 6, 8, or 9), pay raise satisfaction perceptions are accurate and behavioral attempts to reduce positive inequity are the most likely to be functional for both the individual and the organization.

Negative Pay Raise Inequity + Pay Raise Dissatisfaction → Dysfunctional Inequity Reduction

Individuals may experience a second form of inequity known as negative inequity or underreward, occurring when individuals believe they should have received a larger pay raise (i.e., $a < b$; Lawler, 1971, 1981). When individuals feel underrewarded, dissatisfaction and other negative affective reactions such as feelings of deprivation or being cheated (Adams, 1965; Perry, 1993), or even hostility from being “shortchanged” may occur (Scheer et al., 2003: 304). Research suggests that individuals who feel underrewarded experience more cognitive dissonance and distress than those who feel overrewarded (Lane & Messe, 1971), and this distress may increase as the size of the perceived inequity increases (Leventhal, et al., 1969). Higher amounts of perceived underreward may therefore trigger more intense feelings of distress that necessitate more extreme behavioral action to restore equity.

As with situations of perceived positive inequity, the type of pay information that is communicated impacts perceptual accuracy and influences an individual’s ability to choose an appropriate course of action. Without the communication of distributive pay information, individuals who receive a low pay raise will be unable to verify that their raise was low in comparison to the raise range and median (i.e., general distributive) or the unique raise amounts of others (i.e., specific distributive). When individuals perceive an inequitable situation of underreward, they are more likely to be dissatisfied – regardless of their actual position in the raise range. While individuals experiencing overreward feel inequitably compensated *to their own advantage*, individuals experiencing underreward feel as though they are being shortchanged (Scheer et al., 2003) or inequitably compensated *at their own expense*. With situations of perceived underreward, it is unlikely that the communication of any degree of distributive pay information will mitigate the negative affective reactions of hostility and anger.

When individuals experience a situation of both perceived underreward and pay raise dissatisfaction, feelings of deprivation or hostility are likely (Adams, 1965; Perry, 1993; Scheer et al., 2003). In their attempts to restore balance toward equity, individuals may engage in several forms of so-called “reciprocal deviance” (Kemper, 1966). As originally conceptualized, reciprocal deviance has the primary goal of *punishing* the target, suggesting that individuals can use deviant behavior to “harm a target that has harmed them, regardless of whether or not the behavior redistributes resources” (Ambrose, Seabright, & Schminke, 2002: 952). One reason that individuals may be motivated to reciprocate harm is because the employment relationship between an individual and an organization is governed by social exchange rules (Bordia, Restubog, & Tang, 2008). More specifically, compensation administration is often included as a transactional component of psychological contracts, or an individual’s beliefs regarding the terms of exchange between themselves and the organization (Rousseau, 1989, 1995). When this transactional psychological contract is breached, individuals believe the organization has failed to fulfill that which has been promised (Rousseau, 1995). For example, an individual expecting a high raise may cognitively appraise the receipt of a lower raise as a psychological contract breach (e.g., Bordia et al., 2008). In the context of employee compensation, engaging in reciprocal deviance may serve an additional function beyond causing harm to the organization. Drawing on equity theory, reciprocal deviance may be an appropriate course of action for alleviating perceived underreward by altering one’s inputs and outcomes toward a situation that is perceived as more equitable.

As one option of reducing perceived negative inequity, individuals may choose to reduce their own inputs. For example, an individual who feels as though they are being underrewarded may choose to exert less effort toward task performance. Though this response is not functional

for the organization, it may be functional for the individual, who is able to alleviate feelings of anger and hostility by restoring the input/outcome ratio perceptions to a more equitable situation. Because negative inequity causes more cognitive dissonance and distress than overreward (Lane & Messe, 1971), individuals may be motivated to reduce their inputs by engaging in reciprocal deviance that causes harm to the organization. For instance, employees may engage in time theft by performing non-work activities while at work (Robinson & Bennett, 1995). By putting less time into their work and instead engaging in non-work activities, time theft may help restore perceptions of equity by reducing the individuals' work-related contributions (i.e., inputs). This behavior is largely dysfunctional from the perspective of both the individual and the organization as spending time on non-work activities is likely to have negative performance implications at both the individual and organizational level of analysis.

