
Corporate Psychopathy: Talking the Walk

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There is a very large literature on the important role of psychopathy in the criminal justice system. We know much less about corporate psychopathy and its implications, in large part because of the difficulty in obtaining the active cooperation of business organizations. This has left us with only a few small-sample studies, anecdotes, and speculation. In this study, we had a unique opportunity to examine psychopathy and its correlates in a sample of 203 corporate professionals selected by their companies to participate in management development programs. The correlates included demographic and status variables, as well as in-house 360° assessments and performance ratings. The prevalence of psychopathic traits—as measured by the Psychopathy Checklist—Revised (PCL-R) and a Psychopathy Checklist: Screening Version (PCL:SV) “equivalent”—was higher than that found in community samples. The results of confirmatory factor analysis (CFA) and structural equation modeling (SEM) indicated that the underlying latent structure of psychopathy in our corporate sample was consistent with that model found in community and offender studies. Psychopathy was positively associated with in-house ratings of *charisma/presentation style* (creativity, good strategic thinking and communication skills) but negatively associated with ratings of *responsibility/performance* (being a team player, management skills, and overall accomplishments). Copyright © 2010 John Wiley & Sons, Ltd.

“Not all psychopaths are in prison. Some are in the Boardroom.” Hare, 2002

The above statement was a casual response by Hare to a question asked at the end of a 2002 address to the Canadian Police Association meeting in St. John’s, Newfoundland and Labrador. The questioner turned out to be a journalist, and over the next few days the international media picked up his newspaper article, treating the statement as somewhat of a revelation. The media reports clearly reflected both the popular view that psychopathy equates to criminality and violence, and the public and media fascination with murder and mayhem, typically attributed to “psychopaths” or “sociopaths.” Unfortunately, media headlines and popular television crime shows are often the only exposure the public gets to the concept of psychopathy, resulting in considerable misinformation and misunderstanding. This is also the case with business professionals,

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who see even less relevance of such portrayals to their daily interactions with coworkers. The problem is exacerbated by the paucity of research on the prevalence and implications of psychopathy for society in general, and by the heavy emphasis on research with offender and forensic psychiatric populations (where the base-rate for psychopathy is high and the information needed for reliable assessments is readily available). In contrast, other than a few small-sample studies, anecdotes, and speculations, we know little about “corporate psychopathy” and its implications, in large part because of the difficulty in obtaining the active cooperation of business organizations and their personnel for research purposes. At the same time, there is considerable public and media interest in learning more about the types of person who violate their positions of influence and trust, defraud customers, investors, friends, and family, successfully elude regulators, and appear indifferent to the financial chaos and personal suffering they create.

In the face of large-scale Ponzi schemes, embezzlement, insider trading, mortgage fraud, and internet frauds and schemes, it was inevitable that psychopathy would be invoked as one explanation for such callous and socially devastating behavior. However, there is a dearth of empirical data on the role of psychopathy in fraud, corruption, malfeasance, and other egregious violations of the public trust. This is unfortunate, particularly if we take the view that corruption and financial disasters can be as much the fault of individuals as they are of impersonal economic and social forces. We need research in this area, but we also need investigations of a related and equally important issue: the prevalence, strategies, and consequences of psychopathy in the corporate world. The information gained from such investigations would provide valuable clues about corporate psychopathy in general and would establish an empirical base for conducting and evaluating research on the more high-profile miscreants who have wreaked financial and emotional havoc in the lives of so many people. While the latter recently have received enormous amounts of media and regulatory attention, we also should be concerned with the less spectacular, but more common, fraud and corruption experienced by many corporations worldwide. A recent survey of 5,428 companies in 40 countries revealed that 43% reported significant fraud, with the average company loss over a two-year period being U.S.\$ 2,420,700 (PriceWaterhouseCoopers, 2008). We know little about the individuals who commit such fraud, or about the ways in which they often manage to avoid prosecution, termination, or formal censure, perhaps with the help of organizations that strive to keep problems in-house.

Empirical and case studies of psychopathy in the corporate world are limited (Babiak, 1995, 2000, 2007; Babiak & Hare, 2006) and largely confined to self-report measures of constructs related to psychopathy, such as narcissism, Machiavellianism, and aberrant self-promotion (e.g., Gustafson, 2000; Gustafson & Ritzer, 1995). Unfortunately, few clinical or forensic psychologists have access to corporate personnel, except in limited circumstances (Kets de Vries & Miller, 1984, 1985; Person, 1986; Peterson, Smith, Martorana, & Owens, 2003). Several industrial-organizational psychologists have found personality to be a useful predictor of performance and other outcomes (Barrick, Stewart, Neubert, & Mount, 1998; Driskell, Hogan, & Salas, 1987; Ghiselli & Barthol, 1953; Hogan, 2004, 2005; Hogan & Hogan, 1989; Judge, Bono, Ilies, & Gerhardt, 2002). However, few have studied the impact of psychopathology on organizations (Babiak, 1995, 2000, 2007; Gustafson, 2000; Gustafson & Ritzer, 1995; Hogan, 2007; Hogan, Raskin, & Fazzini, 1990).

For their part, organizations are often reluctant to use measures of psychopathology except under special circumstances, such as the hiring of critical public safety staff (e.g., police, fire, nuclear power plant operators; Lowman, 1989). The fear of violating privacy laws and the risk of lawsuits inhibit research in this area. As a result, we know relatively little about how psychopathic features are associated with corporate status and performance. Although psychopathy, broadly speaking, reflects a fundamental antisociality (Hare & Neumann, 2008), some psychopathic features (e.g., callousness, grandiosity, manipulateness) may relate to the ability to make persuasive arguments and ruthless decisions, while others (e.g., impulsivity, irresponsibility, poor behavioral controls) relate to poor decision-making and performance. Furthermore, while a particular mix of psychopathic features might be compatible with good performance in some executive positions in some corporate milieus, it is likely that the confluence of many psychopathic features generally relates more to good impression management than to good job performance (Babiak & Hare, 2006; Hare, 1999).

The present article reports the results of an opportunity to evaluate these possibilities in a relatively large sample of executives. Because of the extensive empirical literature demonstrating the reliability and validity of the Psychopathy Checklist—Revised (PCL-R; Hare, 2003) and the Psychopathy Checklist: Screening Version (PCL: SV; Hart, Cox, & Hare, 1995) in a variety of populations, we relied on these instruments for the assessment of psychopathy in our corporate sample.

MEASURES OF SUCCESSFUL PERFORMANCE

A key feature of the present study was the availability of systematic and varied appraisals of performance, conducted by corporate staff independent of the PCL-R assessments. Traditional measures of successful business performance include rank or level within an organizational hierarchy, ratings of performance by supervisors, participation in corporate management development efforts, assessments made for the purpose of management development, and inclusion in corporate succession plans. These performance measures are less familiar to behavioral scientists than they are to human resources (HR) personnel, including some industrial–organizational psychologists. For this reason, we provide brief descriptions of the conceptual bases for the measures used in this study.

By virtue of the hierarchical nature of organizations, even those that have been “flattened” by removal of mid-managers, higher levels of management hold more power, authority and responsibility than those at lower levels. A rise in the ranks is an indicator of success, as are the associated increases in salary, benefits, and perquisites (e.g., larger office). By definition, *higher-level individuals are more successful than are their lower-level coworkers*.

Formal, written, annual performance evaluations are standard practice for measuring individual performance in most large organizations. Performance appraisals take many forms, from adjective-laden narratives to list-based assessments. Companies that follow Management by Objectives (MBO; Drucker, 2006) models include individualized work objectives, standards of performance, and personal improvement or development objectives, and require written ratings on a regular basis, typically annually. Such formal appraisals sometimes are augmented with informal, face-to-face performance feedback, given as needed at the discretion of management. Performance

appraisals typically lead to recommendations for training and development, and fulfilling these can become part of the subsequent year's goals. Over time, good performance appraisals build a record of accomplishment upon which organizations base promotion decisions as well as assignments of more difficult tasks. In companies that have them, performance appraisals are required for every employee, although their exact form and link to compensation can vary among companies.

