



IE UNIVERSIDAD

TESIS DOCTORAL/ DOCTORAL DISSERTATION

Desarrollo y resultados del Coaching Ejecutivo y de los
Líderes del Cambio Estratégico: Catalizador, Placebo u
Obstáculo?/ Executive Coaching and Strategic Change
Leaders' Development and Outcomes: Catalyst,
Placebo, or Hindrance?

Rodney Allen McCowan

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ABSTRACT

Organizations increasingly engage executive coaches to help leaders develop capabilities necessary to achieve strategic change outcomes. A review of the strategic change, strategic leadership, and executive coaching literature reveals the relationship between coaching and strategic change leader development remains unexplored in academic research. On the one hand, researchers of strategic change have not explored how organizations develop those charged with leading strategic change. On the other, researchers of strategic leadership and executive coaching have not examined the relationship between executive coaching and the development and outcomes of strategic change leaders. This study investigates the relationship between executive coaching and strategic change leader development of transformational leadership capabilities (TLC), as measured by an adapted version of the Transformational Leadership Questionnaire (TLQ), and readiness for change, as measured by the Holt Readiness for Change Scale. It also explores the effect of executive coaching on an important proximate strategic change outcome: readiness for change of strategic change leaders' direct reports (subordinates). With repeated measures MANCOVA, I analyzed multi-rater data collected before and after 18 strategic change leaders received seven months of executive coaching. Those leaders were chosen to manage the enterprise-wide digital transformation of a \$24 billion revenue, 100,000+ employee company. A comparison group of 22 executives participated in pretest-posttest data collection. The results suggest executive coaching positively affects both strategic change leaders' development of TLC, as assessed by their 360-degree stakeholders, and their readiness for change. Moreover, biweekly coaching sessions, as opposed to more frequent ones, and supplemental leadership development activities, such as participation on change

acceleration teams, appear to amplify these outcomes. Executive coaching, however, did not have a statistically significant effect on strategic change leaders' self-ratings of their development of TLC. It also appears to have had an adverse effect on the readiness for change of their direct reports.

DEDICATION

With eternal gratitude, I dedicate this doctoral dissertation to my mother. She had resolute faith in my potential long before there was any evidence to justify it, and long before I came to believe in it myself. She drilled into me the importance and transformative power of higher education even though we lived in communities where few had been or hoped to go to college, and no one in our family had ever had the chance to do so. Throughout my life, she has been a steadfast and exemplary model of determination, grit, resilience, faith, and perseverance. Time and time again, I watched and was inspired by the way she bravely navigated and ultimately transcended trials and tribulations that would have crushed those of lesser strength and spirit. She is and has always been my heroine and guardian angel.

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NOTATION

1- β err prob	Measure of statistical power, the power of not making a Type II error
α	Measure of internal consistency based on the formula $\alpha = rk/[1+(k - 1)r]$, where k is the number of variables in the analysis and r is the mean of the inter-item correlations
χ^2	Chi square goodness of fit statistic
AIC	Akaike Information Criterion
Box's M	Measure of multivariate normality based on the similarities of determinants of the covariance matrices for two or more groups
CFI	Comparative Fit Index
<i>Df</i>	Degrees of freedom
<i>F</i>	F-ratio, the between-groups mean square divided by the within-groups mean square
H_1	Hypothesis #1
H_2	Hypothesis #2
H_3	Hypothesis #3
H_4	Hypothesis #4
M_{adj}	Adjusted mean
n	Size of a sample
DV	Dependent Variable
IV	Independent Variable
p	Estimate of the probability for a test of a hypothesis
partial η^2	Proportion of the variance in the dependent variable accounted for by the independent variable
RMSEA	Root Mean Square Error of Approximation
<i>SE</i>	Standard error
SRMR	Standardized Square Root Mean Residual
TLI	Tucker Lewis Index
VIF	Variance Inflation Factor, measure of the amount of multicollinearity
Wilks' Λ	Ratio of the within-groups sum of squares to the total sum of squares, the proportion of the total variance in the discriminant scores not explained by differences among groups

LIST OF ABBREVIATIONS

360-degree	A composite measure of informant's reports or ratings, including aggregated feedback from strategic change leaders' supervisors, peers, and direct reports (subordinates)
A-DR	Appropriateness-Direct Ratings/Reports
A-SR	Appropriateness-Self Ratings/Reports
ANCOVA	Analysis of Covariance
ATCOACHEE ...	Acceleration Team Coachee (a composite measure of the ratings of executives who received executive coaching and also participated on strategic change acceleration teams, an additional leadership development activity)
BSV-360	Building Shared Values-360-degree Reports
BSV-SR	Building Shared Values-Self Ratings/Reports
C-Suite	Chief executive suite (a firm's top team of executives, including the chief executive officer and all other senior executives officers who report to the chief executive officer)
CE-SR	Change Efficacy-Self Ratings/Reports
CEO	Chief Executive Officer
CEST	Cognitive-Experiential Self Theory
CFA	Confirmatory Factor Analysis
CHRO	Chief Human Resources Officer
CLO	Chief Learning Officer
COACHSES	Coaching Sessions (a composite measure of the number of coaching sessions executives completed)
COO	Chief Operating Officer
EC-360	Encouraging Change-360-degree Reports
EC-SR	Encouraging Change-Self Ratings/Reports
EFA	Exploratory Factor Analysis
FCS-360	Facilitating Change Sensitively-360-degree Reports
FCS-SR	Facilitating Change Sensitively-Self Rating/Reports
FLRM	Full Range Leadership Model
FTE-360	Focusing Team Effort-360-degree Reports
FTE-SR	Focusing Team Effort-Self Rating/Reports
GAS	Goal Attainment Scaling
HR	Human Resources
L&LD	Leader and Leadership Development
MANCOVA	Multivariate Analysis of Covariance
MLQ-360	Multifactor Leadership Questionnaire
MS-DR	Management Support-Direct Reports
MS-SR	Management Support-Self Ratings/Reports
PB-DR	Personally Beneficial-Direct Reports
PB-SR	Personally Beneficial-Self Ratings/Reports
RCP-360	Resolving Complex Problems-360-degree Reports
RCP-SR	Resolving Complex Problems-Self Rating/Reports
RFC	Readiness for Change
RFC-SR	Readiness for Change-Self Ratings/Reports
RFC-DR	Readiness for Change-Direct Reports (subordinates)
SLC	Strategic Change Leader(s)
TLC	Transformation Leadership Capabilities
TLC-360	Transformation Leadership Capabilities-360 (a composite measure of informant ratings/reports including strategic change leaders' supervisors, peers, and direct reports [subordinates])

TLC-SR Transformation Leadership Capabilities-Self Ratings/Reports
TLQ Transformational Leadership Questionnaire
WWBI Workplace Well-Being Index

CHAPTER 1

INTRODUCTION

Strategic change leaders are typically responsible for achieving change-related outcomes (e.g., innovation and growth) that could determine the fate of their organizations (Day, Zaccaro, & Klimoski, 2001; DeRue & Myers, 2014; Hughes, 2016). Despite how frequently they are undertaken and how heavily organizations depend on them, 70% of strategic change (i.e., planned organizational change) efforts fail (Armenakis & Harris, 2009; Beer, Eisenstat, & Spector, 1990; Beer & Nohria, 2000; Keller & Price, 2011; Kotter, 1995). Organizations increasingly engage executive coaches to improve their odds of success. By helping strategic change leaders (i.e., top managers charged with leading strategic change) develop the capabilities necessary to improve their performance, executive coaches might help organizations achieve desired change outcomes (Day, Fleenor, Atwater, Sturm, & McKee, 2014; DeRue & Myers, 2014). Despite the growth of executive coaching into a multi-billion-dollar global industry, there is currently no single theory in the literature that provides a sufficient rationale to support the assumption that executive coaching positively affects strategic change leader development and outcomes (Battilana, Gilmartin, Sengul, Pache, & Alexander, 2010; Boal & Hooijberg, 2001; Burke, 2013; Burke, Lake, & Paine, 2008; Song, 2009; Weiner, 2009; Yukl, 2008). Nevertheless, escalating competitive factors have heightened the need for and frequency of organizations' strategic change efforts (Armenakis & Harris, 2009; Barney, 1986; D'Aveni, 1999; Gersick, 1991; Gilley, Gilley, & McMillan, 2009; Hughes, 2016; Nelson & Winter, 1974; Nelson, Winter, & Schuette, 1976; Peng, 2001; Polowczyk, 2012; Schumpeter, 1950; Tushman & Anderson, 1986; Tushman, Anderson, & O'Reilly, 1997; Utterback, 1987), and spurred their use of executive

coaching to develop the leaders they need to guide them (Grant, Passmore, Cavanagh, Parker, 2010). Thus, there is both a growing demand for effective strategic change leaders, and an urgent—but unmet—need for theoretical and empirical research to determine if executive coaching helps produce them (Sherman & Freas, 2004).

Previous studies on strategic change, strategic leadership, and executive coaching provide little evidence if executive coaching affects strategic change leader development and outcomes. Literature on strategic change and strategic leadership are certainly well established, but studies on strategic change leadership and executive coaching are only slowly emerging and not at the scale necessary, given the importance of these phenomena. On the one hand, research on strategic change has not explored how organizations develop strategic change leaders. On the other hand, research on strategic leadership and executive coaching has not directly examined the relationship between executive coaching and strategic change leader development and outcomes. Moreover, there is no peer-reviewed, cross-disciplinary research linking the aforementioned research topics and exploring the relationship between executive coaching and strategic change leader development. In fact, only one peer-reviewed study, Grant (2014), even begins to touch on the relationship between executive coaching and strategic change leader development and outcomes.

To address these gaps, I investigated the relationship between executive coaching and strategic change leaders' development of TLC, as measured by an adapted version of the TLQ, and readiness for change, as measured by Holt's Readiness for Change Scale. I also explored the effect of executive coaching on an

important proximate strategic change outcome: readiness for change of strategic change leaders' direct reports (subordinates).

First, I combined Rajagopalan and Spreitzer's (1996) multi-lens framework for strategic change and Zaccaro and Klimoski's (2002) framework for executive performance imperatives and effectiveness, creating a novel, integrated, cross-disciplinary theory of strategic change leader performance imperatives and outcomes. The integrated theory holds that (a) managerial cognitions and actions predict proximate and distal strategic change outcomes (Rajagopalan & Spreitzer, 1996), and (b) that strategic change leaders use their cognitions and actions to interpret and meet the performance imperatives prescribed by the strategic change context in which they operate Zaccaro and Klimoski, (2002). Review of the extant literature revealed the absence of such a theory (Battilana et al., 2010; Boal & Hooijberg, 2001; Burke, 2013; Burke et al., 2008; Song, 2009; Weiner, 2009; Yukl, 2008).

Second, building upon this new integrated theoretical framework, I conducted a study that utilized a quasi-experimental, nonequivalent groups research design to address hypotheses regarding the effects of executive coaching on strategic change leader development of TLC and readiness for change, and on the readiness for change of those leaders' direct reports, an important proximate strategic change outcome. Third, using repeated measures MANCOVA (Multivariate Analysis of Covariance), I analyzed multi-rater data collected before and after 18 strategic change leaders received 7 months of executive coaching. Those leaders were chosen to manage the enterprise-wide digital transformation of a \$24 billion revenue, 100,000+ employee company. A comparison group of 22 executives participated in pretest-posttest data collection, for which I used two well-validated instruments from

the extant literature: an adapted version of the TLQ (Transformational Leadership Questionnaire, Alban-Metcalfe and Alimo-Metcalfe, 2001) and the Holt Readiness for Change scale (Holt, Armenakis, Feild, & Harris 2007).

The results of my research suggest executive coaching positively affects both strategic change leaders' development of TLC, as assessed by their 360-degree stakeholders, and readiness for change as assessed by self-report. Moreover, biweekly coaching sessions, as opposed to more frequent ones, and supplemental leadership development activities, such as participation with change acceleration teams, appear to amplify these outcomes. Executive coaching, however, did not positively affect strategic change leaders' self-ratings of their development of TLC, and moreover, coaching appears to have had an adverse effect on the readiness for change of their direct reports.

This study contributes to the fields of strategic change, strategic leadership, and executive coaching in three ways. First, it constitutes the first theoretically grounded, empirical test of the hypothesized relationship between executive coaching and the development of strategic change leaders' TLC. It also constitutes the first analysis of the hypothesized relationships between executive coaching and both strategic change leaders' readiness for change, and the readiness for change of strategic change leaders' executive teams (i.e., direct reports/subordinates), an important proximate strategic change outcome.

Second, the integrated, cross-disciplinary theory of strategic change leader performance imperatives and outcomes underlying this study links two well-established theories and two bodies of literature into a novel theoretical foundation for future research. My results provide initial evidence of the value of this integrated, cross-disciplinary theory, and they suggest the theory might be generalizable beyond

strategic change to other important strategic change leader performance domains and related firm-level outcomes (e.g., innovation, corporate social responsibility, and diversity and inclusion).

Third, my results have practical implications for the various stakeholders typically involved in executive coaching interventions. Firms may be able to improve their ability to conduct strategic change using the theory of strategic change leader performance imperatives and outcomes underlying this study. Specifically, this work can be applied to improve firms' selection, development, and evaluation of strategic change leaders. Executive coaches could use the results to hone and strengthen their coaching of strategic change leaders and to help those leaders achieve important developmental and organizational change-related outcomes more effectively and efficiently. Finally, consumers of executive coaching (e.g., boards, CEOs, chief human resource officers, chief learning officers, and global executive coaching heads) might use this research to better select and evaluate executive coaching services and to make better purchase decisions (Kauffman, Russell, & Bush, 2008; Walker-Fraser, 2011).

Chapter 2 reviews the literature regarding strategic change, strategic leadership, and executive coaching as they relate to both the phenomenon of strategic leadership of strategic change and the relationship between executive coaching and strategic change leader development. Chapter 3 presents an integrated, cross-disciplinary, and multi-dimensional theory of strategic change leader performance imperatives and outcomes, and discusses the hypotheses I used to test the relationships between executive coaching and strategic change leaders' development of TLC and readiness for change. The methods I used to conduct this study are described in Chapter 4 and the empirical results are summarized in

Chapter 5. I discuss those results in Chapter 6, including discussions of this study's contributions and limitations. Chapter 7 presents my final conclusions.

CAPÍTULO 1

INTRODUCCION (SPANISH)

Los líderes de cambio estratégico son típicamente responsables de lograr resultados relacionados con el cambio (por ejemplo, innovación y crecimiento) que podrían determinar el destino de sus organizaciones (Day, Zaccaro y Klimoski, 2001; DeRue y Myers, 2014; Hughes, 2016). A pesar de la frecuencia con la que se llevan a cabo y de lo mucho que las organizaciones dependen de ellas, el 70% de los esfuerzos de cambio estratégico (es decir, de cambio organizativo planificado) fracasan (Armenakis & Harris, 2009; Beer, Eisenstat, & Spector, 1990; Beer & Nohria, 2000; Keller & Price, 2011; Kotter, 1995). Las organizaciones contratan cada vez más a coaches ejecutivos para mejorar sus probabilidades de éxito. Al ayudar a los líderes de cambio estratégico (es decir, a los altos directivos encargados de liderar el cambio estratégico) a desarrollar las capacidades necesarias para mejorar su rendimiento, los coaches ejecutivos pueden ayudar a las organizaciones a lograr los resultados de cambio deseados (Day, Fleenor, Atwater, Sturm y McKee, 2014; DeRue y Myers, 2014). A pesar del crecimiento del coaching ejecutivo en una industria global multimillonaria, actualmente no hay una sola teoría en la literatura que proporcione un fundamento suficiente para apoyar la suposición de que el coaching ejecutivo afecta positivamente el desarrollo y los resultados de los líderes del cambio estratégico (Battilana, Gilmartin, Sengul, Pache y Alexander, 2010; Boal y Hooijberg, 2001; Burke, 2013; Burke, Lake y Paine, 2008; Song, 2009; Weiner, 2009; Yukl, 2008). Sin embargo, la escalada de los factores competitivos ha aumentado la necesidad y la frecuencia de los esfuerzos de cambio estratégico de las organizaciones (Armenakis y Harris, 2009; Barney, 1986; D'Aveni, 1999; Gersick, 1991; Gilley, Gilley y McMillan, 2009; Hughes, 2016; Nelson e Winter, 1974;

Nelson, Winter y Schuette, 1976; Peng, 2001; Polowczyk, 2012; Schumpeter, 1950; Tushman y Anderson, 1986; Tushman, Anderson y O'Reilly, 1997; Utterback, 1987), e impulsaron el uso del coaching ejecutivo para desarrollar los líderes que necesitan para guiarlos (Grant, Passmore, Cavanagh, Parker, 2010). Por lo tanto, existe tanto una creciente demanda de líderes de cambio estratégico efectivos, como una urgente -pero insatisfecha- necesidad de investigación teórica y empírica para determinar si el coaching ejecutivo ayuda a producirlos (Sherman & Freas, 2004).

Estudios previos sobre el cambio estratégico, el liderazgo estratégico y el coaching ejecutivo proporcionan poca evidencia de si el coaching ejecutivo afecta el desarrollo y los resultados del líder de cambio estratégico. La literatura sobre el cambio estratégico y el liderazgo estratégico está ciertamente bien establecida, pero los estudios sobre el liderazgo del cambio estratégico y el coaching ejecutivo sólo están emergiendo lentamente y no a la escala necesaria, dada la importancia de estos fenómenos. Por un lado, la investigación sobre el cambio estratégico no ha explorado cómo las organizaciones desarrollan líderes de cambio estratégico. Por otro lado, la investigación sobre el liderazgo estratégico y el coaching ejecutivo no ha examinado directamente la relación entre el coaching ejecutivo y el desarrollo y los resultados de los líderes del cambio estratégico. Además, no hay ninguna investigación interdisciplinaria revisada por pares que vincule los temas de investigación mencionados anteriormente y que explore la relación entre el coaching ejecutivo y el desarrollo de líderes de cambio estratégico. De hecho, sólo un estudio revisado por pares, Grant (2014), comienza a tocar la relación entre el coaching ejecutivo y el desarrollo y los resultados del líder de cambio estratégico.