Alternatively, individuals may increase their own outcomes to reduce the feelings of anger and hostility associated with perceived underreward. In the context of pay raises, one option to increase self-outcomes is to ask for a larger raise. For this to be a viable solution, open and accurate distributive and procedural pay information must be communicated. Distributive information such as the raise range and median (i.e., general distributive) or the unique raise amounts of others (i.e., specific distributive) should improve the accuracy of individuals' perceptions about how much of a raise increase to request. Similarly, procedural pay information improves an individual's understanding of how the pay raise was determined. For example, if individuals understand the raise basis (i.e., general procedural), they may be able to better justify their raise increase request by providing evidence of above-average performance (if performance is the basis) or differences in education or experience (if these factors are the basis for pay raise distribution). Sharing specific procedural information such as the pay raise formula

allows individuals to make increasingly accurate requests and justifications for a pay raise increase. All else equal, requests that are grounded in reality and justifiable with open pay information are more likely to be viewed as legitimate and to be accepted. Taken together, the communication of both distributive and procedural pay information may decrease the chances that reciprocal deviance (Kemper, 1966) may be used for inequity reduction.

Proposition 17: When individuals feel underrewarded, the communication of specific distributive transparency in conjunction with specific procedural transparency (Cell 5, 6, 8, or 9), pay raise satisfaction perceptions are accurate and behavioral attempts to reduce negative inequity are less likely to be dysfunctional for both the individual and the organization.

Chapter 4 Summary

In summary, Chapter 4 uses the matrix framework to explore how the communication of different combinations of pay information impact the different perceptual mechanisms that drive the sorting effect of PFP. Taken together, the propositions illustrate that the sorting effect requires – at a minimum – the communication of both general distributive and general procedural pay information (occurring in Cells 5, 6, 8, and 9 of the matrix framework). For the most accurate perceptions, both specific distributive and specific procedural pay information (Cell 9) should be communicated. If these combinations of pay information are communicated in conjunction with the use of performance-based pay raises, then the sorting effect of PFP should largely function as intended to retain high performers and promote the turnover of low performers. Because sorting responses are driven by affective responses such as perceptions of pay raise equity and satisfaction, it is imperative that individual employee perceptions be based on accurate pay information.

Taken together, Chapters 3 and 4 have applied the matrix framework developed in Chapter 2 to enhance our understanding of how the communication of different types of pay information can influence the established incentive and sorting properties of PFP. In the final chapter of this dissertation, Chapter 5 next provides conclusions and suggested directions for future research utilizing the pay secrecy matrix framework.

CHAPTER 5

DISCUSSION AND CONCLUSION

A lack of pay secrecy research has helped ensure that the effects of secrecy are not well-understood. This dissertation serves as a small advance toward clarifying the construct and its effects on employee attitudes and behaviors. It is therefore a requisite first step toward moving the topic from being viewed as the “scanty compensation literature addressing pay secrecy” (Colella et al., 2007: 56), to a lively discussion driven by scholarly investigation. Research has been hindered, in part, by a proliferation of construct definitions and measurement operationalizations. Conflicting findings have done little to settle the debate regarding the merits of pay secrecy as a pay communication practice. My goal in this dissertation has been to take a step back and focus on clarifying the construct itself, before next exploring its theoretical effects on performance and turnover outcomes. By conceptualizing pay secrecy as the intersection of two continua of information – one communicating distributive pay information, and the other communicating procedural pay information – the pay secrecy construct can be more clearly mapped. The skeletal matrix (Holtzen & Gupta, 2014) that has been fleshed out here provides a framework for understanding the various definitions and conceptualizations of pay secrecy that have clouded the literature for some time now.

Contributions

The most general contributions of this dissertation are three-fold. First, it elucidates the construct of pay secrecy to produce a comprehensive matrix framework for organizing and extending the literature. Second, the latter part of this manuscript aims to enhance our knowledge of the effects of pay secrecy. Finally, conceptualizing functional versus

dysfunctional effects as two distinct continua invites further exploration and classification of how secrecy may alter perceptions to change behavior. In making this distinction among outcomes, one can simultaneously examine the more HR-focused outcomes of performance and turnover, while also incorporating additional behavioral responses from the organizational behavior domain. In addition to these more general implications, several distinct contributions are outlined below.

