RUNNING HEAD: The Ambivert Advantage

Rethinking the Extraverted Sales Ideal: The Ambivert Advantage

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Author notes

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The idea for this paper was generated by Dan Pink, who suggested after I introduced him to the concept of ambiverts that they would make better salespeople than extraverts or introverts. I gratefully acknowledge his insight and inspiration. My thinking was also informed by conversations with Susan Cain and Brian Little. For assistance with data collection, I thank Stan Campbell, Chad Friedlein, Howard Heevner, Jenny Schumaker, and Jonathan Tugman.

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Abstract

Despite the widespread assumption that extraverts are the most productive salespeople, research has shown weak and conflicting relationships between extraversion and sales performance. To resolve these puzzling results, I propose that the relationship between extraversion and sales performance is not linear but curvilinear: ambiverts achieve greater sales productivity than extraverts or introverts. Because they naturally engage in a flexible pattern of talking and listening, ambiverts are likely to express sufficient assertiveness and enthusiasm to persuade and close, but are more inclined to listen to customers' interests and less vulnerable to appearing too excited or overconfident. A study of 340 outbound call center representatives supported the predicted inverted-U-shaped relationship between extraversion and sales revenue. This research presents a fresh perspective on the personality traits that facilitate successful influence and offers novel insights for people in choosing jobs and organizations in hiring and training employees.

One in nine Americans work in sales, persuading people to purchase products and services ranging from homes and telephones to insurance and cars (Bureau of Labor Statistics, 2011). Given that selling is a vital and growing part of the economy, psychologists have a longstanding interest in the traits of successful salespeople. According to conventional wisdom, productive salespeople are likely to be extraverted, which is the tendency to be assertive and enthusiastic (DeYoung, Quilty, & Peterson, 2007). Studies show that extraverted people tend to gravitate toward sales (Barrick, Mount, & Gupta, 2003) and are more likely to be selected for sales positions by managers (Dunn, Mount, Barrick, & Ones, 1995). As Costa and McCrae (1992, p. 15) explained, "Salespeople represent the prototypical extraverts in our culture."

Research points to three major reasons for why extraverts should have an advantage in sales. First, selling requires engaging with a wide range of potential customers, and by virtue of their assertiveness and enthusiasm, extraverts tend to be outgoing, sociable, and comfortable initiating interactions with others (Furnham & Fudge, 2008). Second, selling involves persuading customers to buy a product or service, and extraverts tend to express confidence and contagious levels of enthusiasm and energy (Vinchur, Schippmann, Switzer, & Roth, 1998). Third, selling often depends on convincing customers to change their attitudes and behaviors, and extraverts are more likely than introverts to be firm and forceful, refusing to take no for an answer (Stewart, 1996). As Barrick, Mount, and Judge (2001, p. 11) summarized, in "sales... being sociable, gregarious, assertive, energetic and ambitious is likely to contribute to success."

However, studies have returned weak and inconsistent relationships between extraversion and sales performance. For example, extraversion was not significantly related to performance in wholesale manufacturing sales (Barrick, Mount, & Strauss, 1993), health and fitness sales (Furnham & Fudge, 2008) or business-to-business sales (Stewart, 1996). In pharmaceuticals,

extraversion was significantly related to performance in the first two quarters but not the last two quarters of a year in selling an existing product, and unrelated to performance in selling a new product (Thoresen, Bradley, Bliese, & Thoresen, 2004). In three meta-analyses of 35 studies of over 3,800 salespeople, the average correlation between extraversion and sales performance was only .07, a value that did not differ significantly from zero (Barrick et al., 2001).

In this article, I introduce a new perspective on extraversion and sales performance. Years ago, Coombs and Avrunin (1977, p. 225) argued that "good things satiate and bad things escalate." In line with this general principle, there is reason to believe that in sales, extraversion may have diminishing returns and increasing costs. High levels of assertiveness and enthusiasm may reduce the effectiveness of extraverted salespeople in two key ways.

First, extraverted salespeople may focus more heavily on their own perspectives than customers' perspectives. Although selling may require a degree of assertiveness and enthusiasm, it also demands consideration of the needs, interests, and values of customers (Jaramillo & Grisaffe, 2009). Judge, Piccolo, and Kosalka (2009, p. 868) suggested that people who are highly extraverted "like to be the center of attention" and often "quickly bounce from one conversation or idea to another." Recent studies show that extraverts tend to gravitate toward the spotlight (Ashton, Lee, & Paunonen, 2002), and are more likely than introverts to dominate conversations, expressing so much excitement for their own ideas that they may inadvertently suppress or neglect others' perspectives (Grant, Gino, & Hofmann, 2011). As a result of these tendencies, extraverted salespeople may spend too much time delivering assertive, enthusiastic pitches and too little time asking questions and listening to customers' answers.

