SELF-ORIENTED COMPETITIVENESS: IMPLICATIONS FOR SALES MANAGERS

By

Wyatt A. Schrock

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ABSTRACT

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The salesperson trait of competitiveness has, for motivational reasons and decades now, kept the interest of marketing managers and researchers alike. Yet, despite the trait's importance, much about competitiveness remains unknown. In particular, and surprisingly, a rather fundamental question remains unexplored: "competitive against what?" Extant research has assumed the position that all competitive salespeople are preoccupied with other people (e.g., comparisons and/or evaluations based on others). However, just as the target of competitive behavior can be another individual, group or organization, we propose here that the target is sometimes internal (i.e., the competitive individual herself or himself). We suggest that many highly competitive salespeople are not preoccupied with others or interpersonal rivalry but instead compete with themselves, against their own standards and personal bests. Accordingly, our research explores the complexity of competitiveness and the implications to management. Across three studies, we seek answers to four research questions. First, does competitiveness have distinct (reasonably independent) internal and external orientations? Second, how might these different orientations associate with different critical salesperson behaviors (e.g., working hard, working smart) en route to performance outcomes? Third, and with guidance from leadership theory, how might differently competitive salespeople react behaviorally under different leader behaviors? Fourth, how might differently competitive salespeople react behaviorally and perform under different compensation (incentive) structures? Ultimately, we show that meaningful complexity has been thus far overlooked, given various behavioral and

outcome performance implications. Our examination has wide-ranging practical implications. Beyond the behavioral consequences explicitly addressed here (e.g., in-role vs. extra-role effort), a new view of competitiveness is instrumental to sales force decisions about hiring, team selling, selling alliances, among others.

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To my Mother, Father, Damon, and Nick: Thank you for paving my way and making life comfortable for me. To Kelli: I thank God for sending you my way. To Donna Shalala: Thank you for your willingness to help me in life whenever I reached out. To Dr. Hughes and Yanhui: I thank God for allowing my path to cross with yours. To Dr. Hult: Thank you for your constant encouragement. To Dr. Voorhees and Dr. Calantone: Thank you for believing in me.

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KEY TO ABBREVIATIONS

OOC = Other-Oriented Competitiveness

SOC = Self-Oriented Competitiveness

INTRODUCTION

"The principle is competing against yourself. It's about self-improvement, about being better than you were the day before."

- Steve Young (NFL Hall-of-Fame quarterback and Superbowl champion)

"When I go in to compete, whether it's gymnastics or anything else, I do my own thing. I compete with myself."

- Shannon Miller (Gold-medal winning Olympian)

"I'm not in competition with anybody but myself. My goal is to beat my last performance."

- Celine Dion (5-time Grammy award winning musician)

Marketing researchers and practitioners alike have long been, and will forever remain, in search of a better understanding of the traits of effective and ineffective salespeople (e.g., Lamont and Lundstrom 1977). The implications are straightforward and compelling. An improved understanding of the traits associated with effective and ineffective salespeople (more and less generated revenue) is theoretically amenable and can also facilitate managerial decisions about (1) recruitment, (2) selection, (3) placement, and (4) job design or structure. In this regard, competitiveness is one salesperson trait that has remained eminent, across time and audience. Competitiveness typically shows up in practitioner conversations about *"What Drives Top Salespeople to Greatness?"* (Brewer 1994), *"The Science Behind Hiring Top Gun Salespeople"* (Croner and Abraham 2008), and *"Personality Traits of Top Salespeople"* (Martin 2011). Academic researchers too have recognized the importance of trait competitiveness. Over the past two decades, the construct has continually surfaced in marketing literature, across top journals[1].

[1] Since 1994 in the Journal of Marketing, no salesperson trait has been investigated more frequently than trait competitiveness (based on a manual review by the authors).

Most marketing research to date on salesperson competitiveness has conceptualized trait competitiveness according to the work of Spence and Helmreich (1983), who declare "[t]he competitiveness factor describes the enjoyment of *interpersonal* competition and the desire to win and be better than *others* (p.41, emphasis added)." For instance, Brown and Peterson (1994), Brown, Cron, and Slocum (1998), and Wang and Netemeyer (2002) rely on this conceptualization. Other competitiveness research in marketing literature conceptualizes the construct similarly, as "*interpersonal*" or in relation to "*other salespeople*" (e.g., Jelinek and Ahearne 2010; Krishnan et al. 2002, emphasis added). Following such conceptualizations, competitiveness research has naturally relied on scale items published by Helmreich and Spence (1978) and Spence and Helmreich (1983). Example items include (with emphasis added): "It is important to me to perform better than *others* on a task" and "I try harder when I'm in competition with *other* people." Empirical investigations of competitiveness not using the Helmreich and Spence items have relied on similar items about others, other salespeople, or coworkers.

However, if all competitive salespeople are not necessarily preoccupied with other people or interpersonal rivalry (as the sample of opening quotes implies), then our customary conceptualizations and measures of competitiveness stand somewhere between incomplete and off-center. If we have thus far overlooked a chronic target of competitive behavior, the self (e.g., one's own standards, one's own prior set records), then our currently singular view of competitiveness might overlook meaningful complexity. Overlooked and meaningful complexity may simultaneously offer plausible explanations for the literature's equivocal findings about competitiveness in the sales force. Trait competitiveness has indeed been an inconsistent predictor of selling effort (e.g., Brown and Peterson 1994; Krishnan et al. 2002) and

sales performance (Brown et al. 1998; Brown and Peterson 1994; Wang and Netemeyer 2002). More recent research of salesperson competitiveness has taken different moderating factors into account (e.g., perceptions of work climate, salesperson "coachability"), to help explain the literature's inconsistent and sometimes weak findings (Schrock et al. 2016; Shannahan et al. 2013). Meanwhile, and despite anecdotal evidence (e.g., the opening quotes), hints in the literature (e.g., Locke 1968, p. 180), and references to the notion of "competing with oneself" and "competing with yourself" in books about human competition (Kohn 1992; Ruben 1981), the concept of self-oriented competitiveness has, thus far, avoided empirical investigation.

Motivated by (1) this empirical gap in the literature, (2) "insight stimulating examples" (Churchill 1979) and (3) the authors' own substantive interest in the area (DeVellis 2003), our research explores the complexity of salesperson competitiveness. Across three studies, we seek answers to the following four research questions. First, does competitiveness have distinct (reasonably independent) internal and external orientations? Second, how might these different orientations associate with different critical salesperson behaviors (i.e., working hard, working smart, being a good organizational citizen) en route to performance outcomes? Third, and with guidance from leadership theory, what are some effective (ineffective) leader behaviors in managing differently competitive salespeople? Fourth, how might different competitive orientations differentially drive salesperson behavior and performance under different formal compensation (incentive) structures?

Ultimately, we show that salesperson competitiveness has meaningful complexity (given different behavioral and performance outcome implications). Our preeminent intended contribution is a belief shift (or belief examination at least) regarding the nature of competitiveness, a salesperson trait of strong and continual interest among researchers and

practitioners alike. Our examination has wide-ranging practical implications. Beyond the behavioral consequences explicitly addressed here (e.g., in-role vs. extra-role effort), a more nuanced view of salesperson competitiveness is relevant to sales management decisions about hiring (e.g., Lo et al. 2011), team selling (e.g., Ahearne et al. 2010) and selling alliances (e.g., Smith and Barclay 1997), among others.

The rest of this dissertation is organized as follows. We begin Study 1- a scale development study - with a discussion of the nature of human competitiveness, the personal selling context and related sales force literature. Next, we introduce the concept of self-oriented competiveness. Then, we discuss the item development process and pretesting of a measure of self-oriented competitiveness. After developing several construct validation hypotheses, we review the sample, measures and analytic approach for Study 1. Study 1 results are reviewed and then followed by a discussion section. We follow the introduction of Study 2 with a review of two theories: (1) expectancy theory and (2) path-goal theory. With these theories as a basis, we then summarize the conceptual model's constructs and develop several hypotheses. Next, we review the sample, measures and analytic approach for Study 2. Study 2 results are reviewed and followed by a discussion section. We next introduce Study 3, a field experiment. After developing hypotheses, we describe the sample, measures and analytic approach. Study 3's results are reviewed. Following a discussion section for Study 3, we close with managerial implications and theoretical contributions.

CONCEPTUAL BACKGROUND AND LITERATURE REVIEW

Human Competitiveness and the Personal Selling Context

While debate exists about its genetic versus cultural origins, competitiveness (with its virtues and vices) remains "a constant factor in human affairs"– spanning classroom, family,

workplace, and social settings (Kohn 1992; Ruben 1981, p. 18). Though outward manifestations of competitiveness vary widely, most human contests may share a common core. According to Ruben (1981), together at the core of most human competition are two good feelings: esteem and belonging[2] (two higher-order human needs; Maslow 1943). As such, Ruben (1981) suggests that, from the playground as children to the workplace as adults, in order to feel good about ourselves, we all uniquely manage our own competitive urges to both stand apart (esteem) and be a part (belonging). To enjoy the self-esteem benefits of competitive success, we choose the games that we enter (exit) and often establish our own rules for the games that we decide to play (Ruben 1981). In terms of manifestations or forms, competitiveness can be more or less disguised, friendly, silent, unconscious, vindictive, healthy, long-term oriented, or concerned with power and influence (Ruben 1981). Competitor types vary widely with childhood experience and personality differences (e.g., along aggressiveness or conscientiousness dimensions).

For reasons principally related to motivation, trait competitiveness has long been hypothesized as a predictor of workplace productivity across occupational contexts. For example, Helmreich et al. (1980) studied the relationship between competitiveness and publication counts in a sample of college professors. However, perhaps more than any other occupation or workplace context, personal selling is an individual (or "personal") job (Bagozzi 1978) in which success ultimately depends on personality and competitive energy (Martin 2011; Plotkin 1987; Vinchur et al. 1998). As an arena and outlet for competitive ambitions, the sales profession (like gambling or intramural athletics; Mowen 2004) may in fact attract more

[2] The authors readily acknowledge the fact that human competition exists for more fundamental needs such as safety or security (including financial and physical security), among individuals and collectives (e.g., firms, governments).

competitive people (Vroom 1964). Especially in business-to-business settings, personal selling can be a "zero-sum game" in which the buyer's money (budget or contract) is awarded to only one of several competing salespeople (companies, brands, products or services). It is not unusual for a single salesperson to "win" a given industrial buyer's business. In addition to this between-firm competition, competition exists between salespeople within the same firm. Within any given sales force, there is always some non-zero level of competition for promotion opportunities, social acceptance, status, recognition, or job security. At the same time, sales managers intentionally stir sales force competition, given expectations of increased salesperson effort in the pursuit of valued and fixed outcomes (be they monetary or psychological; Brown and Peterson 1994). Sales managers can stimulate competition with policy (e.g., designing sales contests; Lim et al. 2009) or with work climate (e.g., openly comparing or ranking salespeople; Schrock et al. 2016).

Conceptualization and Empirical Literature Review

In marketing literature, trait competitiveness has been conceived as an aspect of personality and individual difference construct (Brown, Cron and Slocum 1998; Brown and Peterson 1994). In Wang and Netemeyer's (2002) study of salesperson performance, trait competitiveness refers to a stable "dimension of achievement motivation (p. 219)." In management literature, competitiveness has been viewed as a "motivational trait (Hinsz and Jundt 2005)" and a "motivational force (Sambolec et al. 2007)." In sports psychology literature, sports-specific conceptualizations exist. For example, Gill and Deeter (1988) define competitiveness as "the desire to enter and strive for success in sport competition (p.200)." As noted in the introduction, most competitiveness research in marketing literature relies on the Spence and Helmreich (1983) definition wherein competitiveness refers to "the enjoyment of

interpersonal competition and the desire to win and be better than others (p.41)." This Spence and Helmreich (1983) conceptualization could be perceived as effectively tapping a dual satisfaction derived from the (1) processes and (2) outcomes of competition. Kohn's (1992, p. 4) definition of "intentional competitiveness" as "the desire on the part of the individual to be number one" seems to capture the second piece of the Spence and Helmreich (1983) construct domain.

In marketing literature, trait competitiveness has been hypothesized as an antecedent to salesperson effort (as models of salesperson performance typically view effort as an important consequence of motivation; Vroom 1964). For example, Brown and Peterson (1994) and Krishnan et al. (2002) studied the trait competitiveness → effort path; both papers expected salesperson effort (e.g., the number of hours worked, the number of calls made) to mediate the relationship between trait competitiveness and salesperson performance. The trait competitiveness → effort path remains surprisingly unclear, however. Brown and Peterson (1994) found that trait competitiveness was unrelated to effort and instead had a direct impact on salesperson performance. Krishnan et al. (2002) found that the trait competitiveness → effort relationship was insignificant in one sample (cellular services salespeople) and significantly positive in another sample (real estate salespeople). Wang and Netemeyer (2002) examined the impact of trait competitiveness on a different kind of effort: learning effort, or "the amount of time and energy the salesperson devotes to acquiring job-related skills and knowledge on a continuous basis (p.218)." The authors found that the effect of trait competitiveness on learning effort was indeed significantly positive and robust across two samples (real estate salespeople, advertising salespeople).

Research has revealed several other beneficial consequences of trait competitiveness in the sales force, in addition to effort. For example, Brown et al. (1998) showed that competitive salespeople set more challenging goals for themselves. Shannahan et al. (2013) found that highly competitive salespeople are more "coachable," an individual difference variable referring to "the degree to which salespeople are open to seeking, receiving, and using external resources to increase their sales performance (p.41)." Existing literature also provides evidence that highly competitive salespeople are more likely to be highly committed to their employers (Lam 2012; Schrock et al. 2016). The work of Jelinek and Ahearne (2010) is, to the best knowledge of the authors, the only salesperson competitiveness research effort to date that has empirically explored potentially negative effects of trait competitiveness. These authors' findings rule out panacea and suggest that highly competitive salespeople are more likely to blame, criticize, and say hurtful things to coworkers.

Research models incorporating salesperson competitiveness usually include a measure of salesperson performance as the ultimate dependent variable. In general, findings regarding the direct effect of trait competitiveness on salesperson performance have been very mixed. For instance, Wang and Netemeyer (2002) found a significant direct effect in one sample (real estate salespeople) and an insignificant direct effect in another sample (advertising salespeople). Brown et al. (1998) found that the direct path from trait competitiveness to performance was insignificant. Other studies have shown the path to be significantly positive (Brown and Peterson 1994; Schrock et al. 2016). Meanwhile, Krishnan et al. (2002) suggested that the effects of trait competitiveness on performance are only indirect. To help make sense of mixed main effects, recent studies have explored the conditional impact of trait competitiveness,

accounting for factors such as organizational climate and leadership style (Schrock et al. 2016; Shannahan et al. 2013).

Self-Oriented Competitiveness

Of importance for the purposes of this research is the fact that traditional conceptualizations (and therefore operational definitions) of competitiveness emphasize other people. Competitiveness research relying on the work of Spence and Helmreich (1983) naturally focuses on other people. Research not relying on the work of Spence and Helmreich (1983) also conceptualizes competitiveness in relation to others, as noted above. For example, Krishnan et al. (2002) "define competitiveness as the enjoyment of competition with other salespeople and the desire to outperform other salespeople (p. 288)." In the work of Jelinek and Ahearne (2010), "[t]rait competitiveness is defined as an internal and intentional desire on the part of the individual to engage in activities and situations that involve interpersonal competition (p.305)." Research on trait competitiveness usually explains that highly competitive salespeople (1) tend to be concerned with position (performance) relative to others and (2) frequently compare themselves to others (e.g., Brown and Peterson 1994; Krishnan et al. 2002; Wang and Netemeyer 2002).

However, if - in reality - some competitive salespeople are not preoccupied with others, then our typical conceptualizations (and operational definitions) of competitiveness capture the construct domain only partially. If some competitive people are not engrossed in interpersonal rivalry, then the nature of competitiveness warrants empirical scrutiny. In particular, we believe that extant marketing research has failed to consider a fundamental type of competitiveness, i.e., self-oriented competiveness. In the same way that the target of competitive behavior can be another individual, an out-group or organization (Kilduff et al. 2010), we propose here that the

target can also be internal (i.e., the competitive individual herself or himself). The opening quotes certainly imply that the notion of competing with oneself is a real-life phenomenon. At the same time, literature has provided some hints that something like "self-oriented competitiveness" exists. According to Locke (1968, p. 180), "[t]he case of an individual trying to improve over his own previous performance on a task can be considered a special case of competition: self-competition." In his book, *Competing*, which devotes an entire chapter to "Competing with Yourself," Ruben (1981) declares "[c]learly, anyone can compete with himself or herself as well as with others (p.57)." According to Ruben (1981), "many of us reserve our most intense competitive efforts for ourselves; some of us, indeed, find it all but impossible to compete with anyone *but* ourselves (p.47; emphasis in the original)."

The literature review above indicates that the direct, indirect and contingent effects of the trait competitiveness construct in the sales force have been – and are being - continually evaluated. Yet, close examination of this literature suggests that much less attention has been paid to the competitiveness construct itself – and that an important aspect of competitiveness is thus far overlooked. To the best knowledge of the authors, the only empirical investigation in this area is the experimental work of Rudow and Hautaluoma (1975), which found that subjects in a manipulated "competition-with-self" condition committed fewer errors on coding and arithmetic tasks than did subjects in a "competition-with-others" condition.

As such, a primary focus and intended contribution of this research is to advance the concept of self-oriented competitiveness. Self-oriented competitiveness refers here to a specific aspect of a salesperson's personality that desires and highly values the surpassing of one's own prior accomplishments, standards or personal bests, independent of interpersonal comparisons. For salespeople with high levels of self-oriented competitiveness, a chronic target of comparison

is internal. Driven by internal standards, these salespeople judge for themselves what performance is acceptable or excellent. For salespeople with high levels of self-oriented competitiveness, contests involve themselves and their own prior set records. "Beating" one's past performance is a highly desirable outcome, while "beating" other people could be a desired, indifferent, or aversive outcome (Vroom 1964). Improving one's own best performance and outperforming one's past self are dominant motives and sources of satisfaction. In safely allowing for experimentation, learning and self-improvement over time, self-oriented competitiveness can indeed provide an internal satisfaction that interpersonal rivalry cannot.

What we call here self-oriented competitiveness is captured effectively in Ruben's (1981) discussion of the "self-competing person (p.47)." For self-competing people, the opponent and "standards of appraisal" are both internal, not external (Ruben 1981, p. 49). Self-competing people do not measure their ability against others. Instead, self-competing people are comfortable with measuring their ability according to their own internal standards (Ruben 1981, p. 49).

In several ways, we anticipate that salespeople with high levels of other-oriented competitiveness (i.e., the typical conceptualization and measure centered on other people; *referred to as OOC from hereon*) might be qualitatively different from salespeople with high levels of self-oriented competitive salespeople (*referred to as SOC from hereon*). For example, compared to those with high levels of SOC, we expect that salespeople with high levels of OOC will have (1) higher needs for attention and external approval; (2) higher valences for social rewards such as recognition and praise; and (3) stronger desires for status symbols and prestige. We suspect that salespeople high in SOC can largely feel good (or bad) about themselves based on their own performance assessments, while the self-esteem of salespeople with high levels of

OOC may be more strongly impacted by other people. Otherwise, we suspect that competing with oneself can induce the same levels of anxiety that competition with others can provoke.

We expect that SOC is a relatively persistent personality trait that surfaces across situations. Though we study the phenomenon in a personal selling context, we believe that it exists widely (e.g., students, collectors, video game players, marathon runners, musicians, golfers). Importantly, we expect that SOC and OOC are two reasonably independent constructs – not opposite ends of the same continuum. For example, we expect that a salesperson can report (1) high levels of both dimensions, (2) low levels of both dimensions, or (3) a high level of one and a low level of the other. We expect that people with high levels of self-oriented competitiveness may enjoy competing with others – or they may detest it.

STUDY 1

ITEM DEVELOPMENT AND PRETESTING

The objective of our item development and pre-testing stage was to develop a reliable measure of self-oriented competitiveness, following generally recommended scale development procedures (e.g., Churchill 1979; DeVellis 2003; Hinkin 1995; Rossiter 2002). Our item generation process began with an extensive literature search of empirical studies of trait competitiveness (Churchill 1979). Our literature search was assisted by the Business Source Complete (EBSCO) database and the ProQuest PsycTESTS database. The ProQuest PsycTESTS database of published measures was searched for competitiveness scales. More than 30 scales pertaining to competitiveness, across academic disciplines, were reviewed. Interestingly, our database search did retrieve exactly one item that seemed to tap our construct of interest, i.e., "I compete to measure myself against my personal standards" in the 38 item Perception of Competition Scale (Carter and Weissbrod 2011). Importantly, we developed, adapted and discarded items with the purpose of aligning closely with the stated conceptual definition of self-oriented competitiveness outlined above. Negatively scored items were excluded, given documented concerns about introducing confusion, systematic error and artificial response factors (e.g., DeVellis 2003; Hinkin 1995; Jackson et al. 1993). Consistent with recommendations in the literature, we chose a 7 point response format for the items (Hinkin 1995). Our Likert-type items were anchored by "strongly disagree" and "strongly agree."

The initially generated items were shared with a convenience sample of insurance salespeople (two insurance offices in a Midwestern state). This sample of "target raters" is representative of the population to which findings based on the scale are expected to generalize

(Rossiter 2002). Salespeople at these offices were asked to give feedback and suggestions regarding complex, ambiguous or otherwise confusing questions. In addition to this salesperson feedback, subject matter experts (faculty and doctoral students with interest or experience in the area) were sought and consulted during the item development stage (Churchill 1979; DeVellis 2003; Hinkin 1995). Based on feedback from salespeople and subject matter experts, item wording was improved accordingly. The review of literature, review of existing scales, initial item development (refinement) and consultation with salespeople and subject matter experts resulted in an initial pool of 24 items to tap the self-oriented competitiveness construct domain. The initial 24 items were administered (in random order) to 128 undergraduate students at Michigan State University. The students were either pursuing a specialization in sales or currently enrolled in a sales class (personal selling class or sales management class).

PRETESTING RESULTS

To turn the 24-items into a practically useful number of scale items – and to identify structure in the data – we conducted exploratory factor analysis (using SPSS). In particular, we conducted a principal components analysis. Following recommendations in the literature, we chose an oblique (Promax) rotation to assist with interpretation (e.g., Rossiter 2002). Our first step in the item evaluation stage was to inspect the resulting correlation matrix, as highly intercorrelated items suggest high reliability and the presence of a shared (causal) latent variable (DeVellis 2003). Item variances and corrected item-scale correlations were also noted for all items, with high values being generally more preferable than low values (DeVellis 2003).

The principal components analysis revealed a four-factor solution. The results are presented in Appendix C. We interpreted the first factor, which extracted the most variance from the items (45% of the total item variance), simply as "self-oriented competitiveness" – which is

our primary construct of interest. We labeled the second factor, which extracted the second most variance (12% of the variance), as "unconditional items." All seven items that had significant loadings on this second factor included language such as "even if others are doing much better than me" and "even if others outperform me." These items were excluded from further analysis for two reasons. First, each of these items significantly cross-loaded on the first factor in the component matrix. Second, we think that it makes conceptual sense to exclude these "unconditional" items. Because we theorize that SOC and OOC are "reasonably independent" competitive orientations, we believe that people can have high levels of both SOC and OOC. Statements such as "Setting a personal record (personal best) is a good result for me, even if others do much better than me" are problematic for those individuals with high levels of both competitive orientations. Two other factors had eigenvalues above just above 1 (factor 3 was 1.28, factor 4 was 1.06). We did not interpret these factors for at least two reasons. First, each of the four items that significantly loaded on these two factors in the component matrix also had significant cross-loadings with factor 1. Second, factors with eigenvalues "that are only slightly above 1.0" do not "really offer the sort of condensation of information we are after (DeVellis 2003, p. 114)." Such "factors" contain roughly "the same proportion of total information as does the typical single item (DeVellis 2003, p. 114)."

Our target was a 5 or 6 item scale, consistent with recommendations in the literature about scale length (Hinkin 1995). The decision criteria used to select the items were the following: (1) component matrix loadings greater than .7 on factor 1, (2) item standard deviations above .9, and (3) no significant cross-loadings. Factor loadings above .7 suggest that the underlying factor – and not measurement error - accounts for at least half of the item variance (e.g., Hair 2010). As shown in Appendix C, ten of the 24 items (item #1 – item #10) had

loadings on factor 1 above .7. Standard deviations (or item variances) are important considerations in scale construction; for example, items answered similarly by all respondents will "not discriminate at all between individuals with different levels of the construct of interest (DeVellis 2003, p. 93)." We chose .9 as a threshold, eliminating seven of 24 items (or the bottom 30%), including items 2, 4, 5 and 9 (which did have loadings on factor 1 larger than .7). Past research suggests that .4 is a commonly accepted factor loading threshold (Hinkin 1995). Therefore, we used .4 as a way to identify significant item cross-loadings, which generally make factor interpretation difficult. Using this criterion, we eliminated item #10 from further consideration (an item that did have a loading on factor 1 greater than .7 and a standard deviation greater than .9). In the end, five items strongly related to the latent variable (factor 1) were chosen (items 1, 3, 6, 7 and 8). In order of loading strength, the items are: Achieving a new personal record (personal best) is something that is important to me; I try hard to surpass my own best prior performance; A large part of my enjoyment comes from improving on my past performance; I always try to achieve new personal records (personal bests) for myself; I always strive to surpass my prior accomplishments. Cronbach's alpha for the five-item scale was .894, well above commonly recommended thresholds (Nunnally 1978). With an internally consistent (reliable) and practically useful (5-item) measure in hand, our next step in Study 1 was to look for evidence of construct validity.

CONSTRUCT VALIDATION HYPOTHESES

Trait Competitiveness (other-oriented competitiveness)

The hypothesis behind our first research question noted above (i.e., "Does competitiveness have distinct internal and external orientations?") is that SOC and OOC are two

reasonably independent constructs. We believe that these two competitive orientations, or aspects of personality, encompass different concerns, desires, values and sources of satisfaction. For example, people with high levels of OOC are concerned with how their performance compares to others (e.g., Brown and Peterson 1994; Krishnan et al. 2002; Wang and Netemeyer 2002). On the other hand, we suggest that people with high levels of SOC are concerned with (1) their own performance standards and (2) internal comparisons over time (e.g., today vs. yesterday, this month vs. last month, this season vs. last season). In addition, people with high levels of OOC have a strong desire to be ranked ahead of other people (Kohn 1992). On the other hand, we suggest that people with high levels of SOC have a strong desire to surpass their own previous accomplishments. People with high levels of OOC enjoy competing against others and enjoy being better than others (Spence and Helmreich 1983). On the other hand, we suggest that people with high levels of SOC derive satisfaction from outperforming their past self – or improving their own set records.