Management development (MD) refers to the systematic education, training, and development of members of management within an organization. The purpose of MD programs is to develop or improve management skills of individual managers through focused training programs and leadership conferences, and to standardize approaches to management along corporate values, mission, policies, and procedures through orientations and corporate message programs.

A key element of the MD process is the evaluation of specific education, training, and developmental needs of managers and executives. 360° rating methods (a reference to the 360 degrees in a circle; data are collected from observers "all around" the individual) are very popular and useful for identifying training needs and potential issues with management style. The theory behind their use is that "perception is the truth," meaning that the collective observer ratings of behaviors, judgments, and attitudes are considered more accurate (and more credence is given to them) than self-perception and self-report. *Higher ratings on managerial competencies represent a measure of success in many organizations.*

A special group of individuals within typical MD programs consists of those identified for inclusion in the corporate succession plan (SP). Formal SP systems vary in complexity and sophistication, but the common objective is to identify those individuals among the ranks who have the potential to assume greater management responsibility (or join the management ranks for those who are not managers) and the ability to assume a greater role in the organization's future. A unique element of SP systems is the fact that inclusion on a succession plan often is kept secret from the candidates themselves. This is especially true for those identified as "high potentials"—those thought to have exceptional talent and the ability to assume any number of higher-level jobs. Furthermore, individuals identified for inclusion on the SP often receive increased amounts of development and attention; *companies invest more time and resources in high potential candidates as they believe they have what it takes to grow into successful future leaders.*

THE CURRENT STUDY

The senior author (P.B.) consulted with several companies to evaluate corporate personnel selected to participate in a management development program. He was able to conduct psychopathy (PCL-R) assessments on each individual, and had access to a wealth of personnel data collected by the companies. We determined the prevalence, distribution, and structure of psychopathic features in the sample, and investigated the associations between psychopathy and key performance variables. The latter provided information on whether or not individuals with high levels of psychopathic traits have "successful" careers in business organizations. We also converted the PCL-R scores to PCL: SV "equivalents," thus allowing us to compare the distribution of psychopathic traits in our corporate sample with PCL: SV distributions obtained in community

studies (Coid, Yang, Ullrich, Roberts, & Hare, 2009; De Oliveira-Souza, Ignácio, Moll, & Hare, 2008; Neumann & Hare, 2008). A specific strength of the study is that it involved a relatively large sample of corporate personnel selected by their various companies to participate in a management development program. As such, the sample reflects individuals judged to be worth investing in by their respective corporations.

METHOD

Study Context

P.B. consulted to all of the organizations in this study on leadership and organization development issues. These assignments included design, development, and implementation of traditional management programs and processes, organizational redesign and reorganization, and facilitation of succession planning discussions of executive teams charged with making succession decisions (the role was facilitative and did not include offering opinions of candidates' qualifications, strengths, or weaknesses). In addition, P.B. coached managers on how to handle issues such as productivity, teamwork, personal effectiveness, employee relations, and interpersonal conflict. Finally, he facilitated teambuilding interventions for departmental as well as interdisciplinary teams experiencing decreases in morale, effectiveness, and cohesion.

By virtue of his various consulting roles, P.B. interviewed each individual in this sample and was able to make personal assessments of many aspects of their performance, personality traits, and interpersonal style. He also interviewed members of management for their perceptions of their subordinates, and interviewed some subordinates about their perceptions of managers. In addition, human resources staff and some heads of security provided information.

Records made available for the current study included performance appraisals, general personnel records (including original resumes, applications, letters of reference, memos of record, security reports, background checks, absenteeism records, awards and commendations, and so forth, but not including any medical records in personnel files), MD and SP data, including 360° evaluations, and salary data (not reported in this study).

Each company was aware of P.B.'s interest in problematic or dysfunctional employee behavior, and each consented to giving access to all records included in this study. The companies and P.B. agreed on the following conditions for use of the data: (a) that all data remain confidential; (b) that the data be combined with that of other participating companies before analysis; (c) that the research be conducted at the expense of the researcher; (d) that primary documents remained the property of the company; (e) that data analysis be conducted after the termination of the business relationships; and (f) that neither the explicit nature of the research nor the results be shared with anyone from the company.

Companies and Participants

Seven companies participated in this study, ranging in size from 150 to over 40,000 people worldwide. Four of the companies were global, but only their U.S. branches

were included. The companies were scattered across the U.S.; four were located along the eastern seaboard, one in the south, and two in locations across the country.

The participants consisted of 203 managers and executives (77.8% males; 22.2% females) identified for participation in the management development (MD) program of their respective companies. Most (91.1%) were Caucasian, 2.5% were Asian, 1% were African-American, 2.5% were Hispanic, and 3% were of other ethnic origins. They were highly educated, with 1% possessing a two-year degree, 77.8% a four-year degree, and 21.2% a Ph.D., J.D., or M.D. Average age was 45.8 (SD = 10.7). Selection to participate in a management development program is indicative of a company's belief that the individual has managerial potential. In addition, many (41.9%) of the participants were high potential candidates, an indication of considerable success within the organization.

The participants represented several ranks within the typical organizational hierarchy: 158 were members of management, with titles and rank of supervisor or manager ($n = 42$), director ($n = 41$), vice president ($n = 51$), CEO/president/division president ($n = 21$), or other management rank ($n = 3$). An additional 45 professionals, individual contributors, key staff, or salespeople, were included in this study because their organizations had invited them to participate in their MD program. While these individuals did not directly supervise others, the feeling among management was that they had some leadership potential or had expressed aspirations of assuming a higher level within their organization in the future.

Measures

The Psychopathy Checklist—Revised

The PCL-R is a 20-item clinical construct rating scale that uses a semi-structured interview, case-history information, and specific scoring criteria to rate each item on a three-point scale (0, 1, 2) according to the extent to which it applies to a given person. Total scores can range from 0 to 40 and reflect the degree to which the person matches the prototypical psychopathic person, in line with recent evidence that, at the measurement level, the construct underlying the PCL-R is dimensional (Guay, Ruscio, Knight, & Hare, 2007). Although the PCL-R measures a unitary superordinate construct, confirmatory factor analyses of very large data sets (Neumann, Hare, & Newman, 2007a) support a superordinate model in which psychopathy is underpinned by four correlated factors or dimensions, labeled as follows: *Interpersonal* (Glibness/superficial charm, Grandiose sense of self-worth, Pathological lying, Conning/manipulative); *Affective* (Lack of remorse or guilt, Shallow affect, Callous/lack of empathy, Failure to accept responsibility for actions); *Lifestyle* (Need for stimulation/proneness to boredom, Parasitic lifestyle, Lack of realistic long-term goals, Impulsivity, Irresponsibility); and *Antisocial* (Poor behavioral controls, Early behavior problems, Juvenile delinquency, Revocation of conditional release, Criminal versatility). Two other items (Promiscuous sexual behavior and Many short-term relationships) do not load on any factor but contribute to the total PCL-R score.

P.B. completed the PCL-R for each participant, using comprehensive field notes from face-to-face meetings, observations of social and work-team interactions, as well as meetings with participants' supervisors, peers, and subordinates. He reviewed some

scores with R.D.H. Two items (Revocation of conditional release; Criminal versatility) were not applicable to the sample and were omitted. We prorated the remaining 18 items to a 20-item scale, using the standard procedure as outlined in the PCL-R manual (Hare, 2003). The PCL-R assessments were independent of the performance and other appraisals described below, which were collected separately in table form from company sources. In a research context, the reliability of PCL-R assessments is very high (Hare, 2003). Because of the nature of the present study, it was not possible to obtain additional PCL-R assessments. However, internal consistency (Cronbach's $\alpha = .95$) and inter-item homogeneity (mean inter-item correlation = .59) were very high.