Para abordar estas brechas, investigué la relación entre el coaching ejecutivo y el desarrollo de líderes de cambio estratégico de TLC, medido por una

versión adaptada de la TLQ, y la preparación para el cambio, medido por la Escala de Preparación para el Cambio de Holt. También exploré el efecto del coaching ejecutivo en un importante resultado próximo al cambio estratégico: la preparación para el cambio de los informes directos de los líderes del cambio estratégico (subordinados).

Primero, combiné el marco de lentes múltiples para el cambio estratégico de Rajagopalan y Spreitzer (1996) y el marco de Zaccaro y Klimoski (2002) para los imperativos del desempeño y la efectividad de los ejecutivos, creando una teoría novedosa, integrada y multidisciplinaria de los imperativos y resultados del desempeño de los líderes del cambio estratégico. La teoría integrada sostiene que (a) las cogniciones y acciones gerenciales predicen resultados de cambio estratégico próximos y distantes (Rajagopalan & Spreitzer, 1996), y (b) que los líderes de cambio estratégico usan sus cogniciones y acciones para interpretar y cumplir con los imperativos de desempeño prescritos por el contexto de cambio estratégico en el cual operan Zaccaro y Klimoski, (2002). La revisión de la literatura existente reveló la ausencia de tal teoría (Battilana et al., 2010; Boal & Hooijberg, 2001; Burke, 2013; Burke et al., 2008; Song, 2009; Weiner, 2009; Yukl, 2008).

En segundo lugar, construyendo sobre este nuevo marco teórico integrado, realicé un estudio que utilizó un diseño de investigación de grupos cuasi-experimental y no equivalente para abordar hipótesis sobre los efectos del coaching ejecutivo en el desarrollo de líderes de cambio estratégico de TLC y en la preparación para el cambio, y en la preparación para el cambio de los informes directos de esos líderes, un importante resultado de cambio estratégico próximo. Tercero, usando medidas repetidas MANCOVA (Análisis Multivariado de Covarianza), analicé los datos de calificadores múltiples recolectados antes y

después de que 18 líderes de cambio estratégico recibieran 7 meses de coaching ejecutivo. Esos líderes fueron elegidos para manejar la transformación digital de toda la empresa de una compañía de más de 100.000 empleados con ingresos de 24 mil millones de dólares. Un grupo de comparación de 22 ejecutivos participó en la recolección de datos antes y después de la prueba, para la cual utilicé dos instrumentos bien validados de la literatura existente: una versión adaptada del TLQ (Transformational Leadership Questionnaire, Alban-Metcalfe and Alimo-Metcalfe, 2001) y la escala de Holt Readiness for Change (Holt, Armenakis, Feild, & Harris 2007).

Los resultados de mi investigación sugieren que el entrenamiento ejecutivo afecta positivamente tanto al desarrollo de TLC por parte de los líderes de cambio estratégico, según la evaluación de sus grupos de interés de 360 grados, como a la preparación para el cambio según la evaluación de los autoinformes. Además, las sesiones quincenales de coaching, en lugar de las más frecuentes, y las actividades suplementarias de desarrollo del liderazgo, como la participación con equipos de aceleración del cambio, parecen amplificar estos resultados. El coaching ejecutivo, sin embargo, no afectó positivamente a las autocalificaciones de los líderes de cambio estratégico de su desarrollo de TLC y, además, el coaching parece haber tenido un efecto adverso sobre la preparación para el cambio de sus informes directos.

Este estudio contribuye a los campos del cambio estratégico, el liderazgo estratégico y el coaching ejecutivo de tres maneras. En primer lugar, constituye la primera prueba empírica teóricamente fundamentada de la relación hipotética entre el coaching ejecutivo y el desarrollo del TLC de los líderes del cambio estratégico. También constituye el primer análisis de las relaciones hipotéticas entre el coaching

ejecutivo y tanto la preparación para el cambio de los líderes del cambio estratégico, como la preparación para el cambio de los equipos ejecutivos de los líderes del cambio estratégico (es decir, los informes directos/subordinados), un importante resultado próximo del cambio estratégico.

En segundo lugar, la teoría integrada y transversal de los imperativos y resultados del desempeño de los líderes del cambio estratégico que subyace en este estudio vincula dos teorías bien establecidas y dos cuerpos de literatura en una base teórica novedosa para la investigación futura. Mis resultados proporcionan una evidencia inicial del valor de esta teoría integrada y multidisciplinar, y sugieren que la teoría podría ser generalizable más allá del cambio estratégico a otros dominios importantes del desempeño del líder del cambio estratégico y a los resultados relacionados a nivel de la empresa (por ejemplo, la innovación, la responsabilidad social corporativa y la diversidad e inclusión).

En tercer lugar, mis resultados tienen implicaciones prácticas para las diversas partes interesadas típicamente involucradas en las intervenciones de coaching ejecutivo. Las empresas pueden ser capaces de mejorar su capacidad para llevar a cabo el cambio estratégico utilizando la teoría de los imperativos y resultados del desempeño del líder del cambio estratégico que subyace en este estudio. Específicamente, este trabajo puede ser aplicado para mejorar la selección, desarrollo y evaluación de líderes de cambio estratégico en las empresas. Los coaches ejecutivos podrían utilizar los resultados para afinar y fortalecer su entrenamiento de líderes de cambio estratégico y ayudar a esos líderes a lograr importantes resultados de desarrollo y cambio organizacional de manera más efectiva y eficiente. Por último, los consumidores de coaching ejecutivo (por ejemplo, juntas directivas, directores generales, directores de recursos humanos,

directores de aprendizaje y jefes de coaching ejecutivo global) podrían utilizar esta investigación para seleccionar y evaluar mejor los servicios de coaching ejecutivo y tomar mejores decisiones de compra (Kauffman, Russell y Bush, 2008; Walker-Fraser, 2011).

En el capítulo 2 se revisa la literatura sobre el cambio estratégico, el liderazgo estratégico y el coaching ejecutivo en la medida en que se relacionan tanto con el fenómeno del liderazgo estratégico del cambio estratégico como con la relación entre el coaching ejecutivo y el desarrollo de líderes del cambio estratégico. El capítulo 3 presenta una teoría integrada, interdisciplinaria y multidimensional de los imperativos y resultados del desempeño del líder del cambio estratégico, y discute las hipótesis que utilicé para probar las relaciones entre el coaching ejecutivo y el desarrollo de líderes del cambio estratégico de TLC y la preparación para el cambio. Los métodos que utilicé para llevar a cabo este estudio se describen en el capítulo 4 y los resultados empíricos se resumen en el capítulo 5. Los resultados empíricos se resumen en el Capítulo 5. En el Capítulo 6 se discuten los resultados, incluyendo las contribuciones y limitaciones de este estudio. El Capítulo 7 presenta mis conclusiones finales.

CHAPTER 2

LITERATURE REVIEW

This study concerns the development of strategic leaders' (i.e., top managers) capabilities and performance related to the leadership of strategic change, a complex organizational phenomenon that sits at the nexus of many fields of research, including strategic change, strategic leadership, and executive coaching (Burke, 2013; García-Morales, Lloréns-Montes, & Verdú-Jover, 2008; House & Aditya, 1997). Strategic management researchers have long argued that firms are driven to pursue continuous strategic change (i.e., planned organizational change) due to factors like globalization, hyper-competition, continuous disruptive innovation, rapidly evolving technologies, accelerating business cycles, escalating stakeholder expectations, growing political and economic uncertainty, and the very nature of markets themselves (Armenakis & Harris, 2009; Barney, 1986; D'Aveni, 1999; Gersick, 1991; Gilley et al., 2009; Nelson & Winter, 1974; Nelson et al., 1976; Peng, 2001; Polowczyk, 2012; Schumpeter, 1950; Tushman & Anderson, 1986; Tushman et al., 1997; Utterback, 1987). Strategic change results from intentional efforts to adapt organizations relative to environmental stimuli, or planned attempts to implement strategic choice and modify the organization to better achieve specific desired organizational objectives (Gilley et al., 2009; Greenwood & Hinings, 1996; Kim, Horung, & Rousseau, 2011; Van De Ven & Poole, 1995).

Strategic Leadership of Strategic Change

Rajagopalan and Spreitzer (1996) recognized the particularly important role managerial cognitions play in strategic choice and organizational outcomes. Their framework (see Figure 1) provided a multi-dimensional (rational lens, cognitive lens, and learning lens) and multi-level (micro and macro) explanation of how individual-

level antecedent variables (e.g., managerial cognitions and actions) and organizational processes produce variance in strategic change outcomes. These outcomes include proximate outcomes such as changes in the content of strategy, and distal, firm-level strategic change outcomes such as innovation, growth, and improved financial performance (Rajagopalan & Spreitzer, 1996).

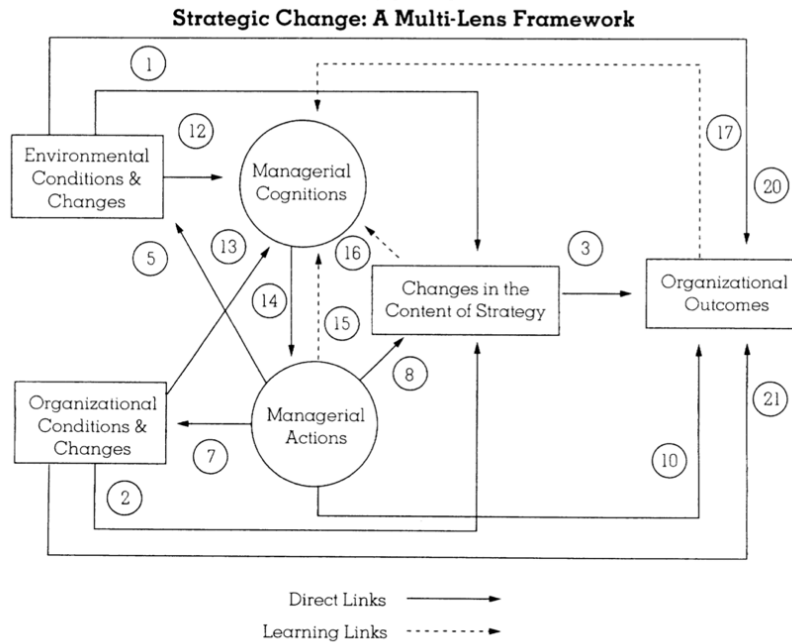


Figure 1. Strategic change: A multi-lens framework. Adapted from "Towards a theory of strategic change: a multi-lens perspective and integrative framework," by N. Rajagopalan & G. M. Spreitzer, 1996, Paper presented at the Academy of Management Proceedings.

Rajagopalan and Spreitzer (1996) and others (Hooijberg, Hunt, & Dodge, 1997; Zaccaro et al., 2013; Zaccaro & Klimoski, 2002) predicted that distal strategic change outcomes resulted from proximate individual-level antecedent variables—such as strategic change leaders’ cognitive, social, and behavioral capabilities—and proximate strategic change outcomes. Battilana and colleagues(2010) validated the hypothesis that there is a causal and idiosyncratic relationship between leadership competencies and planned organization change implementation outcomes. Their finding challenges the treatment of planned organizational change as a generic (i.e.,

non-idiosyncratic) relationship involving the routine application of leadership competencies to a routine set of change process activities. They provided further evidence for a positive relationship between strategic change leader attributes and capabilities, on the one hand, and strategic change outcomes, on the other.

However, they and other theorists of strategic change, including Rajagopalan and Spreitzer (1996), left open the task of developing and testing more detailed explanations of how these two constructs (strategic change leaders and strategic change outcomes) relate. The fundamental question remains how do strategic change leaders affect variance in strategic change outcomes through their cognitions and actions? More generally, researchers of strategic change have not explored how organizations develop such strategic change leaders. This neglect is a surprising omission considering how frequently strategic change efforts take place and how heavily organizations depend on them. As mentioned earlier, 70% of strategic change efforts are likely to fail, triggering nontrivial adverse consequences for all those involved (Armenakis & Harris, 2009; Beer et al., 1990; Beer & Nohria, 2000; Keller & Price, 2011; Kotter, 1995), and when they do, the failures are often interpreted as failures of change leadership.

Managerial practice suggests this view is widely shared, as when strategic change efforts fail, internal and external stakeholders (e.g., boards, investors, and employees) typically hold strategic change leaders accountable (Hughes, 2016). Organizational theorists generally share that view, or, at the very least, consider strategic leaders an essential variable in strategic change outcomes (Day et al., 2001; DeRue & Myers, 2014; Judge & Douglas, 2009). Strategic leadership theorists Zaccaro, LaPort, and José (2013) proposed an integrated, multi-level model of executive performance imperatives and effectiveness that accounts

simultaneously for the cognitive, social (i.e., interpersonal), and behavioral demands of senior executive leadership. Their model also posited that leader performance and organizational outcomes derived from such performance imperatives and demands.

Their model provided a compelling explanation as to precisely how executives meet the imperatives of strategic change (Zaccaro, 1996; Zaccaro & Klimoski, 2002). Zaccaro and Klimoski's (2002) model made an invaluable contribution to the field of strategic leadership research. It complemented Hambrick and Mason's (1984) "upper echelons perspective," (a seminal theory in the strategic leadership literature that linked individual top management team member demographic characteristics to firm outcomes). It did so by addressing that theory's black box of causality, namely its lack of an explanation as to precisely how strategic leaders achieve firm outcomes (Hambrick & Mason, 1984; Carpenter, Geletkanycz, & Sanders, 2004). It addressed this lack by providing a compelling explanation as to precisely how executives meet the imperatives of strategic change (Zaccaro, LaPort, & Jose, 2013). The model by Zaccaro and colleagues (2013) proposes that the contexts of leadership (e.g., the level of leadership [strategic vs middle or lower management] and the nature of leadership [e.g., routine management vs firm-level strategic change]) prescribe critical performance imperatives (Zaccaro et al., 2013). Based on their insights, any effort to understand and explain how top managers charged with leading strategic change efforts achieve desired organizational outcomes must begin by first recognizing that the organizational context those leaders operate within is one of strategic level leadership of firm-level strategic change processes. Recognizing this central fact is a prerequisite to exploring both strategic change

leaders' effectiveness and development because, as Zaccaro and colleagues (2013) argued, context matters because it prescribes critical performance imperatives.

I combined the insights from Zaccaro and Klimoski (2002) on strategic change leaders' performance imperatives with Bass and Bass's (2009) widely accepted definition of leadership to develop an operational definition of *strategic change* leadership. Bass and Bass defined leadership in its general form as "the exercise of influence," and *effective* leadership as the "successful influence by the leader that results in the attainment of goals by the influenced followers" (Bass & Bass, (2009), p. 19). Building on this definition and the model of performance imperatives and outcomes (Zaccaro et al., 2013), I define effective strategic leadership of strategic change as the successful influence of strategic change leaders that enables them to meet their performance imperatives and achieve desired proximate and distal strategic change outcomes.

These theories of strategic leadership offer invaluable perspectives, insights, and findings related to how strategic leaders generally lead firms. However, none explicitly uses theory from the strategic change literature to explain or predict strategic change leader development. According to Zaccaro and Klimoski (2002), the contexts of leadership are important because they prescribe critical performance imperatives (Zaccaro & Klimoski, 2002). That insight implies that understanding the strategic leadership of strategic change requires recognizing that the context strategic change leaders operate within is one of firm-level strategic change processes (e.g., as specified by Rajagopalan and Spreitzer's (1996) theory of strategic change). Thus, the lack of references or explicit links to theories of strategic change is a notable omission in the strategic leadership literature, especially given that researchers in the strategic change literature, as described

earlier in this review, have argued that leading strategic change is a different undertaking than leadership in general.

Executive Coaching and Strategic Change Leader Development

Researchers of leader and leadership development (L&LD) suggest that organizations typically undertake senior-level L&LD interventions to help implement and accelerate their strategic change efforts. DeRue and Myers (2014) opened their critical review of leadership development literature by identifying the most significant factors driving the acceleration of environmental change and other forces compelling organizations to invest in leadership development. They identified a positive relationship between leadership and organizational capacity for adaptation and performance in the face of the imperative for strategic change (DeRue & Myers, 2014). They suggested this relationship is what has compelled U.S. firms to prioritize leadership development in their quests for competitive advantage, and to target roughly a quarter of their \$50 billion learning and development expenditures on leadership development in 2009 (DeRue & Myers, 2014). Organizations that are facing significant changes usually need to embark on the change process with their existing group of managers rather than hiring outsiders for the change effort, putting a premium on the ability to develop managers who can cope with change more effectively (Judge, Thoresen, Pucik, & Welbourne, 1999). Such leadership development efforts can help organizations implement and accelerate their strategic change efforts (Day, Zaccaro, & Klimoski, 2001). It follows that developing managers who can cope with change more effectively should be the logical focus of the learning and development interventions undertaken by organizations seeking significant change (Day et al., 2001).

In L&LD studies, researchers suggested that executive coaching is an important and increasingly prevalent form of L&LD intervention for developing strategic change leaders (Kampa-Kokesch & Anderson, 2001). DeRue and Myers (2014) found consensus in the leadership development literature for the crucial importance of *experience-based* leadership development, the possibility of leaders gaining that experience either directly or indirectly, and the importance of feedback loops (i.e., human and other environmental sources of real-time performance data they can use to adapt and improve their leadership performance continuously) (DeRue & Myers, 2014). That consensus suggests support for hypothesizing executive coaching—a professional source of leadership performance feedback—might be a particularly appropriate and effective means for developing strategic change leader capabilities (DeRue & Myers, 2014). DeRue and Wellman’s (2009) finding that access to feedback can offset the diminishing returns typically experienced during leadership skill development also suggests coaching (with its emphasis on feedback) might be an effective L&LD intervention (DeRue & Weldman, 2009). Day and colleagues (2001) suggested executive coaching represents a prevalent L&LD practice for top-level executives in part because it provides them with an on-going source of candid feedback and targeted developmental support (i.e., developmental support targeted on the personal adaptations they must make to meet critical performance imperatives) (Day et al., 2001). DeRue and Myers (2014) included coaching as one of the elements of leadership development architecture in their seminal study, and explicitly identified coaching as an example of the organizational practices that potentially enable leadership development (DeRue & Myers, 2014). Other researchers similarly have suggested that executive coaching

can help strategic change leaders develop the competencies they need to affect strategic change outcomes (Day, Zaccaro, & Halpin, 2004).