Envisioning competitiveness as a two dimensional space (with SOC and OOC as the axes), we believe that individuals can be located in any of four quadrants (high-high, low-low, low-high, high-low). SOC and OOC are *not* conceptualized as mutually exclusive or as opposite ends of the same continuum. As noted above, we expect that people with high levels of SOC may like competition with others - or they may dislike it. Some individuals may be equally driven to (1) outperform others and to (2) set new records for themselves (positive outcome valences; Vroom 1964). Some individuals may be equally apathetic about these possibilities (indifferent outcome valences; Vroom 1964). For several reasons (e.g., anxiety, self-esteem; Ruben 1981), some individuals may be averse to competition generally – against others or themselves (negative outcome valences; Vroom 1964). Because we can imagine realistic

scenarios in which the correlation could be very positive or very negative, we feel as though we do not have enough reason to anticipate a significant linear relationship in either direction.

H1: There will be no significant linear relationship between self-oriented competitiveness and a conventional measure of trait competitiveness (other-oriented competitiveness.

Need for Achievement

According to McClelland and colleagues, the need for achievement provides "an impulse towards doing something well" (1989, p. 692) and involves a tendency to evaluate one's own performance according to "standards of excellence (1953, p. 78)." McClelland et al. (1989) suggest that the need for achievement "is associated with a concern to do things well - a kind of general process goal (p.692)." One item from the Friis and Knox (1972) need for achievement scale, "I know exactly what I want out of life," reflects and highlights the broad nature of the need for achievement construct. This Friis and Knox (1972) scale has been adopted in marketing literature (e.g., Amyx and Alford 2005; Behrman and Perreault 1984). Acknowledging the broad nature of the achievement motive, McClelland et al. (1989), suggest that "the n Achievement [need for achievement] variable by itself gives a poor indication of the area of life in which a person will strive to do better (p.693)."

We believe that SOC is a specific dimension of achievement motivation. In psychology literature, the achievement motive has been viewed as a heterogeneous phenomenon (e.g., implicit vs. self-attributed motives; McClelland et al. 1989; Spangler 1992). In marketing literature, trait competitiveness has been viewed as a stable "dimension of achievement motivation (Wang and Netemeyer 2002, p. 219)." The notion of "achievement" can mean

different things to different people. Indeed, our research may ultimately examine differences between (1) the "need to outperform others" and (2) the "need to outperform one's own past achievements." All of the above considered, as we set out to explore some achievement motive complexity, we do expect a positive relationship between self-oriented competitiveness and an established questionnaire measure of the need for achievement.

H2: There will be a positive relationship between self-oriented competitiveness and need for achievement.

Goal Orientation

In "achievement situations" (e.g., the personal selling context), two classes of goals that motivate people (e.g., salespeople) are noteworthy: performance goals and learning goals (Dweck 1986). Individuals oriented towards performance goals seek favorable judgments of their competence (Dweck 1986; Elliott and Dweck 1988). When tasks are approached with a learning goal orientation, individuals seek to improve their understanding, improve their competence, or master new things (Dweck 1986; Elliott and Dweck 1988). As learning goals and performance goals are related to achievement motivation (and can be considered "achievement goals"; Elliott and Dweck 1988), these goals should not be fully independent of SOC. Accordingly, we think that salespeople with high levels of SOC, concerned with documenting their abilities (set records or personal bests) and judging their own competence with prior performance as a basis, could be generally oriented towards performance goals. At the same time, we think that salespeople with high levels of SOC, motivated by progress, could be generally oriented toward learning goals. These two expectations are consistent with Button

et al.'s (1996) findings that performance goal orientation and learning goal orientation are independent constructs – not opposite ends of the same continuum.

Beyond the shared connection to a broader achievement motive, there are important conceptual distinctions between these goal orientations and self-oriented competitiveness. For example, a core aspect of goal orientation involves task choice and task difficulty (Button et al. 1996; Dweck 1986; Elliott and Dweck 1988). Compared to people oriented towards performance goals, people oriented towards learning goals are expected to choose more challenging tasks. The idea here is that challenging tasks "foster learning" (Dweck 1986, p. 1042). As described above, self-oriented competitiveness is a trait that values surpassing one's previous performance *on a given task*. Thus, we expect this desire to improve upon task performance to hold whether the task is very difficult or very easy. We do not anticipate that self-oriented competitiveness, by itself, will be significantly related to task choice. Another conceptual distinction between the goal orientations and self-oriented competitiveness involves sources of satisfaction. According to Dweck (1986, pp. 1042-1043), those people oriented towards learning goals are expected to derive satisfaction from the effort exerted in goal pursuit. Those individuals oriented towards performance goals are expected to derive satisfaction from displayed abilities. As noted above, our conceptualization of self-oriented competitiveness states that principal sources of satisfaction for those high SOC are "improving one's best performance and outperforming one's past self." According to the conceptualization of SOC outlined earlier, both effort and displayed abilities are unrelated to satisfaction for those individuals with high levels of SOC. This distinction is important insofar as derived satisfactions ("affective results") are central to defining motivational aspects of personality (McClelland et al. 1953, p. 79).

Another fundamental distinction has conceptual and methodological bases. Goal orientations have been widely and inconsistently treated as both (1) individual traits and (2) characteristics of the situation that can be experimentally manipulated (Button et al. 1996; Phillips and Gully 1997). In marketing literature, salesperson goal orientation has been modeled as a function of supervisor styles and supervisor feedback (Kohli et al. 1998; Sujan et al. 1994). Different from such model specifications and similar to standard treatment of trait competitiveness in various literature, SOC is conceptualized here as a stable dimension of personality that would generally hold across situations (e.g., supervisors).

All of the above considered, especially the shared connection to achievement motivation, we do generally expect a positive relationship between self-oriented competitiveness and (a) performance goal orientation and (b) learning goal orientation.

H3a: There will be a positive relationship between self-oriented competitiveness and performance goal orientation.

H3b: There will be a positive relationship between self-oriented competitiveness and learning goal orientation.

Agreeableness

Like other individual difference variables (e.g., cognitive ability), personality traits can be organized or modeled hierarchically, with broad domains encompassing more specific patterns of behavior (e.g., Chernyshenko et al. 2011; Digman 1997). The "Big 5" - or "the Five Factor Model" – is one such trait classification scheme that has achieved consensus and can be considered a personality psychology paradigm (Barrick and Mount 1991; DeYoung et al. 2007). The "Big 5" model suggests that there are five general personality domains: openness,

conscientiousness, extraversion, agreeableness, and neuroticism. In this hierarchical model, each of the five general domains subsumes a number of narrower personality dimensions called 'facets' (Costa and McCrae 1992; DeYoung et al. 2007). The study of facets (as opposed to more broad personality domains) is increasingly common in both organizational research and in practice, for reasons related to (1) predictive validity, (2) theory-building and (3) diagnostic ambiguity (Ashton 1998; Chernyshenko et al. 2011; Paunonen 1998).

Of particular interest for the current study is the agreeableness domain and its respective facets. For the other four of the Big Five, we do not anticipate (1) a significant linear relationship with SOC in a given direction and/or (2) that the domain will be able to discriminate between SOC and OOC. For instance, in terms of extraversion, nothing in our conceptualization of SOC leads us to believe that those high in SOC will be more talkative or assertive (Goldberg 1990). Nothing in our conceptualization of SOC leads us to believe that those high in SOC will prefer the background or be more socially withdrawn (introverted). In terms of openness, we can imagine that those high in SOC would be open to new ideas and information, given their interest in progress (Costa and McCrae 1992). At the same time, we can imagine that those high in SOC would be generally disinterested in outside ideas and information, which could be perceived as distracting them from a focus on the progress that they desire.

In terms of neuroticism, we can imagine those high in SOC being anxious, to the extent that improvement is a preoccupying concern (Barrick and Mount 1991) . This anxiety could fuel the self-competition or be a consequence of regularly failing to set new personal records. On the other hand, we can imagine high levels of anxiety in those with high levels of OOC. For those high in OOC, the difference would be the source of the anxiety (i.e., losing to other people). Finally, we imagine that competitive people will generally score highly on measures of

conscientiousness. We believe that a strong concern for planning, details and execution would be shared by both those high in SOC and OOC (DeYoung et al. 2007). Accordingly, we do not anticipate that a measure of conscientiousness would discriminate between SOC and OOC.

To investigate the (predictive and discriminant) validity of the new SOC measure, we focus on the agreeableness domain. Traits in the agreeableness domain include being tolerant, trusting, courteous and forgiving (Barrick and Mount 1991). Highly agreeable people may be also described as generous (e.g., helpful and charitable), polite (e.g., considerate and respectful), and/or compassionate (e.g., warm and sympathetic; Chernyshenko et al. 2011; DeYoung et al. 2007). Two facets of agreeableness that we examine in this study as correlates of SOC and OOC are cooperativeness and altruism (Goldberg et al. 2006). Cooperativeness and altruism are two facets that can be viewed as effectively covering the agreeableness domain (reflecting politeness and compassion subfactors; DeYoung et al. 2007). These two facets are also highly relevant to research and practice, given increasing attention paid to citizenship performance in organizational context (Chernyshenko et al. 2011). Although "warmth" is sometimes viewed as a facet of agreeableness, we chose not to study "warmth" as a correlate due to its inconsistent treatment in the literature. Sometimes warmth has been treated as a facet of agreeableness (e.g., Costa and McCrae 1992); other times warmth is treated as a facet of extraversion (e.g., Hofstee et al. 1992).

Johnson (1975, p. 242) defined a cooperative disposition as "behaving to maximize both another person's and one's own outcomes." The cooperativeness trait is marked by a distaste for pushiness and confrontation (Goldberg et al. 2006). While cooperative people are interested in maximizing other people's outcomes, we believe that those high in OOC – concerned with interpersonal rankings - will be more naturally interested in minimizing other people's outcomes.

In fact, we believe that those individuals with high levels of OOC may be more inclined to criticize, blame, or take advantage of others in their pursuit to be number one (Jelinek and Ahearne 2010). Meanwhile, nothing in our conceptualization of SOC leads us to believe that those high in SOC will be more interested in – or less interested in – maximizing other people's outcomes. In fact, we believe that those people high in SOC will be, to a great extent, focused on improving their own outcomes.

Rushton et al. (1981, p. 296) suggest that people with the trait of altruism "are consistently more generous, helping and kind than others." The altruism trait is marked by a concern for the needs and feelings of other people (Goldberg et al. 2006). While those with the trait of altruism are expected to be generous and kind, we believe that those high in OOC – those who enjoy being better than others – will be naturally less helpful to others. In fact, we believe that those individuals with high levels of OOC may be more likely to be antagonistic or hostile towards those that threaten their satisfaction or self-esteem (Ruben 1981) . Meanwhile, nothing in our conceptualization of SOC leads us to believe that those high in SOC will be more concerned – or less concerned – with the needs and feelings of other people. All of the above leads us to the following predictions regarding SOC, OOC and facets of agreeableness.

H4a: The relationship between OOC and cooperativeness will be significantly more negative than the relationship between SOC and cooperativeness.

H4b: The relationship between OOC and altruism will be significantly more negative than the relationship between SOC and altruism.

Perfectionism

According to Frost et al. (1990, p. 450), "perfectionism involves high standards of performance which are accompanied by tendencies for overly critical self-evaluations of one's own behavior." Hewitt and Flett (1991, p. 457) define perfectionism very similarly. We believe that the concepts of perfectionism and self-oriented competitiveness share some common features. Consequently, we expect a positive linear relationship between the two variables.

As the definition above suggests, one core feature of perfectionism is the setting of (and striving towards) high internal standards (Frost et al. 1990; Hewitt and Flett 1991; Pacht 1984). Earlier, we suggested that, among those with high levels of SOC, one's own standards are a chronic target of competitive behavior. Our definition of SOC suggests that surpassing one's own standards is something highly desired and valued by those with high levels of SOC. Moreover, a second core feature of perfectionism is the critical evaluation of one's own performance (Frost et al. 1990; Hewitt and Flett 1991). Self-evaluation is a component of our conceptualization of SOC. As noted above, salespeople with high levels of SOC judge for themselves what performance is acceptable or excellent. A third defining feature of perfectionism is a strong concern for mistakes (Frost et al. 1990; Kobori and Tanno 2005). We believe that salespeople with high levels of SOC are also generally concerned with previous mistakes (or at least concerned with fixing them). Identifying and correcting previous mistakes should enable the improved performance that those high in SOC desire.

While (1) high internal standards, (2) self-evaluation, and (3) a generally strong concern for mistakes are features of perfectionism that we expect to be common to SOC, we do not expect these features to be common to OOC. For those high in OOC, performance is evaluated

with external standards (i.e., the performance of others) and interpersonal rankings. Further, we suspect that mistakes will be more or less concerning to those high in OOC, conditional upon interpersonal rankings. Accordingly, we do not feel as though we have enough reason to anticipate a significant linear relationship between OOC and perfectionism. The above reasoning leads us to the following hypothesis:

H5: The relationship between perfectionism and SOC will be significantly more positive than the relationship between OOC and perfectionism.

Independence

Independence can be viewed as a core personality factor, along with other Big Five personality domains (Jackson et al. 1996). The trait of independence can be marked by self-reliance and a desire for autonomy (Jackson et al. 1996). We believe that the concepts of independence and SOC share common features. Consequently, we expect that independence and SOC will be positively correlated.

One indicator of a high level of independence is a low need for reassurance (Goldberg et al. 2006; Jackson 2000). Highly independent people are expected to be generally unconcerned with being liked, complimented or approved by other people (Goldberg et al. 2006; Jackson 2000). Similarly, our definition of SOC suggests that those individuals with high levels of SOC value setting new records for themselves, "independent of interpersonal comparisons." We expect that the satisfaction and motivation of those individuals with high levels of SOC do *not* hinge upon the compliments or approval of others. A second feature of independence is a trust or confidence in one's own opinions (Watson and Behnke 1990). Similarly, our conceptualization of SOC suggests that those with high levels of SOC decide for themselves

whether their performance is good or bad. Those with high levels of SOC are *not* expected to seek external assurance of performance adequacy.

As we expect independence and SOC to be positively related, we expect an inverse relationship between independence and OOC. While individuals with high levels of trait independence may be generally unconcerned with others, those individuals with high levels of OOC are especially concerned with others (in particular, how others' performance compares to their own; Brown and Peterson 1994; Krishnan et al. 2002; Wang and Netemeyer 2002). Being better than others is something that individuals with high levels of OOC enjoy (Spence and Helmreich 1983). Moreover, while the trait of independence is marked by self-belief (Watson and Behnke 1990), we suggest that, for those with high levels of OOC, feelings of inferiority or superiority are directly tied to interpersonal rankings. Considering the reasoning above leads us to the following hypothesis:

H6: The relationship between independence and SOC will be significantly more positive than the relationship between independence and OOC.

METHODOLOGY (STUDY 1)

Sample and data collection

For the construct validation stage of Study 1, we used a market research firm to contact a panel of U.S. salespeople from across industries. 314 salespeople provided usable and complete responses to our online questionnaire. 70% of responders classified themselves as being a business-to-consumer salesperson (B2C); 30% classified themselves as business-to-business (B2B) salespeople. The most commonly reported industry was “insurance,” followed by “real estate,” “retail,” “pharmaceutical sales,” and “automotive sales.” The most commonly reported

job title was “sales representative,” followed in order by “sales associate,” “sales manager,” “account executive,” “salesperson,”, and “sales consultant.” The average age of the salespeople was 38. Salespeople were with their current employers for an average of 6 years. 66% of responders were male.

Measures

All construct measures (and their origins) are shown in Appendix D. With the exception of the new measure of self-oriented competitiveness, all measures have been used in research published in top marketing or management journals. All Study 1 measures were self-reported.

Analytic approach

In study 1 (scale development study), we utilized factor analytic techniques (both exploratory and confirmatory factor analysis) to understand the nature of, and interrelationships between, the latent constructs examined. Exploratory factor analysis can be used to provide convergent and discriminant validity evidence. In particular, items that load on the same factor can be viewed as indicators of the same latent construct, providing convergent validity evidence. Items that load on different factors can be viewed as indicators of different latent constructs, providing discriminant validity evidence.

Convergent validity evidence can also be provided by confirmatory factor analysis. In particular, strong factor loadings (i.e., on intended variables) provide evidence of convergent validity. Discriminant validity evidence can be provided with the Fornell and Larcker (1981) average variance extracted (AVE) criterion. In particular, discriminant validity evidence is provided when AVE is greater than the squared correlation between two constructs, i.e., when a focal construct accounts for more of its own item variance than does a separate construct (Fornell and Larcker 1981). Discriminant validity evidence can also be provided by testing a series of

rival measurement models, sequentially disaggregating constructs in a given nomological network (e.g., Jackson et al. 1993). Showing sequential improvement in model fit (up to an a priori specified number of constructs) can be viewed as evidence of discriminant validity.

Our hypothesis testing will provide evidence of predictive or criterion-related validity by examining the degree to which our SOC measure correlates with specified outcomes (established measures) in anticipated directions. Consistent with criterion-validity testing in past scale development studies (e.g., Linderbaum and Levy 2010), we will use correlations to evaluate our hypotheses in Study 1. Finally, for our new measure, predictable correlations can also provide some discriminant validity evidence - or evidence regarding "the extent to which the measure is indeed novel and not simply a reflection of some other variable (Churchill 1979, p. 70)." As a general example, if Construct "A" and Construct "C" are significantly and positively related, while Construct "B" and Construct "C" are significantly and negatively related, we have some evidence that Constructs "A" and "B" are not the same.

RESULTS (STUDY 1)

With the sample of 314 U.S. salespeople from across industries, the new measure of SOC was shown to be internally consistent ($\alpha = .94$; see Table 1). This supports the internal consistency found with the sample of undergraduate sales students ($\alpha = .89$) in Study 1's item development and pre-testing stage. Exploratory factor analysis (EFA) of 29 scale items for the five achievement-related constructs (i.e., OOC, SOC, need for achievement, learning goal orientation, performance goal orientation) provided evidence of discriminant validity for the new measure of SOC. In particular, EFA results (principal components analysis, oblique rotation)

revealed a five-factor solution (eigenvalues greater than 1.0). All items loaded on their intended constructs, and there were no significant cross-loadings.

Confirmatory factor analysis (using M-Plus, version 6) was also used to provide evidence of discriminant validity (e.g., Jackson et al. 1993). Here, using a series of competing measurement models, we tested the hypothesis that the five scales in fact tap separate constructs (Jackson et al. 1993). The models could be considered oblique; the constructs were allowed to covary given a shared connection to achievement motivation. We started by testing a model with a single-factor subsuming all five achievement-related constructs (29 items). Predictably, as shown in Table 2, this one-factor model fit the data poorly (χ^2 (377) = 3,238, $p < .001$, CFI = .437). Our next model was a three-factor model that separated (1) the two competitiveness constructs, (2) the two achievement goal constructs, and (3) the broader need for achievement construct. This model was an improvement upon the first, providing a significant reduction in model misfit ((χ^2 (374) = 1,850, $p < .001$, CFI = .709). The third model was a four-factor model that grouped need for achievement and SOC together. The third model was an improvement upon the second, again providing a significant reduction in model misfit ((χ^2 (371) = 1,425, $p < .001$, CFI = .792). The fourth model was a second four-factor model, this time grouping learning goal-orientation and SOC together. This fourth model actually fit the data worse than both previous models (Model 2 and Model 3), and the additional misfit was significant ((χ^2 (371) = 1,900, $p < .001$, CFI = .699). The fifth model was a five-factor model that separated the nomological network as hypothesized. Of all rival models, the five-factor model indeed fit the data best, providing still more significant reduction in model misfit ((χ^2 (367) = 816, $p < .001$, CFI = .912). In the end, this serial disaggregation of the constructs showed significant improvement in model fit and provided more discriminant validity evidence for the SOC

measure. The testing of a series of rival models suggested that the SOC measure is not merely a reflection of another achievement-related construct.

Correlation analysis and the use of the Fornell and Larcker (1981) average variance extracted (AVE) criterion also provided discriminant validity evidence. In particular, Table 1 suggests that the SOC items share more variance with the latent SOC construct than they do with any other construct in the nomological network (e.g., need for achievement, learning goal orientation). For example, Table 1 suggests that, on average, the latent SOC construct accounts for more than 80% of the SOC item variance, while accounting for less than 13% of the variance in the measure learning goal orientation.

In terms of criterion-related validity, our predictions were mostly confirmed. Our a priori expectation (H1) was that self- and other-oriented competitiveness would not share a significant linear relationship with each other. Contrary to expectation, our correlation results did reveal a significant and moderate sized relationship between the two variables ($r = .28$, $p < .01$). H2 suggested that there would be a positive relationship between SOC and need for achievement. The results confirmed this expectation ($r = .33$, $p < .01$), in support of H2. H3a suggested that there would be a positive relationship between SOC and performance goal orientation. The correlation results confirm this expectation ($r = .19$, $p < .05$), in support of H3a. H3b suggested that there will be a positive relationship between SOC and learning goal orientation. Our Study 1 results also confirm this expectation ($r = .36$), in support of H3b.

H4a suggests relationship between OOC and cooperativeness will be significantly more negative than the relationship between SOC and cooperativeness. To test this hypothesis we utilized a Fisher transformation, $r' = (0.5)log_e\left[\frac{1+r}{1-r}\right]$, and z test statistic, $z = \frac{r'_1 - r'_2}{\sqrt{\frac{1}{n_1-3}} + \sqrt{\frac{1}{n_2-3}}}$.

There are web utilities for this procedure (Preacher 2002). Our results confirm that the correlation between SOC and cooperativeness (r = .09) and the correlation between OOC and cooperativeness (r = -.18) are indeed significantly different (z = 3.33), with the OOC – Cooperativeness relationship being significantly more negative. This is in line with expectation, confirming H4a. H4b suggests relationship between OOC and altruism will be significantly more negative than the relationship between SOC and altruism. To test this hypothesis, we relied on the same procedure noted for H4a. The results confirm that the correlation between SOC and altruism (r = .16) and the correlation between OOC and altruism (r = -.14) are indeed significantly different (z = 3.77), with the OOC – Altruism relationship being significantly more negative. This is also in line with expectation, confirming H4b. H5 suggests that the relationship between SOC and perfectionism will be significantly more positive than the relationship between OOC and perfectionism. Contrary to expectation, the relationship between OOC and perfectionism (r = .26) was actually more positive than the relationship between SOC and perfectionism (r = .22), although the difference was not a significant one (z = -0.63). Therefore, H5 was not confirmed. H6 suggests that the relationship between SOC and independence will be significantly more positive than the relationship between OOC and perfectionism. While the relationship between SOC and independence (r = -.07) was more positive than the relationship between SOC and independence (r = -.11), the difference was not a significant one (z = 0.55). As such, H6 was not confirmed.

DISCUSSION OF RESULTS (STUDY 1)

The item development and pre-testing stage in Study 1 utilized subject matter experts, a convenience sample of insurance salespeople and a sample of undergraduate students pursuing a specialization in sales (or enrolled in personal selling or sales management classes). In the end,

exploratory factor analysis facilitated the development of an internally consistent (reliable) and practically useful (5-item) measure of self-oriented competitiveness (SOC). However, demonstrating construct validity – not reliability - is the primary scale development objective (e.g., Hinkin 1995). Accordingly, we administered the new SOC scale to a sample of 314 salespeople from across the United States in a variety of industries.

Exploratory and confirmatory factor analysis provided supportive discriminant validity evidence. EFA results confirmed the existence of five achievement-related factors (need for achievement, OOC, SOC, performance goal orientation, learning goal orientation). Subsequently, the testing of a series of rival measurement models ultimately suggested that the SOC measure is indeed new and different from other achievement-related constructs. Wide support for the discriminant validity of the new SOC measure was also provided by an analysis of construct correlations with the Fornell and Larcker (1981) average variance extracted (AVE) criterion. This analysis suggests that the SOC items share more variance with the latent SOC construct than they do with established measures of other relevant constructs (e.g., need for achievement).

In showing how the SOC measure behaves alongside several variables as expected, we also provided additional construct validity evidence. In particular, criterion-related validity evidence was provided by several confirmed hypothesis tests, showing that the SOC scale correlates with several established measures in predictable ways. We confirmed that SOC was positively related to the broader achievement motive and two achievement goals. We also confirmed that SOC was more positively related to two facets of agreeableness (i.e., altruism, cooperativeness) than was OOC. We were surprised to find that OOC was actually more positively related to perfectionism than was SOC. In retrospect, we suspect that this may be due

to the nature of the perfectionism measure. Two items in the perfectionism measure do tap an other- or external-orientation (i.e., "I set high standards for myself and others" and "I demand perfectionism in others."). We were also surprised by our findings related to the "independence" construct. While SOC's relationship with independence was more positive than OOC's relationship with independence, the difference in correlations was not significant. Taken together, the results of Study 1 provide supporting evidence of construct validity for the new SOC measure. Broadly, we were able to show (1) that the new measure is indeed different and (2) that the new measure of SOC behaves in a nomological network of other constructs in ways that can be predicted.

To marketing literature, the development of this new measure contributes useful insight into one of the most important (studied by researchers, discussed by practitioners) salesperson traits. Our hope is that the development and validation of the SOC measure paves some new empirical paths for marketing researchers to explore. The ability to operationalize key differences in a key salesperson trait enables more precise examination and understanding of salesperson behavior and performance. A more fine-grained measure of competitiveness can also shed new scientific light on an array of environmental contingencies (e.g., interactions with leadership behaviors, compensation structures, sales force culture or climate). Finally, a more precise measure of competitiveness might help solve some of the mystery in the mixed literature on salesperson competitiveness. It is our ultimate hope that accounting for some complexity of the competitiveness construct will help move an important literature towards consensus.