Implications for Research

The conceptual models developed in this dissertation have several implications for HRM research generally, and compensation and secrecy research more specifically. First and foremost, this dissertation indicates that it is not only information *content* – but also the extent to which that information is *communicated* – that influences how employees perceive pay. Other scholars have noted that many theories of individual motivation “presuppose that accurate information is critical” (Shaw & Gupta, 2002: 909). This means that there is an implicit assumption in many compensation studies such that information about the pay system is known to employees. Furthermore, one could argue that the logical extension of this assumption is that the communication of pay information is also assumed to be an accurate reflection of the actual pay system. As the research cited throughout this manuscript illustrates, this is often not the case. Pay communication has already been identified as a “critical contextual factor” (Shaw & Gupta, 2007: 904) in other areas of compensation research, such as the pay dispersion literature. If scholars are to gain a more complete understanding of how pay secrecy affects employee outcomes, we must move past our collective tendency to view the communication of pay information as a constant.

Second, this dissertation illustrates that pay secrecy, while variable, also has predictable forms when viewed through the matrix framework. By conceptualizing pay secrecy as the intersection of two continua of distributive and procedural pay information, we can begin to categorically explore the proposed effects of the nine matrix cells in future investigations of the topic. The matrix framework can therefore guide our conversation on pay secrecy research by providing a specific definition of the information content of a previously unspecified construct. If scholars can begin to agree on a definition for the construct of pay secrecy, we can continue moving forward with investigations into the proposed effects on employee attitudes and behaviors.

Third, the model presented here also informs our conversation on compensation and the strategic human resource management, by viewing pay system communication as one piece of a larger HRM system that is linked to the organization's strategic goals. This holistic view of pay communication aligns with the configurational approach to strategic human resource management, that is generally concerned with "how the pattern of multiple independent variables is related to a dependent variable" (Delery & Doty, 1996: 804). As future work explores how different forms of secrecy affect strategically-relevant outcomes such as performance and turnover, scholars must remember that these different pay communication policies cannot be viewed in isolation from the other HRM system elements. An organization's pay communication policy is but one piece of the larger compensation system, and it should be designed to promote horizontal fit, or the internal consistency of the organization's selected HRM practices. An organization is unlikely to realize any improvements in performance and other outcomes from openly sharing its pay information if the underlying compensation system is not carefully administered and equitably designed. Moving forward, scholars must begin to

consider the strategic implications of sharing different combinations of pay information to differing degrees.

Implications for Practice

The models developed in this dissertation also have implications for compensation specialists and other practitioners of HRM. First, this dissertation suggests that new terminology is needed to describe pay secrecy and its different forms. In short, the verbiage we use to describe pay secrecy must match its reality – namely, that secrecy is not a binary phenomenon. Practitioners should make a conscious effort to begin using terminology that appropriately conveys the different shades of secrecy that exist in organizations today. While a “secret/transparent” dichotomy may be preferred by managers and organizations for simplicity, the vocabulary of pay secrecy must continue to evolve as the construct continues to be mapped.

A second and more critical implication of this dissertation for compensation practice is that organizations should abandon the “all-or-nothing” approach used historically to decide if pay secrecy is a beneficial practice. As illustrated throughout this dissertation, the communication of different combinations and degrees of distributive and procedural pay information have unique effects of the different theoretical components of motivation, equity, and other elements that shape the formation of employee behaviors and attitudes. Pay secrecy is not invariably desirable and good. It is also not always harmful and undesirable. Instead, different shades of secrecy are capable of producing a range of outcomes, some of which are likely to be functional for the individual actor but simultaneously dysfunctional when viewed from the perspective of the organization. Compensation specialists and other practitioners of HRM should not fear transparency in the communication of pay. Rather, managers should be cognizant of the different ways in which various forms of secrecy can alter employee outcomes.