The Psychopathy Checklist: Screening Version

Although not directly scored in this study, we used "PCL: SV equivalents" for some analyses and comparisons. That is, we converted PCL-R scores to PCL: SV scores (see Results section), based on evidence that the two instruments are strongly related, conceptually and empirically, and have much the same psychometric properties and correlates (Cooke, Michie, Hart, & Hare, 1999; Guy & Douglas, 2006; Hare, 2007; Hart *et al.*, 1995; Walters *et al.*, 2007). The PCL: SV consists of 12 items derived from the PCL-R, each scored from interview and collateral information on a three-point scale (0, 1, 2), with total scores that can vary from 0 to 24. Like the PCL-R, the PCL: SV is underpinned by four correlated factors: *Interpersonal* (Superficial, Grandiose, Deceitful); *Affective* (Lacks remorse, Lacks empathy; Does not accept responsibility); *Lifestyle* (Impulsive, Lacks goals, Irresponsible); and *Antisocial* (Poor behavioral controls, Early antisocial behavior; Adult antisocial behavior).

360° Assessments

Many of the companies in this study included 360° feedback in their MD programs, most often as a preliminary to leadership training, but also for teambuilding interventions and individual coaching. 360° assessments were available for 140 participants. Participants with 360° assessments did not differ from those without such assessments in terms of gender ($\chi^2(1) = 3.48$, $p > .05$), race ($\chi^2(4) = 4.43$, $p > .05$), education ($\chi^2(2) = 2.51$, $p > .05$), high potential status ($\chi^2(1) = 1.84$, $p > .05$), or corporate title/position ($\chi^2(5) = 9.40$, $p > .05$). Those with 360° assessments had slightly higher PCL-R scores than did those without these assessments, but these differences accounted for a trivial amount of variance (adjusted $R^2 = .02$). In addition, with respect to the education variable and the one (2-year degree) group that had only two participants, the results remained the same (nonsignificant) whether or not these individuals were included in the analysis.

The participant usually chose whom to fill out the 360° assessment forms but the individual ratings were anonymous and independent. Between five and ten individuals made assessments for each participant in order to obtain reliable results and to protect rater confidentiality. Typical items include "makes effective presentations," "writes well," and "treats others with respect." Raters assessed the degree to which the subject demonstrated each positive behavior, using five-point Likert-type response sets, such as

“strongly agree” through “strongly disagree” or more rarely a general frequency measure, such as “very often” through “never.”

Although they differ somewhat in format and wording of some items, the instruments across the companies shared the same outcome variables, which were typical at the time for defining “leadership.” The 360° assessment items reflect six broad management competency areas: *Communication Skills* (making presentations; report/letter writing; representing the company to others publicly; training others); *Creativity/Innovation* (ability to generate new and different ideas (Creativity) and/or bring them to market (Innovation)); *Leadership Skills* (decision making; problem solving; resolving issues without direction; integrity); *Management Style* (ability to use people effectively to get things done; resolve personnel issues; sensitivity to others, including diversity issues; delegation; building a team); *Strategic Thinking* (seeing the big picture; visioning; setting long range objectives); and *Team Player* (ability to get along on a team with coworkers as well as on interdisciplinary teams; collaborates; shares information and credit with team; keeps others in the loop; works towards consensus). For each of the six assessment variables, participants received an average score categorized as High (that is, a strength), Medium (indicating some improvement needed), or Low (indicating a weakness area requiring training or executive coaching). For our analysis, these were coded as 3, 2, and 1 respectively.

An exploratory factor analysis of these six 360° items (three-point scales), along with the performance appraisal item (five-point scale), revealed a clear two-factor structure that accounted for 64% of the variance in these seven items. (Because the 360° items and the performance item were on different scales, we repeated the analysis after converting the performance appraisal item to a three-point scale. The results were unchanged.) The first factor (*charisma/presentation style*) consisted of the communication, creativity, and strategic thinking competency areas, while the second factor (*responsibility/performance*) consisted of the management style and team player items, and the performance appraisal item. We generated two summed composites to reflect each of these two factors and used them as criterion variables in the structural equation modeling analyses described below. The leadership variable loaded substantially on both factors, and thus was not included in either one of the two composites; we performed separate analyses on this variable.

Performance Appraisals

Formal performance appraisals were available for 130 of the participants, all of whom were part of the pool of 140 described in the previous section. In each case, the appraisal was the most recent available in a participant’s personnel file. As with the 360° pool, participants for whom appraisals were available did not differ significantly from those without appraisals on any of the study variables described in the previous section (data on request).

In most cases, the participant’s immediate supervisor made the performance appraisal. For a small subset of participants, an executive at the next level up in the organization had also reviewed and signed off on the appraisal. Each organization in this study followed an MBO model of management, and therefore assigned individual goals and objectives to (and often negotiated with) each participant as part of the annual MBO process.

Performance appraisal documents took several forms, even within the same organization; some included adjective-heavy narratives to compliment the numerical ratings, while others did not. Many included detailed assessments of performance on specific objectives (what tasks were completed) and standards of performance (how the task was done), while others were less detailed. Because these data span several companies, they each had slightly different descriptors for ratings. However, they all used a five-point scale, standard in performance appraisal systems, (for example, Far Exceeds Expectations, Outstanding Performance, Major Contributor would all be noted as “5”). For this study the ratings were coded as 5 = far exceeds expectations or the highest available rating a company used; 4 = exceeds expectations or the next highest rating, and so forth, with 1 = far below expectations or the lowest performance rating used by each company.

RESULTS

PCL-R scores were not significantly associated with age ($r = .07$), gender ($r = .01$), or education ($r = .07$). With respect to education, exclusion of the two participants who had only a four-year degree resulted in little substantive change in the correlation with the PCL-R ($r = .11$).

PCL-R Distribution

Figure 1 shows the distribution of prorated PCL-R scores. Not surprisingly, the distribution was both skewed (2.81, $SE = 0.17$) and kurtotic (7.42, $SE = 0.34$). The PCL-R total score varied from 0 to 34, with a mean of 3.64 ($SD = 7.35$). The vast

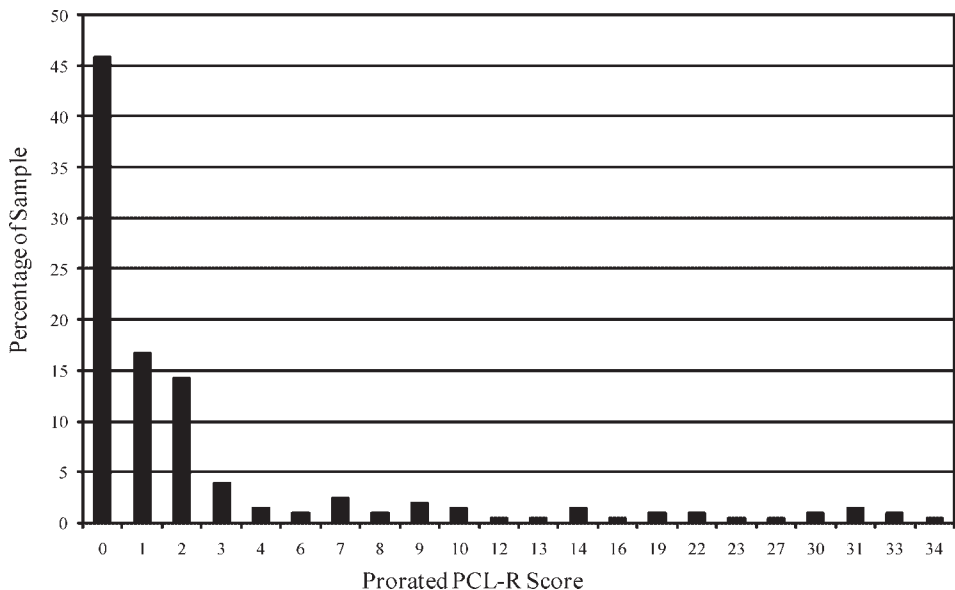


Figure 1. Prorated PCL-R scores for the corporate sample ($N = 203$).

majority of scores (80%) were between 0 and 3. However, nine of the participants (4.4%) had a score of 25 or higher, eight (3.9%) had a score of 30 or higher (the common research threshold for psychopathy; Hare, 2003), two had a score of 33, and one had a score of 34. By way of comparison, the mean score for male offenders is approximately 22 (SD ~ 7.9), with about 15% of the scores being 30 or higher.