STUDY 2

Study 1 builds a research tool but not a case for the tool's practical importance. By itself, Study 1 may actually answer fewer questions than it poses (e.g., about consequences, relative effects, contingencies). Thus, to better understand the value or necessity of the newly developed measure, Study 2 puts the SOC scale to use in a theoretical, and relatively comprehensive, model of sales force performance. One objective of Study 2 was to understand the ability of the new SOC measure to predict critical salesperson behaviors, alongside (or above and beyond) relevant constructs (e.g., other-oriented competitiveness). A second objective of Study 2 was to understand interactions between different aspects of competitiveness and different leadership behaviors. A better understanding of factors that can predict critical salesperson behaviors (e.g., trying, preparing, adapting, helping coworkers) is certainly important – if not crucial - to the work of marketing researchers and managers alike. Similarly, a better understanding of how leadership behaviors might be synergistic or antagonistic with aspects of salesperson personality is useful to practitioners and academics interested in theory development.

We believe that a test of Study 2's theoretical model (shown in Figure 1), which simultaneously accounts for (1) salesperson in-role behaviors, (2) salesperson extra-role behaviors and (3) sales manager leadership behaviors, will contribute to marketing literature by helping fill some important, yet under- and un-examined, gaps. To the best knowledge of the authors, only one paper on salesperson competitiveness accounts for leadership style (Shannahan et al. 2013) and only one paper on salesperson competitiveness accounts for what could be considered as organizational citizenship behavior (i.e., workplace deviance; Jelinek and Ahearne 2010). Meanwhile, and despite the importance of working smart behaviors (e.g., Fang et al. 2004; Rapp et al. 2006; Sujan et al. 1994), to the best knowledge of the authors, no study of

salesperson competitiveness has taken working smart into account. Finally, sales literature is in need of more explanation of dependent variables at the sales team or sales unit level, which Study 2 also provides (Plouffe et al. 2008, p. 89). In our view, the test of a theoretical model that incorporates these critical, rare, and missing pieces moves an important literature forward. As illustrated in Figure 1, our theoretical model suggests that leader behaviors (i.e., sales manager behaviors) moderate the effects of the competitive orientations on critical salesperson behaviors (i.e., in-role and extra-role behaviors). In turn, these behaviors drive objective performance at the salesperson and sales force (sales team) levels.

In Study 2, we administered a survey, including the SOC measure developed in Study 1, to a sample of salespeople at a single, large firm. Working with a single firm offered some methodological benefits. For example, we were able to measure one independent variable (working hard) and both dependent variables (salesperson and sales team performance) objectively with archival data from company records. In addition, we were able to have a given salesperson's organizational citizenship behaviors rated by his or her sales manager (reducing potential social desirability and same-source effects). Further, with salespeople matched to their sales managers, we could use multilevel analysis and account for some nesting in the workplace (or non-independence of data).

THEORETICAL BACKGROUND

Expectancy Theory

Expectancy theory is the chief legacy of Vroom's (1964) now classic book, *Work and Motivation*. Expectancy theory is a theory of workplace motivation with the individual employee as the unit of analysis (Vroom 1964). The theory was originally used to explain (predict) occupational attainments, job satisfaction, job effort and performance. Popular in the

industrial / organizational psychology literature, expectancy theory could be considered "the dominant process theory of work motivation (Vroom 1995, xvii)." Interestingly, this theory of work motivation can be simultaneously considered a decision theory, or a theory of employee choice. Expectancy theory assumes that workers choose among alternatives the option corresponding to the strongest motivational force (Vroom 1995, p. 31). In fact, Vroom (1995, p.7) defines motivation as "a process governing choices made by persons... among alternative forms of voluntary activity." As such, the direction of work-related behavior is assumed to "reflect the relative strength of [motivational] forces" acting on people (Vroom 1995, p. 23).

Expectancy theory (Vroom 1964) is sometimes referred to as VIE theory, reflecting the theory's three components: valences, instrumentalities and expectancies. In expectancy theory, *valences* formally refer to "affective orientations towards particular outcomes (Vroom 1995, p. 18)." Valences reflect an individual's level of attraction to, desire for, or preference for, certain outcomes or "states of nature" (Vroom 1995, p.17). According to the theory's original formulation (Vroom 1964), positively valent outcomes are preferred (e.g., pleasurable or rewarding); negatively valent outcomes are avoided (e.g., painful or frustrating). Valences of zero indicate indifference.

Importantly, any given (focal) outcome can be linked to a series of other (downstream) outcomes that each have a valence. For example, effective performance at work could lead to a promotion at work - or a vacation from work. A vacation from work could then lead to improved family relationships. As another example, losing weight (focal outcome) has various health, social, and psychological consequences (downstream outcomes). As such, a focal outcome's valence is a function of the valences of all outcomes possibly attached to the focal outcome as well as beliefs about how likely that focal outcome will lead to these other outcomes

(Proposition 1; Vroom 1995, pp. 323-324). Outcomes that are anticipated to lead to desirable consequences in the future (or prevent undesirable consequences in the future) will be positively valent.

Thus, valences are ultimately determined by (1) attitudes toward a focal outcome as an end in itself and (2) cognitions about the focal outcome as an instrumental means to subsequent outcomes. The latter, an individual's beliefs about outcome-to-outcome relationships, are what Vroom (1964) calls *instrumentalities*. In Vroom's original formulation of expectancy theory, instrumentalities were given a numerical range from +1 to -1. An instrumentality of +1 indicates a belief that "the first outcome is a necessary and sufficient condition for the attainment of the second outcome (Vroom 1995, p. 21)." An instrumentality of -1 indicates "a belief that attainment of the second outcome is certain without the first outcome and impossible with it (Vroom 1995, p. 21)."

In expectancy theory, the term *expectancy* formally refers to "a momentary belief concerning the likelihood that a particular act will be followed by a particular outcome (Vroom 1995, p.20)." Expectancies are characterized by strength. According to Vroom (1995), maximum expectancy reflects the firm belief (or "subjective certainty") that a particular outcome will follow certain efforts or action. Minimum expectancy reflects the firm belief that the particular outcome will *not* follow certain efforts or action. In the original formulation (Vroom 1964), expectancy values range from zero (certainly will not happen) to one (certainly will happen). It is worth noting that expectancies and instrumentalities are both subjective probabilities. The key difference is that expectancies reflect perceptions about the relationship between effort (action) and an outcome (e.g., "can I attain X?"). Instrumentalities reflect perceptions about the

relationship between two outcomes (e.g., "if I do attain X, will I then attain Y?"). Meanwhile valences reflect outcome desirability (e.g., "how attractive is Y?").

Altogether, as valences, instrumentalities, and expectancies increase, so too does the motivational "force" on a person to act (Proposition 2, Vroom 1995, p.328). The theory's original formulation suggested that motivational force was a multiplicative function of the theory's three key components (suggesting interactive effects). As such, highly desirable (attractive or preferred) outcomes would not create motivational force if expectancies were zero. Similarly, if outcome valences were zero (i.e., an indifferent attitude toward the outcome), then high expectancies alone would not create motivational force.

We believe that expectancy theory – a prominent theory of workplace motivation - is an especially well-fitting theoretical lens to examine the nature of salesperson competitiveness, which itself can be considered a "motivational trait" (Hinsz and Jundt 2005). An often-repeated theme throughout Vroom's (1964) book is the idea that work role variables (e.g., job design, work climate, compensation structure) and personality variables interactively determine job choice, job satisfaction and job performance. Accordingly, the research presented here takes both job characteristics (leadership behaviors in Study 2, compensation structure in Study 3) and personality (competitive orientation) jointly into account in an attempt to better understand salesperson and sales force performance.

Path-Goal Theory

Recognizing the impact of leaders on employee motivation, House (1971) built on the work of Evans (1968) to integrate leadership concepts with motivation theory (i.e., Vroom's expectancy theory), developing what was called the "Path-Goal Theory of Leader Effectiveness." In his now seminal article, House (1971) pointed out that leaders influence what

- and how - employee performance is recognized and rewarded. Thus, leaders influence subordinates' sets of available rewards (outcomes which have valences) and subordinates' perceptions regarding the linkage between high performance and ensuing rewards (instrumentality estimates). Through coaching, for example, leaders also shape subordinate confidence in the linkgage between effort and high performance (expectancy estimates; House and Mitchell 1974). Thus, from an expectancy theory view, leaders affect employee motivation and behavior by impacting valences, instrumentalities and expectancies (Evans 1974; Wofford and Liska 1993).

In the path-goal theory framework, the role of the leader is to provide "the necessary incremental information, support, and resources" to improve subordinate performance and satisfaction (House 1996, p. 326). Broadly, path-goal theory suggests that leaders are effective to the extent that they help subordinates achieve work goals which are attached to personal rewards (or highly valued personal outcomes). More specifically, leaders satisfy or motivate subordinates to the extent that leaders can make clear (1) paths from work behaviors to work goal attainment and (2) paths from work goal attainment to valued personal rewards (House 1996). In the theory's original formulation, House (1971, p. 324) suggested that "the motivational functions of the leader consist of increasing personal pay-offs to subordinates for work-goal attainment, and making the path to these pay-offs easier to travel by clarifying it, reducing road blocks and pitfalls, and increasing the opportunities for personal satisfaction en route." According to House and Mitchell (1974, p. 81), "[t]he theory is called Path-Goal because its major concern is how the leader influences the subordinates' perceptions of their work goals, personal goals and paths to goal attainment."

House and Mitchell (1974, 1975) advanced two "general propositions" for Path Goal Theory. Proposition 1 of Path-Goal Theory (e.g., House and Mitchell 1975, p. 4) states that "leader behavior is acceptable and satisfying to subordinates to the extent that the subordinates see such behavior as either an immediate source of satisfaction or as instrumental to future satisfaction." Proposition 2 of Path-Goal Theory (e.g., House and Mitchell 1975, p. 4) states that "the leader's behavior will be motivational, i.e., increase effort, to the extent that (1) such behavior makes satisfaction of subordinate's needs contingent on effective performance and (2) such behavior complements the environment of subordinates by providing the coaching, guidance, support and rewards necessary for effective performance."

Path-goal theory identifies four types of leadership behaviors: (1) directive leadership behaviors, (2) supportive leadership behaviors, (3) participative leadership behaviors and (4) achievement-oriented leadership behaviors (House and Mitchell 1974). Directive leadership gives specific directions about what, when and how subordinate work is to be done (House and Mitchell 1974). Directive leaders make sure that subordinates clearly understand rules, standards and expectations . Conceptually, directive leaders provide "psychological structure" to subordinates (House 1996, p. 326). Supportive leadership shows concern for the subordinate needs and welfare (House and Mitchell 1974). Supportive leaders are helpful and approachable; they are not condescending. Conceptually, supportive leaders provide a "psychologically supportive work environment" for subordinates (House 1996, p. 326). Participative leadership seek subordinate input when making decisions. Moroever, participative leaders take subordinate suggestions seriously into account before making decisions (House and Mitchell 1974). Participative leadersship is expected to increase feelings of autonomy and job commitment among subordinates (House 1996). Achievement-oriented leadership holds high expectations for

subordinates and seeks steady improvement in subordinate performance. Achievement-oriented leadership shows confidence subordinates and "constantly emphasizes excellence in performance (House and Mitchell 1975, p. 4)." This type of leadership is expected increase subordinate self-confidence and lead subordinates to set higher performance standards for themselves (House 1996).

Important for the purposes of this research, path-goal theory was one of the first contingency theories of leadership, recognizing that a leader's effectiveness depends largely on situational moderators (Hernandez et al. 2011; House 1996; Wofford and Liska 1993). Path-goal theory acknowledges the fact that any given leader behavior could be effective or ineffective. Path-goal theory suggests two broad categories of moderators that alter the effects of different leader behaviors on subordinates: (1) the subordinate's personal characteristics (e.g., traits) and (2) the subordinate's environment (e.g., tasks, groups; House and Mitchell 1974). Thus, characteristics of the subordinate, characteristics of the task and leadership behaviors all interact to determine subordinate satisfaction, acceptance of the leader, expectancies, effort and performance (House and Mitchell 1974). In this regard, House (1971) initially developed several hypotheses that considered interactions between various leadership characteristics (e.g., task-orientation, formality, people-orientation, closeness of supervision, leader's "upward influence", "authoritarian or punitive leadership") and subordinate job characteristics (task-routinization, task enjoyment, task ambiguity / clarity, task variety, task stress, task interdependence, teamwork norms, environmental stress).

Different leadership concepts (or theories) can be more or less appropriate for the personal selling context. For example, a classic leadership concept such as "initiating structure" (Fleishman 1953) may not fit the personal selling context well because the sales job is generally

characterized by high autonomy (Amyx and Alford 2005). Ultimately, we believe that path-goal theory is an appropriate theoretical lens for our research, as path-goal theory can be viewed as the leadership theory that most centrally emphasizes the role that follower traits (e.g., salesperson traits) play in shaping leadership outcomes (cf. Hernandez et al. 2011).

HYPOTHESIS DEVELOPMENT (STUDY 2)

Working hard refers "the overall amount of effort salespeople devote to their work (Sujan et al. 1994, p. 40)." Effort has been defined as "the force, energy, or activity by which work is accomplished (Brown and Peterson 1994)." Selling effort is an intuitive and critical predictor of firm performance. It has been estimated that up to 90% of annual sales in a given sales territory are attributable to salesperson effort (Zoltners et al. 2001, p. 73). Various research has confirmed the positive relationship between salesperson effort and salesperson performance (e.g., Behrman and Perreault 1984; Brown and Peterson 1994; Hughes and Ahearne 2010; Ingram et al. 1989). In marketing modeling literature, selling effort has long been modeled as a driver of firm sales and profits (e.g., Lodish et al. 1988; Montgomery and Urban 1969). Consistent with intuition and past literature, we expect the following:

H1a: There will be a positive relationship between working hard and salesperson performance.

While working hard refers to effort level, working smart concerns effort direction (Sujan 1986). Working smart has been more formally defined as "behaviors directed toward developing knowledge about sales situations and utilizing this knowledge in sales situations (Sujan et al. 1994, p. 40)." Salesperson knowledge (e.g., mental databases of customer types, customer beliefs, customer needs, competitive intelligence, influence techniques) can improve salesperson performance via more appropriate strategy selection or more effective sales presentations (e.g.,

Ahearne et al. 2013; Hughes et al. 2013; Leigh and McGraw 1989; Sujan et al. 1988; Szymanski 1988; Verbeke et al. 2011; Weitz 1978). Knowledgeable salespeople are also expected to be more efficient in terms of targeting customers (focusing on high potential prospects; Ahearne et al. 2007). Aspects of both knowledge and targeting are captured by the concept of "planning for the sale," which Sujan et al. (1994) have proposed as a core dimension of working smart for salespeople.

In marketing literature, conceptualizations of working smart also encompass adaptive selling behaviors (i.e., adjusting sales behaviors between and within customer interactions, according to information about the specific sales situation; Spiro and Weitz 1990; Weitz et al. 1986). The importance of salesperson adaptation lies in the fact that the effectiveness of any given selling behavior hinges upon a range of buying situation variables (e.g., purchase risk), customer-salesperson relationship variables (e.g., dyadic similarity) and salesperson resources (e.g., brand reputation), among other contingencies (Weitz 1981). Studies have widely confirmed a significantly positive relationship between adaptive selling behaviors and salesperson performance (Franke and Park 2006). Studies of the broader concept of working smart, while much less frequent, have also confirmed a positive relationship with salesperson performance (Sujan et al. 1994). Consistent with this research, as well as past research on salesperson knowledge and adaptive selling, we expect the following:

H1b: There will be a positive relationship between working smart and salesperson performance.

While working hard and working smart are critical *in-role* behaviors that drive salesperson performance, several *extra-role* behaviors of salespeople are simultaneously critical and taken into account by sales managers (Podsakoff and MacKenzie 1994). Organizational

Citizenship Behaviors (OCBs), a commonly studied form of extra-role behaviors in marketing literature, refer to "discretionary behaviors on the part of a (sales)person that are believed to promote directly the effective functioning of an organization, independent of a person's objective productivity (MacKenzie et al. 1998, p. 89)." In the above definition, discretionary indicates that employees will not be punished if they fail to engage in the behaviors (Organ et al. 2006). Similarly, employees will not be rewarded by formal compensation plans if they decide to engage in OCBs (Organ et al. 2006)

Commonly studied OCB's include (1) helping, (2) civic virtue and (3) sportsmanship behaviors. Helping behaviors (e.g., peacemaking, cheerleading) assist coworkers in solving or avoiding work-related problems; civic virtue behaviors reflects a genuine concern for the company and are indicated by participation in voluntary company events; sportsmanship is marked by a lack of dissention and complaining (MacKenzie et al. 1998). Piercy et al. (2006) found that each of these three OCB's were positive predictors of salesperson in-role behavior (e.g., customer follow-up), which was then linked to outcome performance at the salesperson level. According to Organ et al.'s (2006) definition, organizational citizenship behavior "in *the aggregate* promotes the efficient and effective functioning of *the organization* (p.3, emphasis added)." For instance, by helping orient new employees and enhancing team morale, salespeople engaging in OCB's make the sales manager's job easier - or generally free up managerial resources (Podsakoff and MacKenzie 1994). Moreover, empirical research shows that salesperson OCB's are inversely related to salesperson turnover, which is costly in several ways, including sales manager time (MacKenzie et al. 1998). As such, salesperson OCB's should benefit other salespeople and sales managers alike. Salespeople who volunteer marketplace information (e.g., competitive intelligence), volunteer to learn new skills, or make valuable

suggestions to improve operations should make a positive impact on performance at the work unit level (Organ et al. 2006). Accordingly, Podsakoff and MacKenzie (1994) found that civic virtue and sportsmanship at the salesperson level positively predicted performance at the sales team or work unit level. We also expect that helping behaviors will drive group cohesiveness (attraction), which should drive employee motivation for effective work performance in the aggregate (Vroom 1995, p.270). Prior literature and the above reasoning lead us to expect the following:

H2: There will be a positive relationship between organizational citizenship behaviors (OCB's) and sales unit (sales team) performance.

Nearly 50 years ago, Locke (1968) discussed competitiveness and effort:

> It is well known, both from experimental studies and from everyday experience, that competition can serve as an incentive to increase one's effort on a task. This phenomenon is an intrinsic part of athletics and business and is not unknown in academia (p.179).

For the sake of conceptual clarity, salesperson competitiveness is viewed here as a dimension of achievement motivation (Wang and Netemeyer 2002) or as a motivational trait (Hinsz and Jundt 2005); effort is viewed as a consequence of salesperson motivation (e.g., Brown and Peterson 1994; Ingram et al. 1989; Jaramillo and Mulki 2008; Johnston and Marshall 2013; Vroom 1964; Walker et al. 1977). Salesperson effort is commonly conceived as a mediator that translates trait competitiveness into high performance (e.g., Brown and Peterson 1994; Krishnan et al. 2002). If outperforming others is the objective, then effort is a common strategy (Locke 1968). As outcomes become more important to us, we generally try harder to

obtain them. However, despite theoretical logic and intuition, empirical studies of the trait competitiveness → effort path have produced mixed results. In Krishnan et al.'s (2002) sample of real estate salespeople, competitiveness was indeed found to be a significant (positive) predictor of salesperson effort. Yet, in a sample of telecommunications salespeople, these same authors found the relationship to be statistically insignificant. Similarly, Brown and Peterson's (1994) study of door-to-door salespeople produced a statistically insignificant (trait competitiveness → effort) path. As noted above, inconsistencies of this kind motivated our current research project.

For reasons similar to those underlying the previously studied trait competitiveness → effort path noted above, we expect that self-oriented competitive salespeople are hard workers too. As a dimension of achievement motivation in an "achievement setting" (i.e., the personal selling context), SOC should energize behavior and be positively related to trying hard (McClelland et al. 1953; McClelland et al. 1989; Spangler 1992). Whether it is competition with others or a case of "self-competition," we expect that effort rises with competitive spirit (Locke 1968, pp. 179-180). Increased effort is one way to obtain valued outcomes, whether the outcome is "beating" others or "beating" one's own prior records. Accordingly, regardless of the source or target of competitive behavior (i.e., other people or the self), we expect that highly competitive salespeople will exert more effort than less competitive salespeople (Brown and Peterson 1994).

Acknowledging similarities, we do expect some differences between OOC and SOC with regard to salesperson effort. Theoretically, we expect that self- and other-oriented competitive people will have some fundamentally different reward valences (Vroom 1964). In particular, we expect that salespeople with high levels of SOC have high valences for internal rewards (e.g., a

sense of personal growth). The satisfaction derived from these rewards is unaffected by other people. As such, these rewards can be viewed as "self-administering" - not depending on or any "external rewarder" (House 1971). Importantly, this assumption about the type of rewards (outcomes) valued by salespeople with high levels of SOC is in line with our previously stated conceptual definition of SOC (e.g., what is desired is independent of interpersonal comparisons). On the other hand, we expect that salespeople with high levels of OOC have high valences for external rewards (e.g., peer recognition). The satisfaction that comes from these rewards does indeed depend on other people (e.g., sales manager, salesperson peers). Importantly, this assumption about the type of rewards (outcomes) valued by salespeople with high levels of OOC is in line with established conceptualizations of trait competitiveness in the literature (e.g., enjoying being ranked ahead of other people; Kohn 1992; Spence and Helmreich 1983).

Working hard includes a certain amount of visible effort (e.g., long hours in an open-floor-plan office), something measurable that can be used as a basis of interpersonal comparison. Besides being visible, the number of hours worked (effort or working hard) can also be openly discussed for comparison purposes (e.g., "I came into the office over the weekend" or "I was in the office until after 10:00 last night"). For salespeople with high levels of OOC, we suspect that these comparisons are instrumental to public recognition and valued feelings of "doing more than others." We suspect that salespeople with high levels of OOC, compared to those with high levels of SOC, will have relatively higher valences for such bases of interpersonal comparison social outcomes.

Proposition 2 of Expectancy Theory (Vroom 1964) suggests that the motivational force on a person to act is a function of (1) outcome valences and (2) the strength of a person's expectancies that the act will be followed by the attainment of these outcomes. Holding

expectancies constant, different outcome valences should be associated with different levels of motivation, and different levels of effort as a consequence (e.g., Hackman and Porter 1968). In our case, the motivation of salespeople to work hard is expected to vary with individual differences in SOC and OOC. In particular, we expect that those salespeople with high levels of OOC will have higher valences for working hard (and higher valences for the psychological and social outcomes to which working hard is instrumental). All of the above considered, and consistent with Proposition 2 of expectancy theory, we expect the following:

H3: Both Self-Oriented Competitiveness (SOC) and Other-Oriented Competitiveness (OOC) will be positively related to working hard. However, OOC will be a stronger predictor of working hard than will be SOC.

As noted above, working smart behaviors encompass developing knowledge, planning or preparing, and adapting. Though the relationship between trait competitiveness (i.e., OOC) and working smart has not yet been examined empirically, there is reason to believe that the relationship will be significantly positive. For example, it is reasonable to expect that those with high levels of OOC, due to their desire to outperform others, will "exert extra effort in [task] preparation" – not just in task execution (Krishnan et al. 2002, p. 288). Locke (1968, p. 179) noted that both effort and "cognitive factors" (e.g., "discovering better methods of performing the task") help competitors achieve their goals. Wang and Netemeyer (2002) found that salespeople with high levels of trait competitiveness (i.e., OOC) do indeed spend more time developing job-related skills and knowledge. As salespeople become increasingly concerned with outperforming others, we suspect that they will avail themselves of all facilitating means (e.g., developing knowledge, preparing, adapting).

For similar reasons, we also expect that salespeople with high levels of SOC will exhibit high levels of working smart behaviors. Regardless of the source or target of competitive behavior (i.e., other people or the self), we expect that highly competitive salespeople will do more preparing and more discovering to build skills and knowledge (Krishnan et al. 2002; Locke 1968; Wang and Netemeyer 2002). For salespeople with high levels of SOC, these behaviors are likely to be perceived as instrumental to the attainment of desired outcomes (e.g., surpassing their own prior accomplishments). Moreover, compared to "self vs. other" competition, "self vs. self" competition more safely (i.e., more privately) allows for experimentation. As such, we suspect that salespeople with high levels of SOC may be more willing (if not eager) to adapt their selling approaches or try new approaches altogether.

With similarities duly acknowledged, we do expect some differences between OOC and SOC in regards to working smart. As noted above, theoretically, we expect self- and other-oriented competitive people to have some fundamentally different reward valences (Vroom 1964). In particular, we expect that salespeople with high levels of SOC will have high valences for internal rewards (e.g., a sense of personal growth). We expect that salespeople with high levels of OOC will have high valences for external rewards (e.g., peer recognition). Importantly, our assumptions about reward (outcome) valences are in line with our stated conceptual definition of SOC and established conceptualizations of trait competitiveness in the literature (Kohn 1992; Spence and Helmreich 1983).

Working smart behaviors are indeed tightly linked to the idea of self-improvement. For example, working smart involves the development and use of knowledge that can "improve the direction of effort (Sujan 1986, p.41)." As salespeople gain more knowledge (e.g., about products, customers, competitors, the industry), they become better at "prospecting" (or

targeting) and more efficient during working hours (Ahearne et al. 2007). Improved efficiency (with respect to time) is also a motivating force behind salesperson planning behavior, a key dimension of working smart (Sujan et al. 1994). Further, working smart involves adaptive selling, which is aimed at improving the salesperson's effectiveness in customer interactions (Spiro and Weitz 1990; Weitz 1978).

Ultimately, we believe that salespeople with high levels of SOC view these knowledge-developing, preparatory and adaptive behaviors as instrumental to valued outcomes, such as a sense of personal growth. In addition, we believe that aspects of working smart (e.g., knowledge development) could themselves be satisfying and desirable rewards to those salespeople who are very interested in outperforming their previous best (Brown and Peterson 1993). Work behavior that is exploratory or experimental can be especially rewarding and motivational as a consequence (White 1959); and the motivational consequences should vary with individual differences.

Proposition 1 of expectancy theory states that the valence of a focal outcome (e.g., attainment of an occupation, completion of a job task) is a function of (1) the valences of all subsequent outcomes possibly attached to the focal outcome and (2) the focal outcome's instrumentality to the attainment of these subsequent outcomes (Vroom 1964). More succinctly, attractive work roles (or job tasks) are the ones that provide us with the outcomes that we individually desire (Vroom 1964). In our case, the valence for working smart behaviors is expected to vary with individual differences in OOC and SOC. In particular, we expect that those salespeople with high levels of SOC will have higher valences for working smart (and higher valences for the internal outcomes to which working smart is instrumental). All of the

above considered, and consistent with Proposition 1 of expectancy theory, we expect the following:

H4: Both Self-Oriented Competitiveness (SOC) and Other-Oriented Competitiveness (OOC) will be positively related to working smart. However, SOC will be a stronger predictor of working smart than will be OOC.