Limitations

As with any research endeavor, this dissertation is limited in certain respects. First, while a comprehensive matrix of pay secrecy is articulated in detail, development of a testable pay secrecy measure was beyond the scope of this project. However, the development of a pay secrecy scale could be a logical next step. We must first have a clear understanding of the constructs involved in a phenomenon before attempting to assess the validity of its measures. The matrix developed here clearly outlines what is and is not included in the domain of pay secrecy (distributive and procedural pay information, varying across three levels of transparency that range from none, to general, to the most specific). The handful of scales for measuring pay secrecy that are currently available in the literature – for example, Day’s (2007) 5-item pay communication measure, and Noy’s (2007) Perceived Organizational Pay Secrecy (POPS) scale – could prove useful in assessing the convergent validity of any newly developed scales.

While there certainly remains much methodological work to be conducted in the pay communication realm, the conceptual groundings of this dissertation should provide a framework for future empirical investigations. Future empirical testing of the propositions developed here will be needed to continue illuminating the pay secrecy construct, for “it is the gathering of data that provides the grist for debating and refuting the proliferation of conceptualization” (Reichers & Schneider, 1990: 26). Put differently, data will be needed to settle the pay secrecy debate.

A second limitation of this manuscript stems from its intentional focus on understanding how *system* characteristics interact with secrecy to affect employee behaviors and attitudes. The influence of individual differences such as personality, tolerance for inequity, and ability have been excluded from this dissertation. Though theoretically relevant, individual differences are not included here simply because these differences largely fall outside the organization’s control.

Although an organization can influence the ultimate composition of its workforce through selection procedures (e.g., using an ability test as a selection tool if high-ability applicants are desired), the company's control over the individual differences of its employees ends with selection. The decision in this dissertation to focus on compensation system characteristics and not individual differences is therefore largely pragmatic. Once we understand how system characteristics interact with secrecy, an organization can then choose to (a) restructure its compensation system by altering certain elements, (b) change its pay communication policy by sharing different combinations of distributive and/or procedural pay information, or (c) alter both. We must first understand the basics of secrecy and how it operates generally as a piece of the total compensation system. Only then can we begin to investigate how specific individuals may uniquely respond to varying combinations of pay information.

Directions for Future Research

Using the pay secrecy matrix as a theoretical framework, two primary directions for future research arise. First, this dissertation utilized a systems-based perspective to analyze pay communication policies from the perspective of the organization and the chosen elements of the compensation system (e.g., pay raise basis, measurement criteria, etc.). While investigating these system-based components is a useful starting point, it is also likely that additional contextual factors may moderate many of the proposed effects. At the individual level, personality and other individual differences may explain a significant portion of the variance in the same employee outcomes that are influenced by the communication of pay information. Drawing on expectancy theory and equity theory for variable selection, individual differences such as ability (e.g., Lawler, 1971) and tolerance for inequity (e.g., Bamberger & Belogolovsky, 2010) could be investigated. In line with the incentive effect, one would expect that an

individual high in ability may be capable of forming a stronger assessment of the relationship between effort and performance ($E \rightarrow P$). As a result, a more accurate assessment of total motivational force may result for individuals high in ability – even if the accuracy of the $P \rightarrow \text{Pay}$ expectancy has been altered through the restricted communication of distributive and procedural pay information. In contrast, tolerance for inequity may be an important contextual factor for the sorting effect. Equity sensitivity describes an individual's sensitivity to either the presence or absence of equity in exchange relationships (Huseman, Hatfield, & Miles, 1985, 1987). In the context of the sorting effect, it is possible that individuals high in equity sensitivity may require the communication of less specific distributive and procedural pay information in order to determine if the amount of their own pay raise (and that of others) is considered equitable or fair. For individuals low in equity sensitivity, more specific pay information may be required in order to trigger the comparative process that occurs when individuals evaluate pay information in relation to the pay received by others.