Frankovelgia and Riddle (2010) argued coaching could serve either as a L&LD intervention in its own right, or as an amplifier of other L&LD interventions, such as action-learning activities, experiential learning, and executive education workshops. Compared to other L&LD interventions, executive coaching is unique in its customizability to address the individual developmental needs of a particular executive in a particular strategic and organizational context (Ely et al., 2010). Korotov (2016) argued that compared to other L&LD interventions, executive coaching is more likely to effectively follow and support subjects through all the phases of their developmental journeys, as they work to achieve mastery in one dimension of leadership practice or another. This comparative advantage is due to executive coaching's highly personalized nature and its capacity to create safe spaces in which coaches can help clients work through anxiety-provoking issues (Korotov, 2016). Thus, executive coaching has grown into a popular leadership development intervention based on the widespread assumption of a positive relationship between leadership and organizational capacity for strategic change, and the assumption of a positive relationship between executive coaching and leadership development and outcomes.

Research on executive coaching supports the position that executive coaching is positively related to leaders' development of essential capabilities and outcomes. Kilburg (1996) defined executive coaching as:

A helping relationship formed between a client who has managerial authority and responsibility in an organization and a consultant who uses a wide variety of behavioral techniques and methods to help the client achieve a mutually

identified set of goals to improve his or her professional performance and personal satisfaction and, consequently, to improve the effectiveness of the client's organization within a formally defined coaching agreement. (p. 142)

Rigorous qualitative and quantitative research on executive coaching antecedents, processes, and outcomes has emerged, but has not kept pace with the growth of executive coaching (Carey, Philippon, & Cummings, 2011; de Vries, 2005; Kampa-Kokesch & Anderson, 2001; Korotov, Florent-Treacy, de Vries, Bernhardt, & de Vries, 2011; Schein, 2010). Nevertheless, one contribution already made by researchers in the emergent literature of executive coaching is the recognition that coaching may have many different types of outcomes (Bachkirova, Spence, & Drake, 2016).

Greif (2017) proposed classifying general post-coaching outcomes as including client, coach and organization *proximate* outcomes (e.g., goal attainment, self-efficacy, team performance, attainment of organizational goals), and client, coach and organization *distal* outcomes (e.g., career development, occupational success, economic return, etc.) (Greif, 2017). Researchers have explored a variety of proximate and distal outcomes (Greif, 2017). *Client* related proximate outcomes include such measures as satisfaction, affect, self-esteem, general well-being, self-efficacy, and skill, and performance improvement. Distal outcomes, by contrast, include life satisfaction, career development, and job satisfaction. At the *organization* level, proximate outcomes include the attainment of organizational goals, specific leadership behavior, satisfaction, commitment, and team performance. The distal outcomes have included organizational climate and culture, productivity, cost reductions, efficiency, and economic return (Greif, 2017). Among these outcomes, goal attainment, self-efficacy, and resilience have received

significant attention from researchers and have consistently been found to be positively affected by coaching (Grover & Furnham, 2016).

This growing body of research suggests there is conceptual basis in the executive coaching literature for positing that cognitive, social, and behavioral capabilities (such as those that are the foundation for transformational leadership) and behavioral change (such as that necessary to achieve readiness for change) are potential outcomes of executive coaching (Ely et al., 2010; Good, Yeganeh, & Yeganeh, 2013; Kraiger, Ford, & Salas, 1993; Palmer & Gyllensten, 2008; Passmore & Gibbes, 2007; Sonesh et al., 2015; Williams, Edgerton, & Palmer, 2010). While none of the studies published in the extant executive coaching literature test the relationships I investigated, the following findings are related to and do inform the conceptual basis of my study.

Achievement of Strategic Change Outcomes

Malone (2001) argued that individual behavior change is an essential prerequisite to successful organizational change, that self-efficacy is, in turn, essential to behavior change, and that coaching is well-suited to improving self-efficacy. Expanding on this thesis, Drake and Pritchard (2016) argued that the continuous, complex, and disruptive nature of change necessitates a greater understanding of the instrumental role coaching can play in supporting both external and internal strategic change processes (Drake & Pritchard, 2016). Moreover, they joined Gardini, Giuliani, and Marricchi (2011) in arguing that a potential advantage of coaching is customizability to meet the specific developmental needs of leaders operating in strategic change contexts. Gardini and colleagues (2011) suggested that a benefit of coaching in such situations might include greater alignment between the leader development pursued and achieved through coaching, on the one hand,

and essential organizational change outcomes, on the other (Drake & Pritchard, 2016; Gardini et al., 2011). Despite their argument, there was no research on the relationship between executive coaching and the leadership of planned organizational change.

Development of Strategic Change Leaders' Transformational Leadership Capabilities

To date, there have been no investigations directly assessing the efficacy of executive coaching as an L&LD intervention to develop TLC among managers leading strategic organizational change. However, transformational leadership has been discussed in the literature on management for over four decades. This work has revealed several lines of inquiry that are relevant to the present study, including exploration of transformational leadership's links to organizational change; its dependence on cognitive, social, and behavioral competencies; its measurement; and its relationship to executive coaching.

Bass (1985), building on Burns (1978) seminal theory of transformational leadership, argued that transformational leadership was more suited to the task of promoting and leading organizational change than other forms of leadership. Bass and Bass (2008) later suggested that variability in leaders' transformational leadership behavior is a function of differences in their cognitive, social, and emotional competencies. This argument further validates Rajagopalan and Spreitzer's (1996) claim that managerial cognitions affect strategic change outcomes. Together, these perspectives suggest that variability in strategic change leaders' cognitive, social, and emotional competencies affects TLC, which in turn impacts a manager's ability to promote and lead strategic change initiatives. This hypothesized relationship is central to the present study and supports the theory of

strategic change leader performance imperatives and outcomes that informs this work.

To test the hypothesized relationship between executive coaching and TLC, it was necessary to identify a well-validated instrument for measuring TLC in the extant literature. Alban-Metcalfe and Alimo-Metcalfe (2000, 2001, 2007) developed a robust instrument for measuring transformational leadership, the TLQ, using a grounded theory approach. The TLQ assesses leadership behaviors and outcomes that the authors found to be tightly correlated with transformational leadership. As described in chapter 4, I developed the TLC construct for the present study using the TLQ, selecting the five dimensions that were most relevant to the performance imperatives that strategic change leaders must meet and the proximate change-related outcomes they must achieve. The dimensions that were selected were (a) resolving complex problems, (b) building shared vision, (c) facilitating change sensitively, (d) focusing team effort, and (e) encouraging change. These capabilities reflect a combination of cognitive ability, social competency, and change-related leadership behavior, as predicted by Bass and Bass (2008), Rajagopalan and Spreitzer (1996), and Zaccaro and Klimoski (2002). Together, these dimensions represent critical TLC that strategic change leaders must utilize to effectively implement strategic change. Thus, the TLC construct for the present work was operationalized to incorporate these five dimensions.

While no studies have addressed executive coaching's effect on strategic change leaders' TLC development directly, several studies have explored the relationship between executive coaching and transformational leadership more generally. The subjects of these studies were not top managers charged with leading strategic change. Instead the studies included a diverse range of

professionals, managers, and leaders (e.g., school principals, nonprofit and public sector professionals) who were not expressly tasked with leading strategic change. The studies also relied on general measures of transformational leadership, rather than measures specifically tailored to the transformational leadership dimensions that are closely related to leading strategic change. Despite differences from the present work, these studies do merit review, as they are the only published attempts to measure the relationship between executive coaching and transformational leadership and thus help frame the gap in the literature that this study addressed.

Kampa-Kokesch (2001) was the first to investigate executive coaching's effect on transformational leadership behavior. The author compared subjects who had 0-3 months of coaching with those who had 3 months or more of coaching. These groups were labeled pre/early and post/later, respectively. Notably, the only inclusion criteria in recruiting the 50 subjects was prior experience with or desire to obtain executive coaching services. Subjects were recruited by their coaches, who in turn had been solicited via direct mailings from the author. Leadership experience, and more specifically executive leadership of strategic change, was not a requirement for inclusion in the sample. The Multifactor Leadership Questionnaire (MLQ) 5x Short Form (Bass & Avolio, 1995), a general measure of transformational leadership, was used for data collection. Although the MLQ is a 360-degree instrument, there were no more than two raters per subject due to a low response rate. The author found that self-reported and peer/direct-reported transformational leadership scores differed, with direct reports/peers rating subjects more positively than they rated themselves for the pre/early group. This pattern was reversed for the post/later group. This finding underscores the potential difference in perspectives

provided by self-report and informant report response data, as well as the potential complementary value of the two.

While the work by Kampa-Kokesch (2001) provides an interesting early example of research on executive coaching and transformational leadership, the study's findings are undermined by several design weaknesses. For example, the study utilized a posttest-only research design without a true comparison group. Additionally, there was significant variability in the length of coaching engagements (3-12 months) and in the coaching content, as this was entirely under the control of individual coaches. These limitations precluded the possibility of direct, between-groups comparison of differences in coaching's effect over time. To avoid these limitations, the present study incorporates a pretest-posttest, nonequivalent groups design, with a true comparison group, a standardized duration (7 months), and a common coaching approach for all members of the treatment group.

Work by Finn (2007) is more closely related to the present study. The author explored the effect of coaching on the transformational leadership behaviors of managers in a public sector agency in Australia. The author found that subjects' transformational leadership improved after six coaching sessions that were completed over 3 months, as reported by subjects' team members. This effect was not observed for self- or supervisor-reported ratings. The author hypothesized that the difference between team member ratings and supervisor ratings might be explained by team members greater opportunities to observe the subjects' in action (i.e., supervisors interacted with the subjects less frequently and therefore had fewer opportunities to detect changes in behavior). Although this finding is relevant for considering coaching's effect on transformational leadership and the development of strategic change leaders' TLC, the relevance of the finding is tempered by several

significant limitations. Similar to Kampa-Kokesch (2001), subjects in the sample had volunteered for coaching, raising the concern that there may be a self-selection bias due to unmeasured differences between managers who volunteered and those who did not. Additionally, in contrast to the present study, Finn (2007) used a cross-sectional rather than longitudinal design, making it difficult to determine causation.

Of greater concern, the comparison used by Finn (2007) may not have been appropriate, as change in transformational leadership was only analyzed for a subset of the treatment group's data, selected by the coaches, whereas all data was analyzed for the control group. This may have biased the results. Additionally, even if the comparison was legitimate, the author notes that there was a decline in the aggregate scores of the non-treatment group from their first pretest completion to their second pretest completion, over the course of the 3-month period in which the treatment group received coaching and the non-treatment group did not. Assuming the instrument used for data collection was reliable, the differences between the two groups scores at the time of the cross sectional analysis could very well have been explained by factors unrelated to the lack of access to coaching that caused the non treatment group's decline in scores.

Additionally, in the analyses conducted by Finn (2007), the significance level for hypothesis testing was established at $p < .10$, which is higher than the traditional cutoff of $p < .05$. Thus, it is unclear whether the effect of coaching would have been statistically significant at the traditional cutoff level, as the precise p-value was not reported. Thus, although Finn (2007) provides some information about the efficacy of coaching, the significant number of limitations call into question the study's finding that coaching did influence transformational leadership. The present work will

provide more robust evidence by examining TLC as it relates to the work of strategic change leaders.

Cerni, Curtis, and Colmar (2010) used a pretest-posttest experimental research design to explore the relationship between coaching and changes in subjects' leadership style. The researchers recruited 14 school principals, who were volunteers from a regional school system in Australia, to complete a 10-week coaching training. Eight principals were randomly assigned to the treatment group and the remaining six were assigned to the control group. Similar to the works by Kampa-Kokesch (2001) and Finn (2007), however, the use of participants who volunteered for coaching raises concerns of bias, as those who volunteered for coaching may have differed systematically from those who did not. Participants' change in leadership style (i.e., progress toward a more transformational leadership style) was measured using the MLQ 5x questionnaire. The authors found that a coaching intervention, grounded in cognitive-experiential self theory (CEST), increased subjects' use of transformational leadership techniques, as assessed by the staff in their schools.

The present study differs from Cerni and colleagues (2010) in several important ways. First, the work by Cerni and colleagues (2010) was primarily designed to test the construct at the center of that study, CEST, in an effort to help school principals develop a more transformational leadership style. Coaching simply served as the form of L&LD intervention used to deliver the CEST content. This contrasts with the present study, which explores the relationship between executive coaching and strategic change leaders' development of TLC grounded in a theory of strategic change leader performance imperatives and outcomes. Furthermore, the present study was specifically designed to investigate coaching's effect on

development of the TLC required to improve their leadership of strategic change. Second, the organizational context for the subjects in Cerni and colleagues' (2010) work was different than the present study (i.e., Christian independent schools vs. a large-scale corporation beginning an enterprise-wide strategic change effort). This distinction is important because as Zaccaro and Klimoski (2002) argued organizational context matters, in that it prescribes critical performance imperatives and outcomes. Nevertheless, work by Cerni and colleagues (2010) is relevant to the present study because while the organizational scale and context raise questions of generalizability, the findings do suggest coaching might positively affect subjects' development of transformational leadership.

Subsequent research by O'Connor and Cavanagh (2013) explored the effect of coaching on changes in subjects' relational networks within an organization. Using a repeated measures AB control period design, the sample assessed 122 academic and general staff employees within a university-based academic network. Volunteers were solicited from the network's 38 mid-level and senior managers. The study's treatment group comprised the 20 members who volunteered for coaching, again raising concerns of systematic bias due to self-selection into the treatment. The coaching intervention involved eight sessions of coaching over the course of 16-20 weeks and pretest posttest-posttest, 360-degree data collection using the MLQ. Utilizing social network analysis, O'Connor and Cavanagh demonstrated that coaching was associated with a significant increase in subjects' transformational leadership behaviors. Similar to Cerni and colleagues (2010), O'Connor and Cavanagh (2013) did not assess executive coaching's effect on the development of strategic change leaders' TLC. Instead, it assessed the ripple effect of coaching, measured by the quality of interactions between individuals who were coached and

other members of their networks, as perceived by those members. Importantly, the study's subjects' were not strategic change leaders, nor did they operate within an organizational context characterized by firm-level strategic change. Understandably, given the researchers' focus, the coaching treatment was neither grounded in a theory of strategic change leader performance imperatives and outcomes, nor was it designed to improve subjects' leadership of strategic change. Thus, the present study will add new information to the work by Cerni and colleagues (2010) and O'Connor and Cavanagh (2013), which suggests that coaching may be positively related to the development of transformational leadership.

Recent work by MacKie (2014) has further validated the hypothesis that coaching affects transformational leadership. The author investigated whether strength-based executive coaching could enhance subjects' leadership development, as assessed by the full-range leadership model (FLRM), with a particular focus on subjects' transformational leadership. MacKie (2014) utilized a between-subjects, nonequivalent control group design to assess coaching's effect on the leadership development of 37 senior managers of the Australian division of a multinational nonprofit. Data collection was conducted using the Multifactor Leadership Questionnaire, MLQ-360, a well-validated, 360-degree feedback instrument that is based on the FLRM. Subjects' change in transformational leadership was determined by aggregating responses from each rater group (i.e., the subjects and a 360-degree group of informants) on the five transformational leadership subscales of the MLQ. Overall, subjects in the comparison group ($n=17$) were rated as generally more effective than subjects in the treatment group ($n=14$) at the time of pretest. Subjects were non-randomly assigned to the two groups based on availability and the organization's preferences for who should receive coaching first. ANCOVA was

employed to compare between-group differences regarding change in transformational leadership between pretest and posttest, while accounting for differences that were present at the time of pretest. Each subject in the treatment group received six, 90-min, strength-based coaching sessions. The author found that executive coaching was positively associated with participants' transformational leadership behavior, as rated by others, but not as rated by the subjects themselves.

Of the studies examining the relationship between executive coaching and transformational leadership that have been reviewed in this chapter, MacKie (2014) is most similar to the present study in regards to its aims, sample, research design, and the form of statistical analysis employed. The study's well-conceived, pretest posttest, nonequivalent groups research design and use of a widely accepted, well-validated measure of transformational leadership bolsters its findings regarding coaching and transformational leadership. However, while MacKie's findings are highly relevant to the present work, our studies differ in at least two important ways. First, the organizational context and sample in MacKie's study differ from the present work. While the author used leadership responsibility (defined as managerial responsibility for some number of direct reports) as a requirement for participation, it does not appear that his subjects were strategic change leaders (i.e., top managers mandated to drive strategic change). Nor were his subjects operating within the context of an organization pursuing enterprise-wide strategic change, at least as far as can be inferred from the study's described methods. Rather, the sample is described as comprising senior managers in the Australian unit of a multinational, nonprofit organization, which represents a different context than the present study in which the firm and its top managers were engaged in a major, enterprise-wide strategic change effort. If context matters, as Rajagopalan and Spreitzer (1996) and

Zaccaro and Klimoski (2002) argue, this is an important distinction. This is not a critique but simply an articulation of an important way in which the studies differ. Second, given the differences in context and sample, unsurprisingly MacKie (2014) did not explore the relationship between executive coaching and strategic change leaders' proximate change-related outcomes, such as readiness for change. Nevertheless, MacKie's work offers important support for the hypothesis that executive coaching can positively influence strategic change leaders' development of TLC, which the present work can directly address.