Skewed and kurtotic data of this sort present a challenge for statistical analyses. We might attempt to “normalize” the distribution of PCL-R scores, but in doing so we would distort the actual distribution of psychopathic traits in the sample. As discussed in depth elsewhere (Neumann, Kosson, & Salekin, 2007b), an appropriate approach in this situation is to use robust statistical procedures that take into account the non-normality of the data when estimating the probability level for statistical results. The model analyses reported in this article adopted such an approach.

PCL: SV Equivalents

There are no large-sample distributions of PCL-R scores in the general community. However, there are several community distributions of PCL: SV scores (Coid et al., 2009; Neumann & Hare, 2008). As a rough comparison of the distribution of psychopathic traits in our corporate sample with that in a community sample, we converted the prorated corporate PCL-R scores to “PCL: SV equivalents” by multiplying each PCL-R score by 24/40 (see Guy & Douglas, 2006; Hare & Neumann, 2009). The mean PCL: SV equivalent for the corporate sample was 2.17 (SD = 4.40), slightly lower than the mean of 2.67 (SD = 3.50) obtained for the large MacArthur community sample (Neumann & Hare, 2008). However, as Figure 2 indicates, the corporate sample had more participants with high scores than did the community sample. For example, several investigators have used a PCL: SV score of at least 13 as an

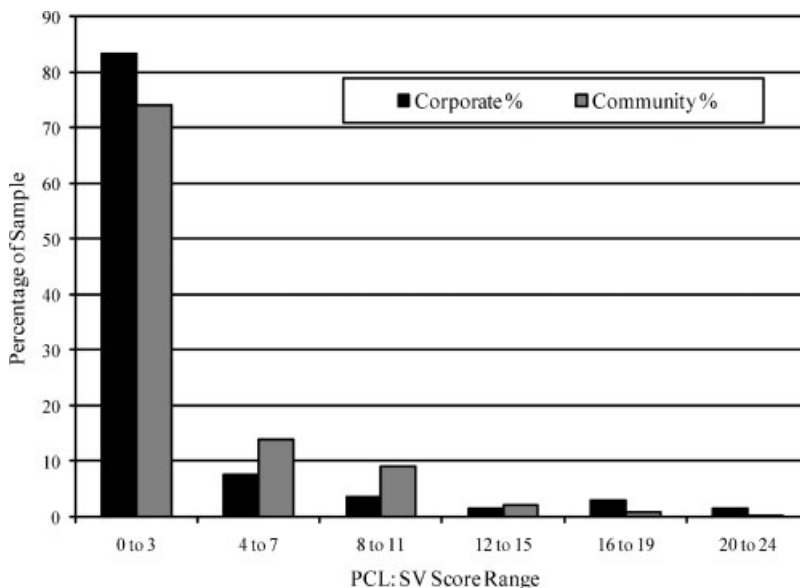


Figure 2. Community PCL: SV scores and corporate PCL: SV “equivalents”.

indication of “potential” or “possible” psychopathy (e.g., Coid *et al.*, 2009; Monahan *et al.*, 2000). In our corporate sample 5.9% of the participants had a score this high, compared with 1.2% in the MacArthur community sample. Further, 3% of the participants in the corporate sample had a PCL: SV equivalent score of 18 (comparable to the PCL-R research cut score of 30), compared with only 0.2% of the MacArthur community sample.

Latent Structure of Psychopathic Traits

We performed a confirmatory factor analysis (CFA) to determine whether the PCL-R traits in this corporate sample conform to the same latent 18-item, four-factor structure as obtained with large samples of offenders, psychiatric patients, and individuals in the general population (Hare & Neumann, 2008; Neumann & Hare, 2007). Because two items (Revocation of conditional release; Criminal versatility) were not scored for the corporate sample, we were unable to test the 18-item factor model directly. Instead, we conducted a CFA of a 16-item model in which the Antisocial factor consisted of three (rather than five) items: Poor behavioral controls, Early behavior problems, Juvenile delinquency. Consistent with the recommendations of Hu and Bentler (1998), we used both absolute and incremental indices to assess model fit. Absolute fit indices gauge how well the model reproduces the observed data (smaller values are better). Incremental indices gauge the fit of the hypothesized model with respect to a null model (larger values indicate better fit of the hypothesized model). Hu and Bentler (1998) recommended a two-index strategy (one incremental, one absolute) for determining model fit. For the current study, we used the common Standardized Root Mean Square (SRMR), given its recommendation as a good indicator of absolute fit. In addition, we used the TLI (Tucker–Lewis Index, also known as the Non-Normed Fit Index), which is particularly useful for non-normal ordinal data. We used robust parameter estimation procedures, conducted with the Mplus modeling program (Muthén & Muthén, 1998–2001). This PCL-R item-based model had excellent fit: TLI = .99, SRMR = .06 (the model is available on request). The mean score and standard deviation for the composite score of each factor were as follows: Interpersonal, 1.85 (2.36); Affective, 0.78 (0.70); Lifestyle, 0.68 (1.85); Antisocial, 0.20 (0.72). It is notable that the highest scores were on the Interpersonal factor. Paired *t*-tests confirmed that the Interpersonal factor score was significantly different from the next highest factor score (Affective), $t(202) = 10.02$, $p < .001$, and by logical extension the remaining factor scores.

These results notwithstanding, the item-based model with the current sample is underpowered (low subject-to-free-parameter ratio). We therefore used robust maximum likelihood estimation (the parcels are continuous variables) to test an eight-item, four-factor parcel model, which has been supported with both adult (Hare & Neumann, 2006) and adolescent (Neumann, Kosson, Forth, & Hare, 2006) samples. Parcels essentially are sub-sets of item composites used as indicators for latent variables in place of the items themselves. Parcels are superior to items in a statistical sense (Bandalos, 2002; Little, Cunningham, Shahar, & Widaman, 2002), and reduce the number of parameters that need to be modeled. Because two items were missing from the Antisocial factor, we formed one of its parcels from two “surrogate” items from the PCL: SV: Adolescent and Adult antisocial behavior (had the individual ever engaged in

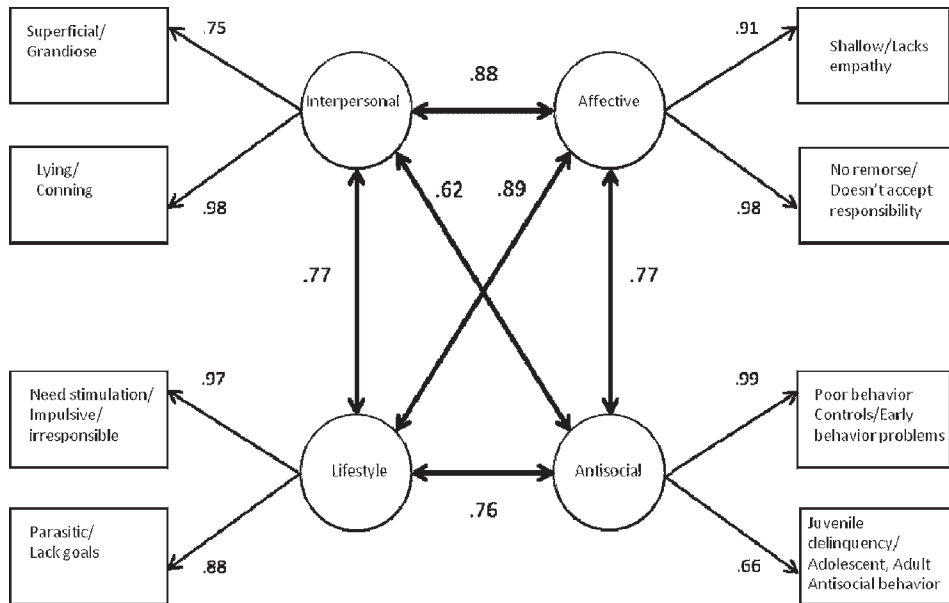


Figure 3. Standardized factor loadings and factor correlations for the four-factor PCL-R parcel model.