At the organizational level, additional moderators emerge that may influence the behavioral outcomes associated with each of the nine cells. For example, an organization's culture may moderate some of the proposed effects. If the organizational culture contains values (i.e., social principles, goals, philosophies, and standards; Schein, 1985) and/or assumptions (i.e., the taken-for-granted beliefs held by organizational members about reality and basic human nature; Schein, 1985) that hold secrecy in high regard, the open communication of pay information may not be well-received, and the proposed effects may be altered. This dissertation has proposed that the open communication of pay information may improve perceptual accuracy of individual employees as they evaluate their pay, thereby allowing the incentive and sorting properties of performance-based pay to motivate performance and promote the functional sorting

of high and low performers. If the organization's values and/or assumptions do not align with this openness, even the most well-communicated pay system may do little to alter employee attitudes and behaviors. An organization that holds secrecy as a basic assumption or value of its culture is unlikely to benefit through the open communication of pay information.

Several features of the organization – in addition to its culture – may also predict in which unique matrix cell that its pay secrecy policy is likely to fall. As noted above, an organization that values secrecy and ambiguity may choose to enact a more secretive pay communication policy, perhaps of the Cell 1 or 2 variety. The organization's culture may be further influenced by characteristics of the industry in which it primarily operates. For example, organizations doing business in industries with heavy R&D investments into top-secret product development may choose to guard the pay information of employees just as closely as they choose to guard all other aspects of the organization's day-to-day functioning. For these organizations, it may be that this secrecy is viewed as a strategic choice, thereby limiting the likelihood that any information – even that related to pay raise administration – is openly communicated and shared. Similarly, an organization may choose a specific pay communication policy from the matrix cells as a strategic choice. For example, an organization with the strategic goal of promoting intense competition among employees may choose a pay communication policy of the Cell 8 or Cell 9 variety. By communicating specific distributive information in conjunction with at least general procedural information, individuals may be primed to make direct comparisons with others. With procedural information also communicated, individuals will know if performance is the basis for pay raise distribution, and may be motivated to compete with one another in terms of both higher performance and the subsequent higher raises it commands.

Organizational size may also influence the type of pay communication policy that is chosen. On the one hand, a smaller organization with fewer employees may be more capable of executing a Cell 9 pay communication policy. With fewer employees, there are less direct comparisons to be made, but the comparisons that are made may be viewed as more personal and emotionally-charged, simply because interpersonal relationships may be based on deeper connections than in organizations with thousands, or even hundreds of thousands, of employees on its payroll. With fewer employees to manage, smaller organizations are more likely to have the additional time and resources needed to explain the reasoning behind the pay information that is communicated. Smaller organizations are also more likely to be able to take the time to individually address any questions and concerns that may arise among employees in response to the pay communication policy. Conversely, a larger organization may choose to communicate only general distributive and procedural pay information (i.e., Cell 5). For the very largest of organizations, any pay comparisons that are made are more likely to be general in nature (i.e., making comparisons with averages, ranges, etc.). Any direct comparisons made are likely to be bounded by job family, work group, or some other factor that makes these comparisons more salient by reducing the number of individuals cognitively available for comparison. Finally, larger organizations may not have the additional time and resources needed to address employee concerns and complaints that may arise if the unique raise amounts of other employees are made public. These large organizations should be especially careful to avoid pay communication policies of the Cell 4 or Cell 7 variety, as communicating distributive pay raise information without corresponding procedural information may ignite workplace gossip regarding who received what pay raise amount and why.

An obvious second direction for future research in this area involves data collection and the empirical testing of the stated propositions. More generally, management scholars must continue investigating how the communication of different combinations of pay information influence the psychological mechanisms of motivation and satisfaction. At the same time, careful attention must be paid to ensure that pay communication is not studied in isolation from other compensation system elements. As noted by Bamberger and Belogolovsky (2010), “several researchers have warned of the risk of making incorrect inferences by studying pay strategy in isolation (Gerhart, 2000; Bamberger & Meshoulam, 2000)” (p.991). Similarly, pay communication policies should not be studied in isolation from other compensation system elements such as pay basis, measurement criteria, and allocation rules.

Moving forward, the next step for this project involves testing the theoretical framework and propositions developed here. Two research designs are particularly well-suited to the testing the model developed here. Any design has strengths and weaknesses, and more than one research design and study will be needed to empirically address the full range of secrecy’s effects. First, an experimental design is outlined below as a quantitative method for investigating the causal nature of the proposed relationships. Next, a parallel mixed methods design is explored as a means to assess both exploratory and confirmatory questions while generating new theory.