As noted above, organizational citizenship behaviors (OCBs) refer to "discretionary behaviors on the part of a (sales)person that are believed to promote directly the effective functioning of an organization, independent of a person's objective productivity (MacKenzie et al. 1998, p. 89)." Employees are not formally punished for failing to engage in these behaviors; employees are not formally rewarded for deciding to engage in these behaviors (Organ et al. 2006). Frequently studied OCB's include (1) helping, (2) civic virtue and (3) sportsmanship behaviors. Helping behaviors (e.g., peacemaking, cheerleading) fix or prevent coworker problems; civic virtue behaviors are rooted in a genuine interest in the employer and are indicated by participation in voluntary events (e.g., meetings, training); sportsmanship is marked by a lack of complaining when problems do arise (MacKenzie et al. 1998).

Motivation to engage in OCB's (helping, civic virtue and sportsmanship behaviors) may stem from the generally social nature of work. Work is, to a significant degree for most people, a social activity; and humans commonly derive satisfaction from social relationships (Vroom 1964). Many employees spend more time with coworkers than with their own families. Satisfaction derived from relationships with coworkers (friends who might otherwise be missed) is a main reason why people continue to work when they are already economically secure (e.g., Morse and Weiss 1955). Social outcomes providing satisfaction at work include having

influence and being liked (Vroom 1964). We believe that helping behaviors can also provide satisfaction at work (much in the same way that a physician, minister or teacher might derive satisfaction at work from helping). Employees can be motivated to engage in civic virtue or sportsmanship behaviors according to, for example, the degree to which they identify with their employer and see organizational goals and personal goals as aligned (e.g., Hughes and Ahearne 2010).

Building on some past research, we expect a negative relationship OOC and organizational citizenship behavior. Brown et al. (1998) suggest that those with high levels of trait competitiveness (i.e., OOC) may be less cooperative and less inclined to engage in OCB's (pp. 96-97). In an empirical study of business-to-business salespeople across industries, Jelinek and Ahearne (2010) found that salespeople with high levels of trait competitiveness (i.e., OOC) are more likely to blame, criticize and say hurtful things to coworkers. These authors reason, and we agree, that salespeople with high levels of OOC will be more inclined to view coworkers as threats. By definition, those with high levels of OOC enjoy being better than others (Kohn 1992; Spence and Helmreich 1983). It consequently stands to reason that those with high levels of OOC will be less likely to help others get better. If those with high levels of OOC are less likely to be "team players," then we should also expect fewer civic virtue behaviors. If salespeople with high levels of OOC are more likely to point fingers when things go wrong (Jelinek and Ahearne 2010), we expect salespeople with high levels of OOC to exhibit fewer sportsmanship behaviors.

Our expectation about the relationship between OCBs and SOC is different. Salespeople with high levels of SOC are less concerned with interpersonal rivalry and more concerned with improving their own performance. We expect salespeople with high levels of SOC to feel

satisfied when they exceed their previous performance, independent of coworker performance. Less concerned with interpersonal comparisons, salespeople with high levels of SOC should not view coworkers as threats. Accordingly, we do not expect those with high levels of SOC to be necessarily unhelpful. Similarly, nothing in our conceptualization of SOC suggests that salespeople with high levels of SOC would be poor "team players" or "poor sports." Therefore, we do not expect SOC to be negatively related to civic virtue or sportsmanship behaviors.

As noted above, Proposition 1 of expectancy theory states that the valence of a focal outcome (e.g., attainment of an occupation, completion of a job task) is a function of (1) the valences of all subsequent outcomes conceivably attached to the focal outcome and (2) the focal outcome's perceived instrumentality to the attainment of these subsequent outcomes (Vroom 1964). Using this proposition, we can predict an employee's preference for a given job task based on the valenced outcomes (which can be positive, negative, cognitive, social, or financial) attached to the given job task (e.g., Mitchell and Albright 1972). Importantly, employee work groups (coworkers) also have valences themselves and can be perceived as instrumental to positively or negatively valent outcomes (Vroom 1995, p. 139). For example, coworkers themselves can be perceived as threats and instrumental to negatively valent outcomes, such as being outperformed or outranked. Accordingly, we suspect that salespeople with high levels of OOC will have lower valences for their coworkers and their coworkers' success. These valences can be used to predict motivational force on an employee to act (Proposition 2). For those with high levels of OOC, lower valences for coworkers and coworker success should translate into reduced motivational force to engage in organizational citizenship behaviors. On the other hand, we do not expect a significant linear relationship between SOC and OCB's. While we do not anticipate a negative relationship between SOC and OCB's, we feel as though we do not have

enough reason to anticipate a positive relationship between the two variables. Considering all of the above, we expect:

H5: The relationship between OOC and organizational citizenship behaviors (OCB's) will be significantly more negative than the relationship between SOC and OCB's.

As noted above, achievement-oriented leader behaviors emphasize performance excellence (House and Mitchell 1974). Achievement-oriented leaders set high standards for their subordinates and strive for constant improvement (House 1996). Achievement-oriented leaders "stress pride in work and self evaluation based on personal accomplishment (House 1996, p. 338)." Achievement-oriented leader behaviors are generally expected to be positively related to subordinate motivation and performance (House 1996). Unfortunately, mixed findings in only a handful of studies (e.g., Atuahene-Gima and Li 2002; Fulk and Wendler 1982; Kohli 1985) do not permit any firm empirical generalizations (Wofford and Liska 1993).

Proposition 2 of path-goal theory states "the leader's behavior will be motivational, i.e., increase effort, to the extent that… such behavior *complements* the environment of the subordinate by providing the coaching, guidance, support, and rewards necessary for effective performance (House et al. 1974, p. 84, emphasis added)." The notion of complementing or supplementing subordinate characteristics (or subordinate environments) is an important one. Complementing behaviors can be contrasted with a situation of unnecessary (or unwanted) redundancy. According to House (1996), the job of the leader is to provide "necessary *incremental* information, support, and resources (p.326, emphasis added)." House (1996) suggests that incremental instrumentality to subordinate goal attainment is what justifies the leader's role (1996, p. 326).

Accordingly, we expect that achievement-oriented leader behaviors (e.g., setting challenging goals, pushing salespeople to perform at their own highest levels, seeking continuous improvement) will be incrementally instrumental to the performance and satisfaction of salespeople with high levels of OOC. Leaders emphasizing high personal standards and continuous improvement should complement well those salespeople who are already looking to outperform their peers (House 1996; Spence and Helmreich 1983). It is conceivable that a salesperson with high levels of OOC will "play to the level of the competition" and fail to maximize their own performance, as long as they are outperforming their peers. In such cases, achievement-oriented leader behaviors should be able to push other-oriented competitive salespeople to new heights. In particular, we expect that achievement-oriented leader behaviors will push those with high levels of OOC to even higher levels of working hard and working smart behaviors. As noted above, those with high levels of OOC use both effort and "cognitive tools" in their attempts to outperform others (Locke 1968, p. 179).

House's original Proposition 3 of path-goal theory states that when leader behaviors are "redundant with existing conditions" leaders can drive subordinate satisfaction downwards (House 1971, p. 324). As a consequence, subordinate motivation should be reduced when a leader's direction is "seen by subordinates as redundant" or viewed as an "externally imposed control (House 1971, p. 324)." Leader behaviors that are not complementary to the subordinate are not expected to be particularly motivational (Proposition 1). If one of the strategic functions of leadership is "reducing frustrating barriers" for subordinates, redundant guidance from leaders may in fact be counterproductive (House and Mitchell 1974, p. 84).

Accordingly, we believe that leader behaviors that stress continual improvement and encourage self-evaluation will be unwanted - and viewed as unnecessary - by subordinates with

high levels of SOC (House 1996). We expect that salespeople with high levels of SOC will not perceive achievement-oriented guidance as incrementally instrumental to performance or satisfaction. If a salesperson is already constantly striving to set new records for herself or himself, then achievement-oriented leadership will be a distraction, at best. At worst, such leadership will be an immediate source of subordinate dissatisfaction (House and Mitchell 1974).

Overall, we expect that achievement-oriented leader behaviors will differentially moderate the effects of OOC and SOC (different dimensions of achievement motivation). This expectation is consistent with House's (1996) claim that "[t]he effect of leader achievement oriented behavior will depend on the achievement motivation of subordinates (p.338)." All of the above considered, and building on a history of research on interactions between leader behaviors and subordinate personality traits (e.g., House 1971; Vroom 1959), we suggest the following:

H6a: Achievement-oriented leader behaviors will strengthen the positive relationship between OOC and working hard.

H6b: Achievement-oriented leader behaviors will weaken the positive relationship between SOC and working hard.

H6c: Achievement-oriented leader behaviors will strengthen the positive relationship between OOC and working smart.

H6d: Achievement-oriented leader behaviors will weaken the positive relationship between SOC and working smart.

As noted above, supportive leaders show concern for the needs and welfare of those in their work groups. A supportive leader "does little things to make the work more pleasant (House and Mitchell 1974, p. 83)." Supportive leaders are helpful, psychologically or otherwise (House 1996). Organizational citizenship behaviors (OCBs), as noted above, are discretionary behaviors believed to make work groups more effective (Podsakoff and MacKenzie 1994). Example OCBs include cheerleading (helping), volunteering at work functions (civic virtue), and choosing not to complain (sportsmanship). In our view, supportive leadership and organizational citizenship are conceptually overlapping. For example, it stands to reason that those who express a genuine concern for the company (engaging in civic virtue behaviors) will express a similar concern for coworkers. It also stands to reason that approachable leaders, who are concerned with creating fair and friendly environments, will be peacekeepers (engaging in helping behaviors). Conceptual overlap such as this gives us reason to believe that organizational citizenship behaviors may be more widespread in work groups with supportive leadership.

Unlike supportive leadership behaviors, the two competitiveness variables that we examine (i.e., OOC and SOC) are not expected to be positively related with OCBs. Existing literature suggests that salespeople with high levels of OOC will not exhibit sportsmanship behaviors or helping behaviors. In particular, Jelinek and Ahearne (2010) found that these salespeople are more likely to criticize and say hurtful things to coworkers. If salespeople with high levels of OOC are not "team players," then we also expect fewer civic virtue behaviors. Broadly, we believe that salespeople concerned with interpersonal rankings will be more likely to perceive peers as threats to desired rewards. Given that salespeople with high levels of SOC are generally less concerned with interpersonal rivalry, we do not anticipate a negative

relationship between SOC and OCB's. However, we did not feel as though we had enough reason to expect a positive relationship between SOC and OCB's.

As noted above, Proposition 2 of path-goal theory states "the leader's behavior will be motivational, i.e., increase effort, to the extent that… such behavior *complements* the environment of the subordinate by providing the coaching, guidance, support, and rewards necessary for effective performance (House et al. 1974, p. 84, emphasis added)." Leaders are justified by providing subordinates with "necessary *incremental* information, support, and resources (House 1996, p.326, emphasis added)." In the case of organizational citizenship behaviors, we believe that supportive leaders will indeed offer complementary support and guidance to subordinates with high levels of OOC and high levels of SOC. As noted above, we do not expect that highly competitive salespeople will be naturally inclined to engage in OCB's. Moreover, we believe that supportive leadership can make a new set of complementary social rewards available to highly competitive salespeople. For example, as noted above, helping behaviors (or social relationships with coworkers, more generally) can be rewarding sources of satisfaction at work (Vroom 1964). Satisfying rewards should guide behavior.

Ultimately, we believe that supportive leadership behaviors create psychological environments (at the individual and group level) that motivate organizational citizenship behavior. Importantly, we believe that the potential for supportive leaders to motivate organizational citizenship behavior in highly competitive salespeople will not be hindered by the redundancy discussed above (i.e., path-goal theory Proposition 3, House 1971). All of the above considered, and recognizing that dispositions (e.g., competitive traits) and situations (e.g., sales manager behaviors) jointly influence behavior (e.g., Funder and Ozer 1983), we expect the following:

H7a: Supportive leader behaviors will make the relationship between other-oriented competitiveness (OOC) and organizational citizenship behaviors (OCBs) more positive.

H7b: Supportive leader behaviors will make the relationship between other-oriented competitiveness (SOC) and organizational citizenship behaviors (OCBs) more positive.

METHODOLOGY (STUDY 2)

Sample and data collection

Data for Study 2 were collected from a single, large U.S. firm in the financial services industry. The hierarchical organizational structure at the firm is typical of many selling firms. The firm sells to industrial (not retail) customers. The business-to-business sales job at the firm might be considered a typical inside sales role that involves close and regular interaction with fellow salespeople and sales managers. Extensive interviews with senior management confirmed that (1) the industry is competitive and (2) the salesperson behaviors examined here (i.e., working hard, working smart, being a good organizational citizen) are indeed considered critical at the firm.

The sampling frame for Study 2 was the firm's 287 salespeople and the 48 sales managers to whom the salespeople reported at the time of the survey. Before launch, senior management pre-tested both the salesperson and sales manager questionnaires for relevance and modification. Before the surveys were administered to the sales force, an email encouraging participation was sent from the CEO and two other high-ranking company executives. The voluntary surveys were emailed directly to salespeople and sales managers by the researchers. After the surveys were emailed, senior management also mentioned the surveys in weekly meetings with salespeople and sales managers. Ultimately, 216 salespeople responded to the salesperson survey (75% response rate) and 35 sales managers responded to the sales manager

survey (73% response rate). Matching respondents (salespeople with their sales managers) yielded a two-level data set with 156 salespeople. One salesperson response had to be dropped from analysis due to "speeding" through the survey. T-tests showed that mean scores for early and late responders were not significantly different for our primary independent variables (OOC, SOC) and our three control variables (years of selling experience, learning goal orientation, self-efficacy), suggesting that nonresponse bias is not a problem in the data set.

Measures

All construct measures (items and their origins) are reported in Appendix D. With the exception of self-oriented-competitiveness (SOC), all construct measures have been used previously in research published in top marketing journals. OOC was measured with the Spence and Helmreich (1983) items. Consistent with established conceptualization in sales literature, working smart was operationalized as a composite measure of three standardized scores: (1) planning, (2) functional flexibility, and (3) adaptive selling (Sujan et al. 1994). Also consistent with established conceptualization in sales literature, organizational citizenship behavior was operationalized as a "global" composite measure of three standardized scores: (1) helping behavior, (2) civic virtue, and (3) sportsmanship (Netemeyer et al. 1997). A given salesperson's organizational citizenship behavior was rated by his or her sales managers in our study. "Working hard" (i.e., salesperson effort) and sales performance were measured objectively with archival data from company records[3]. The working hard measure used for this study's "inside sales" context is "total talk time." Management at the firm tracks this measure closely, as it indicates the amount of time that a salesperson spends selling on the telephone. At the salesperson-level and the sales-unit level, the objective performance measure is the number of

[3] The firm provided effort and performance data for the most recent two months. We combined the monthly numbers so as to have single measures of effort and performance.

loans closed. Management at the firm considers this measure to be the ultimate objective sales outcome. In addition to years of selling experience, self-efficacy and learning-goal orientation were captured as control variables. Self-efficacy has motivational implications and should be significantly related to working hard (e.g., Fu et al. 2009; Locke and Latham 1994). Learning goal orientation is an established as a predictor of working smart (Sujan et al. 1994).

Descriptive statistics and correlation coefficients are reported in Table 3. Cronbach's alpha and average variance extracted (AVE) for each construct measure are reported. As can be seen in Table 3, reliabilities and AVE's are above commonly recommended thresholds (Fornell and Larcker 1981; Nunnally 1978). The lone exception is the "planning the sale" (PTS) measure used in this study (where four of six items are reverse-coded; taken from Sujan et al. 1994). The PTS measure had an alpha of .67 - very the near recommended threshold - and an AVE of .39, low but was still higher than PTS's squared correlation (shared variance) with any other construct in our study, suggesting that discriminant validity is not a concern. Towards this end, confirmatory factor analysis suggested that a hypothesized 11-factor measurement model fit the data well (CFI = .903; RMSEA = .053).

Leader behavior was not self-reported but instead rated by salespeople. Because leadership behavior was judged by a group of raters (an average of 4.46 salespeople per sales manager in this instance), we assessed interrater agreement, with the goal of aggregating the ratings. Rwg (James et al. 1984) was calculated to be .84 for achievement-oriented leader behavior and .82 for supportive leader behavior, suggesting interrater consensus and interchangeability. With measures of Rwg above .70 as well as ICC(1) measures of .11 (achievement-oriented leader behaviors) and .09 (supportive leader behaviors), we felt justified in aggregating our lower-level negative affect data (Bliese 2000; George 1990; Lebreton et al.

2003; LeBreton and Senter 2008). Our ICC(2) measures (.36 for achievement-oriented leader behaviors; .30 for supportive leader behaviors) were not of significant concern, given the measure's questionable contextual relevance and sensitivity to study size (James 1982).

Analytic Approach

To analyze the effects of OCB's on team-level performance (i.e., Hypothesis 2), we applied ordinary least squares regression using STATA 12. Otherwise, given the hierarchical nature of our data (salespeople nested within sales managers) and the likelihood of interdependence, we applied hierarchical linear modeling to test our hypotheses (HLM; Bryk and Raudenbush 1992). Multilevel models offer statistical and theoretical advantages. A key reason to use multilevel modeling, from a statistical standpoint, is that having nested (non-independent) observations violates classic regression assumptions about uncorrelated error terms (e.g., Wooldridge 2009, p. 87). In our case, we have salespeople nested within sales managers. Importantly, nested data includes homogeneity that likely drives the standard errors down and inflates test statistics (Steenbergen and Jones 2002, p. 220). Ignoring the nested structure (i.e., ignoring relevant macro-units) essentially accepts biased standard errors, which can lead to "erroneous conclusions" (Snijders and Bosker 2012, p.6) and Type 1 errors (Steenbergen and Jones 2002, p. 220). Another statistical advantage of multilevel models is that they can decompose (partition) the more complex error term, enabling a more fine-grained analysis of variance. Beyond the empirical advantages of multilevel models, Steenbergen and Jones (2002, p.219) highlight several theoretical benefits offered by multilevel models. These advantages include: (1) a more correctly specified and comprehensive model; (2) the chance to investigate "causal heterogeneity" – including individual predictors alongside environmental predictors; and (3) a test of generalizability – understanding if relationships hold across contexts.

The first level of analysis in the current study included the competitive dispositions (SOC and OOC) as well as the control variables (years of selling experience, learning goal orientation, self-efficacy). The second level of analysis included the leadership behaviors (achievement-oriented leader behavior, supportive leader behavior). Salesperson-related predictor variables were group-mean centered in order to interpret the estimates as only representing Level 1, or within-group, relationships (Hofmann et al. 2000; Raudenbush and Bryk 2002). This approach to centering removes any between-group variance when estimating Level 1 relationships. Therefore, the relationships among the within-group variables are not confounded by team-level (or Level 2) differences, such as leadership behaviors in our case.

Prior to testing our hypothesized relationships with HLM, we examined the degree of systematic within- and between-group variance in our criterion variables (salesperson behaviors) by estimating a null model for each variable. The null model partitions the total variance of a dependent variable into within- and between-team (i.e., between sales manager) components. In our case, the intercept for each null model represents the average level of a given variable across individuals. As shown in Table 4, the null model results indicated that there was significant between-team variance in organizational citizenship behaviors. In particular, more than 40% of the variance in organizational citizenship behaviors was between teams ($p < .001$). While the majority of working smart and working hard variance was within teams, the substantial group effects on OCB's – in combination with Path-Goal theoretical reasons - suggest that hierarchical modeling of the data was appropriate.

Model Specification

The models for (1) working hard, (2) working smart, and (3) organizational citizenship behaviors (H3, H4, H5, H6, H7) were specified in the same manner, shown below:

Level-1 Model:

$$Y_{ij} = \beta_{0j} + \beta_{1j}*(\text{EXP}_{ij}) + \beta 2j*(\text{SE}_{ij}) + \beta 3_j*(\text{LGO}_{ij}) + \beta 4j*(\text{OOC}_{ij}) + \beta 5j*(\text{SOC}_{ij}) + r_{ij}$$

Level-2 Model:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(\text{AOLB}_j) + \gamma_{02}*(\text{SLB}_j) + u_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

$$\beta_{2j} = \gamma_{20}$$

$$\beta_{3j} = \gamma_{30}$$

$$\beta_{4j} = \gamma_{40} + \gamma 41*(\text{AOLB}_j) + \gamma 42*(\text{SLB}_j) + u_{4j}$$

$$\beta_{5j} = \gamma_{50} + \gamma_{51}*(\text{AOLB}_j) + \gamma_{52}*(\text{SLB}_j) + u_{5j}$$

Where

- EXP = salesperson's years of experience (Level 1 predictor)
- SE = salesperson's self-efficacy (Level 1 predictor)
- LGO = salesperson's learning goal orientation (Level 1 predictor)
- OOC = salesperson's other-oriented competitiveness (Level 1 predictor)
- SOC = salesperson's self-oriented competitiveness (Level 1 predictor)
- AOLB = sales manager's achievement-oriented leader behavior (Level 2 predictor)
- SLB = sales manager's supportive leader behavior (Level 2 predictor)
- γ_{00} is the average intercept across all sales managers
- γ_{01} is the increment to intercept associated with the AOLB score of sales manager *j*
- γ_{02} is the increment to intercept associated with the SLB score of sales manager *j*

- γ_{10} is the average EXP slope across all sales managers
- γ_{20} is the average SE slope across all sales managers
- γ_{30} is the average LGO slope across all sales managers
- γ_{40} is the average OOC slope across all sales managers
- γ_{41} is the increment to OOC slope associated with the AOLB score of sales manager *j*
- γ_{42} is the increment to OOC slope associated with the SLB score of sales manager *j*
- γ_{50} is the average SOC slope across all sales managers
- γ_{51} is the increment to SOC slope associated with the AOLB score of sales manager *j*
- γ_{52} is the increment to SOC slope associated with the SLB score of sales manager *j*
- u_{0j} is the increment to intercept associated with sales manager *j* that remains after controlling for AOLB and SLB.
- u_{4j} is the increment to OOC slope associated with sales manager *j* that remains after controlling for AOLB and SLB.
- u_{5j} is the increment to SOC slope associated with sales manager *j* that remains after controlling for AOLB and SLB.

The model for salesperson performance (H1) was specified as follows:

Level 1 Model:

$$Y_{ij} = \beta_{0j} + \beta_{1j}*(\mathrm{EXP}_{ij}) + \beta 2j*(\mathrm{SE}_{ij}) + \beta 3_j*(\mathrm{LGO}_{ij}) + \beta 4j*(\mathrm{OOC}_{ij}) + \beta 5j*(\mathrm{SOC}_{ij}) +$$

$$\beta_{6j}*(\mathrm{WHARD}_{ij}) + \beta_{7j}*(\mathrm{WSMART}_{ij}) + \beta_{8j}*(\mathrm{WHARDXWSMART}_{ij}) + r_{ij}$$

Level-2 Model:

$$\beta_{0j} = \gamma_{00}$$

$$\beta_{1j} = \gamma_{10}$$

$$\beta_{2j} = \gamma_{20}$$

$\beta_{3j} = \gamma_{30}$

$\beta_{4j} = \gamma_{40}$

$\beta_{5j} = \gamma_{50}$

$\beta_{6j} = \gamma_{60}$

$\beta_{7j} = \gamma_{70}$

$\beta_{8j} = \gamma_{80}$

Where

- All variables and coefficients listed in the previous equations are the same.
- WHARD = salesperson's effort level
- WSMART = salesperson's working smart score
- WHARDXWSMART = interaction between working smart and working hard
- γ_{60} is the average WHARD slope across all sales managers
- γ_{70} is the average WSMART slope across all sales managers
- γ_{80} is the average WHARDXWSMART slope across all sales managers

The model for sales team (sales manager) performance (H2) was specified as follows:

$Y = \beta_0 + \beta_1*(\text{TEXP}) + \beta_2*(\text{TSE}) + \beta_3*(\text{TLGO}) + \beta_4*(\text{TOOC}) + \beta_5*(\text{TSOC}) + \beta_6*(\text{TWHARD}) + \beta_7*(\text{TWSMART}) + \beta_8*(\text{TOCB}) + e$

Where

- Y = Team-level (sales manager – level) performance
- TEXP = team average years of selling experience
- TSE = team average self-efficacy score
- TLGO = team average learning-goal orientation score
- TOOC = team average other-oriented competitiveness score

- TSOC = team average self-oriented competitiveness score
- THARD = team average salesperson effort level
- TSMART = team average working smart score
- TOCB = team average organizational citizenship score

RESULTS (STUDY 2)

Tests of Hypotheses: Predicting objective performance

H1a predicted that working hard would be positively associated with objective performance. H1b predicted that working smart would be positively associated with objective performance. The corresponding HLM results are shown in Table 5. As Table 5 shows, working hard had a significant and positive influence on objective performance ($\gamma = .41$, two tailed $p < .01$). Thus, H1a is supported. Unexpectedly, working smart failed to have a significant direct effect on objective performance. As such, H1b is not supported. H2 predicted that OCB, at the team level, would be positively related to sales unit (sales team or sales manager) performance. The corresponding OLS regression results are shown in Table 6. As Table 6 shows, team average organizational citizenship behavior was positively and significantly associated with team-level objective performance ($\beta = 4.56$, two tailed $p < .10$). As such, H2 is supported.

Tests of Hypotheses: Predicting critical salesperson behaviors

Hypothesis 3 predicted that both competitive orientations (OOC and SOC) would be positively associated with working hard. Moreover, the expectation was that, of the two competitive orientations, OOC would be the stronger predictor. HLM results corresponding to this hypothesis are provided in Table 7. As shown in Table 7, SOC is positively and significantly related to working hard ($\gamma = .72$, two tailed $p < .01$). However, the relationship between OOC and working hard was statistically insignificant. Thus, Hypothesis 3 is only partially supported.

Hypothesis 4 predicted that both competitive orientations would be positively related to working smart. Beyond this, the expectation was that, of the two competitive orientations, SOC would be the stronger predictor. HLM results corresponding to this hypothesis are provided in Table 8. As Table 8 shows, the relationship between OOC and working smart was statistically insignificant. On the other hand, SOC had a significant and positive influence on working smart ($\gamma = .29$, two tailed $p < .01$). As such, Hypothesis 4 is only partially supported.

Hypothesis 5 predicted that the relationship between OOC and Organizational Citizenship Behavior (OCB) would be significantly more negative than the relationship between SOC and OCB. A bit more succinctly, the expectation was that OOC would be a stronger marker of poor citizenship behavior. The corresponding HLM results for H5 are shown in Table 9. As Table 9 shows, the relationship between SOC and OCB was statistically insignificant. At the same time, the relationship between OOC and OCB was significant and negative ($\gamma = -.11$, two tailed $p < .05$). Accordingly, H5 is supported.