Improvement of Strategic Change Leaders' Readiness for Change

While the work by Grant and colleagues (2009) differs from the present study in both its aims and the change-related measures it employed, the authors did explore the effect of coaching on leaders' capacity to cope with change, which is relevant to the present work's investigation of coaching's effect on leaders' readiness for change. In Grant and colleagues (2009), the authors utilized a mixed-methods, randomized-control design to assess 41 executives who received four coaching sessions and 360-degree feedback (utilizing the Human Synergetics Life Styles Inventory; Lafferty, 1989). After a 10-week training period, the authors found that coaching had positively affected subject's goal attainment and resilience, as well as their ability to cope with organizational change (Grant et al., 2009). The subjects selected for the treatment group were not strategic change leaders. The coaching and leadership development programs were designed to equip the participants with the ability to lead their teams and business units through a period of externally-driven organizational change rather than to drive planned organizational change (i.e., strategic change). Thus, the research did not assess the development of attributes essential to leading strategic change, like growth in participants' TLC (Grant et al.,

2009). Nevertheless, the qualitative feedback that participants provided suggests that coaching might play an important role in helping leaders cope with the challenges and frustrations associated with organizational change (Grant et al., 2009).

Development of Strategic Change Leaders

Although research on executive coaching has accelerated and diversified, to date there are no studies examining the use of executive coaching as an instrument to support strategic change. Additionally, there is no research exploring executive coaching's efficacy in the development of strategic change leaders. Grant (2014) published the only peer-reviewed study tangentially related to the relationships between executive coaching and strategic change leader development and outcomes, which are topics at the heart of the present study. Grant conducted a mixed-methods, within-subject study assessing the impact of executive coaching on 31 executives in a global engineering organization undergoing significant change. Grant grounded his research in theory suggesting that cognitive and behavioral mechanisms underlie executive coaching's efficacy. Grant further developed this theory by identifying principles such as awareness raising and action planning that are common across "a broad range of theoretical frameworks ranging from the cognitive through the psychodynamic and the solution-focused" (p. 261). The author employed a combination of well-validated qualitative and quantitative measures to collect data with high levels of validity and reliability. Specifically, Grant used goal attainment scaling (GAS) as a measure of goal completion, Solution-Focused Inventory to assess solution-focused thinking, the Coping with Change Scale to measure change readiness, the Leadership Self-Efficacy Scale based on Bandura's (1977) conceptualization of self-efficacy, the Cognitive Hardiness Scale to examine

resilience, the Workplace Well-Being Index (WWBI) to assess workplace satisfaction, and selected open-ended questions to collect qualitative data.

Grant (2014) used a cognitive-behavioral, solution-focused model, a uniform 360-degree feedback instrument and process, and identical numbers of coaching sessions to standardize the coaching “treatment” for the 31 executives. To analyze the effects of coaching, Grant used a combination of qualitative and quantitative (one-tailed and paired *t* tests) methodologies. These methods revealed that executive coaching induced a statistically significant change in each of the dependent variables, as hypothesized. The author noted several limitations to the work, including the small sample size, the single organizational setting, and the relative homogeneity of the coaches, suggesting that further research is necessary to assess the role of executive coaching in the context of organizational change.

Grant’s (2014) study provided important information regarding executive coaching and serves as a model for the current project. However, it differs from the present study in several important ways. For example, Grant investigated executive coaching’s effect on executives’ self-efficacy, resilience, well-being, workplace satisfaction, solution-focused thinking, ability to cope with change, and goal attainment (which involved coachees’ selection of personal developmental goals related to the coaching program). However, he did not investigate whether executive coaching can improve executive’s capacities to effectively drive strategic change. Similarly, Grant did not evaluate whether executive coaching can help strategic change leaders achieve important proximate, strategic change outcomes such as the readiness for change of their direct reports. Furthermore, Grant’s study was not grounded in theory related to strategic change, strategic change leaders, or strategic change leader performance imperatives and outcomes. Thus, the present study

complements and builds on Grant's work, making a meaningful contribution toward the theoretical and empirical foundation for executive coaching. The present study validates Grant's findings regarding the relationship between executive coaching and subjects' readiness for change. The present work also builds on Grant's study by investigating the effect of executive coaching on the development of strategic change leaders' TLC and their achievement of proximate strategic change outcomes.

Summary

There is a significant gap in the literature addressing the relationship between strategic change leader development and outcomes, and there are few studies grounded in coherent, integrated theory that link work on strategic change and strategic leadership. Moreover, at present, no studies explain the causal relationship between strategic change leaders and firm-level strategic change outcomes or present empirical research based on theories that sufficiently link those two phenomena. Additionally, there are no theoretically grounded, empirical studies that specifically explore how executive coaching or other possible leadership development interventions might affect both the development of strategic change leaders and their efficacy in achieving strategic change outcomes. Given the high levels of corporate investment in leadership development in general, and executive coaching in particular, this gap is surprising. If coaching is not found to be effective, it would suggest that these investments represent a misallocation of firms' financial resources. Thus, work addressing these gaps is long overdue.

Building on work by Grant (2014), the present study helps to flesh out the literature by measuring the effect of executive coaching on the development and performance of strategic change leaders. The present research addresses two

critical questions in the literature. First, what is the relationship between executive coaching and strategic change leader development of TLC and readiness for change (obvious prerequisites to leading others through strategic change effectively)?

Second, what is the relationship between executive coaching and strategic change leaders' achievement of proximate change-related outcomes, such as readiness for change of strategic change leaders' executive teams (i.e., direct reports)? By using a quasi-experimental, longitudinal, multi-source (self-report and informant report) research design, the present study investigated these important questions from the literature.

CHAPTER 3

THEORY AND HYPOTHESES

Strategic Change Leader Performance Imperatives and Outcomes

Combining Rajagopalan and Spreitzer's (1996) multi-lens framework with Zaccaro and Klimoski's (2002) model of executive performance requirements, produced a novel, integrated, cross-disciplinary, and multi-dimensional theory of strategic change leader performance imperatives and change-related outcomes. This theoretical perspective guided development of the present study's hypotheses. Rajagopalan and Spreitzer (1996) argued that firms' abilities to adjust their strategies to achieve desired strategic change objectives depend on the accuracy and efficacy of strategic leaders' cognitions. These patterns of thought form the basis for leaders' subsequent social and behavioral change-related actions, which play a critical role in leading strategic change processes (Rajagopalan & Spreitzer, 1996; Walsh, 1995). Managerial cognitions are a combination of the mental models, thought processes, mindsets, knowledge, and logic chains that managers use to interpret their strategic external and organizational contexts. In turn, these thought patterns help determine the actions they undertake to lead strategic change effectively. Manager cognition is also implicated in the ability to learn and develop through a recursive process. In other words, these cognitive processes allow managers' change-related capabilities, actions, and behaviors to continuously evolve in response to feedback they receive as they implement their plans (Rajagopalan & Spreitzer, 1996).

Zaccaro and Klimoski's (2002) model of executive performance imperatives complements Rajagopalan and Spreitzer's (1996) argument. Specifically, the authors hypothesized that the accuracy and efficacy of leaders' cognitions depend on their interpretation of the performance imperatives (e.g., building shared vision,

inspiring others, or facilitating change) mandated by the organizational contexts in which they operate. Similarly, leaders must identify the proximate outcomes necessary to achieve firms' strategic change objectives. Moreover, Zaccaro and Klimoski argued that organizational context (e.g., stable execution of an existing business model vs. firm-level strategic change) matters precisely because it prescribes the critical performance imperatives and proximate change outcomes that leaders must meet by utilizing their cognitive capacities.

For leaders within organizations that have embarked upon strategic change, developing TLC and achieving personal readiness for change are two critical performance imperatives. Similarly, helping teams achieve readiness for change is an important proximate strategic change-related outcome. Each of these represents contextualized applications of manager cognition (e.g., preparing others for strategic change requires a sophisticated blend of cognitive, social, and behavioral competencies, and cognitive competency is the foundation for social and behavioral competencies), as predicted by the theoretical perspective integrating Rajagopalan and Spreitzer's (1996) work with the model introduced by Zaccaro and Klimoski (2002). Based on this integrated theory, I predicted that executive coaching would affect these two performance imperatives and this particular proximate outcome. The present research tested these hypotheses, represented by the research model in Figure 2.

Executive Coaching & Strategic Change Leader (SCL) Development and Outcomes

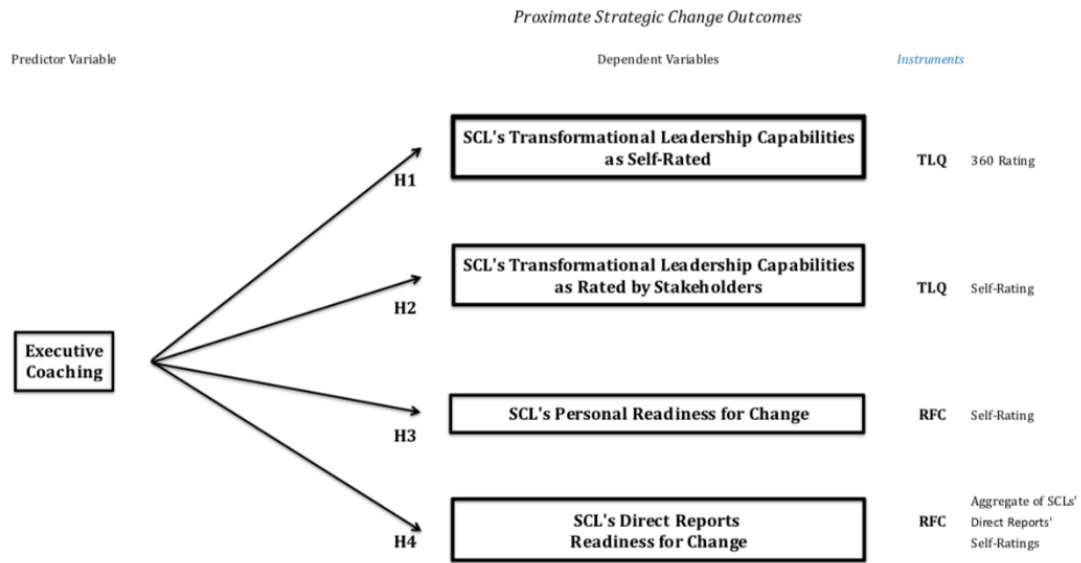


Figure 2. Research model: Executive coaching and strategic change leader (SCL) development and outcomes.

Executive Coaching and Strategic Change Leaders' Development of Transformational Leadership Capabilities

Herold and Fedor (2008) explicitly linked effective change leadership to transformational leadership. The authors found that followers' commitment to change and to particular change initiatives was closely related to change leaders' TLC. They argued that change leaders need TLC to engage the diverse and complex set of stakeholders who must contribute to the development and implementation of organizational change strategy. TLC helps change leaders employ the complex information processing and problem-solving abilities that are required to formulate effective change strategies, in turn promoting innovation and providing a competitive advantage (Kor & Mesko, 2013; Kor & Sundaramurthy, 2008; Rindova, 1999; Zaccaro & Klimoski, 2002). TLC helps these leaders provide the visionary and inspirational leadership required to manage their teams and organizations as they formulate change strategies that address performance

imperatives within their specific strategic contexts (Bass & Bass, 2009; Rindova, 1999; Zaccaro, 1996). Additionally, TLC helps leaders meet the ongoing demands of managing strategic change implementation. These challenges include navigating unstructured, complex, and sometimes chaotic environments and stakeholder networks, as well as continually making strategic decisions under conditions of uncertainty (Bass & Bass, 2009; Schneider, 2002; Zaccaro & Klimoski, 2002). Furthermore, TLC allows leaders to employ a complex set of social skills and behaviors (e.g., negotiation and collaboration) in an effective and sophisticated manner. This is accomplished in part by managing emotions while engaging in constructive conflict and avoiding destructive conflict with key change strategy stakeholders, an essential requirement for leading strategic change effectively (Demb & Neubauer, 1992; Rindova, 1999; Roberts, McNulty, & Stiles, 2005; Robertson, Roberts, & Porras, 1993; Westphal & Fredrickson, 2001; Wright, Siegel, Keasey, & Filatotchev, 2013).

In developing their transformational leadership questionnaire (TLQ), Alban-Metcalf and Alimo-Metcalf (2000, 2007) determined that there are a number of dimensions underlying TLC. I argue, based on the performance requirements outlined above, that several of these dimensions are directly related to leading strategic change. Specifically, I believe that leading strategic change involves (a) resolving complex problems, (b) building shared vision, (c) facilitating change sensitively, (d) focusing team effort, and (e) encouraging change (Alban-Metcalf & Alimo-Metcalf, 2000, 2007; Alimo-Metcalf & Alban-Metcalf, 2001; Alimo-Metcalf et al., 2008). Strategic change leaders must develop these aspects of TLC to lead strategic change effectively. Leaders invariably do so through a recursive process that requires continuous evolution of TLC as strategic change strategies are

formulated and implemented and as outcomes begin to emerge. In response, leaders must continually adapt to the effects of their actions, as argued by Rajagopalan and Spreitzer (1996). The recursive nature of this adaptation suggests that executive coaching, a form of professional leadership performance feedback that helps leaders grow, adapt and address critical performance challenges and issues, may support leaders' abilities to exercise transformational leadership and steer strategic change effectively.

There is support in the literature suggesting that executive coaching may positively influence learning and leadership development processes. Cerni, Curtis, and Colmar (2010) explored the relationship between coaching and transformational leadership. The authors found that improving subjects' ability to think rationally and constructively and reinforcing their awareness of their own information-processing systems supported coaching subjects' transformational leadership and elicited the use of transformational leadership techniques (Cerni et al., 2010). MacKie (2014) investigated the relationship between strength-based executive coaching and the development of TLC, determining that coaching generated statistically significant improvements in transformational leadership behavior.

Building on insights from this prior work, I deduced that if strategic change leadership effectiveness is in part a function of TLC, and executive coaching is positively related to transformational leadership generally, then executive coaching could positively affect TLC development. In this case, TLC development was assessed by the strategic change leaders themselves and a 360-degree group of their stakeholders, namely the leader's supervisor, a subset of peers, and a subset of direct reports. Collecting and analyzing both self-reports and informant-reports is important given the unique advantages and disadvantages of each form of

measurement. This is reflected in the executive coaching literature via a call to move beyond the use of self-reports as executive coaching research continues to develop (Ely et al. , 2010; Grant, Green, and Rynsaardt, 2010; Theebom et al., 2014). The primary advantages of self-reports are that they provide rich information (e.g., direct insight) on how subjects themselves perceive change in their TLC and, moreover, subjects are often motivated to reflect upon and assess their progress (Lucas & Baird, 2006; Paulhus & Vazire, 2007). The chief disadvantages of self-reports are the risk of response biases due to socially desirable responding (e.g., impression management) or distortions in self-perceptions (e.g., due to lack of self-awareness), or both (McDonald, 2008; Moskowitz, 1986; Northrup, 1996; Paulhus, 1991; Paulhus & Vazire, 2007).

Conversely, the main advantages of informant-reports are that they potentially provide more objective information on the change in subjects' TLC and, because the responses of the 360 group of raters can be aggregated, they may provide more reliable results (Hofstee, 1994; McDonald, 2008; Moskowitz, 1986; Vazire, 2006). That said, informant reports are also vulnerable to response biases, due to variability in informants' opportunities to observe subjects or because of conscious or unconscious attempts to hurt or help the subject due to a pre-existing relationship or organizational factors (McCrae & Weiss, 2007; McDonald, 2008).

Thus, self-report and informant-report data each offer a valuable measure of the effect of coaching on strategic change leaders' change in TLC over time and provide complementary perspectives (John & Soto, 2007; McDonald, 2008; Paulhus & Vazire, 2007; Vazire, 2006). These ideas are embodied by the first two hypotheses addressed in the present research:

H₁. Executive coaching positively affects strategic change leaders' self-ratings of their own development of TLC. This includes the underlying dimensions of resolving complex problems, building shared vision, focusing team effort, facilitating change sensitively, and encouraging change.

H₂. Executive coaching positively affects development of strategic change leaders' TLC, as rated by a 360-degree group of their stakeholders. This includes resolving complex problems, building shared vision, focusing team effort, facilitating change sensitively, and encouraging change.

Executive Coaching, Strategic Change Leaders' Readiness for Change, and the Readiness for Change of Their Direct Reports

Kor and Mesko (2013) argued that CEOs' configuration of senior executive team dynamic capabilities (e.g., selection, recruitment, and dynamic alignment of the executive team with the strategic imperatives of the organization) and their subsequent orchestration of the team (e.g., via performance management and individual and team development) can explain how top management teams achieve successful strategic change. This points to another important proximate strategic change outcome that has received growing support in the literature, namely readiness for change. Similar to CEOs, strategic change leaders' effectiveness relies on their ability to ensure that their executive teams and organizations are ready for strategic change. Researchers working in organizational change and development have argued that readiness for change is a proximate strategic change outcome that is an important precursor to distal strategic change (Holt, Armenakis, Feild, & Harris, 2007).