any adolescent or adult antisocial activity, scored yes/no). Although this procedure is unusual and not recommended for clinical purposes, our reasoning was that these PCL: SV items reflect the same latent (antisocial) factor that is measured by the PCL-R Antisocial factor. That is, broadly speaking, the Antisocial psychopathy factor is best understood, from both statistical modeling and conceptual perspectives, as a representation of overt antisociality (Hare & Neumann, in press). This PCL-R parcel-based model had excellent fit: TLI = .98, SRMR = .02 (see Figure 3).

Corporate Position and High Potential Status

The PCL-R score was not significantly related to the level of the executive/management position held by a participant, whether the three participants in the “other management” position were included ($r = .02$) or excluded ($r = -.05$) from the analysis. Similarly, the PCL-R score was unrelated to whether or not the organization considered a participant to be a high potential candidate. It is important to point out that, of the nine participants with a PCL-R score of 25 or higher, two were vice-presidents, two were directors, two were managers or supervisors, and one held some other management position; thus, they had already achieved considerable rank and status within their respective organizations.

Performance Appraisals and 360° Assessments

Table 1 contains descriptive data for the 360° assessments and the performance appraisals, while Table 2 contains nonparametric (Spearman's rho) zero-order

Table 1. Descriptive data for the 360° assessments and performance appraisal

Assessment/appraisal	Mean	SD	Skew	Kurtosis	N
360° assessments					
Communication skills	2.51	0.64	−0.94	−0.17	130
Creative/innovative	2.35	0.57	−0.17	−0.72	130
Strategic thinking	2.40	0.62	−0.51	−0.61	130
Management style	2.17	0.77	−0.30	−1.25	130
Team player	2.46	0.75	−0.99	−0.50	130
Leadership skills	2.32	0.65	−0.44	−0.70	130
Performance appraisal	3.15	0.91	−0.30	0.72	140

360° assessments scored 1–3. Performance appraisals scored 1–5.

Table 2. Nonparametric zero-order correlations of the PCL-R total and factor scores with 360° assessments and performance appraisals

Assessment/appraisal	Interpersonal	Affective	Lifestyle	Antisocial	Total
360° assessments					
Communication skills	.34***	.27**	.20*	.23**	.33***
Creative/innovative	.28***	.24**	.21*	.21*	.27**
Strategic thinking	.31***	.20*	.15	.10	.30***
Management style	−.48***	−.48***	−.46***	−.36***	−.49***
Team player	−.71***	−.66***	−.58***	−.52***	−.71***
Leadership skills	.06	−.06	−.15	−.22*	.04
Performance appraisal	−.40***	−.40***	−.40***	−.42***	−.41***

Entries are Spearman rho correlations. PCL-R = Psychopathy Checklist—Revised (Hare, 2003).

* $p < .05$; ** $p < .01$; *** $p < .001$.

correlations of these variables with PCL-R Total and factor scores. The pattern of correlations indicates that psychopathy was associated with the perception that a participant had good communication and strategic thinking skills and was creative and innovative, and with the perception that a participant had a poor management style, and was not a team player. Moreover, the higher the PCL-R scores the lower the performance appraisal ratings.

We supplemented the correlational analyses with plots of the 360° variables (1–3 scale) and the performance appraisals (1–5 scale) as a function of different PCL-R cut scores or thresholds. Figure 4 indicates that as the PCL-R cut score increased there was a slight *increase* in the perception that a participant had good communication skills, and was creative and innovative. Note that at a moderate or high PCL-R threshold most of the ratings were between “meets expectations” and “above expectations.” In sharp contrast, Figure 5 indicates that as the PCL-R threshold increased there was a *strong decrease* in ratings of the participant’s management style, role as a team player and leader, and performance appraisals. Indeed, 360° variables that had ratings of “Medium” or “High” at low PCL-R thresholds dropped sharply to “Low” at the upper thresholds. Similarly, performance appraisals dropped from “exceeds expectations” at the lower PCL-R thresholds to “below expectations” or “far below expectations” at the upper thresholds. Although we did not subject the data in Figures 4 and 5 to statistical analysis, the results paralleled the pattern of correlations presented in Table 1. However, we did compare the 360° and the performance ratings of the nine participants

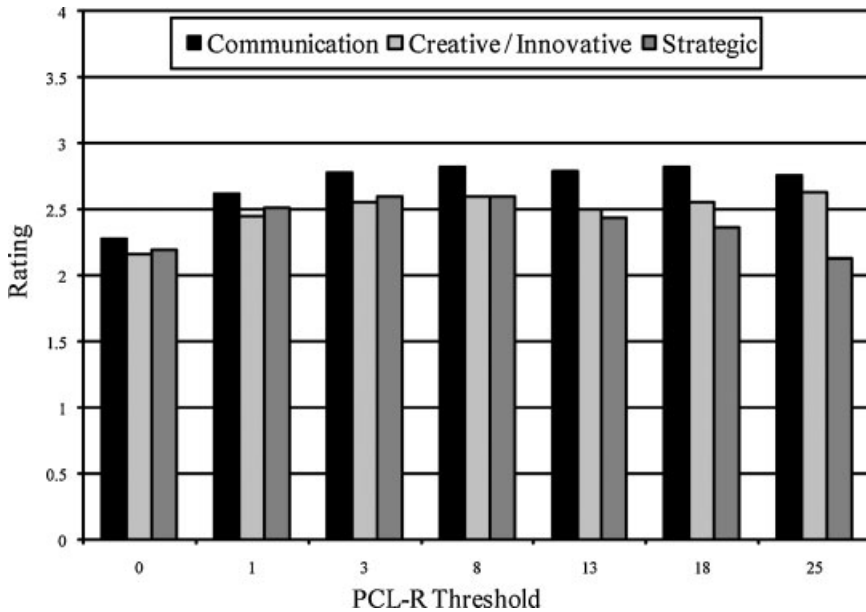


Figure 4. Mean ratings of communication skills, creative/innovative, and strategic thinking variables as a function of different PCL-R cut scores.

with a PCL-R score of at least 25 with ratings of the rest of the sample. This high psychopathy group had significantly higher ratings on communication, and significantly lower ratings on all of the other 360° and performance variables, than did the rest of the participants (results available on request).