Second, extraverted salespeople may elicit negative responses from customers. As they enthusiastically assert the value of their products and services, extraverts may be perceived as

overly excited and confident (Ames & Flynn, 2007; Judge et al., 2009). Customers may interpret the excitement and confidence expressed by extraverted salespeople as a signal that an influence attempt is occurring (Campbell & Kirmani, 2000). Once customers recognize persuasive intent on the part of a salesperson, they are likely to strive to maintain control and protect themselves by scrutinizing the message more carefully, marshaling counterarguments, and resisting or rejecting the salesperson's influence (Friestad & Wright, 1994; Williams, Fitzsimons, & Block, 2004).

In light of these benefits and costs, I propose a curvilinear, inverted-U-shaped relationship between extraversion and sales performance. More specifically, I predict that ambiverts, people who fall in the middle of the extraversion spectrum (Eysenck, 1971), will achieve higher sales than introverts or extraverts. Compared to introverts, ambiverts are likely to display the requisite levels of enthusiasm and assertiveness to stimulate customer interest in products and services and convert this interest into sales. At the same time, ambiverts may strike a balance between talking and listening, avoiding the risks that extraverts face of failing to understand customers' needs and appearing instrumental or pushy. Research shows that the more extraverted an individual is, the more frequently that individual engages in assertive and enthusiastic behaviors (Fleeson & Gallagher, 2009) regardless of context (Little & Joseph, 2006). Whereas extraverts may seek stimulation and social attention at the expense of listening carefully to customers' concerns, ambiverts are likely to be more flexible in the ways that they engage with customers, drawing from a wider repertoire of behavioral options to find the appropriate balance between selling and serving. Thus, I expect that ambiverts will be more productive salespeople than introverts or extraverts.

To test the curvilinear relationship between extraversion and sales performance, I conducted a study of 340 outbound call center representatives, measuring their extraversion and tracking their sales revenue over the next three months. The findings challenge the dominant assumption that extraversion is advantageous to sales performance, shedding light on prior conflicting results. Theoretically, my research answers calls to explore the costs of extraversion in work settings (Bendersky & Shah, in press; Judge et al., 2009) and the curvilinear effects of personality traits on job performance (Grant & Schwartz, 2011; Le et al., 2011). Practically, the findings suggest reconsidering traditional assumptions about career choice, hiring, and training.

Method

I collected data from a company that operates outbound call centers around the U.S. Employees were responsible for generating revenue from new prospects and existing customers. I sent a survey link to all 807 employees, inviting them to participate in a study of the predictors of job performance. I received complete responses from 340 employees, for a response rate of 42.1%. Participating employees were 71% male with an average age of 19.9 years (SD = 1.70) and average job tenure of 6.14 months (SD = 7.86).

The employees completed the 20-item Big Five personality measure developed and validated by Donnellan, Oswald, Baird, and Lucas (2006), which includes four items for each of the five personality traits. I used a 7-point Likert-type scale anchored at 1=disagree strongly and 7=agree strongly. The extraversion measure includes items such as "I am the life of the party" and "I keep in the background" (reverse-scored; $\alpha = .85$). In light of the fact that extraversion often correlates with other traits (Olson, 2005), I also controlled for employees' scores on the other four Big Five personality traits of conscientiousness ($\alpha = .78$), agreeableness ($\alpha = .80$), openness ($\alpha = .71$), and neuroticism ($\alpha = .75$). I measured sales performance by tracking each

employee's revenue over the subsequent three months, which was highly reliable from week to week ($\alpha = .81$), while controlling for hours worked and job tenure.

Results

To test my hypothesis, I conducted hierarchical regression analyses following the procedures recommended by Aiken and West (1991). As displayed in Table 1, the linear term for extraversion was not a significant predictor of sales revenue, but the quadratic term was, indicating a curvilinear relationship. These results held up even after controlling for the linear and quadratic effects of conscientiousness, agreeableness, openness, and neuroticism, none of which were statistically significant predictors of sales revenue.

The negative coefficient for the quadratic term, coupled with the null coefficient for the linear term, indicated a symmetric inverted-U-shaped relationship (Aiken & West, 1991), which is displayed in Figure 1. According to the regression equation, maximum revenue is reached by employees with a 4.5 on the 1-7 extraversion scale, after which revenue declines. Ambiverted employees at the mean of extraversion are predicted to generate \$151.38 per hour, compared with predicted hourly revenue for extraverted employees of \$114.96 for highly extraverted employees (1.5 SD above the mean) and \$126.80 for highly introverted employees (1.5 SD below the mean).