Experimental Design

The development of the pay secrecy literature has been hindered by a lack of empirical investigations, particularly those using a research design that permits causal inferences. As an alternative to the over-abundance of survey methodology used in the investigation of pay secrecy, a laboratory study could instead be designed. To investigate the causality of secrecy’s

proposed effects, the nine cells of the matrix can be used to create experimental conditions. Using this design, participants could be brought into a laboratory setting and randomly assigned to one of the nine conditions. The study could be framed to participants as a study on the effects of performance-based pay raises. Participants could perform a specific performance-based task, such as the “magic stones” game from the Bamberger and Belogolovsky studies (2014, 2017), or other tasks commonly used by researchers in studies of performance-based pay (e.g., basic addition or subtraction, entering data into a spreadsheet, etc.). Measures of pay raise satisfaction and pay raise equity perceptions could be collected from participants as self-report measures. Dependent variable information could be gathered from objective performance data (e.g., number of rows “turned to gold” if the magic stone game were used, or the number of correct math problems or data entries, etc.) and self-reported turnover intentions (i.e., by asking if the participant wants to continue to additional rounds of the task).

Turning to the actual experimental pay communication manipulations involved, the distributive pay information independent variable requires three levels (none, general, specific), and the same three levels exist for the procedural pay information independent variable. Participants can be paid a set base amount (e.g., \$1.00), and then told that pay increases may be available as they progress through the three to four rounds of the experimental task. The communication of *no distributive* pay information may be manipulated by telling participants that, “You will receive a pay increase at the end of each experimental round” (with the individual’s own raise amount becoming known upon receipt of the pay amount). For *general distributive* information to be communicated, participants could be told that, “Total pay increase amounts for all participants range from \$0 to \$1.00, with a median value of \$.60.” The median value that is stated can be further manipulated such that the individual is paid above or below the

median pay raise amount, to reflect high v. low range position. To communicate *specific distributive* pay information, participants may be provided with the following prompt: “Shown below is a list of the pay increase amounts received by you and your fellow study participants during the last experimental task round. Pay raise amounts are listed by seat number, and are posted above each cubicle in the lab so that you may identify who was paid what amount.” By explicitly identifying the raise amounts of unique individuals instead of using confidential code numbers, participants now have the identifying information needed to make direct pay comparisons with unique others. This design feature should help overcome some of the issues in prior experimental studies identified at the beginning of this dissertation, particularly in relation to the use of code numbers to protect participant privacy (e.g., Bamberger & Belogolovsky, 2010; Belogolovsky & Bamberger, 2014).

The communication of procedural pay information manipulation also contains three levels. To communicate *no procedural* information, participants may be told that, “You will receive a pay increase at the end of each performance round.” To communicate *general procedural* pay information, participants may be told this pay increase is given “for every row that is turned to gold by placing stones such that they match the adjacent stones in color, shape, or both.” To communicate *specific procedural* information about the pay raise formula, participants may be told that “The total raise amount is determined by multiplying the number of rows correctly turned to gold by the pay increase amount”. Depending on the type of distributive information that is also communicated (i.e., to which of the nine matrix cell conditions the participant has been randomly assigned), participants may or may not know the actual pay increase amount that is paid for each row correctly turned to gold.

The distributive and procedural pay manipulations could then be integrated to produce experimental conditions that replicate the nine matrix cells. For example, an individual assigned to the Cell 3 condition (no distributive, specific procedural) would be told: “You will receive a \$.50 pay increase at the end of each performance round (*secret distributive*), for every row that is turned to gold by placing stones such that they match the adjacent stones in color, shape, or both. The total raise amount is determined by multiplying the number of rows correctly turned to gold by the pay increase amount (*specific procedural*)” In contrast, a participant randomly assigned to the Cell 4 condition (general distributive, no procedural) could be told, “You will receive a \$.50 pay increase at the end of each performance round, with total pay increase amounts for all participants ranging from \$0 to \$1.00, with a median value of \$.60.” Finally, a participant randomly assigned to the Cell 8 condition (specific distributive, general procedural) could be provided the following prompt: “You will receive a \$.50 pay increase at the end of each experimental task round, for every row that is turned to gold by placing stones such that they match the adjacent stones in color, shape, or both (*general procedural*). Total pay increase amounts for all participants range from \$0 to \$1.00, with a median value of \$.60. Shown below is a list of the pay increase amounts received by you and your fellow study participants during the last performance round. Pay raise amounts are listed by seat number, and are posted above each cubicle in the lab so that you may identify who was paid what amount (*specific distributive*).” In addition to the nine pay communication manipulations, pay raise amount (and how it relates to the raise range and median values) would also need to be manipulated using a high and a low condition, in order to test the propositions developed in relation to the sorting effect (Chapter 4).