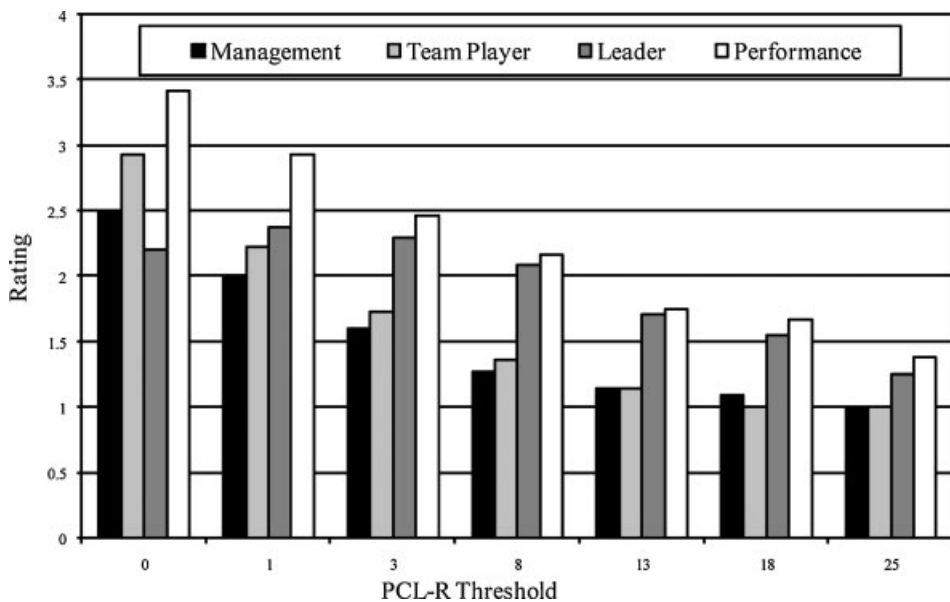


Figure 5. Mean ratings of management style, team player, leadership skills, and performance appraisals as a function of different PCL-R thresholds.

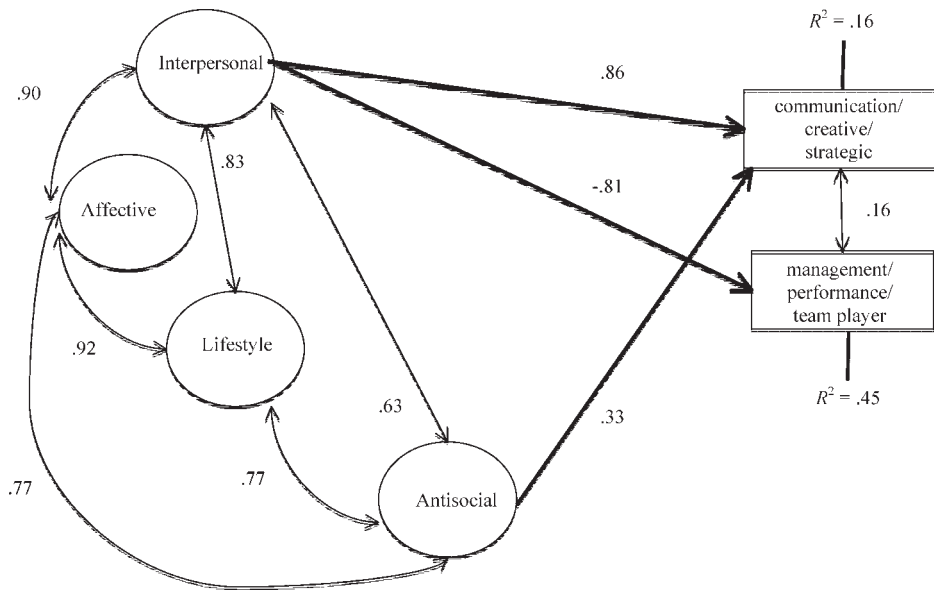


Figure 6. Structural equation model: PCL-R latent factors predicting performance composites. The values are standardized SEM coefficients.

Structural Equation Model Predicting Performance Composites

As indicated above, the variables that comprise the 360° assessments form two corporate-based performance factors or composites. The first composite (communication, creative/innovative, and strategic thinking) appears to reflect a *charisma/presentation style* factor, while the second composite (managing, team player, and performance) reflects a *responsibility/performance* factor. We used structural equation modeling (SEM), robust parameter estimation procedures, and the Mplus modeling program to examine how well the psychopathy factors predicted the two composites. As the standardized SEM coefficients in Figure 6 indicate, both the Interpersonal and Antisocial psychopathy factors predicted increased ratings on the charisma/presentation style composite (16% variance accounted for). Only the Interpersonal psychopathy factor predicted decreased ratings on the responsibility/performance composite (45% of variance accounted for).

DISCUSSION

The mean PCL-R and PCL: SV equivalent scores in this corporate sample were low. The mean PCL: SV equivalent score was similar to, but slightly lower than, the mean PCL: SV score in the MacArthur community sample. However, the corporate sample had more participants with high scores than did the community sample.

Psychopathy was not associated with any of the demographic variables (age, gender, education) in this study, or with whether or not an organization considered an individual a high potential candidate (which may be a reflection of the anti-discriminatory affirmative action efforts of the corporations studied). Interestingly, some with very high psychopathy

scores were high potential candidates and held senior management positions: vice-presidents, supervisors, directors. This provides support for the argument that some psychopathic individuals manage to achieve high corporate status (Babiak & Hare, 2006).

The confirmatory factor analysis indicated that the underlying latent structure of the PCL-R in our corporate sample was consistent with that found for the PCL-R and its derivatives in offender, psychiatric, and community samples. The latent dimensions and general nature of psychopathy thus appear to be much the same across a wide diversity of samples. In particular, the strong factor correlations among the psychopathy factors in this sample are consistent with previous research (Hare & Neumann, 2008; Neumann & Hare, 2008), which suggests that a second-order superordinate factor accounts for the strong first-order factor correlations. However, we require larger samples and replication before we can be confident that these conclusions also apply to the corporate world. Meanwhile, the available evidence indicates that psychopathy may be understood as a syndrome composed of all four psychopathy dimensions (Interpersonal, Affective, Lifestyle, Antisocial). While some individuals in the corporate world, as well as the general population, may display features of psychopathy (e.g., manipulative, cold and callous, irresponsible), these in themselves would not reflect the clinical construct of psychopathy. It is the combination of all four dimensions present at high levels, chronically over time, and in many contexts, that typifies the psychopathic individual. The present findings are also consistent with the view (Hare & Neumann, 2008) that antisociality is an integral part of the psychopathy construct. That is, most features of psychopathy, overt or covert, contain fundamental aspects of antisociality (e.g., deception and lying, callous and ruthless use of others, impulsive, reckless behavior, poor behavioral controls, early behavior problems). In this study, the Antisocial factor strongly correlated with the Interpersonal, Affective, and Lifestyle factors, and was an integral part of a viable structural model, consistent with other research (e.g., Neumann & Hare, 2008; Neumann et al., 2007a, 2006).

Perhaps the most dramatic results of this study had to do with how the corporation viewed individuals with many psychopathic traits. That is, high psychopathy total scores were associated with perceptions of good communication skills, strategic thinking, and creative/innovative ability and, at the same time, with poor management style, failure to act as a team player, and poor performance appraisals (as rated by their immediate bosses). These latter associations were rather strong. It is noteworthy that, in general, each psychopathy factor contributed to the zero-order correlations with the 360° assessments and performance appraisals. However, the results of the structural equation model (which accounted for the shared variance among the factors) indicated that only the latent Interpersonal psychopathy factor strongly predicted both increased ratings on the charisma/presentation composite and decreased ratings on the responsibility/performance composite. The latent Antisocial factor moderately predicted only increased ratings on the charisma/presentation composite (considered valuable assets in high-level executives), perhaps indicating that in the presence of charm and charisma a failure to adhere to rules can impress others.

The finding that the Antisocial factor did not predict the responsibility/performance composite may seem inconsistent with the significant zero-order correlations between this factor and the variables that make up the responsibility/performance composite. However, these zero-order correlations all become nonsignificant when taking into account the shared variance among the Antisocial, Interpersonal, Affective, and Lifestyle factors. Thus, by taking into account the latent relationships among the

psychopathy factors (or similarly the overlap among the factors at the manifest variable level), only the Interpersonal psychopathy factor has a specific and incremental effect on the responsibility/performance composite.

To the extent that our latent variable findings parallel research with other types of sample, we might expect that the relations between the psychopathy factors and external correlates would also hold across samples. Interestingly, previous research has found a positive association between the Interpersonal psychopathy factor and intelligence in psychiatric patients (Vitacco, Neumann, & Jackson, 2005), criminal offenders (Vitacco, Neumann, & Wodushek, 2008), and juvenile delinquents (Salekin, Neumann, Leistico, & Zalot, 2004). In a similar fashion, the current study found that the Interpersonal psychopathy factor predicted increased charisma/perception ratings, suggesting that this particular factor is linked with the ability and intelligence to manipulate and con others.