This pattern is mirrored in the actual data, which appear in Figure 2 in the form of a boxplot. The employees with the highest revenue had an extraversion score at the exact midpoint of 4.0, average revenue of \$208.34 per hour, compared with \$137.73 for the full sample. Ambiverted employees with extraversion scores between 3.75 and 5.50 averaged \$154.77 per hour (95% confidence interval: \$127.44 to \$182.40), compared with hourly revenue averages of \$120.10 for introverts (below 3.75, 95% confidence interval: \$96.39 to \$143.82) and \$125.19 for

extraverts (above 5.50, 95% confidence interval: \$103.63 to \$146.75). Over the three-month interval, these ambiverts achieved average revenues of \$16,393.05 (95% confidence interval: \$14,092.13 to \$18,693.97), producing 24% more revenue than introverts (\$13,226.60, 95%) confidence interval: \$10,899.40 to \$15,553.80) and 32% more revenue than extraverts (\$12,401.13; confidence interval: \$8,167.84 to \$16,634.42).

An alternative explanation for these findings is presented by interpersonal circumplex theory (e.g., Trapnell & Wiggins, 1990). From this perspective, the right side of the curve may not be a function of extraversion alone, but rather high extraversion coupled with low agreeableness: disagreeable extraverts may come across as arrogant or excessively dominant, whereas agreeable extraverts are likely to create impressions of gregariousness and warmth. To test this interpretation, I examined whether agreeableness moderated the linear and quadratic relationships between extraversion and sales revenue. As displayed in the final step of Table 1, agreeableness did not interact significantly with extraversion, nor with extraversion squared, and the curvilinear relationship between extraversion and sales revenue remained significant; these patterns held up after eliminating the other personality traits to reduce multicollinearity and increase power. In supplementary analyses, conscientiousness, openness, and neuroticism also failed to moderate the linear and quadratic relationships between extraversion and sales revenue, and the quadratic relationship was still significant. These results suggest that ambiverts have a sales advantage over extraverts regardless of their standing on the other four Big Five personality traits.

Discussion

My findings call into question the longstanding belief that the most productive salespeople are extraverted. The surprisingly weak and inconsistent results from previous studies may be a function of the fact that researchers have focused on linear relationships, investigating the benefits of extraversion while overlooking the costs. This is consistent with recent observations that psychologists have neglected the dark side of personality traits, as the very attributes that facilitate job performance can, at high levels, become too much of a good thing (Grant & Schwartz, 2011; Le et al., 2011).

Although studies have demonstrated that job performance can suffer if employees are too conscientious, too emotionally stable, too generous, or too learning-oriented (Grant & Schwartz, 2011; Le et al., 2011), research has yet to address whether sales performance can suffer if employees are too extraverted. By showing that moderately extraverted employees sell more productively than employees low or high in extraversion, my research takes a step toward answering calls for greater attention to the dark sides of extraversion (Bendersky & Shah, in press; Grant et al., 2011; Judge et al., 2009).

Future research should examine whether there are conditions such as clear reward structures (Stewart, 1996) that enable highly extraverted employees to sell as effectively as ambiverts, and examine whether the results vary by facets of extraversion (Vinchur et al., 1998). For example, it is possible that the curvilinear relationship is explained by a positive effect of enthusiasm from low to moderate levels of extraversion, which is outweighed by the negative effect of assertiveness at high levels of extraversion. It will be important to study whether ambiverts are consistently more moderate in their assertiveness and enthusiasm than introverts and extraverts, or whether they strike a flexible balance by alternating between very low and very high assertiveness and enthusiasm. For example, researchers may use experience-sampling methods to track the frequency and intensity of assertive and enthusiastic behaviors of ambiverts over time (e.g., Fleeson & Gallagher, 2009).

It will also be worthwhile for further studies to investigate whether the results change when more comprehensive measures of personality traits are used. For measuring constructs as broad as the Big Five personality traits, short scales tend to be less reliable than longer, multidimensional scales, and the reliability of quadratic terms and interactions is a multiplicative function of the reliability of the components (Edwards, 2008). Since limited reliabilities may have prevented me from detecting a moderating role for agreeableness, researchers may gain finer-grained insights into this issue by measuring the social traits of extraversion and agreeableness with interpersonal adjective scales (e.g., Trapnell & Wiggins, 1990). Further, it remains to be seen whether there are other personality traits or behavioral patterns that can reduce or eliminate the negative effects of high extraversion on sales productivity.

In the popular press, authors have recently argued that there is a Western cultural bias favoring extraversion (Cain, 2012). Nowhere is this more clear than in sales, where it seems only natural that the most assertive and enthusiastic people will be the most productive (Barrick et al., 2001; Costa & McCrae, 1992). Yet my findings suggest that less extraverted people may be missing out on productive careers, and hiring managers may be missing out on star performers. When less extraverted people do end up in sales, many managers have trained them to emulate the assertive, enthusiastic qualities of their highly extraverted counterparts. Based on my research, organizations stand to benefit from training highly extraverted salespeople to model some of the quiet, reserved tendencies of their peers.