Tests of Hypotheses: Leadership behavior contingencies (cross-level interactions)

HLM allows us to test cross-level moderating effects. Cross-level moderation occurs when a Level 2 variable significantly predicts the slope of a given Level 1 relationship, thus "moderating across levels" (Judge et al. 2006, p. 132). We predicted that achievement-oriented leader behaviors (AOLB, H6) and supportive leader behaviors (SLB, H7) would moderate the effects of the competitive orientations on the previously noted critical salesperson behaviors. In particular, H6a predicted that AOLB would strengthen the positive effects of OOC on working hard. Oppositely, H6b predicted that AOLB would weaken the positive effects of SOC on working hard. The corresponding HLM results are shown in Table 7. As Table 7 shows, the effect of AOLB on the OOC → working hard slope was statistically insignificant. Thus, H6a is

not supported. However, the effect of AOLB on the SOC → working hard slope was statistically significant and indeed negative (γ = -.37, *p* two tailed < .01), in support of H6b. Simple slopes analysis was conducted to better understand the nature of the H6b interaction (Preacher et al. 2003). We calculated the slope SOC → working hard slope at high (one standard deviation above the mean) and low (one standard deviation below the mean) levels of AOLB. The results show that the effect of SOC on working hard is significant and positive at *low* levels of AOLB (β = 1.59, $p < .001$). However, at *high* levels of AOLB, the effect of SOC on working hard is weakened and becomes insignificant (β = -0.15, NS). Visual inspection of the interaction plot (see Figure 2) confirms the nature of the H6b interaction as hypothesized.

H6c predicted that AOLB would strengthen the positive effects of OOC on working smart. Oppositely, H6d predicted that AOLB would weaken the positive effects of SOC on working smart. The corresponding HLM results are provided in Table 8. As Table 8 shows, the effect of AOLB on the OOC → working smart slope was statistically significant and positive (γ = .05, two tailed $p < .10$), in support of H6c. At the same time, the effect of AOLB on the SOC → working smart slope was statistically significant and negative (γ = -.03, two tailed $p < .05$), in support of H6d. Simple slopes analysis was conducted to better understand the nature of the H6c and H6d interactions. We calculated the OOC → working smart slope at high (one standard deviation above the mean) and low (one standard deviation below the mean) levels of AOLB. The results show that the effect of OOC on working smart is significant and positive at *high* levels of AOLB (β = 0.18, $p < .05$). However, at *low* levels of AOLB, the effect of OOC on working smart is weakened and becomes insignificant (β = -0.05, NS). Visual inspection of the interaction plots confirms the nature of this H6b interaction (see Figure 3). We also calculated the SOC → working smart slope at high and low levels of AOLB. The results show that the

effect of SOC on working smart is significant and positive at *low* levels of AOLB ($\beta = 0.24$, $p < .01$). However, at *high* levels of AOLB, the effect of SOC on working smart is weakened and becomes insignificant ($\beta = 0.07$, NS). Visual inspection of the interaction plots confirms the nature of this H6d interaction (see Figure 4).

H7a predicted that SLB would make the relationship between OOC and OCB more positive. Similarly, H7b predicted that SLB would make the relationship between SOC and OCB more positive. The corresponding HLM results are shown in Table 9. As Table 9 shows, the interactive effects of supportive leadership behaviors were statistically insignificant in both cases. As such, H7a and H7b are not confirmed.

Additional Analysis

Though not hypothesized, our results revealed a significant interactive effect of working hard and working smart on salesperson performance ($\gamma = .04$, two-tailed $p < .10$). To the best knowledge of the authors, this synergistic relationship has not been empirically examined in the literature. Simple slopes analysis was conducted to better understand the nature of the working hard and working smart interaction. We calculated the working hard → performance slope at high (one standard deviation above the mean) and low (one standard deviation below the mean) levels of working smart. The results show that, even at low levels of working smart, the effect of working hard on salesperson performance is significant and positive ($\beta = 0.33$, $p < .01$). However, at high levels of working smart, the effect of working hard on performance is strengthened and becomes even more positive ($\beta = 0.48$, $p < .01$). These results suggest that salesperson performance gains from working hard, or the amount of effort, are significantly amplified to the extent that a salesperson works smart, or behaves in ways that improve the direction of effort.

DISCUSSION OF RESULTS (STUDY 2)

Study 2 confirms some expected relationships and reveals some new ones. Study 2 also provides further evidence regarding some heretofore-equivocal relationships in the literature. In terms of direct effects, we provide confirmatory evidence regarding the effects of working hard on performance. Practitioners and researchers alike might be reassured by what our H1a finding suggests: There may be no comparable substitute for salesperson effort (or a strong work ethic). As time dedicated to selling increased, so did the objective performance of salespeople in our study. Beyond reassurance regarding the effects of working hard, Study 2 adds to the literature much-needed evidence regarding the effects of working smart on salesperson performance. We were surprised to find that, controlling for the effects of working hard and other established performance drivers (e.g., self-efficacy), working smart had no statistically significant direct effect on salesperson performance. However, the surprise regarding H1b became more understandable when interactive effects were taken into account. The significant and positive interaction between working hard and working smart could be interpreted in at least two meaningful ways. First, working smart – all by itself – is simply not enough. That is, successful salespeople must do more than plan, remain flexible, and adapt. A second interpretation is this: The very positive effects of hard work on salesperson performance can be amplified still when the hard worker is also a smart worker. It seems that working hard and working smart are "better together." To the best of our knowledge, this significant interaction is the first empirical finding of its kind in sales literature.

Our Study 2 (H2) results also confirmed the notion that organizational citizenship behavior, in the aggregate, positively drives sales unit (or sales manager) performance. This finding is consistent with past research and suggests that salesperson citizenship behaviors such

as helping or volunteering may indeed free up managerial resources that can be otherwise be applied towards revenue generating activities (Podsakoff and MacKenzie 1994). This team-level relationship, in our view, is sorely understudied in sales literature. Indeed, past research of sales literature has called for more "research that includes dependent variables other than individual-level outcomes" and studies that link individual-level outcomes to more aggregate outcomes (Plouffe et al. 2008, p. 89). As such, our research provides scarce-but-important evidence for answering questions such as "Does sales team cohesion (or discord) internally translate into bottom-line results with customers externally? And, if so, how so?" Our H2 findings suggest that cohesive teams (i.e., teams that help and volunteer without complaining) are more likely to be winning teams.

Taken together, the H3 findings are simultaneously new, meaningful, and consistent with established literature. First, H3 shows that SOC is indeed a positive and significant predictor of working hard. If working hard is in fact the principal behavior driving salesperson performance, then uncovering a driver of such behavior is of central important to both theory and practice. Meanwhile, H3 shows that the relationship between OOC and working hard was not statistically significant. The insignificant relationship between OOC and working hard was contrary to our hypothesis but not completely surprising, given (competitiveness $\rightarrow$ effort) null effects in past research (Brown and Peterson 1994; Krishnan et al. 2002). Altogether, H3 provides supporting evidence for a proposition that is somewhat fundamental to this research: Competitive nuance in the sales force has significant behavioral implications.

Like H3, H4 reveals new and meaningful relationships. We found the heretofore-unexamined association between OOC and working smart to be positive but statistically insignificant. This new-though-insignificant finding is noteworthy still, we believe, given [1] the

importance of salesperson competitiveness to practicing managers and sales force literature and [2] a simultaneous dearth of investigations of working smart behavior antecedents (exceptions include: Fang et al. 2004; Rapp et al. 2006; Sujan et al. 1994). Our H4 finding that reveals a positive and significant association between SOC and working smart is both new and noteworthy, given the intuitive and documented importance of working smart behavior. Our H4 finding suggests that those salespeople who strongly desire to outperform their own accomplishments are in fact more likely to plan, be flexible, and adapt. Broadly, H4, much like H3, provides evidence supporting the notion that competitive heterogeneity in the sales force is meaningful.

H5 shows that the relationship between OOC and organizational citizenship behaviors (OCB's) is in fact significantly more negative than the relationship between SOC and OCB's. Our findings suggest that those salespeople with high levels of OOC – more likely to believe that others must lose in order for them to win – are indeed significantly less likely to help, less likely to volunteer, and more likely to complain. These findings are especially important, given recent research that identifies some downsides of competitive salespeople (Jelinek and Ahearne 2010). Taken together, the chain of effects from OOC to sales team (sales manager) performance tell an important and cautionary tale. Those salespeople with high levels of OOC are more likely to display poor citizenship behaviors, which, in the aggregate, drive sales team (sales manager) performance downwards. Meanwhile, the H5 SOC findings suggest that all competitive salespeople are not environmentally poisonous.

Beyond the aforementioned main effects, Study 2 also reveals new, interesting, and meaningful interactive effects. Our Path-Goal theoretic hypotheses regarding achievement-oriented leader behavior (AOLB) were largely confirmed. In particular, H6 confirms that AOLB

can indeed be a double-edged sword for sales managers, depending on a given salesperson's competitive orientation. On one hand, our H6c results show AOLB to be an asset, amplifying the positive relationship between OOC and working smart. In this regard, simple slopes analysis suggests that the effects of OOC on working smart depend on the presence of AOLB. At low levels high levels of AOLB, there is no significant relationship between OOC and working smart. However, at high levels of AOLB, the effect of OOC on working smart becomes significantly positive. Simultaneously, our results show AOLB to be a liability, aggravating the positive relationship between SOC and working smart (H6d). At *low* levels of AOLB, SOC is positively and significantly related to working smart. However, at *high* levels of AOLB, the effect of SOC on working smart is reduced to insignificance. The antagonistic interactive relationship between AOLB and SOC is further evidenced with H6b, which suggests that the positive effect of SOC on working hard is negated in the presence of achievement-oriented leader behavior. Simple slopes analysis suggests that at *low* levels of AOLB, the effect of SOC on working hard is significantly positive. However, at *high* levels of AOLB, the effect of SOC on working hard is weakened to insignificance. Broadly, the H6 findings show that the same leadership behavior can have positive or negative effects. Collectively, the H6 findings also confirm a general hypothesis suggesting that differently competitive salespeople can have significantly different behavioral reactions to the same leadership behavior. As did each of the previously discussed main effects, the H6 (AOLB) interactive effects generally confirm the notion that competitive nuance in the sales force is meaningful.

Finally, our a priori expectation was that supportive leader behaviors would motivate highly competitive salespeople to engage in organizational citizenship behaviors that they might not be naturally inclined to exhibit. However, our H7 results suggests that supportive leader

behaviors are not enough to counter the negative effect of OOC on OCB's – and not enough to stimulate a positive effect of SOC on OCB's. These insignificant interactive effects might simultaneously serve as (1) a fruitful future research direction and (2) a red flag for practitioners. If supportive leadership behaviors cannot counteract negative influences on organizational citizenship behavior, a natural follow-up question is "What can?" If no leadership or climate countermeasures are identified (or until they are identified, at least), unmitigated and negative effects of OOC could, ultimately, put a drag on sales unit (sales team or sales manager) performance, as the H2 results suggest.

Altogether, study 2 demonstrates the ability of the new SOC measure to predict critical salesperson behaviors, above and beyond a traditional measure of trait competitiveness (i.e., OOC) and key control variables (self-efficacy, learning goal orientation, years of selling experience). Moreover, Study 2 shows that it is not just the direct effects (direct behavioral consequences) that differ across competitive orientations. Study 2 shows that the two competitive orientations (SOC and OOC) have different conditional effects (environmental contingencies) as well. At the least, our Study 2 findings are important to managers insofar as (1) job roles vary in terms of levels of working hard and working smart required, (2) individual sales managers vary in terms of levels of working hard and working smart desired, and (3) sales managers – or organizations – vary in terms of levels of employee-to-employee helping or teamwork desired. For researchers, our Study 2 findings open the door to future work on competitive heterogeneity in the sales force, especially with regard to environmental contingencies.

STUDY 3

In our view, no examination of salesperson motivation (or sales manager control, for that matter) is complete without somehow accounting for money (or financial rewards). Accordingly, Study 3 takes what we view as one logical next step in an exploration of self-oriented competitiveness, i.e., a step into the salesperson compensation domain. Study 3 shares Study 2's empirical interest in motivation and performance maximums across differently competitive people. While Study 2 focuses on synergistic and antagonistic leadership environments, Study 3 focuses on structural (or policy) environments in the sales force that might elicit more or less favorable behavioral reactions from differently competitive salespeople. In particular, Study 3 examines some motivational effects of sales contest design. One objective of Study 3 is to understand the relative impacts of two different kinds of contest structures: (1) a structure that encourages salespeople to compete against each other and (2) a structure that encourages salespeople to compete against themselves (i.e., against their own past performance). A second, and possibly more interesting, objective of Study 3 is to understand ways in which sales contest design moderates or changes the effects of the different competitive dispositions on effort and performance. A better understanding of salesperson compensation approaches that might maximize motivation and performance is an important (and enduring) goal of sales force researchers and sales managers alike. At the same time, an understanding of salesperson personality types that might react more or less favorably to a given compensation structure is pragmatic for (1) those developing theory and (2) those responsible for delivering sales objectives day-to-day.

Study 3 was a field experiment. With the agreement and assistance of the same company that provided the sample and data for Study 2, we randomly assigned roughly half of the sales

force to a "compete-with-self" sales contest condition and half of a sales force to a "compete-with-others" sales contest condition. The basis for splitting the inside sales force that the company agreed to was "office floor." Salespeople at the company, all located inside of the same office building, are spread across two floors in the office. Senior management confirmed that there are no salesperson-driven or management-driven differences in the salespeople on the two floors (e.g., they all sell the same products to the same customer types); the second sales floor was added due simply to company growth. Two-thirds of the sales teams are on one floor; one-third is on a separate floor. Each floor received one of the two treatment conditions (sales contest design manipulations). As such, our field experiment took the form of a 2 X 1 between-subjects design. For both treatment conditions, the sales contest duration was one week. The monetary contest prize was equal for both groups and consistent with past contest prize values at the company.

We believe that a test of Study 3's conceptual model (shown in Figure 5) will contribute to the marketing literature by filling in some unexamined and important gaps. To the best knowledge of the authors, and despite the importance of the topic to research and practice, extant research has not explored ways in which sales contest design characteristics moderate the effects of salesperson personality traits in a field experiment with a corporate sales force. In our view, research of this kind is necessary, particularly in a literature stream centered on what has been considered a motivational trait. Study 3 findings will be relevant to research on sales contest specifically, and salesperson compensation and motivation more widely. As shown in Figure 5, our conceptual model suggests that sales contest design moderates the effect of competitive disposition (i.e., OOC and SOC) on salesperson effort. In turn, effort positively drives objective performance outcomes.

HYPOTHESIS DEVELOPMENT (STUDY 3)

Sales contests are tools at a sales manager's disposal used to motivate short-term performance (Johnston and Marshall 2013; Poujol and Tanner 2010). For reasons generally related to motivation (e.g., Murphy 2004), research on sales contests often examines salesperson effort as a dependent variable. Most commonly, in practice, sales contests award prizes based on the rank-ordering of salespeople who compete against each other (e.g., Syam et al. 2013). Of particular importance for our purposes here is the fact that various sales contest designs exist – and that different salespeople have varying preferences for different contest designs (or contest structures; Murphy et al. 2004). While most sales contests (like typical conceptualizations of trait competitiveness) have a "compete-with-others" structure, our research is interested in exploring the direct and conditional effects of a "compete-with-self" structure (i.e., a system in which a salesperson competes against his or her own prior performance). Importantly, our conceptualization (and operationalization) of a "compete with self" system is not the same as a quota system, which provides subjectively shaped targets hampered by managerial biases and territorial inequalities (e.g., Johnston and Marshall 2013; Syam et al. 2013). In general, recent sales force research suggests that the structure of compensation or incentive program affects salesperson effort (e.g., Kishore et al. 2013; Lim and Chen 2014). More specifically applicable to our investigation here is recent research suggesting that the choice of sales contest structure has significant implications regarding salesperson effort (Lim et al. 2009).

Person-environment "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 et al. 2005, p. 281)." Kristof-Brown et al.'s meta-analytic review of individuals' fit at work broadly concludes that "fit matters" - and that it is beneficial (2005, p. 325). One

recent study suggests that salesperson performance improves when competitive salespeople perceive a "fit" with the (competitive psychological) climate at work (Schrock et al. 2016). Similarly, we expect that a "fit" between competitive disposition and compensation (incentive) structure will result in higher motivation and performance. Our general expectation is that salespeople will be especially motivated when there is a "fit" between what is personally desired (i.e., competitive disposition) and what is formally rewarded (i.e., by a compensation program). More specifically, we expect that sales contest design (i.e., compete with others vs. compete with self) will moderate the effects of competitive disposition (i.e., OOC vs. SOC) on sales behavior (i.e., effort). According to Vroom (1964), work tasks (i.e., a sales contest in our case) have psychological properties that vary across individuals and have different effects on individuals' motivation for effective performance. Further, Vroom (1995) suggests that employees will be more motivated to perform well on tasks that require possessed – or personally valued – attributes (pp. 288-290). In the end, the nature of the task and the personality of the employee, and their interaction, are expected to jointly determine motivation and of job performance (Vroom 1964). Considering (1) existing literature on individual "fit" at work and (2) the joint importance of personality and task characteristics in explaining workplace motivation, we expect the following:

H1a: In a "compete-with-others" sales contest design, the relationship between OOC and effort will be significantly more positive than the relationship between SOC and effort..

H1b: In a "compete-with-self" sales contest design, the relationship between SOC and effort will be significantly more positive than the relationship between OOC and effort

METHODOLOGY (STUDY 3)

Sample

The same firm from Study 2 agreed to cooperate in a field experiment. Accordingly, Study 3 utilizes the same sample frame (all company salespeople) from Study 2. 285 salespeople were sales contest participants. Some forthcoming analysis is based on this "full sample." Our forthcoming regression analysis is based on the 174 salespeople who [1] responded to the survey used in study 2 (sent more than five months before the sales contest began) and [2] had complete effort and performance data for the relevant sales contest time frame.

Construct measures

Study 3 utilized the same measures of SOC and OOC used in Study 1 and Study 2. Control variable measures (i.e., learning goal orientation, self-efficacy, years of selling experience) are shown in Appendix D. Salesperson effort and performance were measured objectively with archival data from company records. The company-provided effort measure for the contest was the salesperson's number of outbound phone calls that reached a certain time (or duration) threshold. This could be interpreted as a number of "qualified calls," different from "total talk time" or the total number of outbound dials. The company-provided performance measure for the contest was the number of loans submitted. Senior management confirmed that loan submissions is a closely-monitored key indicator of sales performance at the firm, reflecting the "most" that a salesperson can do to close a deal (whether or not a loan closes can be due to factors beyond the salesperson's control).

Procedure and analytic approach

Salespeople were not notified of the sales contest(s) until the Monday morning of the actual contest week. We asked management to implement a "surprise contest" approach to help

rule out the realistic possibility of salespeople "gaming the system" (e.g., withhold orders until the contest begins) and artificially distorting results. Salespeople were notified of the contest(s) and rules following a weekly "kick off" meeting on Monday morning. Interested in measuring the effort (and performance) "lift" provided by the sales contests, we used the week two weeks prior to the contest week as our baseline measure of effort. As such, there was one week in between our baseline week (t) and contest week (t+2). As noted previously, each floor received one of the two treatment conditions (sales contest design manipulations). On one floor, the monetary prize would go to the salesperson who outperformed all others on the floor. On the other floor, the monetary prize would go the salesperson who had the biggest performance gain compared to their baseline week. Importantly, this sales contest did not involve any activities that are outside of the normal daily activities of the salespeople at the firm (i.e., no new teaching or learning was required).

To understand the effects of the sales contest designs, we conducted two types of analyses. The first, paired *t*-tests, was used to better understand if (1) the average "baseline week" effort scores and (2) the average "contest week" effort scores were significantly different from each other. If the sales contests (manipulations) had their intended effects, then we should see significant differences (i.e., *higher* effort and performance in the "contest week"). For effort and performance, three paired T-tests were examined: (1) for the "compete-with-others" sales contest design, (2) for the "compete-with-self" sales contest design, and (3) a combined pairing to examine "contest effects" more broadly. Ordinary least squares (OLS) regression was then used to examine the effects of competitive disposition on salesperson effort. Here, the dependent variable was the salesperson's effort during the "contest week." This analysis controlled for salesperson effort during the "baseline week," while also controlling for the three control

variables from Study 2 (i.e., years of selling experience, learning goal orientation, and self-efficacy). We estimated the effects of the competitive disposition measures (SOC and OOC, collected in the Study 2 survey, more than five months beforehand) in two models, one for each sales contest design. An understanding of differences within and across the models can inform us about potential synergies and tell us if a certain incentive structure is more effective (i.e., effort-inducing) for a given aspect of salesperson personality.

RESULTS (STUDY 3)

Importantly, *t*-tests showed that mean levels of effort (t = .522, p = .602) and performance (t = .290. p = .772) were similar on the two sales floors during the baseline week. These tests confirmed what senior management told us previously: there was no single hard working or high performing sales floor. Moreover, for the 174 salespeople in our regression analysis, *t*-tests confirmed that average levels of our control variables did not differ significantly across the two sales floors (selling experience, t = .870; self-efficacy, t = .127; learning goal orientation, t = 1.34).

Baseline effort, baseline performance and the differences ("lifts") for the two contest designs are provided in Table 10. Table 10 likely confirms intuition by suggesting that sales contests drive up salesperson effort and performance. Compared to the baseline week, the overall sample of salespeople gave more effort (t = 3.151) and achieved higher levels of performance (t = 4.749) during the contest week. Table 10 does suggest that, on the whole, the competition-with-others design was more effective in lifting effort (t = 3.434) and performance (t = 4.574) than was the competition-with-self design. However, and again on the whole, the

performance lift in the competition-with-self design was positive and approaches statistical significance ($t = 1.631$).

Tests of Hypotheses: Predicting salesperson effort

H1a predicted that, in a compete-with-others contest design, the relationship between OOC and effort would be significantly more positive than the relationship between SOC and effort. The corresponding OLS results are shown in Table 11. As Table 11 shows, OOC had a significant and positive influence on salesperson effort in the compete-with-others sales contest ($\beta = 0.57$, $p < .05$). At the same time, SOC had no such positive effect ($\beta = -0.28$, NS). Thus, H1a is supported. H1b predicted that, in a compete-with-self contest design, SOC would be the stronger predictor of effort. As Table 11 shows, OOC did not significantly predict effort in the compete-with-self condition ($\beta = 0.18$, NS). However, and unexpectedly, SOC also failed to significantly predict effort in the compete-with-self condition. As such, H1b is not supported. Results provided in Table 12 then confirmed that, for both contest designs, contest week effort was the strongest predictor of contest week performance.

Additional Analysis

To further examine the effects of contest design and competitive orientation on salesperson contest performance, we conducted a 2 (contest design) X 2 (competitive orientation) ANCOVA. For this analysis, each salesperson was coded as either "high OOC" or "high SOC," based on which self-reported score was higher. Our dependent variable was the sales contest performance "lift" (i.e., the difference between the salesperson's contest week performance and baseline week performance). To reduce error variance, contest week effort, baseline week effort, and baseline week performance were all entered as covariates. We certainly expect the performance "lift" to be driven by contest week effort and positively

associated with baseline week performance. Also entered as covariates were years of selling experience, learning goal orientation, and self-efficacy (consistent with other analyses in Study 2 and Study 3).

The overall ANCOVA model was significant (F (9,164) = 3.24, two-tailed $p < .01$). As expected, there were significant main effects of two covariates: contest week effort (F (1,164) = 14.39, two-tailed $p < .001$) and baseline week performance (F (1,164) = 5.21, two-tailed $p < .05$). However, and interestingly, there was no significant main effect of contest design (F (1,164) = 1.03, two-tailed NS) and no significant main effect of competitive orientation ($F < 1$). Even more interestingly, the results show that there was indeed a significant interaction between competitive orientation and contest design (F (1,164) = 5.04, two-tailed $p = .026$). The ANCOVA results reveal that those salespeople with higher levels of SOC indeed achieved greater sales performance lifts in a "compete-with-self" contest design ($\bar{X}$ = 1.55) than they achieved in a "compete-with-others" contest design ($\bar{X}$ = 0.88). On the other hand, the ANOCOVA results reveal that those salespeople with higher levels of OOC achieved greater performance lifts in a "compete-with-others" design ($\bar{X}$ = 1.63) than they achieved in a "compete-with-self" design ($\bar{X}$ = -0.13). These estimated marginal means (e.g., Jia et al. 2014; Mogilner et al. 2012; Williams and Steffel 2014) are displayed in Figure 6.

DISCUSSION OF RESULTS (STUDY 3)

Study 3 confirmed expectations in two general areas. First, we found that sales contest design significantly affects salesperson effort (and performance, subsequently). In particular, we found that the effort lift provided by the "compete-with-others" contest design was significantly higher than the effort lift provided the "compete-with-self" contest design. The fact that the different contest designs provided different effort (and performance) "lifts" may generally

highlight the importance of managerial decisions regarding compensation structure. Second, Study 3 confirmed some of our expectations regarding an aspect of "fit" in the salesperson's workplace. In particular, Study 3 shows that salespeople with high levels of OOC responded more favorably to the "compete-with-others" sales contest design than did salespeople with high levels of SOC. Our ANCOVA results also suggest that salesperson performance improves when there is "fit." Those salespeople with high levels of SOC had the biggest performance gains in the compete-with-self condition. Those salespeople with high levels of OOC had the biggest performance gains in the compete-with-others condition.

We were surprised to find that salespeople with high levels of SOC did not exert significantly more effort in the "compete-with-self" sales contest design. However, the magnitude of OOC and SOC coefficients in both sales contest models suggests an explanation for the findings (Table 11). Salespeople who enjoy competing with others (i.e., those with high levels of OOC) may be simply more energized by any sales contest, in general. On the other hand, sales contests (like achievement-oriented leader behaviors in Study 2) may not be particularly energizing for salespeople with high levels of SOC. In both of our contest designs, OLS results show that SOC was not significantly related to contest week effort. It is possible that such contest environments in the workplace provide no extra motivation to those salespeople who look internally for enjoyment (i.e., those with high levels of SOC). Our Study 3 OLS findings might suggest a managerial need to think creatively and critically about ways to maximize the motivation and effort of those salespeople with high levels of SOC. We think this need takes on heightened importance in light of the SOC benefits shown in Study 2 (e.g., working hard, working smart, not being a poor organizational citizen). However, our ANCOVA results – focused on salesperson performance while accounting for salesperson effort as a

covariate – tell a somewhat different story. Our ANCOVA results suggest that "compete-with-self" contest designs are more likely to be performance-maximizing environments for those with high levels of SOC. If driving performance – not effort – is the end-goal, then our Study 3 results may add to important discussions about new structural avenues towards maximizing salesperson performance.