The primary benefit of experimental design is that it allows for causality to be inferred. Through manipulation and control in a laboratory setting, plausible alternative explanations can be eliminated, and confidence in the observed results increases. Second, the use of nine different pay communication manipulations aligns with the matrix framework. It also remedies some of the issues noted with extant experimental studies that have manipulated transparency simply as the dissemination of pay amount (e.g., Greiner, Ockenfels, & Werner, 2011), often by code number alone (e.g., Bamberger & Belogolovsky, 2017; Belogolovsky & Bamberger, 2014). In this proposed experimental design, raise amounts will be attached to unique study participants by identifying numbered seating locations within the lab.

While random assignment with experimental manipulation allows for causal inferences, the design also has limitations. With any laboratory setting, there will be questions about whether the findings generalize to external settings. It would therefore be interesting to conduct a field experiment to test the model in a real organization, with employees performing real work in exchange for actual performance-based pay increases. However, this would require finding a company that already distributes raises on the basis of performance, and that is also willing to reconsider its pay communication policy. Again, using the distributive/procedural framework outlined here, the organization could explore the effects of the communication of different combinations of pay information on employee performance, satisfaction, perceptions of equity, and turnover intentions.

Despite the inherent difficulties of finding an appropriate organization for study, field experiments and other variations of field research are being used by a growing number of management scholars, in order to study “real people, real problems, and real organizations” (Edmondson & McManus, 2007: 1155). In their review of the methodological fit of selected

management field studies, Edmondson and McManus (2007) suggest that theory development in management research is also best conceptualized as a continuum. At one end of this continuum is *mature theory*, involving the study of well-developed constructs and precise models; at the other end of this continuum is *nascent theory*, which “proposes tentative answers to novel questions of how and why, often merely suggesting connections among new phenomena” (Edmondson & McManus, 2007: 1158). Near the middle of the continuum is *intermediate theory*, presenting “provisional explanations of phenomena, often introducing a new construct and proposing relationships between it and established constructs” (Edmondson & McManus, 2007: 1158).

This conceptual dissertation is one illustration of intermediate theory development. The construct of pay secrecy, though not new, continues to be conceptualized and reintroduced by different scholars in a variety of different forms. This dissertation aims to reconceptualize the pay secrecy construct, and then propose relationships between this new conceptualization and established constructs associated with the incentive (e.g., motivation, performance) and sorting (e.g., pay raise satisfaction, pay raise equity, and turnover intentions) effects. As such, the framework developed by Edmondson and McManus (2007) suggests that studies of intermediate theory should integrate both quantitative and qualitative data, primarily to aid in the assessment of the external and construct validity of newly developed measures through triangulation (Jick, 1979). Toward this end, the following section details one possible mixed method design that could be used to integrate quantitative and qualitative methods into a single study of pay secrecy.

Mixed Methods Design

Mixed methods research involves the integration of both quantitative and qualitative data collection and data analysis techniques (Johnson, Onwuegbuzie, & Turner, 2007). A parallel

mixed method design involves the use of “at least two parallel and relatively independent strands: one with QUAL questions, data collection, and analysis techniques and the other with QUAN questions, data collection, and analysis techniques” (2009: 152). For the quantitative strand of the mixed design, a survey could be administered in a field setting to measure different components of the proposed models, such as employee perceptions of equity antecedents (i.e., perceived pay raise amount of referent, and perceived inputs of self and referent). Pay raise satisfaction, turnover intentions, and each individual’s perceived position in the pay raise range could also be captured using a survey methodology. Still within the quantitative strand of the mixed method design, individual performance data could also be collected on each employee from organizational records.