Individual readiness for change includes individuals' evaluations of their own capacities for making successful changes as well as their organizations' capacities,

the need for those changes, and the benefits the organization and its members might gain from the proposed changes (Eby, Adams, Russell, & Gaby, 2000; Holt et al., 2007; Jansen, 2000). Holt and colleagues (2007) defined readiness for change more specifically, as a:

Multidimensional construct influenced by beliefs among employees that (a) they are capable of implementing a proposed change (i.e., change-specific efficacy), (b) the proposed change is appropriate for the organization, (i.e., appropriateness), (c) the leaders are committed to the proposed change (i.e., management support), (d) the proposed change is beneficial to organizational members (i.e., personal valence). (Holt et al., 2007, p. 232)

Ensuring readiness for change requires strategic change leaders to deploy TLC such as building shared vision, facilitating change sensitively, and encouraging change. The individuals, teams, units, groups, and coalitions that strategic change leaders manage often have conflicting agendas which the leader must help reconcile (Boss, Connelly, Hoskisson, & Tihanyi, 2013; Kotter, 1995; Schneider, 2002; Zaccaro & Klimoski, 2002). Strategic change leaders and their executive teams are typically firms' most visible and active representatives, and their role in achieving alignment and shared purpose is essential (Battilana et al., 2010; Day et al., 2004). Leaders with well-developed TLC ready their executive teams and organizations for major strategic change more effectively. These leaders build and lead high-performing executive leadership teams whom they inspire and work with throughout the strategic change process (Battilana et al., 2010; Burke et al., 2008; Day et al., 2004; Rafferty et al., 2013).

Strategic change leaders use their TLC to discern if they and the members of their executive teams are leading strategic change initiatives effectively, particularly

in the face of high levels of uncertainty, complexity, and ambiguity. TLC is also necessary as leaders navigate a gauntlet of challenges, pressures, and various forms of individual and organizational resistance (Boal & Hooijberg, 2001; House & Aditya, 1997; Kor & Mesko, 2013; Yukl & Mahsud, 2010). Strategic change leaders use their TLC (e.g., resolving complex problems, focusing team effort, and facilitating change sensitively) to determine whether they and the members of their executive teams are effectively building readiness for change and adaptability deep within their organizations. Strategic change leaders also require TLC (e.g., building shared vision and encouraging change) to motivate organizations that are often diverse and globally dispersed in a manner that reflects clear vision and strong sense of shared purpose (Bass & Bass, 2009; Ireland & Hitt, 1999; Schoemaker, Krupp, & Howland, 2013; Weiner, 2009).

Although not focused on the relationship between TLC and readiness for change, work by Grant (2014) provides some support for the present study, as that prior research utilized coping with change as an outcome measure. It is important to note, however, that coping with change differs from readiness for change. According to Grant, change readiness measures how well individuals can cope with the uncertainties that organizational change triggers in their lives. In contrast, readiness for change measures an individual's belief in the appropriateness of a proposed organizational change, belief that management collectively supports the change (i.e., management support), belief she or he can contribute effectively to the change (i.e., change efficacy), and belief that the proposed change will be personally beneficial. Grant found that coaching had a positive impact on executives' ability to cope with change. The subjects of his study were executives in an organization undergoing change, rather than change leaders per se, but his findings provide empirical

evidence to support the hypothesis that coaching might improve strategic change leaders' readiness for change.

The literature also supports the idea that transformational leadership itself relates to readiness for change, as its approach improves individuals', teams', and organizations' understanding of the need for change (Eisenbach et al., 1999; Herold et al., 2008; Vinger & Cilliers, 2006). Transformational leadership creates a vision to guide the change, encourages change within individuals and systems, and inspires and focuses the individual and team effort required to implement change effectively. If executive coaching helps leaders and top teams develop or evolve the desired set of TLC (as described in H₁ and H₂), then it may positively affect leaders' readiness for strategic change, as well as their ability to improve the readiness for change of their direct reports. These ideas are reflected in the present study's third and fourth hypotheses, respectively:

H₃. Executive coaching positively affects strategic change leaders' personal readiness for change, including the underlying dimensions of appropriateness, management support, change efficacy, and personal benefit.

H₄. Executive coaching positively affects strategic change leaders' direct reports' readiness for change, including the underlying dimensions of appropriateness, management support, change efficacy, and personal benefit.

CHAPTER 4

METHODS

Setting

I identified a firm preparing to embark upon an enterprise-wide strategic change effort and committed to using executive coaching to help prepare a selected group of its top executives to lead the change effort successfully. Facing intensifying competitive pressures, the company—a privately held retailer based in the United States with roughly \$24+ billion annual revenue and 100,000+ employees—had embarked upon an enterprise-wide digital transformation of its brick and mortar retail business model. To increase its odds of achieving the desired strategic change successfully, the chairman and CEO hired a leadership development consulting firm to provide executive coaching and leadership development support to all members of the newly assembled digital transformation executive leadership team. The team was cross-functional, with representation from each of the company's corporate functions and divisions, consisting of 11 senior established leaders and seven incoming digital leaders (the newest incoming digital leader had been in place for six months). The executives included in this study came from the top four levels of the company's hierarchy (including the C-suite, vice president, and director levels, as well as the company's president). They were chosen to lead the new digital transformation effort. All eighteen leaders received seven months of 1:1 coaching for the engagement, provided by a team of five external executive coaches with varying levels of prior strategic change leadership coaching experience. The coaches met weekly to discuss and align on theory and best practices related to strategic change, leading strategic change, and the unique challenges of coaching strategic change leaders. I led those discussions and guided the coaches on how to

use the theory of strategic change leader performance imperatives and outcomes at the center of this study to improve the performance and outcomes of the executives for whom they were responsible (Rajagopalan & Spreitzer, 1996; Zaccaro, 1996). A subset of the executives within the treatment group also served on strategic change "acceleration teams," designed to help the company accelerate progress on two critical organizational change related objectives (innovation and culture change). The acceleration teams also were designed to provide the executives who served on them with additional opportunities to apply and practice new concepts learned through their executive coaching sessions and within two leadership development workshops.

Sample

By the time I was recruited to oversee the executive coaching aspect of this leadership development engagement, the company's guiding coalition—including the chairman and CEO, president, COO, and CHRO—had selected the executives who would serve as subjects in the treatment group (i.e., those targeted for executive coaching during the engagement). Pre-engagement qualitative diagnostic interviews suggested the guiding coalition selected the executives ($n = 18$) based on their subjective judgment as to which were best qualified to lead the strategic change effort. Their decisions likely included social, political, and other intangible factors as well. Those circumstances, typical of those surrounding selection of strategic change leaders at most firms, precluded the possibility of sample construction based upon random assignment into experimental and control groups. Therefore, a comparison group ($n=22$) was constructed. It was drawn from the same levels of the company as the treatment group but not including the President (i.e., C-suite, vice president, and director levels).

There was variance in sample size between pretest and posttest. The sample size for both self and 360-degree ratings during the pretest was $n = 40$ (treatment group $n = 18$ plus control group $n = 22$). There was a slight decrease in the sample size for the 360-degree ratings during the posttest $n = 35$ (treatment group $n = 16$ plus control group $n = 19$). However, there was a more significant decrease in the sample size for the *self-ratings* during the posttest. The sample size for the self-ratings dropped to $n = 29$ (treatment group $n = 12$ plus control group $n = 17$), due primarily to attrition within the treatment group. The selection process that the firm used to select treatment group members was appropriate for the firm and aligned with how organizations typically choose strategic change leaders. However, the resulting initial lack of random assignment (as a means of controlling for confounding measures during sample construction), combined with the attrition between pretest and posttest, the relatively small size of the samples even before attrition, and the nonequivalent sizes of the treatment and control groups, had implications for both research design and statistical analyses.

Procedures

The collection of multi-source 360-degree ratings and self-ratings on all subjects in the treatment and control groups occurred twice to measure potential longitudinal variance in the measures of interest. Pretest data were collected immediately before the commencement of the executive coaching engagements, and posttest data were collected after the engagements concluded. A survey comprised of two instruments published and validated in the academic literature was constructed to collect feedback from the executives and their 360-degree raters (including key stakeholders such as their managers, peers, and direct reports). The first section in the survey included five scales/dimensions relating to the TLC

involved in strategic change leadership. Those scales were selected from the Transformational Leadership Questionnaire (TLQ) (Alimo-Metcalfe, Alban-Metcalfe, Bradley, Mariathasan, & Samele, 2008). The second section of the survey included the four scales/dimensions from the Readiness for Change Scale (Holt et al., 2007). The Readiness for Change scales measured the readiness for change of all subjects in the treatment and control groups, as well as the readiness for change of each subject's direct reports. After the completion of data collection, the results of the individual readiness for change self-ratings of the direct reports were grouped by treatment and control group subjects. I summed the individual readiness for change scores of raters reporting to each subject. I used those summed scores to determine the overall readiness for change of the team reporting to each subject. Summing the individual readiness for change scores in this way made it possible to determine the variance in the aggregate readiness for change of each subject's team of direct reports, from pretest to posttest. Both surveys were administered online using Qualtrics.

The president of the company sent out a request for participation in the survey for the pretest, and the chief human resources officer sent out the survey for the posttest. The requests explained that the 360-degree assessment is a standard tool used in leadership development for evaluating performance based on feedback from an array of people with whom they work closely, including supervisors, coworkers, partners, and direct reports. In preparation for the assessment, executives (treatment and control group subjects) identified 12 individuals whom they believed could provide accurate feedback regarding their leadership style and skills. They selected and included in their 360-degree raters one to two supervisors, five to six peers that they interact with often, and six to seven direct reports. Executives were

encouraged to include work colleagues who would provide critical input, as the more robust the feedback, the more valuable the report. They provided full names, titles, working relationships, emails, and phone numbers for the raters they selected. They received a deadline of three weeks for inviting their raters to provide feedback and used the same script for doing so. They received a link to the survey, and a time estimate and a deadline for completion. They knew that their 360-degree reports, comprised of the average scores across individual responses, were confidential at the individual level and that they would not be able to see individual responses from their raters, only a composite of all the responses. Finally, the team administering the survey (including the company's HR liaison) explained via email that upon completion of the surveys, they would receive detailed reports that summarized their results and would help them develop and evolve as strategic change leaders. Results of the surveys were confidential but not anonymous; although the team administering the surveys and preparing the reports could see the results, no one inside the company had access to individual executives' 360-degree reports but the executives themselves.

Measures

I collected dependent measures data using the survey I developed, which again consisted of scales relating to TLC from the TLQ and the entire Holt Readiness for Change Scale.

Transformational Leadership Capabilities

Subjects' TLC were measured using an adapted version of the TLQ. The TLQ is a widely used individual leader 360-degree assessment instrument that researchers have extensively validated and utilized across the globe (Alban-Metcalfe & Alimo-Metcalfe, 2000, 2007; Alimo-Metcalfe & Alban-Metcalfe, 2001; Alimo-

Metcalfe et al., 2008). The factors of transformational leadership measured by the full TLQ include leading and developing individuals, leading and developing the organization, leading the way forward, and personal qualities and values. The TLQ has 14 dimensions (attributes/scales) grouped under those four factors. Each dimension rests upon a set of items with demonstrated high construct validity and reliability across time and various replication studies. I selected the five dimensions that I judged to have the greatest face validity to my construct of strategic change leadership from the TLQ dimensions bank to produce a 34-item, 360-degree feedback collection instrument. The five dimensions I selected were resolving complex problems ($\alpha = .85$), building shared vision ($\alpha = .90$), facilitating change sensitively ($\alpha = .85$), focusing team effort ($\alpha = .90$), and encouraging change ($\alpha = .88$). Each dimension had four to eight items/questions associated with it. I preserved and employed all items associated with each of the scales, as developed by Alimo-Metcalfe & Alban-Metcalfe (2001), to preserve the scales' associated reliability scores. The 34 items in the TLC section of the final instrument were rated on a 6-point Likert scale ranging from 1 ("strongly disagree") to 6 ("strongly agree"). Scoring of the items in the TLC section was based on respondents rating the series of positively worded individual statements. I calculated an average (mean) response from the collective responses by apportioning numeric values. There were two versions of the TLC instrument, a self-report version (*TLC—Self Rating [TLC-SR]*), and one rated by the subjects' 360-degree stakeholders (*TLC—360*). Since both versions measured both pretest and posttest responses, the result was four separate aggregate measures for purposes of multivariate analysis: a pretest TLC-SR aggregate measure, a pretest TLC-360 aggregate measure, a posttest TLC-SR aggregate measure, and a posttest TLC-360 aggregate measure. I assessed all four

aggregate measures for compliance with the appropriate assumptions related to the various forms of multivariate analysis I conducted across both levels of the predictor variable (executive coaching). I also assessed each of the 20 individual dimensions across the four aggregate measures (five per measure) for compliance with the appropriate assumptions related to the various forms of univariate analysis undertaken.

Readiness for Change

Holt et al.'s (2007) Readiness for Change Scale served as the instrument gauging readiness for organizational change at the individual and team levels in this study. Again, the overall scale consists of four subscales: appropriateness ($\alpha = .94$), management support ($\alpha = .87$), change efficacy ($\alpha = .82$), and personally beneficial ($\alpha = .66$). The combined dimensions/subscales contain 25 readiness items. The items were phrased so that participants could express their level of agreement with each item using a 7-point response format ranging from 1 (= strongly disagree) to 7 (= strongly agree). Scoring of the items in the RFC scale relied on respondents rating the series of positively and negatively worded individual statements, and I calculated an average (mean) response from the collective responses by apportioning numeric values. Before scoring, I recoded the response data for all negatively worded items in the RFC Scale to align the direction of that data with the direction of the response data for the positively worded items. To measure the readiness for change of subjects' direct reports as a team, I aggregated the scores of all individuals reporting to each subject in the treatment and control groups by subject to yield team-level composite scores of the readiness for change of that leader's direct reports. Similar to the TLC instrument, I employed two versions of the RFC scale, one based upon the subjects' ratings of their own readiness for change

(*Readiness for Change—Self Rating [RFC-SR]*), and one based upon the subjects' direct reports' ratings of their own readiness for change (*Readiness for Change—Direct Reports [RFC-DR]*).

Given that I measured both versions pretest and posttest, the result was four separate aggregate measures for purposes of multivariate analysis: a pretest RFC-SR aggregate measure, a pretest RFC-DR aggregate measure, a posttest RFC-SR aggregate measure, and a posttest RFC-DR aggregate measure. I assessed all four aggregate measures for compliance with the appropriate assumptions related to the various forms of multivariate analysis that I conducted. This assessment was across both levels of the predictor measure (executive coaching), and each of the 16 individual dimensions across the four aggregate measures (four per measure), which I assessed for compliance with the appropriate assumptions related to the various forms of univariate analysis undertaken.

To test the hypotheses in this study, I employed a self-version (TLC-Self) and a 360 version (TLC-360) of the TLC instrument, and a self-version (RFC-Self) and direct reports version (RFC-DR) of the RFC instrument. Each of these four aggregate measures (TLC-Self, TLC-360, RFC-Self, and RFC-DR) functioned as a *variate* in this statistical analysis. Hair, Black, Babin, and Andersen (2014) described a variate as “the basic building block of multivariate analysis” (p. 4). Each variate is a function of a linear combination of four to five variables or dimensions with weights that the multivariate techniques empirically determine to meet a specific research objective. According to Hair, “the result is a single value representing a combination of the *entire set* of variables that best achieves the objective of the specific multivariate analysis” (p. 5). Repeated measures MANCOVA, the multivariate analysis I employed to test the research hypotheses, determined whether those who

received executive coaching (the treatment group) were statistically different on the two TLC and two RFC variates from those who did not receive coaching (the comparison group)—after controlling for potentially confounding covariates. The underlying dimensions—resolving complex problems, building shared vision, facilitating change sensitively, focusing team effort, and encouraging change, in the case of TLC, and appropriateness, management support, change efficacy, and personally beneficial, in the case of RFC—served as indicators of the two variates (i.e., the latent composite measures of TLC and RFC).

Predictor Variable

Executive Coaching

Executive coaching served as the independent measure in all four hypothesized relationships (H1, H2, H3, and H4). I operationalized it as a 0/1 dichotomous variable, with executives who received coaching (the treatment group) coded as 1, and those who did not receive coaching (the comparison group) coded as 0.

Control Variables

Potential confounding variables served as control variables in multivariate analyses. I requested and obtained control variable data archived in company records from the company's chief human resources officer and her staff. I collected and used both scale and categorical control variable data. The scale data used to create covariates for repeated measures MANCOVA analyses included *age* (measured in years), *tenure* (years of service), and the *number of coaching sessions* (measured as a numerical count of the total number of coaching sessions each executive completed). The categorical data, used as additional control variables during those repeated measures MANCOVA analyses, included *gender* (coded as

female = 0, male = 1), *organizational level* (defined as the number of number of levels from the president, where president = 0, president's direct reports = 1, two levels below the president = 2, three levels below the president = 3, and four levels below the president = 4), and subjects' *participation on strategic change acceleration teams* (a supplemental and complementary leadership development intervention, measured as no = 0, yes = 1). Organizational tenure and organizational level were of particular interest because pre-engagement qualitative diagnostic interviews suggested that tenure and level in the corporate hierarchy might influence perceptions of subjects' performance on the measures of interest.

Analytic Strategy

The impossibility of random assignment, due to the fact that the executives who were going to receive executive coaching were selected by the company's guiding coalition prior to my selection to lead the executive coaching engagement, posed a significant limitation to the findings. Left unaddressed, such a limitation would have made it difficult to draw meaningful conclusions. Therefore, I employed a quasi-experimental, non-equivalent groups research design to address this issue and improve confidence in the findings. That choice in study design, the number and type of factors and dependent variables, and the need to incorporate covariates, ultimately necessitated the use of repeated measures MANCOVA to test the hypotheses. When dimensions are correlated (as were the dimensions underlying both the aggregate measure for TLC and the aggregate measure for RFC in this study), repeated measures MANCOVA has greater statistical power than repeated measures ANCOVA, including the ability to detect smaller effects and to detect patterns between multiple dimensions (i.e., dependent variables).