For those salespeople with high levels of OOC, our findings consistently suggest that selling organizations can benefit by "fitting" or matching (1) what is personally desired by salespeople and (2) what is formally rewarded by their compensation programs. More specifically, in our case, it seems that salespeople with high levels of OOC were not especially (significantly) motivated by the "compete-with-self" contest design. Yet, salespeople with high levels of OOC did respond significantly and favorably to (i.e., exert more effort under) the "compete-with-others" sales contest design. To the best of our knowledge, this is the first empirical finding of its kind in sales literature. We believe that Study 3's findings regarding those with high levels of OOC are particularly important given some of our OOC findings from Study 2 (e.g., poor organizational citizenship). Study 3 suggests that when salespeople are expected to be better than others (i.e., in a "compete-with-others" contest), we will see the effort returns that OOC provides. Ultimately, Study 3 suggests that those salespeople with high levels of OOC, if placed in the right environment, do indeed work hard; and hard work – more than anything else – translates into high sales performance. Our ANCOVA findings examining performance are consistent. The ANCOVA results suggest that "compete-with-others" contest designs are more likely to be performance-maximizing environments for those with high levels of OOC.

Broadly, Study 3 - like Study 2 - sheds light on meaningful complexity regarding the effects of salesperson competitiveness. In particular, Study 3 suggests that a given sales contest design can have significantly different effects on salesperson behavior and performance, depending to the "competitive profile" of the salesperson. Our findings underscore the idea that decisions about sales force compensation structure (e.g., sales contest design) must not be made in an executive vacuum, detached from knowledge about individual differences among salespeople. More broadly, Study 3's findings suggest that the effectiveness of sales management policies and practices will hinge significantly upon the dispositional motives of individual salespeople. Generally, Study 3's findings also build on Study 2, advancing knowledge regarding salesperson competitiveness and managerial approaches to "getting the most out of" differently competitive salespeople.

MANAGERIAL IMPLICATIONS

Our research has implications for managers in at least three key areas: hiring (recruiting and selection), leading , and compensating (motivating). While it has long been suggested that managers should hire competitive individuals that want to be better than others, we provide managers with a new (competitive) hiring criterion. In particular, we provide evidence that hiring those who are *competitive with themselves* will pay dividends on multiple fronts. First, we show that these people will work smart (e.g., prepare and adapt). Second, we show that those salespeople with high levels of SOC will work hard. Third, we show that these people are not poor organizational citizens. The latter two points (or salesperson behaviors) may be especially critical because our findings show advantages that SOC provides over OOC. In particular, in Study 2, we show that SOC is a stronger predictor of working hard than OOC. In Study 2, we also show that SOC is unrelated to citizenship behaviors at work, while OOC is negatively associated these behaviors.

Our research also provides further evidence that sales managers affect critical salesperson behaviors, for better or for worse. At the same time, our results reinforce the idea that sales managers must understand the needs and wants of their salespeople individually. In this regard, in Study 2, we show that pushing salespeople towards excellence (holding high standard, seeking continual improvement, encouraging self-evaluation) can prove to be an asset or a liability. On one hand, this kind of leadership behavior might motivate a salesperson with high levels of OOC do more planning and thinking about ways to customize customer messages (working smart). On the other hand, this kind of achievement-oriented leader behavior might be unwanted and perceived as distracting or unnecessary by those salespeople with high levels of SOC (ultimately reducing the effort benefits that SOC might naturally provide). The fact that the same leadership

behavior can impel or impede desirable subordinate behaviors underscores a long-standing, but still sometimes overlooked, sales management principle. In order to motivate each individual salesperson to perform most effectively, it is imperative that sales managers develop personal relationships with each salesperson. To get the most out of a given salesperson, a sales manager must understand that salesperson's unique desires, values, aversions and sources of satisfaction. As subordinates dispositional motives vary, so should the effectiveness of different leadership tactics and strategies.

Unfortunately, our research (i.e., Study 2) failed to reveal ways in which sales managers might encourage highly competitive people to exhibit organizational citizenship behaviors (e.g., helping, volunteering). Until future research identifies some leadership behaviors that can curb the negative citizenship effects of salesperson competitiveness, managers might want to keep in mind the fact that people who enjoy being better than others may be less likely to help other people (e.g., peers) get better. Collectively, our results (H5 and H2 in particular) should give caution to managers who think that hiring competitive salespeople is a panacea. It seems that OOC predicts poor organizational citizenship – and poor organizational citizenship (in the aggregate) predicts poor team-level performance.

Finally, this research (Study 3 in particular) has implications for how different salespeople can be optimally compensated (motivated). Salespeople with different dispositional motives did in fact respond differently to different compensation plans or structures. In particular, Study 3 suggests that compensation plans or sales contests that pit salespeople against each other are especially motivating to salespeople with high levels of OOC. Meanwhile, Study 3 suggests that compensation plans or sales contests that reward individual growth over time (e.g., this month compared to last month, this month compared to same month last year) may

help maximize the performance of those salespeople with high levels of SOC. We believe that such structures should be considered as complementary to traditional quota-based compensation plans or person vs. person (or group vs. group) sales contests. In this regard, one common motivational tactic of sales managers in office environments includes the use of "big boards," which make publicly visible the performance of all salespeople on a given team. We believe that the design of such boards will differentially motivate salespeople depending on their competitive orientation. For example, those individuals with high levels of SOC might respond differently to (1) a board that is essentially a monthly snapshot that ranks salespeople and (2) a board that includes some information that tracks a salesperson's performance over time. In general, we hope that Study 3 encourages managers to think creatively and critically about new structural avenues towards maximizing salesperson motivation and performance.

THEORETICAL CONTRIBUTION

Broadly, we contribute to theory by developing a better understanding of employees' individual differences (e.g., traits, skills or abilities, interests), which are fundamental to explaining and predicting person-by-situation interactions at work (Chernyshenko et al. 2011). Given the general importance of individual difference variables in organizational contexts (e.g., the importance of employee-environment "fit"), it makes sense that theories of job performance include individual difference variables (Chernyshenko et al. 2011; Vroom 1964). In Vroom's (1995) introduction to his classic edition of *Work and Motivation*, the book that originally outlined expectancy theory, Vroom suggests that individual differences have been overlooked in "explaining differences in the effort that people give to their jobs (p. xxi)." Rather than overlook individual differences, we allow individual differences (i.e., competitive orientation) to play a leading role in our theoretical models that help explain salesperson behavior and performance.

We also believe that we contribute to expectancy theory (and path goal theory) research by providing evidence that reward valences can be affected by situational variables. Though not explicitly laid out in expectancy theory's original formulation, Vroom later suggested that the "situation" can affect reward valences (1995, p. xx). We believe that our research provides supporting evidence for this idea. In particular, our Study 2 (Hypothesis 6) findings suggest that sales managers (or the "leadership situation") might drive subordinate behavior by either (1) changing existing outcome valences or (2) introducing positively valent outcomes. By altering outcome valences, managers should be able to change the probability of behavior, as suggested by Hull's (1951) principle of reinforcement. Given our results, we believe that the "situation" (e.g., the sales manager in our case) could also change subordinate behavior by changing instrumentalities (strengthening the connection between outcomes) or changing expectancies (self-belief). Future research that explicitly measures the impact of sales managers on these expectancy theory components over time would be beneficial.

In addition, we believe that we also contribute to expectancy theory by focusing on the direction of workplace effort. Though most expectancy theory work has focused on predicting the amount of work effort, expectancy theory can be used to explain the direction of this effort (Vroom 1995, xxii). Indeed, our examination of working smart behavior (in addition to working hard behavior) suggests that expectancy theory can be used to explain the direction of effort. For theories of workplace behavior and performance, our findings are important inasmuch as jobs vary in the amount of "working harder" versus "working smarter" required (e.g., loading iron on rail cars versus computer programming; Vroom 1995, xxii).

Our Study 2 (i.e., H6 and H7) findings also provide path-goal theory evidence to sales literature. In particular, we add much needed evidence regarding the effects of achievement-

oriented leader behavior. To the best knowledge of the authors, evidence in the marketing literature is scarce (acknowledging the following: Atuahene-Gima and Li 2002; Fulk and Wendler 1982; Kohli 1985). Broadly, our Hypothesis 6 (Study 2) results provide confirmatory evidence to theory's "essential underlying rationale," suggesting that effective leaders "complement subordinate environments and abilities in a manner that compensates for deficiencies (House 1996, p. 348)." In so doing, our results (i.e., H6b and H6d) provide support for the theory's original Proposition 3 regarding the negative effects of "redundancy (House 1971, p. 324)." In general, Study 2 (Hypothesis 6) provides evidence supporting House's (1996) suggestion that "[t]he effect of leader achievement oriented behavior will depend on the achievement motivation of subordinates (p.338)." Our H6 results show that emphasizing performance excellence and continual improvement may cause some subordinates to work harder and smarter. Yet, for other subordinates, this achievement-oriented leader behavior may have the opposite effect.

Lastly, we believe that our multi-study examination of SOC has implications for theory-building in the area of job satisfaction. Insofar as job satisfaction depends on individual employee needs (Schaffer 1953, p. 3), work-role-only explanations of job satisfaction can be viewed as "average effects" that obscure marked differences in personality (Vroom 1995 p. 189). Ultimately, objective work role properties (e.g., work group size), subjective work role properties (e.g., coworker relations), and employee personality variables (e.g., needs) all jointly shape job satisfaction (Vroom 1995, p.190). By exploring, for the first time, competitive orientations alongside organizational citizenship, leadership behaviors, and compensation structures, we believe that we facilitate continued theoretical development in the area of job satisfaction that takes into account both (1) employee personality and (2) the work environment.

CONCLUSION

This dissertation marks the first empirical exploration of the notion of self-oriented competitiveness in marketing literature. Study 1 develops a scale to measure the construct. Studies 2 and 3 put the new scale to use, examining critical consequences (working hard, working smart, being a good organizational citizen) and contingencies (leadership behaviors, compensation structure). This research is valuable in that it (1) paves new empirical paths for marketing researchers to explore and (2) brings new insight to an important and mixed literature. Our systematic exploration of self-oriented competitiveness addresses practically useful – and theoretically important – questions about the construct, building on and extending past research.

APPENDICES

APPENDIX A: TABLES

TABLE 1
Descriptive Statistics and Correlation Coefficients (Study 1)

		α	M	SD	1	2	3	4	5	6	7	8	9
1	SOC	0.94	5.76	1.18	0.81								
2	OOC	0.85	4.94	1.22	0.28	0.64							
3	NFA	0.82	5.58	0.91	0.33	0.08	0.60						
4	PGO	0.80	5.22	1.01	0.19	0.32	0.24	0.50					
5	LGO	0.88	5.92	0.75	0.36	0.13	0.66	0.36	0.56				
6	COOP	0.83	5.48	1.08	0.09	-0.18	0.32	-0.03	0.26	0.51			
7	ALT	0.82	5.99	0.81	0.16	-0.14	0.44	0.10	0.43	0.63	0.47		
8	PERF	0.88	4.76	1.17	0.22	0.26	0.38	0.41	0.34	-0.11	0.07	0.63	
9	IND	0.76	3.10	0.94	-0.07	-0.11	0.04	-0.53	-0.12	0.00	-0.08	-0.16	0.46

Variable names: SOC = Self-oriented competitiveness; OOC = Other-oriented competitiveness; NFA = Need for Achievement; LGO = Learning goal orientation; PGO = Performance goal orientation; COOP = Cooperativeness; ALT = Altruism; PERF = Perfectionism; IND = Independence

Average Variance Extracted (AVE) is on the diagonal

Correlations larger than .11 in magnitude are significant at $\alpha = .05$

TABLE 2

Model Fit of Competing Measurement Models (Study 1)

Model #	Model name	χ^2 / df	$\Delta\chi^2$ / df	CFI	RMSEA [90% CI]
0	Baseline (null) model	5483.729 / 406			
1	One-factor model	3237.867 / 377	2245.862 / 29	0.437	.155 [.151, .160]
2	Three-factor model	1850.301 / 374	1387.566 / 3	0.709	.112 [.107,.117]
3	Four-factor model 1	1425.466 / 371	424.835 / 3	0.792	.095 [.090,.100]
4	Four-factor model 2*	1899.797 / 371	-49.496 / 3	0.699	.115 [.109,.120]
5	Five-factor model**	816.111 / 367	609.355 / 4	0.912	.062 [.057,.068]

*The chi-square change here is based on the three-factor model, not the first four-factor model

**The chi-square change here is based on the best-fitting four-factor model

TABLE 3
Descriptive Statistics and Correlation Coefficients (Study 2)

	α	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SOC	0.95	32.36	4.37	0.83														
OOC	0.83	23.39	3.97	**0.31**	0.66													
WHARD	*	45.76	26.47	0.05	0.08	--												
PTS	0.67	36.95	4.05	**0.19**	0.12	-0.03	0.39											
FLEX	**	42.65	5.99	**0.24**	**0.28**	0.06	**0.26**	--										
ADAP	0.84	47.14	5.41	**0.32**	**0.17**	0.07	**0.27**	**0.30**	0.61									
HELP	0.90	36.98	8.06	0.05	-0.10	**0.26**	0.06	-0.01	0.09	0.62								
CIVIC	0.75	17.00	3.34	0.02	-0.03	0.07	0.05	0.00	0.11	**0.70**	0.67							
SPORT	0.87	21.55	5.72	-0.07	-0.10	0.11	0.04	-0.02	0.10	**0.49**	**0.40**	0.71						
AOLB	0.75	29.37	4.24	**0.18**	**0.21**	0.13	0.15	**0.31**	**0.25**	0.01	-0.03	-0.05	0.56					
SLB	0.76	23.71	3.98	0.12	0.04	-0.02	0.14	**0.19**	**0.17**	0.02	-0.05	-0.03	**0.58**	0.57				
SEF	0.86	31.28	3.00	**0.19**	**0.28**	**0.18**	**0.16**	**0.34**	**0.48**	0.00	-0.09	-0.03	**0.25**	0.14	0.75			
LGO	0.74	57.72	4.24	**0.31**	**0.20**	-0.15	**0.34**	**0.24**	**0.47**	0.02	-0.01	-0.02	**0.29**	**0.25**	0.38	0.54		
EXP	***	9.89	8.49	-0.11	-0.03	0.02	0.07	0.01	-0.02	-0.02	-0.05	-0.07	-0.14	**-0.18**	**0.18**	-0.12	--	
PERF	*	13.64	17.49	0.08	0.15	**0.63**	-0.10	0.14	0.09	**0.17**	0.00	0.04	-0.02	-0.11	**0.25**	-0.14	0.10	--

Bold = Significant at the .05 level (2-tailed)

* Objective data from company archives

** Summative scale

*** Single score used for years of selling experience

Note: SOC = self-oriented competitiveness; OOC = other-oriented competitiveness; WHARD = working hard; PTS = planning the sale; FLEX = functional flexibility; ADAP = adaptive selling; HELP = helping behavior; CIVIC = civic virtue; SPORT = sportsmanship; AOLB = achievement-oriented leader behavior; SLB = supportive leader behavior; SEF = self-efficacy; LGO = learning goal orientation; EXP = years of sales experience; PERF = objective salesperson performance

Note: Average Variance Extracted (AVE) is on the diagonal

TABLE 4

Parameter Estimates and Variance Components of Null Models for Working Hard, Working Smart, and Organizational Citizenship Behavior (Study 2)

Dependent Variable	Intercept (γ_{00})	Within-group variance (σ^2)	Between-group variance (T_{00})	% of variability accounted for by group level
Working Hard	45.76	700.64	0.29	<1%
Working Smart	0.00	4.70	0.00	<1%
Organizational Citizenship Behavior	0.00	3.61	2.57*	42.5%

Notes:

- γ_{00} = pooled intercept representing the average level of the dependent variable across teams
- σ^2 = within-group variance in the dependent variable
- T_{00} = between-group variance in the dependent variable
- % of variance accounted for by the group level = $(T_{00}) / (\sigma^2 + T_{00})$
- * $p < .001$

TABLE 5
HLM Results (Study 2)

Dependent Variable = Salesperson Objective Performance		
Variables	**γ**	**SE**
Intercept	14.07	1.071
Controls		
EXP	0.22	0.205
LGO	-0.54	0.316
SEF	0.35	0.498
OOC	0.45	0.261
SOC	0.21	0.291
Simple Effects		
WHARD (H1a)	0.41***	0.061
WSMART (H1b)	-1.08	0.801
Interaction Effects		
WSHARD X WSMART	0.04*	0.023
Pseudo R-squared	0.55	

*p < .10
**p < .05
***p < .01
Note: All p-values are based on two-tailed tests
Note: EXP = salesperson years of experience; LGO = learning goal orientation; SEF = self-efficacy; OOC = other-oriented competitiveness; SOC = self-oriented competitiveness; WHARD = working hard; WSMART = working smart
Note: R-squared is calculated as a proportional reduction in the Level 1 variance from the Objective Performance null model with no predictors (Hoffman et al. 2000).

TABLE 6
OLS Results (Study 2)

Dependent Variable = Sales Team (Sales Manager) Performance		
Variables	**β**	**SE**
Intercept	259.75	148.179
Controls		
TEXP	-0.08	1.297
TLGO	-3.48	2.971
TSEF	1.38	4.283
TOOC	2.35	3.648
TSOC	-2.10	3.598
Simple Effects		
TOCB (*H2*)	4.56*	2.471
R-squared	0.18	

*p < .10
**p < .05
***p < .01
Note: All p-values are based on two-tailed tests

Note: TEXP = team average years of selling experience; TLGO = team average learning-goal orientation score; TSE = team average self-efficacy score; TOOC = team average other-oriented competitiveness score; TSOC = team average self-oriented competitiveness score; TOCB = team average organizational citizenship behavior score

TABLE 7
HLM Results (Study 2)

	Dependent Variable = Working Hard			
	Main-Effects-Only Model		**Full Model**	
Variables	**γ**	**SE**	**γ**	**SE**
Intercept	45.91	1.641	45.94	1.636
Controls				
EXP	-0.19	0.350	-0.24	0.354
LGO	-1.97***	0.553	-1.92***	0.598
SEF	3.19***	0.694	3.32***	0.735
Simple Effects				
OOC (*H3*)	0.04	0.464	-0.27	0.516
SOC (*H3*)	0.83*	0.421	0.72***	0.230
AOLB	1.12	0.977	0.94	1.237
SLB	-0.75	1.009	-0.64	1.459
Cross-Level Interaction Effects				
OOC X AOLB (*H6a*)	--	--	-0.54	0.423
SOC X AOLB (*H6b*)	--	--	-0.37***	0.118
OOC X SLB	--	--	0.31	0.397
SOC X SLB	--	--	0.04	0.322
Pseudo R-squared	0.21		0.23	

*p < .10
**p < .05
***p < .01
Note: All p-values are based on two-tailed tests
Note: EXP = salesperson years of experience; LGO = learning goal orientation; SEF = self-efficacy; OOC = other-oriented competitiveness; SOC = self-oriented competitiveness; AOLB = achievement-oriented leader behavior; SLB = supportive leader behavior
Note: R-squared is calculated as a proportional reduction in the Level 1 variance from the Working Smart null model with no predictors (Hoffman et al. 2000).

TABLE 8
HLM Results (Study 2)

	Dependent Variable = Working Smart			
	Main-Effects-Only Model		**Full Model**	
Variables	**γ**	**SE**	**γ**	**SE**
Intercept	0.05	0.121	0.05	0.121
Controls				
EXP	0.01	0.019	0.01	0.020
LGO	0.10**	0.047	0.09**	0.045
SEF	0.24***	0.054	0.26***	0.049
Simple Effects				
OOC	0.04	0.040	0.07	0.047
SOC	0.14***	0.034	0.16***	0.035
AOLB	0.29***	0.068	0.29***	0.069
SLB	-0.09	0.088	-0.09	0.089
Cross-Level Interaction Effects				
OOC X AOLB (*H6c*)	--	--	0.05*	0.027
SOC X AOLB (*H6d*)	--	--	-0.03**	0.017
OOC X SLB	--	--	-0.02	0.030
SOC X SLB	--	--	0.06	0.030
Pseudo R-squared	0.38		0.40	

*p < .10
**p < .05
***p < .01
Note: All p-values are based on two-tailed tests
Note: EXP = salesperson years of experience; LGO = learning goal orientation; SEF = self-efficacy; OOC = other-oriented competitiveness; SOC = self-oriented competitiveness; AOLB = achievement-oriented leader behavior; SLB = supportive leader behavior
Note: R-squared is calculated as a proportional reduction in the Level 1 variance from the Working Smart null model with no predictors (Hoffman et al. 2000).

TABLE 9
HLM Results (Study 2)

	Dependent Variable = Organizational Citizenship Behavior			
	Main-Effects-Only Model		Full Model	
Variables	**γ**	**SE**	**γ**	**SE**
Intercept	-0.02	0.296	-0.02	0.294
Controls				
EXP	-0.01	0.019	-0.01	0.021
LGO	0.01	0.065	0.01	0.064
SEF	0.02	0.044	0.00	0.036
Simple Effects				
OOC (*H5*)	-0.08*	0.042	-0.11**	0.044
SOC (*H5*)	0.02	0.044	0.04	0.044
AOLB	-0.09	0.150	0.06	0.151
SLB	-0.14	0.195	-0.26	0.202
Cross-Level Interaction Effects				
OOC X AOLB	--	--	-0.03	0.027
SOC X AOLB	--	--	-0.05	0.021
OOC X SLB (*H7a*)	--	--	0.00	0.026
SOC X SLB (*H7b*)	--	--	0.05	0.030
Pseudo R-squared	0.31		0.33	

*p < .10
**p < .05
***p < .01
Note: All p-values are based on two-tailed tests
Note: EXP = salesperson years of experience; LGO = learning goal orientation; SEF = self-efficacy; OOC = other-oriented competitiveness; SOC = self-oriented competitiveness; AOLB = achievement-oriented leader behavior; SLB = supportive leader behavior
Note: R-squared is calculated as a proportional reduction in the Level 1 variance from the Organizational Citizenship Behavior null model with no predictors (Hoffman et al. 2000).