Parallel to this quantitative research strand is a relatively independent qualitative strand. Simultaneously, the qualitative strand of this parallel mixed design could be used to ask exploratory questions to begin understanding *why* individuals are more or less satisfied when different types and degrees of pay information are communicated. Because the domain of pay secrecy is still being mapped as part of this intermediate theory investigation, unstructured interviews could be used to gather rich qualitative data from employees in a field setting. This dissertation has organized employee outcomes along the incentive and sorting tracks. Pay communication policies should have additional effects beyond performance and turnover, however. Qualitative interviews could therefore be used to explore these effects and aid in the identification of variables warranting inclusion in future investigations of pay secrecy.

The proposed parallel mixed method design outlined above provides several benefits that single approach designs do not. First and foremost, this parallel mixed design of quantitative surveys and qualitative interviews will provide the opportunity for triangulation when the results

from each strand are integrated during the interpretation phase (Creswell, Plano Clark, Gutmann, & Hanson, 2003/2008: 183). Second, this specific mixed method approach allows for confirmatory and exploratory questions to be addressed simultaneously (Teddlie & Tashakkori, 2009: 33). While the quantitative survey data could be used to gather evidence to examine the validity of the stated propositions, qualitative interview data may generate new information about unknown aspects of employee attitudes toward pay secrecy policies. Because pay secrecy research has been hindered by a lack of theoretical development, a mixed methods approach could be a first step toward addressing this deficiency.

Mixed methods research is also popular because it uses methods “mixed in a way that has complementary strengths and nonoverlapping weaknesses” (Johnson & Turner, 2003: 299). While closed-ended, quantitative surveys are useful in generating large numbers of responses both quickly and inexpensively, this data collection strategy simultaneously suffers from potentially low response rates and missing data (Teddlie & Tashakkori, 2009: 239). To address these shortcomings, qualitative interviews could ask probing questions while gathering rich information from participants, moving towards a deeper understanding of employees’ perceptions of pay secrecy policies. Although these qualitative interviews will likely be expensive and time consuming, these weaknesses can hopefully be offset via the strengths of the quantitative survey component of the parallel mixed design (Teddlie & Tashakkori, 2009: 239).

Finally, it is important to note that parallel mixed designs are subject to several limitations. The primary concern is that it “requires considerable expertise to examine the same phenomenon using two different approaches in a parallel manner” (Teddlie & Tashakkori, 2009: 153). Furthermore, it can be difficult to compare the results of two analyses based on different forms of data, and resolving any discrepancies that may come to light can be unclear (Creswell et

al., 2003/2008: 184). Nevertheless, pay secrecy and its intermediate level of theory development is a primary candidate for investigation using a mixed methods approach.

Conclusion

This dissertation develops a novel theoretical framework for understanding how the communication of different combinations of distributive and procedural pay information influence the incentive and sorting properties of performance-based pay. Propositions have been presented about the potentially beneficial effects that the communication of open pay information may have on employee motivation and performance via the incentive effect, as well as on satisfaction and turnover intentions via the sorting effect. When pay information is transparent, the signals that pay communicates to employees (e.g., regarding the results and/or behaviors that are valued and rewarded) have a greater likelihood of being clearly received by employees. And yet, an important caveat about the potential benefits of pay transparency must be stated.

In short, transparency will only have beneficial effects if an organization's implicit or actual pay policy is congruent with its espoused pay policy. The assumption throughout this dissertation has been that the theoretical propositions apply to performance-based pay raises. For the propositions to hold true, pay raises must actually be distributed on the basis of performance. If an organization says one thing and does another in regards to how it pays employees, the proposed relationships no longer apply. Transparency will be of little help to an organization claiming to use PFP but that actually distributes raises using non-performance criteria. If an organization claims to distribute pay raises on the basis of performance, it must ensure this is actually the case. Otherwise, making pay information transparent could have disastrous effects. Employees may lose trust in the organization, morale may suffer, and – depending on the actual

criteria used to distribute raises – legal repercussions may surface if discrimination has occurred.

When pay is based on criteria other than performance (or some other legitimate factor), making pay transparent is unlikely to have any positive effects.

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