More specifically, the following decision path required selecting repeated-measures MANCOVA to test the hypotheses in this study. First, the quasi-experimental study design required a comparison of the differences in means between two groups (treatment and comparison). The *analysis of variance* statistical tests are appropriate for such a comparison. Second, the pretest-posttest design required a comparison of the differences in the means of the treatment and control groups at two points in time, suggesting the appropriateness of the “repeated measures” subset of the analysis of variance statistical tests. Third, the need to determine the effects of a dichotomous predictor variable across the multiple underlying dimensions or dependent measures of the two variates or composite measures (TLC and RFC) required a focus on the *multivariate* repeated measures statistical tests. Fourth, the need to assess the predictor variable’s effects on both the multiple *individual dependent measures* and the *entire variate* (i.e., the linear combination of those related individual dependent measures) required repeated measures multivariate analysis of covariance (MANCOVA). Fifth, repeated measures MANCOVA also addressed the *non-equivalent groups* aspect of the research design, as it corrected for individual baselines or differences of the treatment and comparison groups. At the time of the pretest, the MANCOVA measures statistically adjusted for those group pretest differences using a combination of the *analysis of variance* approach of testing mean differences with the *multiple regression* approach of estimating the rate of change (i.e., slope). Sixth, with multiple dependent measures, it was better to use MANCOVA than to run a series of single dependent variable ANCOVAs, because the latter approach inflates the chance of a Type 1 error—whereas MANCOVA controls for such inflation. Seventh, repeated measures MANCOVA addressed the need to assess or control

for potential *covariates*, as it accounts for the potential effects of confounding factors. It also allows for the analysis of the interaction between the covariates, the time, and the predictor variables' factor levels. The use of covariates to adjust means also helps eliminate systematic bias and reduce within-groups error. Eighth, MANCOVA can detect instances where there is a statistically significant main effect on the variate, even if none of the individual ANCOVAs produced a significant main effect. MANCOVA addressed the correlations among the dependent measures. This combination of factors made repeated measures MANCOVA the most appropriate means for testing the four hypotheses of this study.

CHAPTER 5

RESULTS

Assumptions Compliance Testing

Sample Size. Descriptive statistics confirmed that all the groups (cells) contained a number of observations at least twice the number of dependent measures or dimensions under analysis—satisfying the assumption of adequate sample sizes.

Continuous DVs and covariates. The measurement level for all aggregate dependent measures and their underlying dimensions was ordinal (6-point Likert scales for the 34 Transformational Leadership related items and 7-point Likert scales for the 25 Readiness for Change items). To utilize parametric statistical tests, I treated all of those measures and dimensions as continuous and summed individual and group level scores where appropriate, thereby satisfying the assumption of continuous variables. I used three other continuous variables as covariates for post hoc repeated measures MANCOVA analyses, including *age* (measured in years), *tenure* (measured in years of service), and the *number of coaching sessions*. Thus, all covariates were continuous, as assumed by MANCOVA.

Categorical IVs. The measurement level of the independent variable (executive coaching) was categorical and dichotomous, with two levels indicating membership in either the treatment or control groups. Thus, this assumption was satisfied relative to all statistical tests. I assessed several other categorical and potentially confounding variables during post hoc analyses, including *gender*, *organizational level* (i.e., number of levels from the president), and subjects' *participation on strategic change acceleration teams* (a supplemental and complementary leadership development intervention). In all instances, the

MANCOVA assumption of categorical predictor variables with two or more levels was satisfied.

Independence of Observations. Independence of observations was not an assumption for any of the repeated measures multivariate tests (i.e., repeated measures ANOVA and repeated measures MANCOVA).

Linearity. I created scatterplots of all possible bivariate relationships between the dimensions within each of the eight aggregate measures described above. I established linearity for every possible combination of two dimensions within those eight aggregate measures.

Univariate Outliers. All of the tests employed in the statistical analysis I conducted assume that there are no outliers in the response data for each dependent measure. Boxplot inspection of the four aggregate measures in my data set revealed only one had an outlier: pretest TLC-SR. Further inspection confirmed the outlier was neither due to data entry nor measurement error, but rather was a genuinely unusual value. When faced with outliers, there are essentially three options available to the researcher: (a) include the outlier(s) in the analyses because the results will remain materially unaffected; (b) transform the response data for the measures with outliers to normalize those measures; and, (c) remove the outlier(s). After inspecting the outlier, I chose not to remove it, as it was not extreme; the 5% trimmed mean and mean values were very similar, and it was not too different from the rest of the distribution to which it belonged.

Univariate Normality. Univariate normality tests indicated that all four aggregate measures (i.e., TLC-SR, TLC-360, RFC-SR, and RFC-DR) were normally distributed, as assessed by visual inspection of the Normal Q-Q plots, histogram plots, and Shapiro-Wilk tests ($p > .05$).

Multivariate Normality. Multivariate normality tests indicated that the four aggregate measures (i.e., TLC-SR, TLC-360, RFC-SR, and RFC-DR), when combined, were also normally distributed, as assessed by visual inspection of the Normal Q-Q plots, histogram plots, and Shapiro-Wilk tests ($p > .05$).

Multivariate Outliers. An assumption of each of the multivariate tests that I employed is that there are no multivariate outliers as well. There were no multivariate outliers in any of the four measures used for the multivariate tests that I conducted (i.e., repeated measures MANCOVA), as assessed by boxplot and Mahalanobis distance ($p > .001$).

Multicollinearity. There was no multicollinearity, as assessed by tolerance and VIF collinearity statistics (Tolerance < 0.1 and Variance Inflation Factor ≥ 10).

Homogeneity of Variances. Violations of the assumption of homogeneity of variances, as assessed by Levene's Test of Equality of Error Variances ($p < .05$), appear in the Statistical Analyses section of this study.

Homogeneity of Variance-Covariance Matrices. Violations of the assumption of homogeneity of variance-covariance matrices, as assessed by Box's Test of Equality of Covariance Matrices statistics ($p < .05$), appear in the next section (Statistical Analyses), where appropriate.

Statistical Analyses

Exploratory Factor Analysis (EFA)

I used exploratory factor analyses to determine the number of continuous latent factors required to explain the correlations among the set of observed dimensions related to two constructs in this study: TLC and readiness for change. More specifically, I subjected the 34 items of the TLC Scale and the 25 items of the RFC Scale to exploratory factor analysis (EFA) using MPlus8 version 1.6 (1). As the

tables below show, the EFAs revealed that the latent TLC construct is best measured as a five-factor solution (see Table 1), and the latent RFC construct is best modeled as a four-factor solution (see Table 2).

Table 1

Fit Indices for Transformational Leadership Capabilities

Measure							
TLC	χ^2	<i>df</i>	CFI	TLI	RMSEA	SRMR	AIC
1 Factor	3462.275*	495	0.72	0.70	0.11	0.08	36065.007
2 Factor	2490.613*	463	0.81	0.78	0.09	0.06	35157.345
3 Factor	1905.43*	432	0.86	0.83	0.08	0.05	34634.162
4 Factor	1427.121*	402	0.90	0.87	0.07	0.03	34215.853
5 Factor	1015.863*	373	0.94	0.91	0.06	0.03	33862.595

Note. χ^2 = chi square goodness of fit statistic; *df* = degrees of freedom; RMSEA = Root Mean Square Error of Approximation; AIC = Akaike Information Criterion; CFI = Comparative Fit Index; TLI = Tucker Lewis Index; SRMR = Standardized Square Root Mean Residual. * Indicates χ^2 are statistically significant ($P < .001$).

Table 2

Fit Indices for Readiness for Change

Measure							
TLC	χ^2	<i>df</i>	CFI	TLI	RMSEA	SRMR	AIC
1 Factor	2429.052*	275	0.40	0.35	0.14	0.12	29196.83
2 Factor	1697.923*	251	0.60	0.52	0.12	0.10	28513.701
3 Factor	999.740*	228	0.79	0.72	0.09	0.06	27861.518
4 Factor	731.973*	206	0.85	0.79	0.08	0.04	27637.751

Confirmatory Factor Analysis (CFA)

The EFA analyses confirmed that for the construct of TLC, measured with the 34-item instrument, a five-factor solution proved the best model and that the construct of readiness for change, measured with the 25-item instrument, was best modeled by a four-factor solution. Additionally, I used confirmatory factor analyses (CFA) to determine whether the five-factor (dimension) solution for TLC and the four-factor solution for RFC provided model fit superior to single-factor solutions for both constructs. More specifically, I subjected the 34 items of the TLC scale and the 25

items of the Holt Readiness for Change scale to confirmatory factor analysis (CFA) using MPlus8 version 1.6 (1). In the case of the TLC construct, I compared the results of a one-factor solution to my chosen five-factor/dimension solution, comprised of resolving complex problems, building shared value, facilitating change sensitively, focusing team effort, and encouraging change. Similarly, in the case of Holt's Readiness for Change construct, I compared the results of a one-factor solution to my chosen four-factor/dimension solution, comprised of appropriateness, management support, change efficacy, and personally beneficial. As the tables below show, the CFAs revealed that the five-dimension/factor TLC model, adapted from the Real World Group's TLQ, demonstrated a superior fit to the response data than a one-factor model (see Table 5), as assessed by the fit indices and thresholds established by Hu and Bentler (1999) in their seminal work (i.e., $\chi^2/df < 3$ good; < 5 sometimes permissible. CFI $> .95$ great; $> .90$ traditional; $> .80$ sometimes permissible. SRMR $< .09$. RMSEA $< .05$ good; $.05 - .10$ moderate; $> .10$ bad) (Niemand & Mai, 2018).

Table 3

Fit Indices for Alternative Factor Models of Transformational Leadership Capabilities (TLC)

Measure	χ^2	<i>df</i>	CFI	TLI	RMSEA	SRMR	AIC
TLC (1 Factor)	2684.405*	495	0.73	0.71	0.09	0.08	36065.007
TLC (TLQ)	2020.372*	485	0.81	0.79	0.08	0.08	35210.303

Similarly, Holt's four-dimension/factor RFC model, demonstrated a superior fit to the response data than a one-factor model with all 25 items loaded directly into it

(see Table 4), again as assessed by Hu and Bentler's (1999) fit indices and thresholds.

Table 4

Fit indices for Alternative Factor Models of Readiness for Change (RFC)

Measure							
RFC	χ^2	<i>df</i>	CFI	TLI	RMSEA	SRMR	AIC
RFC (1 Factor)	1834.847*	275	0.34	0.28	0.12	0.12	29196.83
Holt RFC	940.551*	269	0.72	0.68	0.08	0.08	27901.063

The results of these EFA and CFA factor analyses support the use of the five-factor, or five-dimension, TLC model (adapted from the TLQ) and the four-factor RFC model as appropriate variates (or aggregate measures) for MANCOVA analyses.

MANCOVA Analysis

Hypothesis 1 predicted that executive coaching would positively affect the development of strategic change leaders' TLC—as assessed by the subjects themselves (i.e., self-ratings). These capabilities included the underlying dimensions of resolving complex problems, building a shared vision, focusing team effort, facilitating change sensitively, and encouraging change. I ran a repeated measures MANCOVA to test this hypothesis. The aggregate measure (TLC—self ratings [TLC-SR]) comprised of the five dimensions just mentioned served as the dependent measure of interest. Executive coaching, organizational level, and gender served as the between-subjects factors, time (pretest to posttest) served as the within-subjects factor; and organizational tenure and age served as covariates in the repeated measures MANCOVA multivariate test. At the multivariate level (i.e., the linear combination of the five underlying dimensions: RCP-SR, BSV-SR, FCS-SR, FTE-SR, and EC-SR), there was a statistically significant within-subjects difference on the

TLC-SR aggregate measure from pretest to posttest, for both the comparison and treatment groups—as assessed by the subjects themselves. To be more precise, there was a statistically significant within-subjects change due to time (the within-subjects factor) on the combined dimensions for TLC-SR between pretest and posttest, $F(5, 10) = 9.409, p = .002$; Wilks' $\Lambda = .175$; partial $\eta^2 = .825$. I did not compute Box's M test because there were fewer than two nonsingular cell covariance matrices. The power to detect was .990. However, there was not a statistically significant between-subjects *main effect* (i.e., not a statistically significant difference between the change in scores for the treatment group versus the change in scores for the comparison group) on the combined dimensions for TLC-SR: $F(5, 10) = 2.274, p = .126$; Wilks' $\Lambda = .468$; partial $\eta^2 = .532$. I did not compute Box's M test because there were fewer than two nonsingular cell covariance matrices. The power to detect was .492. While these results indicate a statistically significant change in subjects' assessments of their TLC between pretest and posttest, they do not indicate a statistically significant difference in the amount of perceived change between those who received executive coaching (treatment group) and those that did not (comparison group). Thus, the results do not support Hypothesis 1.

Hypothesis 2 predicted that executive coaching would positively affect the development of strategic change leaders' TLC, as assessed by a 360-degree group of subjects' stakeholders. The leadership capabilities include the underlying dimensions of resolving complex problems, building a shared vision, focusing team effort, facilitating change sensitively, and encouraging change. I ran a repeated measures MANCOVA to test this hypothesis. The aggregate measure (TLC—360 [TLC-360]) comprised of the five dimensions just mentioned served as the dependent measure of interest. Executive coaching, organizational level, and

gender served as the between-subjects factors; time (pretest to posttest) served as the within-subjects factor; and, organizational tenure and age served as covariates in the MANCOVA test. At the multivariate level (i.e., the linear combination of the five underlying dimensions: RCP-360, BSV-360, FCS-360, FTE-360, and EC-360), the repeated measures MANCOVA showed that there was a statistically significant between-subjects *main effect* for executive coaching on the combined dimensions for TLC-360 after controlling for age, gender, tenure, and organizational level, $F(5, 19) = 6.890, p = .001$; Wilks' $\Lambda = .355$; partial $\eta^2 = .645$. The power to detect was .987. The dimensions of TLC-360 showed a general trend to improve for the treatment group while reflecting a mixed result for the comparison group (see Table 5).

Table 5

Adjusted Means and Standard Errors for the Five Dimensions of TLC-360
(Independent Variable [IV] = Executive Coaching)

Group	TLC-360									
	RCP-360		BSV-360		FCS-360		FTE-360		EC-360	
	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE
Treatment										
<i>pretest</i>	5.42	0.13	5.17	0.11	5.01	0.14	5.03	0.16	5.20	0.17
<i>posttest</i>	5.68	0.18	5.20	0.13	5.17	0.14	5.06	0.15	5.36	0.19
Comparison										
<i>pretest</i>	5.07	0.10	5.05	0.08	5.10	0.11	5.08	0.12	5.03	0.13
<i>posttest</i>	5.01	0.14	5.09	0.10	5.11	0.10	5.11	0.11	5.12	0.14

Given the significance of the multivariate test for the aggregate measure (TLC-360), I performed follow-up univariate one-way ANCOVAs. I examined the univariate main effects underlying the detected multivariate between-subjects effects. I found that although the linear combination of the underlying dimensions proved significant at the multivariate level, no single underlying dimension was statistically significant

itself at a Bonferroni adjusted α level of .01. These results indicate a statistically significant difference (at the multivariate level) between those who received executive coaching (treatment group) and those who did not (comparison group) in terms of the 360-degree raters' assessments of the subjects' change in TLC between pretest and posttest. Thus, the results supported Hypothesis 2.

Hypothesis 3 predicted that executive coaching positively affects strategic change leaders' personal readiness for change (along with the underlying dimensions of appropriateness, management support, change efficacy, and personally beneficial), as assessed by the subjects themselves (i.e., self-ratings). I ran a repeated measures MANCOVA to test this hypothesis. The aggregate measure (readiness for change—self ratings [RFC-SR]) comprised of the four dimensions just named served as the dependent measure of interest. Executive coaching, organizational level, and gender served as the between-subjects factors; time (pretest to posttest) served as the within-subjects factor; and organizational tenure, age, and the number of coaching sessions served as covariates in the repeated measures MANCOVA multivariate test. At the multivariate level (i.e., the linear combination of the 4 underlying dimensions: A-SR, MS-SR, CE-SR, and PB-SR), there was a statistically significant between-subjects *main effect* on the combined dimensions for RFC-SR: $F(4, 17) = 4.981, p = 0.008$; Wilks' $\Lambda = 0.460$; partial $\eta^2 = 0.540$. I did not compute Box's M test because there were fewer than two nonsingular cell covariance matrices. The power to detect was .893. The adjusted means for the comparison group reflected declines in three dimensions and was flat on one, while the treatment group improved on two dimensions and declined on two (see Table 6).

Table 6

Adjusted Means and Standard Errors for the Four Dimensions of RFC-SR (IV = Executive Coaching)

Group	RFC-SR							
	Appropriateness		Management Support		Change Efficacy		Personally Beneficial	
	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE
Treatment								
<i>pretest</i>	5.42	0.11	5.17	0.27	5.01	0.26	5.03	0.20
<i>posttest</i>	5.68	0.19	5.20	0.27	5.17	0.37	5.06	0.27
Comparison								
<i>pretest</i>	5.07	0.12	5.05	0.29	5.10	0.27	5.08	0.22
<i>posttest</i>	5.01	0.21	5.09	0.29	5.11	0.40	5.11	0.29

Given the significance of the multivariate test for the aggregate measure RFC-SR, I examined the univariate main effects underlying the detected multivariate between-subjects effects. I found statistically significant univariate main effects for executive coaching on two dimensions within the measure: management support-self ratings (MS-SR) and personally beneficial-self ratings (PB-SR). There was a statistically significant difference between the treatment and comparison groups in the change in MS-SR scores from pretest to posttest, using a Bonferroni adjusted α level of .0125: $F(1, 20) = 8.422, p = .003$; partial $\eta^2 = .374$, power = .907. There was a statistically significant difference between the treatment and comparison groups in the change in PB-SR scores from pretest to posttest, using a Bonferroni adjusted α level of .0125: $F(1, 20) = 4.679, p = .004$; partial $\eta^2 = .353$, power = .881. These results indicated a statistically significant difference between those who received executive coaching (treatment group) and those that did not (comparison group). Readiness for change improved more strongly between pretest and posttest for

those who received coaching than it did for those who did not, as assessed by self-report. Thus, the results supported Hypothesis 3.