TABLE 10
Effort and Performance for Contest Week and Baseline Week (Study 3)

Sales Contest Design (Manipulation)	N	Baseline Effort	Baseline SD	Contest Effort	Contest SD	T-Value
Compete-with-Others	190	39.02	22.05	42.25	24.18	3.434
Compete-with-Self	95	40.42	20.15	41.51	21.69	0.734
Combined	285	39.48	21.41	42.00	23.34	3.151

Sales Contest Design (Manipulation)	N	Baseline Performance	Baseline SD	Contest Performance	Contest SD	T-Value
Compete-with-Others	190	6.02	7.38	7.41	8.58	4.574
Compete-with-Self	95	6.27	5.94	6.86	6.47	1.631
Combined	285	6.11	6.92	7.22	7.93	4.749

TABLE 11
OLS Results (Study 3)

	Dependent Variable = Contest Week Effort			
	Compete-with-others design (n = 118)		Compete-with-self design (n = 56)	
Variables	**β**	**SE**	**β**	**SE**
Intercept	6.59	6.689	7.79	9.619
Controls				
BWEFFORT	0.98***	0.062	0.78***	0.131
EXP	0.02	0.113	-0.46	0.270
LGO	0.02	0.269	-0.40	0.538
SEF	-0.17	0.309	0.66	0.625
Simple Effects				
OOC	0.57**	0.285	0.18	0.575
SOC	-0.28	0.244	0.03	0.490
R-squared	0.74		0.46	

*p < .10
**p < .05
***p < .01
Note: All p-values are based on two-tailed tests

Note: BWEFFORT = baseline week effort; EXP = years of selling experience; LGO = learning-goal orientation; SEF = self-efficacy score; OOC = other-oriented competitiveness; SOC = self-oriented competitiveness

TABLE 12
OLS Results (Study 3)

	Dependent Variable = Contest Week Performance			
	Compete-with-others design (n = 118)		Compete-with-self design (n = 56)	
Variables	**β**	**SE**	**β**	**SE**
Intercept	0.489	2.676	0.35	0.034
Controls				
EXP	0.03	0.046	0.10	0.086
LGO	-0.27**	0.106	-0.26	0.171
SEF	0.24**	0.122	0.30	0.200
OOC	-0.08	0.116	-0.29	0.181
SOC	0.05	0.099	0.13	0.155
Simple Effects				
CWEFFORT	0.17***	0.022	0.10***	0.034
R-squared	0.46		0.26	

*p < .10
**p < .05
***p < .01
Note: All p-values are based on two-tailed tests

Note: CWEFFORT = baseline week effort; EXP = years of selling experience; LGO = learning-goal orientation; SEF = self-efficacy score; OOC = other-oriented competitiveness; SOC = self-oriented competitiveness

APPENDIX B: FIGURES

FIGURE 1

Conceptual Model (Study 2)

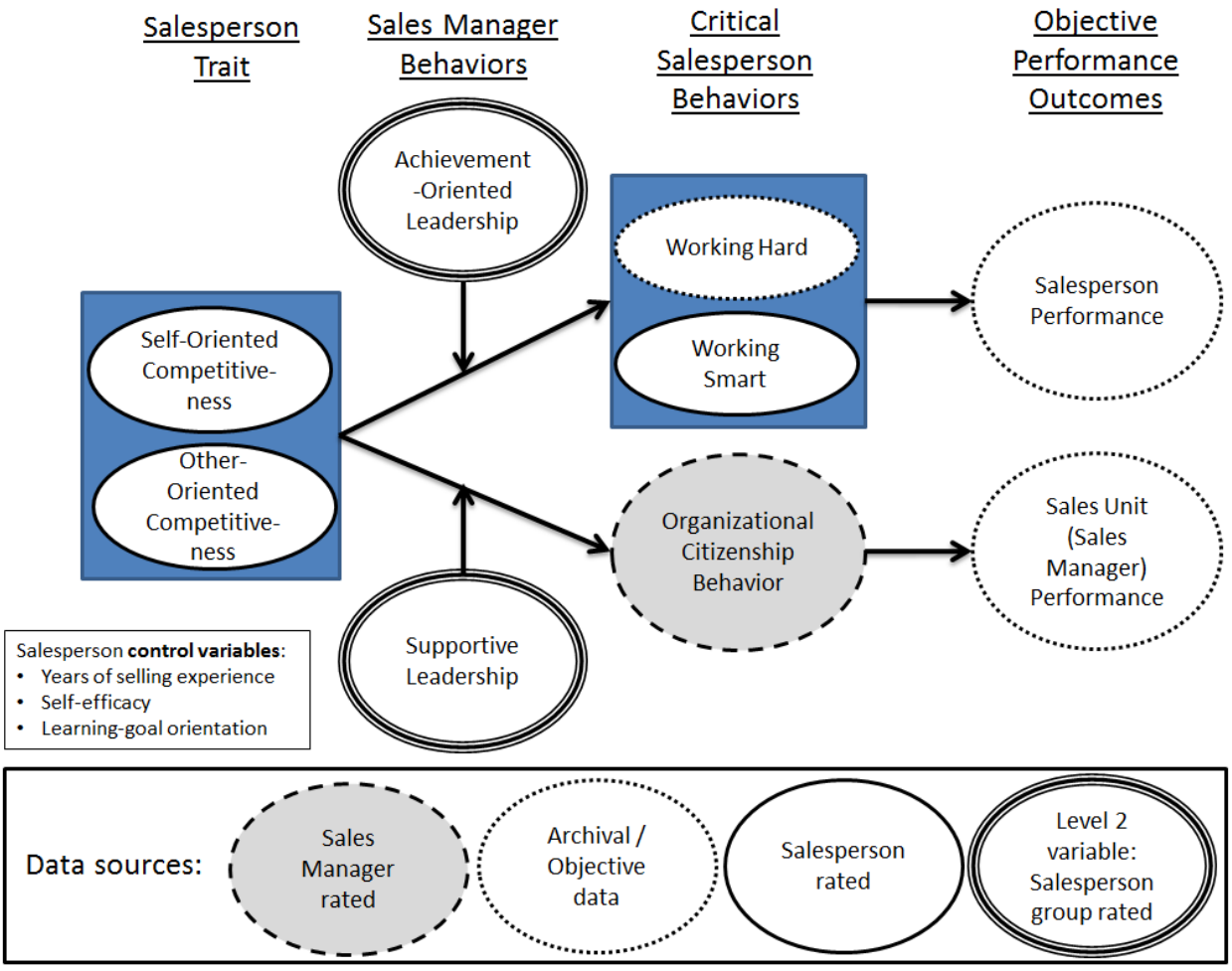


FIGURE 2

Cross-level Interaction (Study 2)

Self-Oriented Competitiveness X Achievement-Oriented Leader Behavior Interaction (Working Hard)

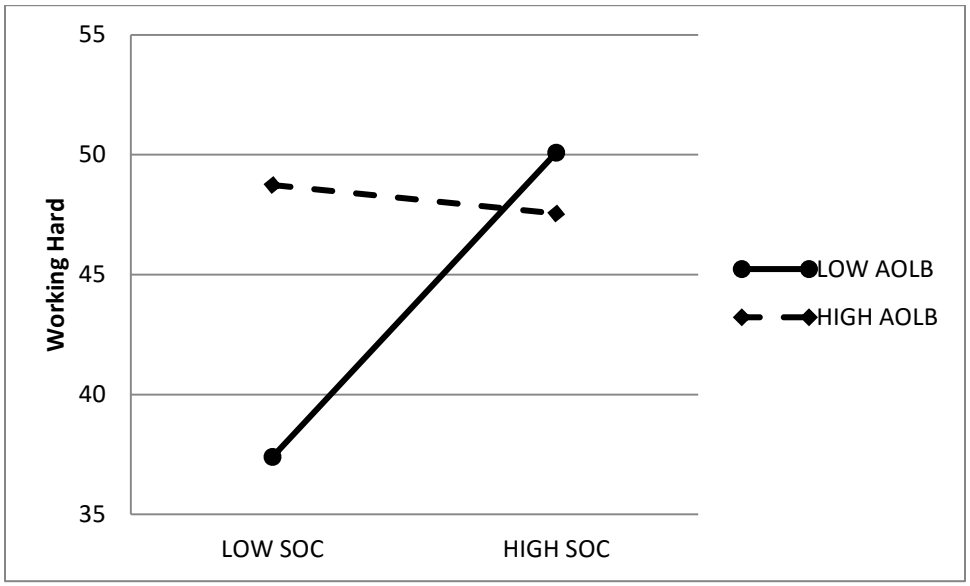


FIGURE 3

Cross-level Interaction (Study 2)

Other-Oriented Competitiveness X Achievement-Oriented Leader Behavior Interaction (Working Smart)

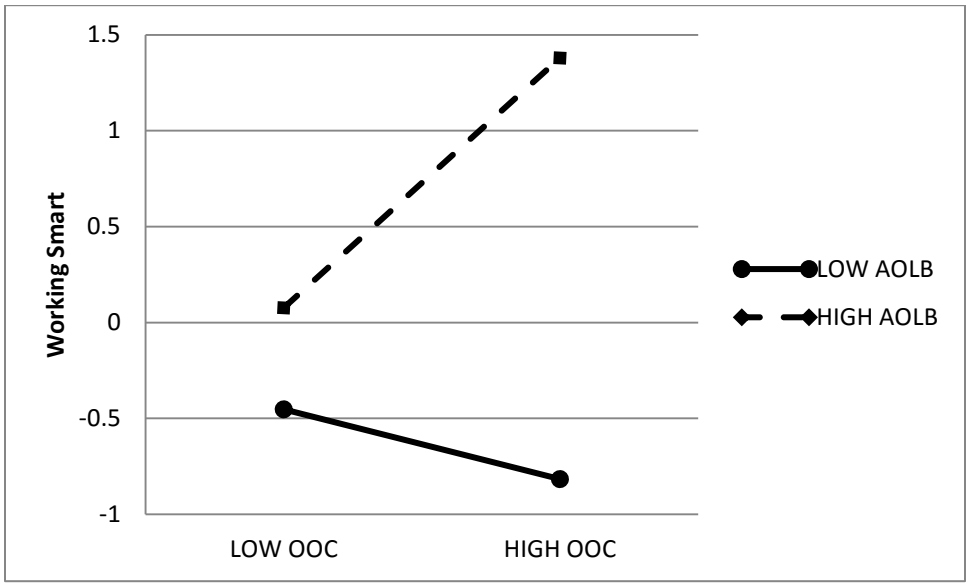


FIGURE 4

Cross-level Interaction (Study 2)

Self-Oriented Competitiveness X Achievement-Oriented Leader Behavior Interaction (Working Smart)

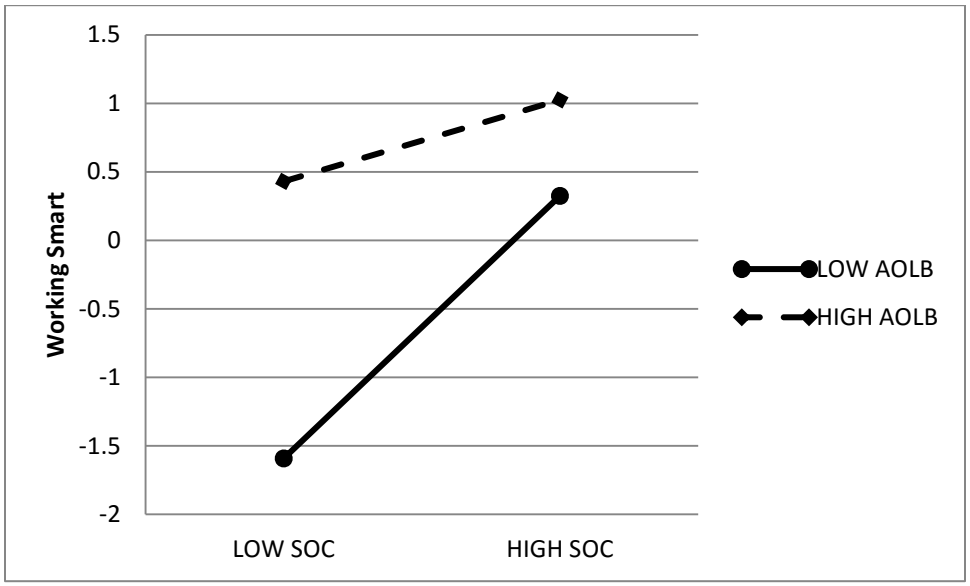


FIGURE 5

Conceptual Model (Study 3)

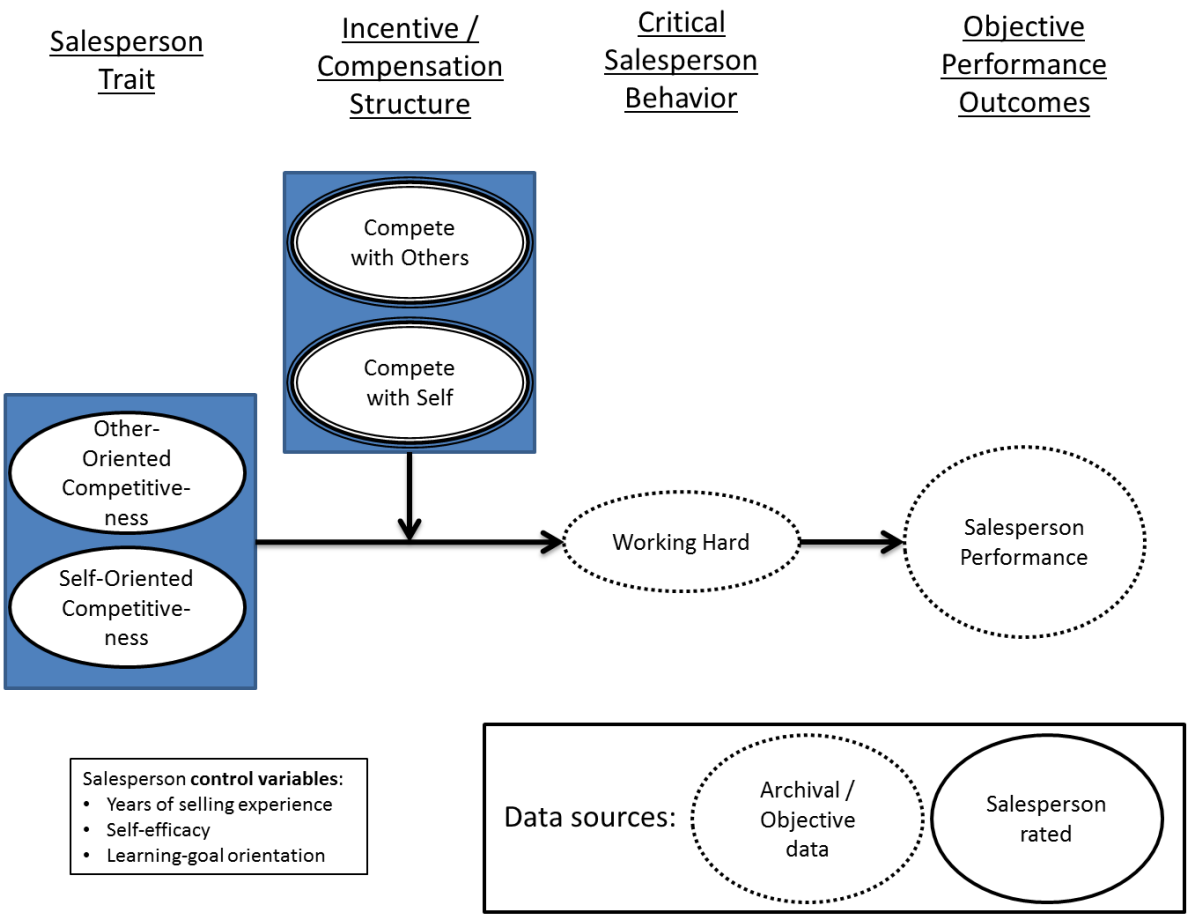
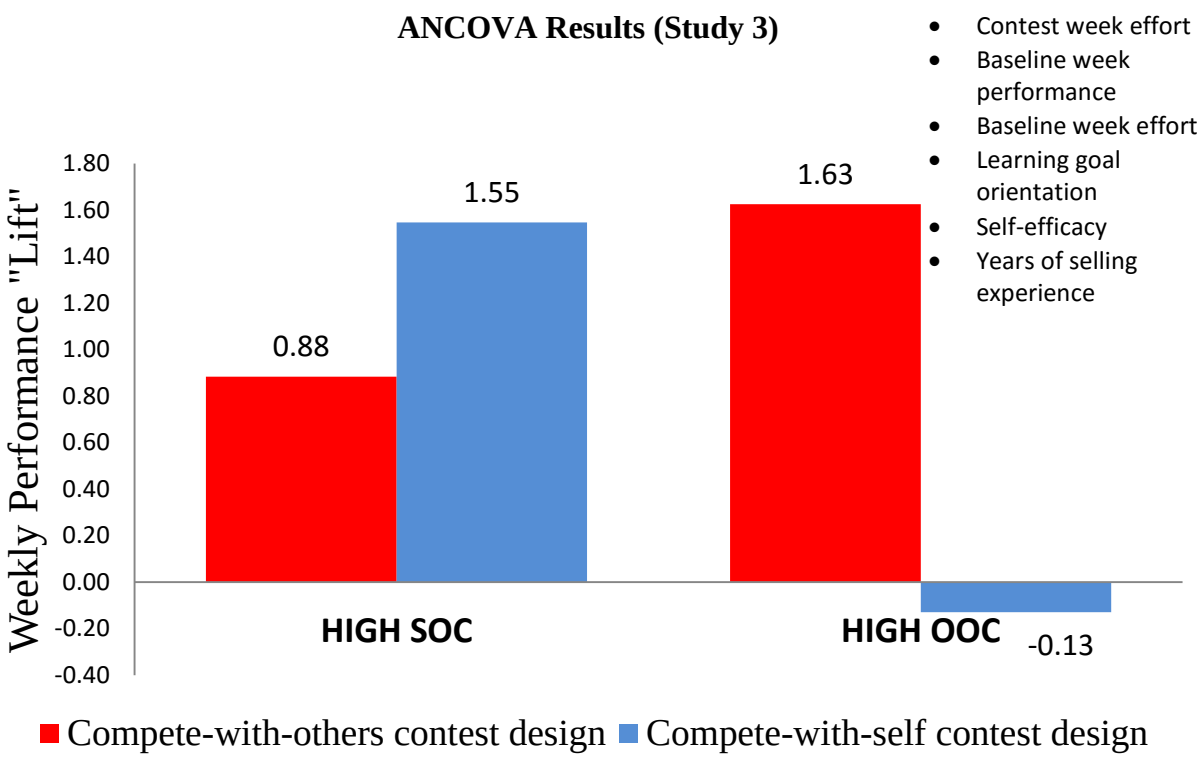


FIGURE 6

ANCOVA Results (Study 3)



Covariates:

- Contest week effort
- Baseline week performance
- Baseline week effort
- Learning goal orientation
- Self-efficacy
- Years of selling experience

APPENDIX C: Factor Analysis of Self-Oriented Competitiveness Items (STUDY 1)

TABLE 13

Factor Analysis of Self-Oriented Competitiveness Items (STUDY 1)

Item #	Questionnaire Item	1	2	3	4	SD
1	**Achieving a new personal record (personal best) is something that is important to me.**	0.85	-0.16	-0.22	-0.07	0.90
2	Exceeding my own prior accomplishments is something that I value.	0.78	-0.24	-0.01	0.22	0.87
3	**I try hard to surpass my own best prior performance.**	0.75	-0.34	0.02	-0.25	0.98
4	I'm concerned with steadily improving my own performance.	0.74	-0.23	-0.16	-0.14	0.80
5	It is important to me that I outperform my own previous accomplishments.	0.73	-0.43	0.12	-0.04	0.86
6	**A large part of my enjoyment comes from improving on my past performance.**	0.72	-0.17	-0.21	0.25	1.03
7	**I always try to achieve new personal records (personal bests) for myself.**	0.72	-0.25	0.21	-0.22	0.92
8	**I always strive to surpass my prior accomplishments.**	0.71	-0.37	-0.12	-0.31	0.93
9	Doing better than I have ever done before is important to me.	0.70	-0.27	-0.21	-0.15	0.87
10	Even if others are doing much better than me, I feel driven to set new records (personal bests) for myself.	0.70	0.41	0.06	-0.26	1.14
11	I tend to compare my current performance with my past performance.	0.69	-0.11	-0.18	0.15	0.80
12	I focus on doing better than I have done in the past.	0.69	-0.22	0.48	0.09	0.91
13	No matter how my performance compares to others, I enjoy beating my own past performance.	0.69	0.48	-0.18	0.04	1.13
14	I am motivated to achieve a new record (personal best) for myself, even if others will do better than me.	0.68	0.50	-0.04	-0.18	1.10
15	I feel motivated to outperform my past self.	0.67	-0.23	0.44	0.04	0.91
16	I feel satisfied when I exceed my previous performance, even if others outperform me.	0.66	0.55	0.05	0.05	1.29
17	I feel happy when I can see that my performance has improved.	0.66	0.06	0.12	0.10	0.64
18	Setting a personal record (personal best) is a good result for me, even if others do much better than me.	0.65	0.64	-0.09	-0.13	1.26
19	Nothing feels better than exceeding your own past personal best.	0.64	-0.18	-0.29	-0.09	1.32
20	Even if others do much better than me, I feel great when I set a new personal record (personal best) for myself.	0.59	0.51	-0.05	0.29	1.28
21	Achieving a personal record (personal best) is a good result for me, no matter how it compares to other people.	0.55	0.57	0.14	-0.07	1.29
22	I'm aware of how my current performance compares with my past performance.	0.50	0.08	0.60	0.18	0.86
23	I tend to think about my current performance in terms of my past performance.	0.46	-0.03	-0.23	0.38	1.08
24	I'm concerned with how my current performance compares to my past performance.	0.46	-0.22	-0.11	0.51	1.09

TABLE 13 (Cont'd)

	Eigenvalue	10.85	2.89	1.28	1.06	
	Percentage of Variance Explained	45.22	12.04	5.34	4.42	

APPENDIX D: Construct Measures

TABLE 14

Construct Measures

Construct	**Item**	**Origin**
Self-oriented competitiveness	Achieving a new personal record (personal best) is something that is important to me.	New Scale
	I try hard to surpass my own best prior performance.	
	A large part of my enjoyment comes from improving on my past performance.	
	I always try to achieve new personal records (personal bests) for myself.	
	I always strive to surpass my prior accomplishments.	
Other-oriented competitiveness	I enjoy working in situations involving competition with others.	Spence and Helmreich (1983)
	It is important to me to perform better than others on a task.	
	I feel that winning is important in both work and games.	
	I try harder when I'm in competition with other people.	
	It annoys me when other people perform better than I do.	
Supportive Leadership	(My team leader) Maintains a friendly working relationship with salespeople.	Northouse (2013)
	(My team leader) Does little things to make it pleasant to be a member of the group.	
	(My team leader) Says things that hurt salespeople's personal feelings. (R)	
	(My team leader) Helps salespeople overcome problems that stop them from carrying out their tasks.	
	(My team leader) Behaves in a manner that is thoughtful of salespeople's personal needs.	
Achievement-oriented Leadership	(My team leader) Lets salespeople know that they are expected to perform at their highest level.	Northouse (2013)
	(My team leader) Sets goals for salespeople's performance that are quite challenging.	
	(My team leader) Encourages continual improvement in salespeople's performance.	
	(My team leader) Shows that he/she doubts salespeople's ability to meet most objectives. (R)	
	(My team leader) Consistently sets challenging goals for salespeople to obtain.	
Functional Flexibility in Sales	"When the sales situation seems to need it, how easy is it for you to be ....Warm"	Sujan, Weitz, and Kumar (1994)
	"When the sales situation seems to need it, how easy is it for you to be ....Cold"	
	"When the sales situation seems to need it, how easy is it for you to be ....Outgoing"	
	"When the sales situation seems to need it, how easy is it for you to be ....Laid Back"	
	"When the sales situation seems to need it, how easy is it for you to be ....Agreeable"	
	"When the sales situation seems to need it, how easy is it for you to be ....Aggressive"	

TABLE 14 (Cont'd)

	"When the sales situation seems to need it, how easy is it for you to be ....Demanding"	
	"When the sales situation seems to need it, how easy is it for you to be ....Submissive"	
Construct	**Item**	**Origin**
Planning for the Sale	I think about strategies I will fall back on if problems in a sales interaction arise.	Sujan, Weitz, and Kumar (1994)
	Because too many aspects of my job are unpredictable, planning is not useful. (R)	
	Each week I make a plan for what I need to do.	
	Planning is a waste of time. (R)	
	Planning is an excuse for not working. (R)	
	I don't need to develop a strategy for a customer to get the order. (R)	
Adaptive Selling	I vary my sales style from situation to situation.	Spiro and Weitz (1990)
	I like to experiment with different sales approaches.	
	I can easily use a wide variety of selling approaches.	
	Each customer requires a unique approach.	
	When I find that my sales approach is not working, I can easily change to another approach.	
	I feel that most buyers can be dealt with in pretty much the same manner. (R)	
	I am very flexible in the selling approach I use.	
	I try to consider how one customer differs from another.	
Need for Achievement	I know exactly what I want out of life.	Friis and Knox (1972)
	In general, I try to make every minute count.	
	Every day, I try to accomplish something worthwhile.	
	I almost always feel that I must do the best at what I am doing.	
	I always do my best whether I am alone or with someone.	
	I very often find myself doing or saying something for the pleasure of it, rather than because it serves some purpose. (R)*	
	I try harder to be content with myself than to be successful. (R)*	
Learning Goal Orientation	Making a tough sale is very satisfying.	Sujan, Weitz, and Kumar (1994)
	An important part of being a good salesperson is continually improving your sales skills.	
	Making mistakes when selling is just part of the learning process.	
	It is important for me to learn from each selling experience that I have.	
	There really are not a lot of new things to learn about selling. (R)*	
	I am always learning something about my customers.	
	It is worth spending a great deal of time learning new approaches for dealing with customers.	
	Learning how to be a better salesperson is of fundamental importance to me.	
	I put in a great deal of effort sometimes in order to learn something new.	
Performance Goal Orientation	It is very important to me that my supervisor sees me as a good salesperson.	Sujan, Weitz, and Kumar (1994)
	I very much want my coworkers to consider me to be good at selling.	
	I feel very good when I know I have outperformed other salespeople in my company.	

TABLE 14 (Cont'd)

	I always try to communicate my accomplishments to my manager.	
	I spend a lot of time thinking about how my performance compares with other salespeople's.	
	I evaluate myself using my supervisor's criteria.	
Cooperativeness	I am easy to satisfy.*	Goldberg et al. (2006)
	I can't stand confrontations.*	
	I hate to seem pushy.*	
	I have a sharp tongue. (R)	
	I contradict others. (R)	
	I love a good fight. (R)	
	I yell at people. (R)	
	I insult people. (R)	
	I get back at others. (R)	
	I hold a grudge. (R)	
Construct	**Item**	**Origin**
Altruism	I make people feel welcome.	Goldberg et al. (2006)
	I anticipate the needs of others.*	
	I love to help others.	
	I am concerned about others.	
	I have a good word for everyone.*	
	I look down on others. (R)	
	I am indifferent to the feelings of others. (R)*	
	I make people feel uncomfortable. (R)	
	I turn my back on others. (R)	
	I take no time for others. (R)	
Perfectionism	I expect nothing less than perfection.	Goldberg et al. (2006)
	I don't consider a task finished until it's perfect.	
	I am not happy until all the details are taken care of.	
	I set high standards for myself and others.	
	I demand perfection in others.	
	I strive in every way possible to be flawless.	
Independence	I don't care what others think.*	Goldberg et al. (2006)
	I don't care about dressing nicely.*	
	I feel it's OK that some people don't like me.*	
	I sail my own course.*	
	I love to be complimented. (R)	
	I need the approval of others. (R)	
	I need reassurance. (R)	
	I want to be liked. (R)	
	I believe appearances are important. (R)	
	I seek support. (R)	
Organizational Citizenship Behaviors	I willingly give my time to help other salespeople who have work-related problems.	Podsakoff and MacKenzie (1994)
	I willing take time out of my own busy schedule to help with recruiting or training new salespeople.	
	I "touch base" with others before initiating actions that might affect them.	

TABLE 14 (Cont'd)

	I take steps to try to prevent problems with other salespeople and/or other personnel in the company.	
	I encourage other salespeople when they are down.	
	I act as a "peacemaker" when others in the company have disagreements.	
	I am a stabilizing influence in the company when dissention occurs.	
	I attend functions that are not required but help the company image.	
	I attend training/information sessions that salespeople are encouraged but not required to attend.	
	I attend and actively participate in company meetings.	
	I spend a lot of time complaining about trivial matters (R)	
	I always find fault with what the company is doing (R)	
	I tend to make "mountains out of molehills" (makes problems bigger than they are) (R)	
	I always focuses on what is wrong with his or her situation rather than the positive side of it (R)	

a. All measures in Study 1 are self-reported. In study 2, salesperson organizational citizenship behaviors will be reported by the sales manager.
b. In Study 2 and Study 3, effort and performance are measured objectively, with archival data from company records.
c. All measures use "strongly agree" – "strongly disagree" anchors, with the following exceptions: **leader behaviors** (never – always); **functional flexibility** (very difficult for me – very easy for me); **salesperson performance** (among the lowest in the company – among the highest in the company); and **salesperson effort** (among the lowest in the company – among the highest in the company)
d. * indicates dropped from analysis in Study 1 due to low loadings.

REFERENCES

REFERENCES

Ahearne, Michael, Douglas E Hughes, and Niels Schillewaert (2007), "Why sales reps should welcome information technology: Measuring the impact of CRM-based IT on sales effectiveness," International Journal of Research in Marketing, 24 (4), 336-49.

Ahearne, Michael, Son K Lam, Babak Hayati, and Florian Kraus (2013), "Intrafunctional competitive intelligence and sales performance: a social network perspective," Journal of Marketing, 77 (5), 37-56.

Ahearne, Michael, Scott B MacKenzie, Philip M Podsakoff, John E Mathieu, and Son K Lam (2010), "The role of consensus in sales team performance," Journal of Marketing Research, 47 (3), 458-69.