The finding that sales performance is highest in the ambiverted range presents good news for aspiring salespeople (Pink, 2012). In the world population, extraversion typically follows the shape of a bell curve, with most people falling somewhere in the middle (Ones & Dilchert, 2009; McCrae & Costa, 2003). If most people are ambiverted rather than introverted or extraverted, the logical conclusion is that most people are well-suited to selling.

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Table 1 Hierarchical Regression Analysis Predicting Sales Revenue

	Step 1		Step 2		Step 3		Step 4		Step 5	
	β	t	β	t	β	t	β	t	β	t
Hours worked	.49	10.42***	.50	10.69***	.49	10.57***	.50	10.57***	.50	10.57***
Job tenure	.22	4.79***	.23	4.93***	.23	5.02***	.23	4.90***	.23	4.97***
Extraversion	.03	.66	01	24	00	02	01	12	00	05
Extraversion squared			13	-2.76**	13	-2.66**	14	-2.73**	14	-2.71**
Conscientiousness					09	-1.77	09	-1.82	09	-1.84
Agreeableness					01	13	01	09	.64	1.00
Openness					.01	.11	.01	.11	.01	.09
Neuroticism					.01	.22	01	12	01	18
Conscientiousness squared							.00	.04	.01	.10
Agreeableness squared							.02	.30	.02	.25
Openness squared							.01	.22	.01	.15
Neuroticism squared							.06	1.24	.07	1.29
Extraversion X agreeableness									.36	1.13
Extraversion squared X agreeableness									69	-1.02
R-squared		.30***		.32***		.32***		.33***		.33***

Notes. * p < .05, ** p < .01, *** p < .001. The only step where variance explained increased significantly was from Step 1 to Step 2, via the addition of the quadratic term for extraversion, F(1, 324) = 7.60, p < .01. Although a 2% increase in variance explained may technically fall in the range of a small or medium effect, this does not mean that the effect is unimportant (Cortina & Landis, 2009; Prentice & Miller, 1992), as it can have meaningful implications for employer hiring and employee career decisions. Further, the use of incremental analyses may underestimate the size of the effect (LeBreton, Hargis, Griepentrog, Oswald, & Ployhart, 2007), especially since the curvilinear effect relies on an interaction term with constrained reliability (Edwards, 2008).

Figure 1 Plotted Curvilinear Relationship between Extraversion and Sales Revenue

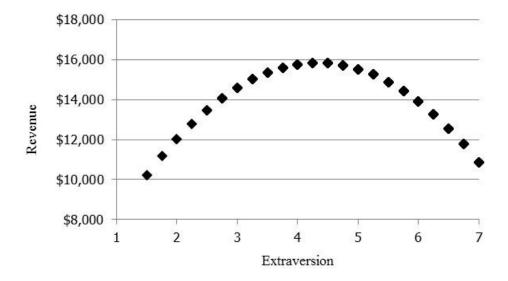
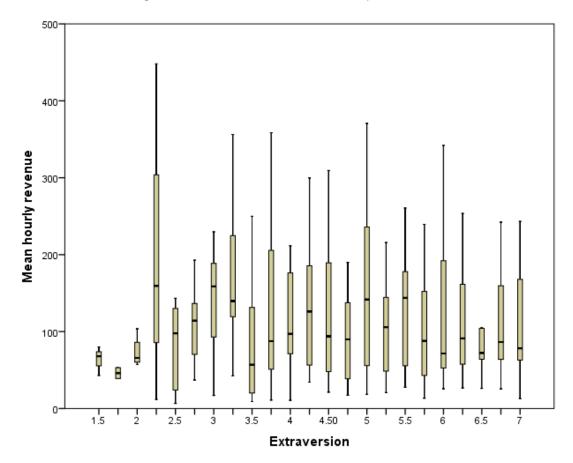


Figure 2 Observed Relationship between Extraversion and Hourly Sales Revenue



Footnotes

¹ There may be a psychophysiological basis for the greater behavioral flexibility of ambiverts relative to extraverts. In terms of neocortical arousal, ambiverts tend to operate near the optimal level, whereas extraverts tend to be chronically under-stimulated (Eysenck, 1971; Little & Joseph, 2006). To avoid boredom and maintain their engagement, extraverts regularly seek out stimulation and social attention. Ambiverts, by contrast, can devote greater time to listening without facing the risk of under-stimulation.

² The lack of a linear relationship for extraversion may be driven in part by range restriction. As is typical in sales jobs (Barrick et al., 2003) and American samples (McCrae et al., 2005), employees' extraversion scores were skewed slightly to the right, with a mean of 4.86 (skewness = -.37, kurtosis = -.66). However, the variance was high (SD = 1.33), and the range covered nearly the full 1-7 scale, with a minimum of 1.5 and a maximum of 7.0, which suggests that range restriction was not a major limitation with regard to detecting curvilinear effects.