Hypothesis 4 predicted that executive coaching positively affects the readiness for change of strategic change leaders' direct reports (along with the underlying dimensions of appropriateness, management support, change efficacy, and personally beneficial), as assessed by the subjects' direct reports themselves [i.e., self-ratings]). I ran a repeated measures MANCOVA to test this hypothesis. The aggregate measure (readiness for change—direct reports [RFC-DR]), comprised of the four dimensions just mentioned, served as the dependent measure of interest. Executive coaching, organizational level, and gender served as the between-subjects factors; time (pretest to posttest) served as the within-subjects factor; and, organizational tenure served as the covariate in the repeated measures MANCOVA multivariate test. At the multivariate level (i.e., the linear combination of the 4 underlying dimensions: A-SR, MS-SR, CE-SR, and PB-SR), there was a statistically significant between-subjects change on the combined dimensions for RFC-DR between pretest and posttest, as assessed by the direct reports across both groups: (treatment and comparison), $F(4, 21) = 4.367, p = .01$; Wilks' $\Lambda = .546$; partial $\eta^2 = .454$. I did not compute Box's M test because there were fewer than two nonsingular cell covariance matrices. The power to detect was .865. The adjusted means for both groups reflected declines across most dimensions. The adjusted means for the comparison group reflected declines in two dimensions and improvement on two, while the treatment group improved on one dimension and declined on three (see Table 5).

Table 7

Adjusted Means and Standard Errors for the Four Dimensions of RFC-DR (IV = Executive Coaching)

Group	RFC-DR							
	Appropriateness		Management Support		Change Efficacy		Personally Beneficial	
	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE
Treatment								
<i>pretest</i>	6.22	0.09	5.95	0.13	5.78	0.14	6.20	0.19
<i>posttest</i>	6.14	0.13	6.37	0.12	5.57	0.19	5.63	0.18
Comparison								
<i>pretest</i>	6.38	0.08	6.43	0.11	5.94	0.12	6.73	0.16
<i>posttest</i>	6.37	0.11	6.54	0.10	6.11	0.16	6.40	0.15

Given the significance of the multivariate test for the aggregate measure RFC-DR, I examined its univariate main effects. Underlying the detected multivariate between-subjects effect, I found statistically significant univariate main effects for executive coaching for two dimensions within the measure: management support--direct reports (MS-DR), and personally beneficial-direct reports (PB-DR). There was a statistically significant difference between the treatment and comparison groups in the change in MS-DR scores from pretest to posttest, using a Bonferroni adjusted α level of .0125: $F(1, 24) = 11.354, p = .003$; partial $\eta^2 = .321$, power = .898. There was a statistically significant difference between the treatment and comparison groups in the change in PB-DR scores from pretest to posttest, using a Bonferroni adjusted α level of .0125: $F(1, 24) = 12.500, p = .002$; partial $\eta^2 = .342$, power = .924. These results indicate a statistically significant difference between those who received executive coaching (treatment group) and those that did not (comparison group) in terms of the subjects' direct reports' assessments of the change in their readiness for change between pretest and posttest. However, the results do not

suggest that those who received coaching experienced greater improvement in readiness for change than those that did not. Thus, the results do not support Hypothesis 4.

Supplemental Statistical Analyses

Multiple Linear Regression

To check the robustness of the findings after completing the MANOVA analyses, an option could have been to run 22 simple multiple linear regressions, including five for TLC-SR (one for each of the five underlying TLC dimensions/DVs), five for TLC-360 (again one for each of the five underlying TLC dimensions/DVs), four for RFC-SR (one for each of the four RFC dimensions/DVs), four for RFC-DR (one for each of the four RFC dimensions/DVs), and one apiece for each of the variates (composite measures), TLC-SR, TLC-360, RFC-SR, and RFC-DR. For each simple multiple linear regression, I created a “change from pretest to posttest” variable for the relevant dimension to serve as the dependent variable in the regression. A dichotomous dummy variable for executive coaching served as the primary independent variable, and tenure and age served as the only other independent variables in the models. Unfortunately, statistical power tests using G*Power revealed there was insufficient power to detect (i.e., Power $[1-\beta \text{ err prob}] > .80$) in 43 out of those 44 multiple regressions. The only multiple regression model that had sufficient statistical power was the one for RFC-DR: Power $(1-\beta \text{ err prob}) = .91$. When I ran that regression, the predictors in the model did not turn out to be statistically significant.

MANCOVA Analysis of Selected Control Variables

Executive coaching was the primary predictor variable in this study. However, I used the control variable data I collected to create two additional grouping variables

and used repeated measures MANCOVA to explore the effects of each of those two independent variables on the four variates (i.e., TLC-SR, TLC-360, RFC-SR, and RFC-DR). The first additional grouping variable, COACHSES (Coaching Sessions), related to the dosage of coaching sessions an executive had over the course of the engagement (I operationalized it as Heavy dosage of coaching = 2, Normal dosage = 1, Control = 0, and where "normal" was defined as 2 sessions/month and "heavy" was defined as > 2 coaching sessions/month). The second additional grouping variable, ATCOACHEE (Acceleration Team Coachee), related to participation in a supplemental leadership development activity, namely participation on acceleration teams. A subset of the treatment group (i.e., those who received executive coaching) also served on strategic change acceleration teams. The acceleration teams were a supplemental and complementary leadership development intervention designed both to accelerate strategic change related to innovation and culture change and to provide the team's members with an additional opportunity to practice the new concepts they were learning in their coaching sessions and two leadership development workshops. I used the acceleration team participation data I collected to operationalize this variable (measured as Coaching plus Participation on an AT = 2, Coaching with no participation on an acceleration team = 1, and Control = 0).

Each of these two new variables functioned to split the coaching (treatment) group in two, which, combined with the control group, resulted in three new qualitatively determined factor levels for each of the two new predictor variables. I then conducted repeated measures MANCOVA analyses, where each of the newly created variables served as (a) the sole independent or grouping variable in a One-Way MANCOVA, and, (b) one of two independent variables in a Two-Way

MANCOVA. In each instance of the latter case, the other independent variable was either executive coaching (my primary predictor variable, with two factor levels) or one of the other newly created grouping variables. For the repeated measures MANCOVAs, I ran all possible pairs of the three grouping variables (i.e., executive coaching, ATCOACHEE, and COACHSES). Additionally, where I could do so without duplication, I incorporated the other control variables for which I had collected data, including the continuous variables age, tenure, and the number of coaching sessions, and the categorical variables gender and organizational level as covariates. Following is a summary of what the repeated measures MANCOVAs revealed regarding the effects of the two qualitatively determined grouping variables on the four variates (TLC-SR, TLC-360, RFC-SR, RFC-DR).

COACHSES. I ran a series of repeated measures MANCOVAs to assess the potential effects of the dosage of coaching (i.e., normal, heavy, or none) throughout the study. The tests revealed that COACHSES had a statistically significant between-subjects *main effect* on the combined dimensions for TLC-360 and RFC-DR, after controlling for age, gender, tenure, and organizational level: TLC-360, $F(5, 24) = 3.004, p = .03$; Wilks' $\Lambda = .615$; partial $\eta^2 = .385$. Power to detect was .768; RFC-DR, $F(8, 38) = 2.668, p = .02$; Wilks' $\Lambda = .410$; partial $\eta^2 = .360$. I did not compute Box's M test because there were fewer than two nonsingular cell covariance matrices. The power to detect was .869.

Given the significance of COACHSES in the multivariate tests for the aggregate measure TLC-360, I examined its univariate main effects. Underlying the detected multivariate between-subjects effect on TLC-360, I found statistically significant univariate main effects for COACHSES for two TLC-360 dimensions. There was a statistically significant difference in RCP-360 scores from pretest to

posttest between the executives who received a normal dosage of coaching, those who received a heavy dosage, and those in the comparison group who received no coaching, according to a Bonferroni adjusted α level of .01: $F(1, 28) = 8.205, p = .008$; partial $\eta^2 = .227$, power = .790. There was a statistically significant difference in BSV-360 scores from pretest to posttest between the executives who received a normal dosage of coaching, those who received a heavy dosage, and those in the comparison group who received no coaching in the change, according to a Bonferroni adjusted α level of .01: $F(1, 28) = 12.669, p = .001$; partial $\eta^2 = .312$, power = .930. Those who received a normal amount of coaching experienced a much more significant improvement in outcomes than did those in the comparison group and those who received a heavy dosage of coaching.

Given the significance of COACHSES in the multivariate tests for the aggregate measure RFC-DR, I examined the univariate main effects underlying the detected multivariate between-subjects effect. I found that although the linear combination of the underlying dimensions proved significant at the multivariate level, no single underlying dimension was statistically significant itself at a Bonferroni adjusted α level of .0125.

Table 8

Adjusted Means and Standard Errors for the Five Dimensions of TLC-360 (IV = COACHSES)

Group	TLC-360										
	RCP-360		BSV-360		FCS-360		FTE-360		EC-360		
	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE	
Comparison											
<i>pretest</i>	5.19	0.05	2.53	0.04	5.07	0.50	5.03	0.06	5.11	0.07	
<i>posttest</i>	5.15	0.08	2.50	0.06	5.05	0.08	4.99	0.09	5.14	0.08	
Normal Dose of Coaching											
<i>pretest</i>	5.32	0.08	2.57	0.06	5.05	0.08	5.07	0.09	5.17	0.10	
<i>posttest</i>	5.55	0.11	2.65	0.09	5.26	0.11	5.20	0.12	5.40	0.12	
Heavy Dose of Coaching											
<i>pretest</i>	5.18	0.10	2.51	0.07	5.01	0.10	4.96	0.11	5.06	0.13	
<i>posttest</i>	5.15	0.14	2.48	0.11	4.95	0.14	4.90	0.16	5.12	0.15	

Table 7 summarizes the change in adjusted means scores of RFC-DR from pretest to posttest for the three groups.

Table 9

Adjusted Means and Standard Errors for the Four Dimensions of RFC-DR (IV = COACHSES)

Group	RFC-DR							
	Appropriateness		Management Support		Change Efficacy		Personnaly Beneficial	
	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE	M_{adj}	SE
Comparison								
<i>pretest</i>	6.38	0.08	6.43	0.10	5.95	0.12	6.73	0.17
<i>posttest</i>	6.37	0.12	6.53	0.10	6.12	0.17	6.39	0.15
Normal Dose of Coaching								
<i>pretest</i>	6.28	0.13	5.83	0.14	5.77	0.19	6.28	0.25
<i>posttest</i>	6.29	0.17	6.51	0.16	5.40	0.25	6.34	0.22
Heavy Dose of Coaching								
<i>pretest</i>	6.02	0.14	5.88	0.16	5.89	0.20	6.11	0.27
<i>posttest</i>	5.91	0.19	6.12	0.17	5.92	0.27	4.84	0.24

ATCOACHEE. I ran a series of repeated measures MANCOVAs to assess the potential effects of combining executive coaching with experience serving on strategic change acceleration teams, which further developed the strategic change leadership capabilities of a subset of executives in the treatment group. They revealed that ATCOACHEE had a statistically significant between-subjects *main effect* on the combined dimensions on TLC-360, after controlling for age, gender, tenure, and organizational level: $F(10, 30) = 2.413, p = .03$; Wilks' $\Lambda = .307$; partial $\eta^2 = .446$. Power to detect was .852. Table 8 summarizes the change in means scores of TLC-360 from pretest to posttest for the three groups: Subjects that received coaching *and* participated on acceleration teams experienced a more significant improvement in TLC-360 scores than did those subjects who received no coaching

and those subjects who received coaching but did not participate on acceleration teams.

Table 10

Adjusted Means and Standard Errors for the Five Dimensions of TLC-360 (IV = ATCOACHEE)

Group	TLC-360									
	RCP-360		BSV-360		FCS-360		FTE-360		EC-360	
	<i>M_{adj}</i>	<i>SE</i>	<i>M_{adj}</i>	<i>SE</i>	<i>M_{adj}</i>	<i>SE</i>	<i>M_{adj}</i>	<i>SE</i>	<i>M_{adj}</i>	<i>SE</i>
Comparison										
<i>pretest</i>	5.06	0.12	4.93	0.07	5.03	0.11	5.01	0.13	4.92	0.13
<i>posttest</i>	4.93	0.14	4.96	0.09	5.03	0.11	5.05	0.13	5.00	0.15
Coaching w/ No AccelTeam										
<i>pretest</i>	5.45	0.14	5.35	0.08	5.02	0.13	5.04	0.16	5.39	0.16
<i>posttest</i>	5.66	0.17	5.29	0.11	5.27	0.13	5.13	0.15	5.40	0.18
Coaching + AccelTeam										
<i>pretest</i>	5.36	0.18	5.25	0.10	5.19	0.16	5.15	0.20	5.30	0.20
<i>posttest</i>	5.88	0.20	5.40	0.13	5.32	0.16	5.17	0.19	5.62	0.23

Given the significance of ATCOACHEE in the multivariate test for the aggregate measure of TLC-360, I examined the univariate main effects underlying the detected multivariate between-subjects effect. I found that although the linear combination of the underlying dimensions proved significant at the multivariate level, no single underlying dimension was statistically significant itself at a Bonferroni adjusted α level of .01.

CHAPTER 6

DISCUSSION

By combining Rajagopalan and Spreitzer's (1996) strategic change framework with Zaccaro and Klimoski's (2002) model of executive performance imperatives into a theory of strategic change leader performance imperatives and outcomes, I argued that the efficacy of executive coaching as a means to develop strategic change leaders might depend on its ability to help them improve their TLC and readiness for change, on the one hand, and achieve important proximate strategic change outcomes, on the other. I proposed that improving the readiness for change of their direct reports (i.e., executive teams) is one such proximate strategic change outcome. I found ample support in previous studies on strategic change, strategic leadership, and executive coaching to posit that TLC and readiness for change were essential to the performance and change-related outcomes of strategic change leaders. I hypothesized that executive coaching, grounded in the theory of strategic change leader performance imperatives and outcomes underlying this study, would positively relate to such leaders' development of TLC and readiness for change. Moreover, it would positively relate to their ability to improve the readiness for change of their direct reports as well.

The results suggested that executive coaching positively affects both strategic change leaders' development of TLC—as assessed by their 360-degree stakeholders—and their readiness for change, as assessed by self-report. Furthermore, biweekly coaching sessions, as opposed to more frequent ones, and supplemental leadership development activities such as participation on change acceleration teams appeared to amplify these outcomes. Under the conditions of investigation, however, coaching did not have a statistically significant effect on

strategic change leaders' self-ratings of their development of TLC. Also, contrary to expectations, executive coaching appears to have adversely affected the readiness for change of their direct reports.

The contrasting findings on TLC raise an interesting question: how could 360-degree stakeholders see statistically significant improvements in strategic change leaders' TLC when the leaders themselves did not? Reflection on the content of the weekly meetings of the coaches suggests there might be two factors at play. First, 1:1 coaching may have heightened treatment group members' awareness of the work they still needed to do to achieve transformational leadership excellence. In contrast, the comparison group members, who did not receive similar feedback and guidance, may have lacked a comparable awareness of what constitutes transformation leadership excellence, and without such awareness, may have been more satisfied with their leadership performance. Second, by the conclusion of the seven-month coaching engagements, the coaches generally felt that the executives they were coaching were still in the stage of conscious competence and deliberate practice of the new mindsets, techniques, and behaviors they were learning; rather than having achieved the stage of unconscious competence and mastery. Thus, while those executives' 360-degree stakeholders perceived improvement in the executives' TLC, the treatment group members themselves were acutely aware of how far they still had to go to achieve mastery. The opposite may have been true for the comparison group members (i.e., lacking comparable awareness of how far they still needed to go to achieve mastery, they rated themselves more highly than did their 360-degree stakeholders). Whether this explanation is correct or not is a question for future research. Meanwhile, it is important to note that this contrasting finding is consistent with MacKie (2014), Kampa-Kokesch (2001), and Finn (2007),

who similarly found no significant difference between treatment and comparison groups as rated by self-report, but did find a statistically significant effect for coaching on transformational leadership as rated by others.

The contrasting findings on readiness for change also raise interesting questions. On the one hand, leaders in the treatment group rated themselves readier for change than did leaders in the comparison group. This finding supports the results of Grant (2014), who also found coaching positively affected subjects' ability to cope with change, as rated by self-report. On the other hand, the direct reports of leaders in the treatment group rated themselves less ready for change than did the direct reports of the leaders in the comparison group. As described in chapter 4, the leaders in the treatment group were not randomly selected. They were selected because of their demonstrated potential to drive strategic change. That could have resulted in treatment group members taking change-related actions more quickly than their comparison group counterparts. Those actions might have led to the direct reports of treatment group members feeling the de-stabilizing effects of the change effort more quickly and acutely than the direct reports of the leaders in the comparison group, adversely affecting the former's readiness for change. Conversely, the direct reports of comparison group members may have been relatively more isolated from change-related leadership actions. Additionally, although seven months may have been sufficient for the leaders in the treatment group to develop greater readiness for change, it might not have been long enough for them to achieve sufficient personal readiness for change so that they could then focus on helping their direct reports achieve the same.

Theoretical Implications

The relationships between executive coaching and strategic change leader development and outcomes remain poorly understood in the literature assessing strategic change, strategic leadership, and executive coaching. To date, there have been no peer-reviewed articles that directly investigated the relationships between executive coaching, strategic leadership, and strategic organizational change outcomes. Thus, the present study constitutes the first theoretically grounded, empirical test of the relationships between executive coaching, strategic change leader development, and proximate strategic change outcomes. Thereby it makes important contributions to the fields of strategic change, strategic leadership, and executive coaching. My findings regarding these relationships can support researchers working in these three fields, as well as individuals attempting to conduct cross-disciplinary research across the three.