Amyx, Douglas and Bruce L Alford (2005), "The effects of salesperson need for achievement and sales manager leader reward behavior," Journal of Personal Selling & Sales Management, 25 (4), 345-59.

Ashton, Michael C (1998), "Personality and job performance: The importance of narrow traits," Journal of Organizational Behavior, 19 (3), 289-303.

Atuahene-Gima, Kwaku and Haiyang Li (2002), "When does trust matter? Antecedents and contingent effects of supervisee trust on performance in selling new products in China and the United States," Journal of Marketing, 66 (3), 61-81.

Bagozzi, Richard P. (1978), "Salesforce Performance and Satisfaction as a Function of Individual Difference, Interpersonal, and Situational Factors," Journal of Marketing Research, 15 (4), 517-31.

Barrick, Murray R and Michael K Mount (1991), "The big five personality dimensions and job performance: a meta-analysis," Personnel Psychology, 44 (1), 1-26.

Behrman, Douglas N and William D Perreault (1984), "A role stress model of the performance and satisfaction of industrial salespersons," The Journal of Marketing, 9-21.

Bliese, Paul D. (2000), "Within-group agreement, non-independence, and reliability: Implications for data aggregation and analysis," in Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions.: San Francisco, CA, US: Jossey-Bass.

Brewer, Geoffrey (1994), "Mind reading: What drives top salespeople to greatness," Sales and Marketing Management, 146 (5), 82-92.

Brown, Steven P., William L. Cron, and John W. Slocum, Jr. (1998), "Effects of Trait Competitivesness and Perceived Intraorganizational Competition on Salesperson Goal Setting and Performance," Journal of Marketing, 62 (4), 88-98.

Brown, Steven P. and Robert A. Peterson (1993), "Antecedents and Consequences of Salesperson Job Satisfaction: Meta-Analysis and Assessment of Causal Effects," Journal of Marketing Research, 30 (1), 63-77.

---- (1994), "The Effect of Effort on Sales Performance and Job Satisfaction," Journal of Marketing, 58 (2), 70-80.

Bryk, Anthony S. and Stephen W. Raudenbush (1992), Hierarchical linear models: Applications and data analysis methods. Thousand Oaks, CA, US: Sage Publications, Inc, Thousand Oaks, CA.

Button, Scott B., John E. Mathieu, and Dennis M. Zajac (1996), "Goal Orientation in Organizational Research: A Conceptual and Empirical Foundation," Organizational Behavior and Human Decision Processes, 67 (1), 26-48.

Carter, Michele M and Carol S Weissbrod (2011), "Gender differences in the relationship between competitiveness and adjustment among athletically identified college students," Psychology, 2 (02), 85.

Chernyshenko, Oleksandr, Stephen Stark, and Fritz Drasgow (2011), "Individual Differences: Their Measurement and Validity," in APA handbook of industrial and organizational psychology, Sheldon Zedeck, ed. Vol. 2. Washington, DC: American Psychological Association.

Churchill, Gilbert A., Jr. (1979), "A Paradigm for Developing Better Measures of Marketing Constructs," Journal of Marketing Research, 16 (1), 64-73.

Costa, Paul T and Robert R McCrae (1992), "Four ways five factors are basic," Personality and Individual Differences, 13 (6), 653-65.

Croner, Christopher and Richard Abraham (2008), "The Science Behind Hiring Top Gun Salespeople," [available at http://salesdrive.info/the-science-behind-hiring-top-gun-salespeople/. Accessed 15 October 2013].

DeVellis, Robert F. (2003), Scale development : theory and applications (2nd ed.). Thousand Oaks, Calif.: Sage Publications, Inc.

DeYoung, Colin G, Lena C Quilty, and Jordan B Peterson (2007), "Between facets and domains: 10 aspects of the Big Five," Journal of Personality and Social Psychology, 93 (5), 880.

Digman, John M (1997), "Higher-order factors of the Big Five," Journal of Personality and Social Psychology, 73 (6), 1246.

Dweck, Carol S (1986), "Motivational processes affecting learning," American Psychologist, 41 (10), 1040.

Elliott, Elaine S and Carol S Dweck (1988), "Goals: an approach to motivation and achievement," Journal of Personality and Social Psychology, 54 (1), 5.

Evans, Martin G (1974), "Extensions of a path-goal theory of motivation."

Evans, Martin Griffith (1968), "The Effects of Supervisory Behavior Upon Worker Perception of Their Path-Goal Relationships," Doctoral Dissertation, Yale University.

Fang, Eric, Robert W Palmatier, and Kenneth R Evans (2004), "Goal-setting paradoxes? Trade-offs between working hard and working smart: The United States versus China," Journal of the Academy of Marketing Science, 32 (2), 188-202.

Fleishman, Edwin A (1953), "The description of supervisory behavior," Journal of Applied Psychology, 37 (1), 1.

Fornell, Claes and David F Larcker (1981), "Evaluating structural equation models with unobservable variables and measurement error," Journal of Marketing Research, 39-50.

Franke, George R and Jeong-Eun Park (2006), "Salesperson adaptive selling behavior and customer orientation: a meta-analysis," Journal of Marketing Research, 43 (4), 693-702.

Friis, Robert H and Alan B Knox (1972), "A validity study of scales to measure need achievement, need affiliation, impulsiveness, and intellectuality," Educational and Psychological Measurement.

Frost, Randy O, Patricia Marten, Cathleen Lahart, and Robin Rosenblate (1990), "The dimensions of perfectionism," Cognitive therapy and research, 14 (5), 449-68.

Fu, Frank Q., Keith A. Richards, and Eli Jones (2009), "The Motivation Hub: Effects of Goal Setting and Self-Efficacy on Effort and New Product Sales," The Journal of Personal Selling and Sales Management, 29 (3), 277-92.

Fulk, Janet and Eric R Wendler (1982), "Dimensionality of leader—subordinate interactions: A path—goal investigation," Organizational Behavior and Human Performance, 30 (2), 241-64.

Funder, David C and Daniel J Ozer (1983), "Behavior as a function of the situation," Journal of Personality and Social Psychology, 44 (1), 107.

George, Jennifer M. (1990), "Personality, affect, and behavior in groups," Journal of Applied Psychology, 75 (2), 107-16.

Gill, Diane L and Thomas E Deeter (1988), "Development of the sport orientation questionnaire," Research Quarterly for Exercise and Sport, 59 (3), 191-202.

Goldberg, Lewis R (1990), "An alternative" description of personality": the big-five factor structure," Journal of personality and social psychology, 59 (6), 1216.

Goldberg, Lewis R., John A. Johnson, Herbert W. Eber, Robert Hogan, Michael C. Ashton, C. Robert Cloninger, and Harrison G. Gough (2006), "The international personality item pool and the future of public-domain personality measures," Journal of Research in Personality, 40 (1), 84-96.

Hackman, J Richard and Lyman W Porter (1968), "Expectancy theory predictions of work effectiveness," Organizational Behavior and Human Performance, 3 (4), 417-26.

Hair, Joseph F. (2010), Multivariate data analysis (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Helmreich, Robert L and Janet T Spence (1978), The Work and Family Orientation Questionnaire: An objective instrument to assess components of achievement motivation and attitudes toward family and career: American Psycholog. Ass., Journal Suppl. Abstract Service.

Helmreich, Robert L, Janet T Spence, William E Beane, G William Lucker, and Karen A Matthews (1980), "Making it in academic psychology: Demographic and personality correlates of attainment," Journal of Personality and Social Psychology, 39 (5), 896.

Hernandez, Morela, Marion B Eberly, Bruce J Avolio, and Michael D Johnson (2011), "The loci and mechanisms of leadership: Exploring a more comprehensive view of leadership theory," The Leadership Quarterly, 22 (6), 1165-85.

Hewitt, Paul L and Gordon L Flett (1991), "Perfectionism in the self and social contexts: conceptualization, assessment, and association with psychopathology," Journal of personality and social psychology, 60 (3), 456.

Hinkin, Timothy R (1995), "A review of scale development practices in the study of organizations," Journal of Management, 21 (5), 967-88.

Hinsz, Verlin B and Dustin K Jundt (2005), "Exploring Individual Differences in a Goal-Setting Situation Using the Motivational Trait Questionnaire," Journal of Applied Social Psychology, 35 (3), 551-71.

Hofmann, David A., Mark A. Griffin, and Mark B. Gavin (2000), The application of hierarchical linear modeling to organizational research; Multilevel theory, research, and methods in organizations: Foundations, extensions, and new directions. San Francisco, CA, US: Jossey-Bass, San Francisco, CA.

Hofstee, Willem K, Boele De Raad, and Lewis R Goldberg (1992), "Integration of the big five and circumplex approaches to trait structure," Journal of personality and social psychology, 63 (1), 146.

House, Robert J (1996), "Path-goal theory of leadership: Lessons, legacy, and a reformulated theory," The Leadership Quarterly, 7 (3), 323-52.

---- (1971), "A path goal theory of leader effectiveness," Administrative science quarterly, 321-39.

House, Robert J and Terence R Mitchell (1974), "Path-Goal Theory of Leadership," Journal of Contemporary Business, 3 (4), 81.

---- (1975), "Path-goal theory of leadership," DTIC Document.

House, Robert J, H Jack Shapiro, and Mahmoud A Wahba (1974), "Expectancy Theory As A Predictor Of Work Behavior And Attitude: A Re-Evaluation Of Empirical Evidence," Decision Sciences, 5 (3), 481-506.

Hughes, Douglas E. and Michael Ahearne (2010), "Energizing the Reseller's Sales Force: The Power of Brand Identification," Journal of Marketing, 74 (4), 81-96.

Hughes, DouglasE, Joël Bon, and Adam Rapp (2013), "Gaining and leveraging customer-based competitive intelligence: the pivotal role of social capital and salesperson adaptive selling skills," Journal of the Academy of Marketing Science, 41 (1), 91-110.

Hull, Clark L (1951), Essentials of behavior (1 ed.): Yale University Press.

Ingram, Thomas N., Keun S. Lee, and Steven J. Skinner (1989), "An Empirical Assessment Of Salesperson Motivation Commitment," The Journal of Personal Selling & Sales Management, 9 (3), 25-25.

Jackson, Douglas N, Michael C Ashton, and Jennifer L Tomes (1996), "The six-factor model of personality: Facets from the Big Five," Personality and Individual Differences, 21 (3), 391-402.

Jackson, Douglas Northrop (2000), Six factor personality questionnaire: SIGMA Assessment Systems, Incorporated.

Jackson, Paul R, Toby D Wall, Robin Martin, and Keith Davids (1993), "New measures of job control, cognitive demand, and production responsibility," Journal of Applied Psychology, 78 (5), 753.

James, Lawrence R, Robert G Demaree, and Gerrit Wolf (1984), "Estimating within-group interrater reliability with and without response bias," Journal of applied psychology, 69 (1), 85.

James, Lawrence R. (1982), "Aggregation bias in estimates of perceptual agreement," Journal of Applied Psychology, 67 (2), 219-29.

Jaramillo, Fernando and Jay Prakash Mulki (2008), "Sales effort: The intertwined roles of the leader, customers, and the salesperson," Journal of Personal Selling & Sales Management, 28 (1), 37-51.

Jelinek, Ronald and Michael Ahearne (2010), "Be careful what you look for: The effect of trait competitiveness and long hours on salesperson deviance and whether meaningfulness of work matters," The Journal of Marketing Theory and Practice, 18 (4), 303-21.

Jia, Jayson Shi, Baba Shiv, and Sanjay Rao (2014), "The Product-Agnosia Effect: How More Visual Impressions Affect Product Distinctiveness in Comparative Choice," Journal of Consumer Research, 41 (2), 342-60.

Johnson, David W (1975), "Cooperativeness and social perspective taking," Journal of Personality and Social Psychology, 31 (2), 241.

Johnston, Mark W. and Greg W. Marshall (2013), Sales Force Management (11th ed.). New York: Routledge.

Judge, Timothy A., Brent A. Scott, and Remus Illies (2006), "Hostility, Job Attitudes, and Workplace Deviance: Test of a Multilevel Model," Journal of Applied Psychology, 91 (1), 10-10.

Kilduff, Gavin J, Hillary Anger Elfenbein, and Barry M Staw (2010), "The psychology of rivalry: A relationally dependent analysis of competition," Academy of Management Journal, 53 (5), 943-69.

Kishore, Sunil, Raghunath Singh Rao, Om Narasimhan, and George John (2013), "Bonuses versus commissions: A field study," Journal of Marketing Research, 50 (3), 317-33.

Kobori, Osamu and Yoshihiko Tanno (2005), "Self-oriented perfectionism and its relationship to positive and negative affect: The mediation of positive and negative perfectionism cognitions," Cognitive Therapy and Research, 29 (5), 555-67.

Kohli, Ajay K (1985), "Some unexplored supervisory behaviors and their influence on salespeople's role clarity, specific self-esteem, job satisfaction, and motivation," Journal of Marketing Research, 424-33.

Kohli, Ajay K, Tasadduq A Shervani, and Goutam N Challagalla (1998), "Learning and performance orientation of salespeople: The role of supervisors," Journal of Marketing Research, 263-74.

Kohn, Alfie (1992), No Contest : The Case Against Competition (Rev. ed.). Boston: Houghton Mifflin.

Krishnan, Balaji C., Richard G. Netemeyer, and James S. Boles (2002), "Self–Efficacy, Competitiveness, and Effort as Antecedents of Salesperson Performance," The Journal of Personal Selling and Sales Management, 22 (4), 285-95.

Kristof-Brown, Amy L., Ryan D. Zimmerman, and Erin C. Johnson (2005), "Consequences of Individuals' Fit at Work: A Meta-Analysis of Person-Job, Person-Organization, Person-Group, and Person-Supervisor Fit," Personnel Psychology, 58 (2), 281-342.

Lam, Long W (2012), "Impact of competitiveness on salespeople's commitment and performance," Journal of Business Research, 65 (9), 1328-34.

Lamont, Lawrence M and William J Lundstrom (1977), "Identifying successful industrial salesmen by personality and personal characteristics," Journal of Marketing Research, 517-29.

Lebreton, James M., Jennifer R. D. Burgess, Robert B. Kaiser, E. Kate Atchley, and Lawrence R. James (2003), "The Restriction of Variance Hypothesis and Interrater Reliability and Agreement: Are Ratings from Multiple Sources Really Dissimilar?," Organizational Research Methods, 6 (1), 80-128.

LeBreton, James M. and Jenell L. Senter (2008), "Answers to 20 Questions About Interrater Reliability and Interrater Agreement," Organizational Research Methods, 11 (4), 815-52.

Leigh, Thomas W and Patrick F McGraw (1989), "Mapping the procedural knowledge of industrial sales personnel: a script-theoretic investigation," The Journal of Marketing, 16-34.

Lim, Noah, Michael J Ahearne, and Sung H Ham (2009), "Designing sales contests: Does the prize structure matter?," Journal of Marketing Research, 46 (3), 356-71.

Lim, Noah and Hua Chen (2014), "When Do Group Incentives for Salespeople Work?," Journal of Marketing Research, 51 (3), 320-34.

Linderbaum, Beth A and Paul E Levy (2010), "The development and validation of the Feedback Orientation Scale (FOS)," Journal of Management, 36 (6), 1372-405.

Lo, Desmond, Mrinal Ghosh, and Francine Lafontaine (2011), "The Incentive and Selection Roles of Sales Force Compensation Contracts," Journal of Marketing Research (JMR), 48 (4), 781-98.

Locke, Edwin A (1968), "Toward a theory of task motivation and incentives," Organizational Behavior and Human Performance, 3 (2), 157-89.

Locke, Edwin A and Gary P Latham (1994), "Goal Setting Theory," in Motivation: Theory and Research, Harold F. O'Neil and Michael Drillings, eds. Hillsdale, New Jersey: Lawrence Erlbaum Associates, Inc.

Lodish, Leonard M., Ellen Curtis, Michael Ness, and M. Kerry Simpson (1988), "Sales Force Sizing and Deployment Using a Decision Calculus Model at Syntex Laboratories," Interfaces, 18 (1), 5-20.

MacKenzie, Scott B, Philip M Podsakoff, and Michael Ahearne (1998), "Some possible antecedents and consequences of in-role and extra-role salesperson performance," Journal of Marketing, 62 (3).

Martin, Steve W. (2011), "Seven Personality Traits of Top Salespeople," (accessed January 8, 2015), [available at https://hbr.org/2011/06/the-seven-personality-traits-o].

Maslow, Abraham Harold (1943), "A theory of human motivation," Psychological Review, 50 (4), 370.

McClelland, David C, Richard Koestner, and Joel Weinberger (1989), "How do self-attributed and implicit motives differ?," Psychological review, 96 (4), 690.

McClelland, David C., John W. Atkinson, Russell A. Clark, and Edgar L. Lowell (1953), The Achievement Motive. New York: Appleton-Century-Crofts, Inc.

Mitchell, Terence R and Donald W Albright (1972), "Expectancy theory predictions of the satisfaction, effort, performance, and retention of naval aviation officers," Organizational Behavior and Human Performance, 8 (1), 1-20.

Mogilner, Cassie, Jennifer Aaker, and Sepandar D. Kamvar (2012), "How Happiness Affects Choice," Journal of Consumer Research, 39 (2), 429-43.

Montgomery, David Bruce and Glen L. Urban (1969), Management science in marketing. Englewood Cliffs, N.J.,: Prentice-Hall.

Morse, Nancy C and Robert S Weiss (1955), "The function and meaning of work and the job," American Sociological Review, 191-98.

Mowen, John C (2004), "Exploring the trait of competitiveness and its consumer behavior consequences," Journal of Consumer Psychology, 14 (1), 52-63.

Murphy, William H, Peter A Dacin, and Neil M Ford (2004), "Sales contest effectiveness: an examination of sales contest design preferences of field sales forces," Journal of the Academy of Marketing Science, 32 (2), 127-43.

Murphy, William H. (2004), "In pursuit of short-term goals: anticipating the unintended consequences of using special incentives to motivate the sales force," Journal of Business Research, 57 (11), 1265-75.

Netemeyer, Richard G., James S. Boles, Daryl O. McKee, and Robert McMurrian (1997), "An investigation into the antecedents of organizational citizenship behaviors in a personal selling context," Journal of Marketing, 61 (3), 85-98.

Nunnally, Jum C. (1978), Psychometric theory (2d ed.). New York: McGraw-Hill.

Organ, Dennis W, Philip M Podsakoff, and Scott B MacKenzie (2006), Organizational citizenship behavior: Its nature, antecedents, and consequences. Thousand Oaks, California: Sage Publications.

Pacht, Asher R (1984), "Reflections on perfection," American psychologist, 39 (4), 386.

Paunonen, Sampo V (1998), "Hierarchical organization of personality and prediction of behavior," Journal of Personality and Social Psychology, 74 (2), 538.

Phillips, Jean M and Stanley M Gully (1997), "Role of goal orientation, ability, need for achievement, and locus of control in the self-efficacy and goal--setting process," Journal of Applied Psychology, 82 (5), 792.

Piercy, Nigel F, David W Cravens, Nikala Lane, and Douglas W Vorhies (2006), "Driving organizational citizenship behaviors and salesperson in-role behavior performance: The role of management control and perceived organizational support," Journal of the Academy of Marketing Science, 34 (2), 244-62.

Plotkin, Harris M (1987), "What makes a successful salesperson?," Training & Development Journal.

Plouffe, Christopher R, Brian C Williams, and Trent Wachner (2008), "Navigating difficult waters: Publishing trends and scholarship in sales research," Journal of Personal Selling and Sales Management, 28 (1), 79-92.

Podsakoff, Philip M. and Scott B. MacKenzie (1994), "Organizational Citizenship Behaviors and Sales Unit Effectiveness," Journal of Marketing Research, 31 (3), 351-63.

Poujol, F. Juliet and John F. Tanner (2010), "The Impact of Contests on Salespeople's Customer Orientation: An Application of Tournament Theory," The Journal of Personal Selling & Sales Management, 30 (1), 33-46.

Preacher, K.J. (2002), "Calculation for the test of the difference between two independent correlation coefficients [Computer software]. Available from http://quantpsy.org," (May).

Preacher, KJ, PJ Curran, and DJ Bauer (2003), "Probing interactions in multiple linear regression, latent curve analysis, and hierarchical linear modeling: Interactive calculation tools for establishing simple intercepts, simple slopes, and regions of significance," Computer software]. Available from http:// www. quantpsy. org.

Rapp, Adam, Michael Ahearne, John Mathieu, and Niels Schillewaert (2006), "The impact of knowledge and empowerment on working smart and working hard: The moderating role of experience," International Journal of Research in Marketing, 23 (3), 279-93.

Raudenbush, Stephen W. and Anthony S. Bryk (2002), "Hierarchical linear models: applications and data analysis methods," 485.

Rossiter, John R (2002), "The C-OAR-SE procedure for scale development in marketing," International Journal of Research in Marketing, 19 (4), 305-35.

Ruben, Harvey L (1981), Competing. New York: Pinnacle Books.

Rudow, Edward and Jacob Hautaluoma (1975), "Competition with oneself versus others as a facilitator in the classroom," The Journal of Social Psychology.

Rushton, J Philippe, Roland D Chrisjohn, and G Cynthia Fekken (1981), "The altruistic personality and the self-report altruism scale," Personality and individual differences, 2 (4), 293-302.

Sambolec, Eric J, Norbert L Kerr, and Lawrence A Messé (2007), "The role of competitiveness at social tasks: Can indirect cues enhance performance?," Journal of Applied Sport Psychology, 19 (2), 160-72.

Schaffer, Robert H (1953), "Job satisfaction as related to need satisfaction in work," Psychological monographs: General and applied, 67 (14), 1.

Schrock, Wyatt A, Douglas E Hughes, Frank Q Fu, Keith A Richards, and Eli Jones (2016), "Better together: Trait competitiveness and competitive psychological climate as antecedents of salesperson organizational commitment and sales performance," Marketing Letters, 1-10.

Shannahan, Kirby LJ, Alan J Bush, and Rachelle J Shannahan (2013), "Are your salespeople coachable? How salesperson coachability, trait competitiveness, and transformational leadership enhance sales performance," Journal of the Academy of Marketing Science, 41 (1), 40-54.

Smith, J Brock and Donald W Barclay (1997), "The effects of organizational differences and trust on the effectiveness of selling partner relationships," The Journal of Marketing, 3-21.

Snijders, T. A. B. and R. J. Bosker (2012), Multilevel analysis : an introduction to basic and advanced multilevel modeling (2nd ed.). Los Angeles: Sage.

Spangler, William D (1992), "Validity of questionnaire and TAT measures of need for achievement: Two meta-analyses," Psychological bulletin, 112 (1), 140.

Spence, Janet T. and Robert L. Helmreich (1983), Achievement-Related Motives and Behavior. San Francisco, pp 7-74: W.H. Freeman.

Spiro, Rosann L. and Barton Weitz, A. (1990), "Adaptive Selling: Conceptualization, Measurement, and Nomological Validity," Journal of Marketing Research, 27 (1), 61-69.

Steenbergen, M.R. and B.S. Jones (2002), "Modeling multilevel data structures," american Journal of political Science, 218-37.

Sujan, Harish (1986), "Smarter versus harder: an exploratory attributional analysis of salespeople's motivation," Journal of Marketing Research, 41-49.

Sujan, Harish, Mita Sujan, and James R Bettman (1988), "Knowledge structure differences between more effective and less effective salespeople," Journal of Marketing Research, 81-86.

Sujan, Harish, Barton A Weitz, and Nirmalya Kumar (1994), "Learning orientation, working smart, and effective selling," The Journal of Marketing, 39-52.

Syam, Niladri B, James D Hess, and Ying Yang (2013), "Sales contests versus quotas with imbalanced territories," Marketing Letters, 24 (3), 229-44.

Szymanski, David M (1988), "Determinants of selling effectiveness: the importance of declarative knowledge to the personal selling concept," The Journal of Marketing, 64-77.

Verbeke, Willem, Bart Dietz, and Ernst Verwaal (2011), "Drivers of sales performance: a contemporary meta-analysis. Have salespeople become knowledge brokers?," Journal of the Academy of Marketing Science, 39 (3), 407-28.

Vinchur, Andrew J, Jeffery S Schippmann, Fred S Switzer III, and Philip L Roth (1998), "A meta-analytic review of predictors of job performance for salespeople," Journal of applied psychology, 83 (4), 586.

Vroom, Victor H (1959), "Some personality determinants of the effects of participation," The Journal of Abnormal and Social Psychology, 59 (3), 322.

---- (1995), Work and Motivation. San Francisco, California: Jossey-Bass Inc.

Vroom, Victor Harold (1964), Work and Motivation. New York: John Wiley and Sons, Inc.

Walker, Orville C., Jr., Gilbert A. Churchill, Jr., and et al. (1977), "Motivation And Performance In Industrial Selling - Present Knowledge And Needed Research," Journal of Marketing Research, 14 (2), 156-56.

Wang, Guangping and Richard G Netemeyer (2002), "The Effects of Job Autonomy, Customer Demandingness, and Trait Competitiveness on Salesperson Learning, Self-Efficacy, and Performance," Journal of the Academy of Marketing Science, 30 (3), 217-28.

Watson, Warren E and Ralph R Behnke (1990), "Group Identification, Independence, and Self-Monitoring Characteristics as Predictors of Leaderless Group Discussion Performance1," Journal of Applied Social Psychology, 20 (17), 1423-31.

Weitz, Barton A (1981), "Effectiveness in sales interactions: a contingency framework," The Journal of marketing, 85-103.

---- (1978), "Relationship between salesperson performance and understanding of customer decision making," Journal of Marketing Research, 501-16.

Weitz, Barton A, Harish Sujan, and Mita Sujan (1986), "Knowledge, motivation, and adaptive behavior: a framework for improving selling effectiveness," The Journal of Marketing, 174-91.

White, Robert W (1959), "Motivation reconsidered: the concept of competence," Psychological review, 66 (5), 297.

Williams, Elanor F and Mary Steffel (2014), "Double standards in the use of enhancing products by self and others," Journal of Consumer Research, 41 (2), 506-25.

Wofford, J. C. and Laurie Z. Liska (1993), "Path-goal theories of leadership: A meta-analysis," Journal of Management, 19 (4), 857-76.

Wooldridge, Jeffrey M. (2009), Introductory econometrics : a modern approach (4th ed.). Mason, OH: South Western, Cengage Learning.

Zoltners, Andris A., Prabhakant Sinha, and Greggor A. Zoltners (2001), The complete guide to accelerating sales force performance. New York: AMACOM.