Although the companies that took part in this study had various procedures in place to “raise a red flag” and to deal with problematic employees, including psychopathic ones, not all were being used effectively (as reported by some observers who provided data for this study). While data collection was underway, two individuals from this sample were terminated for performance that was “below” and “far below” expectations; neither had scored high on the PCL-R. An additional two individuals, both scoring high on the PCL-R, were disciplined and placed on probationary review, one for conflict with his boss and the other for poor technical performance. Although still employed at the time, these latter two individuals initiated legal action against their respective companies, the outcomes of which are unknown.

Although executives with many psychopathic traits may be visible to various members of the organization, and identifiable with existing mechanisms, they may have the communication, persuasion, and interpersonal skills to override any negative impact on their career (cf., Cleckley, 1976). For example, our finding that some companies viewed psychopathic executives as having leadership potential, despite having negative performance reviews and low ratings on leadership and management by subordinates, is evidence of the ability of these individuals to manipulate decision makers. Their excellent communication and convincing lying skills, which together would have made them attractive hiring candidates in the first place, apparently continued to serve them well in furthering their careers.

Unfortunately, not every company uses its existing performance management systems efficiently to deal with problematic performance. This issue is becoming more prevalent as companies begin to discount, or outright jettison, such mechanisms, now viewing them as too inhibiting of the creativity and innovation required for success in today’s fast-paced, highly competitive business environment. It would be interesting to determine how “successful” (that is, creative/innovative) psychopathic executives and managers will be in the future, as less structured and less regulated models of management become the norm.

The persona of the high potential or “ideal leader” is an often amorphous and hard to define concept, and executives tend to rely on “gut feel” to judge such a complex attribute. Unfortunately, once decision makers believe that an individual has “future leader” potential, even bad performance reviews or evaluations from subordinates and peers do not seem to be able to shake their belief. It is easy to mistake psychopathic traits for specific leadership traits. For example, charm and grandiosity can be mistaken for self-confidence or a charismatic leadership style; likewise, good presentation,

communications, and impression management skills reinforce the same picture. The psychopath's ability to manipulate can look like good influence and persuasion skills, the mark of an effective leader. Lack of realistic life goals, while a clearly negative trait which often leads the psychopath toward a downward spiraling personal life, when couched in the appropriate business language, can be misinterpreted as strategic thinking or "visioning," a rare and highly valued executive talent. Even those traits that reflect a severe lack of human feelings or emotional poverty (lack of remorse, guilt, empathy) can be put into service by corporate psychopaths, where being "tough" or "strong" (making hard, unpopular decisions) or "cool under fire" (not displaying emotions in the face of unpleasant circumstances) can work in their favor. In sum, the very skills that make the psychopath so unpleasant (and sometimes abusive) in society can facilitate a career in business even in the face of negative performance ratings.

There were several limitations to this study. Only one rater scored the PCL-R, raising the possibility of rater bias. Given the context of the project, it was not possible to have a second rater. However, the rater had access to a considerable amount of information over extended periods, in some cases up to two years. He also consulted, where necessary, with the third author and with an industrial/organizational psychologist trained in the use of the PCL-R.

Another limitation of this study is that the participants were not a random selection of corporate executives in general. This is a common problem for those attempting to conduct research in this area. That is, few corporations are willing to expose themselves to outside scrutiny. Because of organizational/cultural factors designed to protect them from embarrassing revelations about their employees, companies typically erect barriers to systematic, controlled research, or set strict limitations on the use of any findings. This was the case in the present study. The companies we studied commonly held beliefs such as, "it can't happen here," and "we don't air our dirty laundry." Although they recognized that a study of problematic employee behavior could be useful, they had many concerns about the implications for them of research conducted by an "outsider." It was only after the establishment of a trusting, professional relationship that the companies allowed the research to proceed. We can say that the current sample was reasonably representative of corporate personnel considered for management development, but that the extent to which our findings will generalize to other corporate contexts and populations is a matter for future research.

Although the PCL-R was the instrument of choice in this study, the use of the PCL: SV (rather than "PCL: SV equivalents") would facilitate direct comparisons with community and other non-forensic samples. At the same time, it is possible that use of instruments specifically designed for business use, such as the *B-Scan* (Babiak & Hare, in press), will prove useful in understanding how psychopathic strategies and tactics play out in the corporate world. For example, most companies consider dressing down a subordinate in the presence of others, or making verbal threats, to be examples of very poor management style. Yet, many companies (including those in the present study) often tolerate such behaviors, even when they are documented in 360° assessments. Although our results suggest that it is the more psychopathic individuals who get away with problematic behaviors, we would benefit from systematic research on the dynamics of their interactions with others and their impression management techniques, as well as detailed information on the corporate and coworker characteristics that make them easy to deceive and manipulate.

In conclusion, results provide evidence that a high level of psychopathic traits does not necessarily impede progress and advancement in corporate organizations (cf., Babiak & Hare, 2006). Most of the participants with high psychopathy scores held high-ranking executive positions, and their companies had invited them to participate in management development programs. This was in spite of negative performance reviews and other 360° data that were in the hands of corporate decision makers. Overall, the patterns of correlations and plots suggest that psychopathy is more strongly associated with style than with substance. Presumably, impression management and the ability to present well can obscure or trump subpar performance and behaviors that are damaging to the organization. In this sense, the devil is in the details. Better vetting procedures and the use of instruments designed to assess psychopathic and other problematical traits (Babiak & Hare, *in press*) may help prevent those who excel at “talking the walk” from sliding into the pre-management ranks. Even so, it is likely that sour cream will continue to rise to the top.

REFERENCES

- Babiak, P. (1995). When psychopaths go to work: A case study of an industrial psychopath. *Applied Psychology: An International Review*, 44, 171–188.
- Babiak, P. (2000). Psychopathic manipulation at work. In C. B. Gacono (Ed.), *The clinical and forensic assessment of psychopathy: A practitioner's guide* (pp. 287–311). Mahwah, NJ: Erlbaum.
- Babiak, P. (2007). From darkness into the light: Psychopathy in industrial and organizational psychology. In H. Hervé, & J. C. Yuille (Eds.), *The psychopath: Theory, research, and practice* (pp. 411–428). Mahwah, NJ: Erlbaum.
- Babiak, P., & Hare, R. D. (2006). *Snakes in suits: When psychopaths go to work*. New York: HarperCollins.
- Babiak, P., & Hare, R. D. (*in press*). *The B-Scan 360 manual*. Toronto, ON: Multi-Health Systems.
- Bandalos, D. L. (2002). The effects of item parceling on goodness-of-fit and parameter bias in structural equation modeling. *Structural Equation Modeling*, 9, 78–102.
- Barrick, M. R., Stewart, G. L., Neubert, M. J., & Mount, M. K. (1998). Relating member ability and personality to work-team processes and team effectiveness. *Journal of Applied Psychology*, 83, 377–391.
- Cleckley, H. M. (1976). *The mask of sanity* (5th ed.). St. Louis, MO: Mosby.
- Coid, J., Yang, M., Ullrich, S., Roberts, A., & Hare, R. D. (2009). Prevalence and correlates of psychopathic traits in the household population of Great Britain. *International Journal of Law and Psychiatry*, 32, 65–73.
- Cooke, D. J., Michie, C., Hart, S. D., & Hare, R. D. (1999). Evaluating the Screening Version of the Hare Psychopathy Checklist—Revised (PCL:SV): An item response theory analysis. *Psychological Assessment*, 11, 3–13.
- De Oliveira-Souza, R., Ignácio, F. A., Moll, J., & Hare, R. D. (2008). Psychopathy in a civil psychiatric outpatient sample. *Criminal Justice and Behavior*, 35, 427–437.
- Driskell, J. E., Hogan, R. T., & Salas, E. (1987). Personality and group performance. In C. Hendrick (Ed.), *Personality and social psychology review* (pp. 92–112). Palo Alto, CA: Sage.
- Drucker, P. F. (2006). *The practice of management*. New York: Harper.
- Ghiselli, E. E., & Barthol, R. P. (1953). The validity of personality inventories in the selection of employees. *Journal of Applied Psychology*, 37, 18–20.
- Guay, J. P., Ruscio, J., Knight, R. A., & Hare, R. D. (2007). A taxometric analysis of the latent structure of psychopathy: Evidence for dimensionality. *Journal of Abnormal Psychology*, 116, 701–716.
- Gustafson, S. B. (2000). Personality and organizational destructiveness: Fact, fiction, and fable. In L. R. Bergman, R. B. Cairns, L. Nilsson, & L. Nystedt (Eds.), *Developmental science and the holistic approach* (pp. 299–314). Mahwah, NJ: Erlbaum.
- Gustafson, S. B., & Ritzer, D. R. (1995). The dark side of normal: A psychopathy-linked pattern called aberrant self-promotion. *European Journal of Personality*, 9, 147–183.
- Guy, L. S., & Douglas, K. S. (2006). Examining the utility of the PCL:SV as a screening measure using competing factor models of psychopathy. *Psychological Assessment*, 18, 225–230.
- Hare, R. D. (1999). *Without conscience: The disturbing world of the psychopaths among us*. New York: Guilford.
- Hare, R. D. (2002). *The predators among us*. Keynote address. Canadian Police Association Annual General Meeting, St. John's, Newfoundland and Labrador, August 27, 2002.
- Hare, R. D. (2003). *Manual for the Revised Psychopathy Checklist* (2nd ed.). Toronto, ON: Multi-Health Systems.
- Hare, R. D. (2007). Psychological Instruments in the Assessment of Psychopathy. In A. R. Felthous, & H. Sass (Eds.), *International handbook on psychopathic disorders and the law* (pp. 41–67). New York: Wiley.

- Hare, R. D., & Neumann, C. S. (2006). The PCL-R assessment of psychopathy: Development, structural properties, and new directions. In C. J. Patrick (Ed.), *Handbook of psychopathy* (pp. 58–88). New York: Guilford.
- Hare, R. D., & Neumann, C. S. (2008). Psychopathy as a clinical and empirical construct. *Annual Review of Clinical Psychology*, 4, 217–246.
- Hare, R. D., & Neumann, C. S. (2009). Psychopathy: Assessment and forensic implications. *Canadian Journal of Psychiatry*, 54, 791–802.
- Hare, R. D., & Neumann, C. S. (in press). The role of antisociality in the psychopathy construct: Comment on Skeem & Cooke. *Psychological Assessment*.
- Hart, S. D., Cox, D. N., & Hare, R. D. (1995). *Manual for the Psychopathy Checklist: Screening Version (PCL:SV)*. Toronto, ON: Multi-Health Systems.
- Hogan, J., & Hogan, R. (1989). How to measure employee reliability. *Journal of Applied Psychology*, 74, 273–279.
- Hogan, R. (2004). Personality psychology for organizational researchers. In B. Schneider, & D. B. Smith (Eds.), *Personality and organizations* (pp. 3–24). Mahwah, NJ: Erlbaum.
- Hogan, R. (2005). In defense of personality measurement: New wine for old whiners. *Human Performance*, 18, 331–341.
- Hogan, R. T. (2007). *Personality and the fate of organizations*. Mahwah, NJ: Erlbaum.
- Hogan, R., Raskin, R., & Fazzini, D. (1990). The dark side of charisma. In K. E. Clark, & M. B. Clark (Eds.), *Measures of leadership* (pp. 343–354). West Orange, NJ: Leadership Library of America.
- Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3, 424–453.
- Judge, T. A., Bono, J. E., Ilies, R., & Gerhardt, M. W. (2002). Personality and leadership. *Journal of Applied Psychology*, 87, 765–780.
- Kets de Vries, M. F. R., & Miller, D. (1984). *The neurotic organization: Diagnosing and changing counterproductive styles of management*. San Francisco, CA: Jossey-Bass.
- Kets de Vries, M. F. R., & Miller, D. (1985). Narcissism and leadership: An object relations perspective. *Human Relations*, 38, 583–601.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the questions, weighting the merits. *Structural Equation Modeling*, 9, 151–173.
- Lowman, R. (1989). *Pre-employment screen for psychopathy: A guide to professional practice*. Sarasota, FL: Professional Resource Exchange.
- Monahan, J., Steadman, H. J., Appelbaum, P. S., Robbins, P. C., Mulvey, E. P., Silver, E., Roth, L. H., & Grisso, T. (2000). Developing a clinically useful actuarial tool for assessing violence risk. *British Journal of Psychiatry*, 176, 312–319.
- Muthén, L. K., & Muthén, B. O. (1998–2001). *Mplus [computer software]*. Los Angeles, CA: Muthén and Muthén.
- Neumann, C. S. (2007). Psychopathy. *British Journal of Psychiatry*, 191, 357–358.
- Neumann, C. S., & Hare, R. D. (2008). Psychopathic traits in a large community sample: Links to violence, alcohol use, and intelligence. *Journal of Consulting and Clinical Psychology*, 76, 893–899.
- Neumann, C. S., Hare, R. D., & Newman, J. P. (2007a). The super-ordinate nature of the Psychopathy Checklist—Revised. *Journal of Personality Disorders*, 21, 102–107.
- Neumann, C. S., Kosson, D. S., Forth, A. E., & Hare, R. D. (2006). Factor structure of the Hare Psychopathy Checklist: Youth Version in incarcerated adolescents. *Psychological Assessment*, 18, 142–154.
- Neumann, C. S., Kosson, D. S., & Salekin, R. T. (2007b). Exploratory and confirmatory factor analysis of the psychopathy construct: Methodological and conceptual issues. In H. Hervé, & J. Yuille (Eds.), *The psychopath: Theory, research, and practice* (pp. 79–104). Mahwah, NJ: Erlbaum.
- Person, E. S. (1986). Manipulativeness in entrepreneurs and psychopaths. In W. H. Reid, D. Dorr, J. I. Walker, & J. W. Bonner (Eds.), *Unmasking the psychopath: Antisocial personality and related syndromes* (pp. 256–274). New York: Norton.
- Peterson, R. S., Smith, D. B., Martorana, P. V., & Owens, P. D. (2003). The impact of chief executive officer personality on top management team dynamics. *Journal of Applied Psychology*, 88, 795–808.
- PriceWaterhouseCoopers. (2008). *The 4th biennial Global Economic Crime Survey*. Author. Retrieved from www.pwc.com/crimesurvey [December 15, 2009].
- Salekin, R. T., Neumann, C. S., Leistico, A. M., & Zalot, A. A. (2004). Psychopathy in youth and intelligence: An investigation of Cleckley's Hypothesis. *Journal of Clinical Child and Adolescent Psychology*, 33, 731–742.
- Vitacco, M. J., Neumann, C. S., & Jackson, R. L. (2005). Testing a four-factor model of psychopathy and its association with ethnicity, gender, intelligence, and violence. *Journal of Consulting and Clinical Psychology*, 73, 466–476.
- Vitacco, M. J., Neumann, C. S., & Woduschek, T. (2008). Differential relationships between the dimensions of psychopathy and intelligence: Replication in an adult offender sample. *Criminal Justice and Behavior*, 35, 48–55.
- Walters, G. D., Gray, N. S., Jackson, R. L., Sewell, K. W., Rogers, R., Taylor, J., & Snowden, R. J. (2007). A taxometric analysis of the Psychopathy Checklist: Screening Version (PCL:SV): Further evidence of dimensionality. *Psychological Assessment*, 19, 330–339.