The integrated, cross-disciplinary, multi-level theory of strategic change leader performance imperatives and outcomes underlying this study links two well-established theories and two bodies of literature into a novel theoretical foundation for future research. The integrated theory holds that (a) managerial cognitions and actions predict proximate and distal strategic change outcomes (Rajagopalan & Spreitzer, 1996), and (b) that strategic change leaders use their cognitions and actions to interpret and meet the performance imperatives prescribed by the strategic change context in which they operate Zaccaro and Klimoski, (2002). Researchers have called for better integration of theories from relevant research streams and more explicit links between the elements of multi-level theories (Armenakis & Bedeian, 1999; Ford, Ford, & Polin, 2014; Hannah, Avolio, Luthans, & Harms, 2008; Pettigrew, Woodman, & Cameron, 2001; Yukl, 2008; Zaccaro, 1996;

Zaccaro & Klimoski, 2002). The present study's results validate those earlier calls and highlight the potential value of executive coaching research grounded in theory from other fields, such as strategic change and strategic leadership, two disciplines that were particularly relevant to the questions at the heart of this study.

The results of the present study contribute to the strategic management and strategic change literature by providing further validation for Rajagopalan and Spreitzer's (1996) argument that managerial cognitions matter and that they demonstrate recursive learning (i.e., they can evolve and can affect variance in strategic change outcomes). Similarly, the results validate an important theoretical argument in the strategic leadership literature by offering further support for Zaccaro, LaPort, and José's (2013) contention that context (e.g., strategic change) matters because it elucidates the performance imperatives (e.g., TLC and readiness for change) that top managers must meet to achieve critical organizational outcomes.

While the integrated, cross-disciplinary theory and empirical findings from the present study are potentially relevant to all three fields mentioned above, researchers in the field of executive coaching may find them particularly useful. Experts studying executive coaching have decried the lack of theoretical coherence underlying much of the research within the field. These researchers have found that empirical techniques and evaluations often lack a theoretical foundation, recommending that future research thoroughly describe the theoretical framework underlying their research (Athanasopoulou & Dopson 2015; Grant et al., 2010 Passmore & Fillery-Travis, 2011). Within the present study, I developed an integrated theory to fill this lacuna, which the present results suggest is generalizable beyond strategic change to other crucial strategic change leader performance domains and related firm-level outcomes (e.g., innovation, corporate social

responsibility, and diversity and inclusion). While my study only tested individual-level (as opposed to team- or organizational-level) hypotheses, the integrated, multi-level theory of strategic change leader performance imperatives and outcomes in which it was grounded could certainly guide multi-level analyses and hypothesis testing in the future. Doing so would require the development of team and organization level measures (in addition to individual-level measures) and the collection of response data related to those multi-level measures.

The quasi-experimental, longitudinal, multidimensional, multi-source research design utilized in the present study, coupled with the use of well-validated measures, represents an essential contribution to the fields of strategic change, strategic leadership, and especially executive coaching. Strategic change, strategic leadership, and executive coaching are complex, temporal, and multidimensional phenomena, which has led researchers to call for study designs that address these research challenges. First, strategic leadership and executive coaching researchers have called for studies that are at least *quasi-experimental*, if not *experimental*, allowing for meta-analyses and the ability to ascertain true effect sizes for executive coaching outcomes (Bachkirova et al., 2016; Greif, 2007). This study responded to those calls by employing a quasi-experimental nonequivalent groups design.

Second, researchers in all three fields (i.e., strategic change, strategic leadership, and executive coaching) have highlighted the importance of conducting *longitudinal* studies. They argue that research based on longitudinal designs is essential to address the temporal nature of strategic change leadership efforts (i.e., the fact that they unfold over time). Moreover, longitudinal research designs are able to distinguish between the short or mid-term (proximate) and long term (distal) multi-level effectiveness of strategic change leaders, which is critical given the ephemeral

and subjective nature of the various stakeholders' evaluations (Battilana & Casciaro, 2012; Ford et al., 2014; Fugate, Kinicki, & Prussia, 2008; Greiner, 1972; Jansen, 2004; Rafferty & Griffin, 2006; Raisch & Birkinshaw, 2008). The present study assessed longitudinal change by employing a pretest-posttest design with data collected over seven months.

Third, researchers working in all three fields have called for more *multidimensional* studies, on the grounds that such studies may better address the inherent complexity of strategic change leadership by focusing simultaneously on the cognitive, social, behavioral, and performance dimensions of such leadership (Bass & Bass, 2009; Goodman & Rousseau, 2004; Hooijberg et al., 1997; Snowden & Boone, 2007; Yukl, 2008, 2012). The present work's focus on TLC and readiness for change reflect its multidimensional nature, as both are multidimensional constructs.

Fourth, researchers have called for more *multi-source* studies to address the fact that strategic change leaders must manage multiple stakeholders and complex causal chains (Anderson, Krajewski, Goffin, & Jackson, 2008; Pettigrew et al., 2001; Weiner, 2009). By collecting 360-degree stakeholder ratings for each subject, the present study meets this multi-source criterion. Fifth, researchers in the executive coaching field in particular have called for research utilizing *well-established and validated measures*, to improve quality, ensure reliable and valid measurement, allow cross-study comparison, and support collective scientific progress across the fields (Grant, 2013; Kampa-Kokesch & Anderson, 2001; Kauffman et al., 2008). For the present study, I developed a data collection instrument based on an adapted version of Alimo-Metcalfe & Alban-Metcalfe's TLQ (Alimo-Metcalfe & Alban-Metcalfe, 2000) and the full version of Holt's Readiness for Change scale (Holt et al., 2007). In

using these well-established scales, the present study has addressed the call for more stringent measures.

Managerial Implications

Both the theoretical underpinnings of the present study and its findings can support stakeholders involved in the employment and provision of executive coaching services in at least three ways. The underlying integrated, cross-disciplinary, and multidimensional theory of strategic change leader performance imperatives and outcomes could be employed to help improve firms' conduct of strategic change by shedding light on the performance imperatives and attributes stakeholders should rely on when selecting, developing, and evaluating their strategic change leaders. Executive coaches could use the results to help strategic change leaders develop and achieve critical change-related outcomes more effectively and efficiently, for example, by recognizing that the organizational context (strategic change) in which strategic change leaders operate matters. The managerial relevance of the present results may also encourage coaches to reinforce their practice using theory- and evidence-based approaches, which in turn may spark greater interest in research on executive coaching (Kauffman et al., 2008).

For consumers of executive coaching (e.g., boards, CEOs, chief human resource officers, chief learning officers, and global executive coaching heads), the results of this research could provide useful empirical data on two crucial executive coaching outcomes and success factors, namely TLC and readiness for change. Finally, the underlying theory of strategic change leader performance imperatives and outcomes may also provide a model that stakeholders and their organizations could use to design and measure executive coaching programs targeting strategic

change leader development and outcomes. Moreover, those consumers could use the empirical results of this study to better evaluate executive coaching services and to make better purchase decisions (Kauffman et al., 2008).

Limitations

There are four specific limitations that researchers should consider when interpreting the results of this study. First, the urgency and high stakes of the enterprise-wide digital transformation that the company had embarked upon precluded the possibility of random assignment of participants to different conditions. A quasi-experimental, nonequivalent groups research design was used to address this issue, including the construction of a comparison group drawn from the same levels of the company as the leaders in the treatment group. However, lack of random assignment still represents a threat to the internal validity of the findings, as lack of randomization means systematic bias between groups remains a possibility.

Second, the overall sample size was quite small, due both to the number of executives that the company selected for executive coaching at the outset of the study and the number of treatment group members lost through attrition (roughly 28%) by the time of posttest. The attrition occurred despite the best efforts to retain the entire sample for the posttest, including collaborating with the company's chief human resources officer in a sustained effort to motivate participants to complete the posttest survey. Thus, the power to detect change between pre- and posttest was diminished, ultimately requiring the use of MANCOVA, which maintains the ability to detect statistically significant associations even when sample sizes are small. Statistical power issues due to small sample size also precluded the use of OLS as a robustness check on the MANCOVA results.

Third, while confirmatory factor analysis indicated both the TLC and RFC scales I used had adequate fit indices relative to my data set, as assessed by Hu and Bentler's (1999) fit indices and thresholds, a larger sample size undoubtedly would have improved those fit indices and the reliability of the findings, as EFA and CFA have been shown to work best with large ($n > 50$) sample sizes (Kyriazos, 2018; de Winter, Dodou, and Wieringa, 2009). The 5-dimension/factor TLC model, adapted from the Real World Group's TLQ, demonstrated a superior fit to the response data when compared to a 1-factor model. Holt's 4-dimension/factor RFC model demonstrated a superior fit to the response data when compared to a 1-factor model with all 25 items loaded directly onto it (see Table 4), again as assessed by Hu and Bentler's (1999) fit indices and thresholds. However, the fit indices associated with the two scales indicated adequate but not ideal fits in both cases. Nevertheless, given the scales' high face validity relative to the constructs of TLC and readiness for change, I would argue strongly for their continued use. Simultaneously, I would underscore the undeniable benefits for future researchers of securing sample sizes large enough (the larger the better) to provide CFA and factor models sufficient statistical power to detect true relationships within the data (Kyriazos, 2018; de Winter et al., 2009).

Fourth, as mentioned above in the discussion of contrasting findings, the 7-month duration of the study may also have been a limitation. As there are no guidelines in the executive coaching literature regarding the ideal duration of executive coaching engagements, I chose a seven-month duration based upon my experience working as an executive coach primarily in Silicon Valley and New York City, where six-month engagements are common practice. However, upon deeper reflection, this convention may be problematic, as it may not have allowed sufficient

time for subjects in the treatment group to progress through the stages of mastery necessary to achieve transformational leadership excellence (i.e., to move from the stage of unconscious incompetence, to and through the stages of conscious incompetence and conscious competence, ultimately achieving the stage of unconscious competence or mastery) (Cannon, Feinstein, & Friesen, 2014). Similarly, they may not have had sufficient time to achieve their own readiness for change first, and then begin the work of improving the readiness for change of their direct reports. With this in mind, during the initial stage of research design, I recommend that future researchers carefully consider the minimum amount of time required for leader development and meaningful mastery. This issue underscores the importance of the temporal dimension of phenomena like strategic change, strategic change leader development, achievement of proximate strategic change outcomes, and achievement of distal change outcomes. Although not feasible in this study due to political limitations regarding access to data, a second posttest, 6 to 12 months after the first posttest, may have allowed sufficient time for the true magnitude, direction and significance of the relationships between this study's variables to manifest, assuming, of course, they did not already do so.

CHAPTER 7

CONCLUSION

The present study proposed and employed an integrated theory of strategic change leader performance imperatives and outcomes that combined Rajagopalan and Spreitzer's (1996) strategic change framework with Zaccaro and Klimoski's (2002) model of executive performance requirements. The integrated theory holds that (a) managerial cognitions and actions predict proximate and distal strategic change outcomes, and (b) that strategic change leaders use their cognitions and actions to interpret and meet the performance imperatives prescribed by the strategic change context in which they operate. This novel theoretical perspective was used to explore the relationship between executive coaching and the development and proximate outcomes of strategic change leaders.

I used a between-subjects, pretest-posttest design and found that executive coaching was positively associated with both strategic change leaders' development of TLC, assessed via stakeholder ratings and their readiness for change, measured via self-report. In contrast with these results, the present study found that coaching did not have an effect on strategic change leaders' self-ratings of their development of TLC or on their ability to improve the readiness for change of their direct reports. Thus, the present work informs the growing body of empirical evidence assessing whether coaching is an effective means for leader and leadership development. It also raises an important question: Were the non-significant relationships between coaching and (a) treatment group subjects' self-ratings of their development of TLC and (b) readiness for change of subjects' direct reports due to a null effect of coaching, or was the duration of the study too short to detect coaching's true effect? This question merits further investigation.

Future work could build on the present research by further exploring the relationship between executive coaching and strategic change leader development and outcomes while addressing the limitations described in the limitations section above. First, the use of a randomized-control design would be ideal, though it may prove challenging to implement due to how firms' guiding coalitions typically choose strategic change leaders. Therefore, perhaps a more realistic goal would be to initiate a pre-data collection negotiation for much larger sample sizes (e.g., $n > 80$), which would support the quasi-experimental, nonequivalent groups research design. Specifically, this strategy would provide a hedge against sample attrition and improve the power to detect statistically significant differences (especially when effect sizes are small). It also would improve the accuracy of sample means and confidence in mean values by reducing the margin of error.

Second, consistent use of well-validated measures such as the TLQ and the Holt Readiness for Change Scale remain essential to future research. However, I underscore the desirability of achieving larger sample sizes as a means of providing adequate statistical power for confirmatory factor analysis and factor models as well, regardless of the strength of selected scales' face validity. Additional attention to both sample size and the factor structure of the measures will allow researchers to assess proposed models and ensure optimal fit, improving confidence in subsequent statistical tests.

Third, I urge future researchers to consider the potential advantages of longer study durations. For outcomes such as the development of TLC and readiness for change, seven months may not provide a sufficient time window to detect the true magnitude and direction of the effects that were under investigation. Consider that researchers in the field of expertise and expert performance suggest

achievement of mastery within many domains requires 10-years of deliberate practice (Ericsson, 2006; Feltovich, 2013; Hoffman, 2014; Schneider, 2013), and while evidence is emerging that development can be accelerated, by how much is unknown (Hoffman, 2014). A more careful estimation of the minimum amount of time necessary for the influence of coaching to take effect seems warranted, especially when such complex, multidimensional capabilities as transformational leadership serve as a dependent variable of interest. Such estimation should consider the timeline for acquiring and mastering new practices, techniques, mindsets, and leadership behaviors, as well as the rate at which respondents can detect such growth and mastery in themselves and others. Increased study duration, while potentially more taxing, also would support internal validity. Moreover, it would increase confidence in the assessment of the magnitude and direction of the relationships between executive coaching and strategic change leader development and proximate change-related outcomes.

Assessing the nature of these relationships can help researchers better understand the development of strategic change leaders and how to improve their effectiveness. Similarly, this information can influence how firms use L&LD interventions, such as executive coaching, to improve their implementation of strategic change. Given how frequently strategic change efforts take place, how heavily organizations depend upon the outcomes of those efforts, how frequently change efforts fail, and how often strategic change leaders are held accountable for their failure, the need for rigorous theoretical and empirical research in this area is notable, urgent, and compelling.

CAPÍTULO 7

CONCLUSIÓN (SPANISH)

El presente estudio propuso y empleó una teoría integrada de imperativos y resultados de desempeño de líderes de cambio estratégico que combinaba el marco de cambio estratégico de Rajagopalan y Spreitzer (1996) con el modelo de requisitos de desempeño ejecutivo de Zaccaro y Klimoski (2002). La teoría integrada sostiene que (a) las cogniciones y acciones gerenciales predicen resultados de cambio estratégico próximos y distantes, y (b) que los líderes de cambio estratégico usan sus cogniciones y acciones para interpretar y cumplir con los imperativos de desempeño prescritos por el contexto de cambio estratégico en el cual operan. Esta novedosa perspectiva teórica se utilizó para explorar la relación entre el coaching ejecutivo y el desarrollo y los resultados próximos de los líderes del cambio estratégico.

Utilicé un diseño de prueba previa y posterior entre temas y encontré que el coaching ejecutivo estaba positivamente asociado tanto con el desarrollo de líderes de cambio estratégico de TLC, evaluado a través de las calificaciones de los interesados, como con su preparación para el cambio, medida a través del autoinforme. En contraste con estos resultados, el presente estudio encontró que el entrenamiento no tuvo un efecto en las autocalificaciones de los líderes de cambio estratégico de su desarrollo de TLC o en su habilidad para mejorar la preparación para el cambio de sus informes directos. Por lo tanto, el presente trabajo informa el creciente cuerpo de evidencia empírica que evalúa si el coaching es un medio efectivo para el desarrollo de líderes y del liderazgo. También plantea una cuestión importante: ¿Fueron las relaciones no significativas entre el coaching y (a) las autocalificaciones de los sujetos del grupo de tratamiento sobre su desarrollo de

TLC y (b) la preparación para el cambio de los informes directos de los sujetos debido a un efecto nulo del coaching, o fue la duración del estudio demasiado corta para detectar el verdadero efecto del coaching? Esta pregunta merece ser investigada más a fondo.

El trabajo futuro podría basarse en la presente investigación explorando más a fondo la relación entre el coaching ejecutivo y el desarrollo y los resultados de los líderes del cambio estratégico, al tiempo que se abordan las limitaciones descritas en la sección de limitaciones anterior. En primer lugar, el uso de un diseño de control aleatorio sería ideal, aunque puede resultar difícil de implementar debido a la forma en que las coaliciones que guían a las empresas suelen elegir a los líderes del cambio estratégico. Por lo tanto, tal vez una meta más realista sería iniciar una negociación previa a la recolección de datos para tamaños de muestra mucho más grandes (por ejemplo, $n > 80$), lo cual apoyaría el diseño de investigación cuasi-experimental y no equivalente de los grupos. Específicamente, esta estrategia proporcionaría una cobertura contra el desgaste de la muestra y mejoraría el poder de detectar diferencias estadísticamente significativas (especialmente cuando los tamaños del efecto son pequeños). También mejoraría la precisión de las medias de la muestra y la confianza en los valores medios al reducir el margen de error.

En segundo lugar, el uso consistente de medidas bien validadas como el TLQ y la Escala de Preparación para el Cambio de Holt siguen siendo esenciales para la investigación futura. Sin embargo, subrayo la conveniencia de lograr tamaños de muestra más grandes como un medio de proporcionar un poder estadístico adecuado para el análisis factorial de confirmación y también para los modelos factoriales, independientemente de la fuerza de la validez nominal de las escalas seleccionadas. Una atención adicional tanto al tamaño de la muestra como

a la estructura factorial de las medidas permitirá a los investigadores evaluar los modelos propuestos y asegurar un ajuste óptimo, mejorando la confianza en las pruebas estadísticas posteriores.

En tercer lugar, insto a los futuros investigadores a considerar las ventajas potenciales de una mayor duración de los estudios. Para resultados como el desarrollo de la TLC y la preparación para el cambio, siete meses pueden no proporcionar una ventana de tiempo suficiente para detectar la verdadera magnitud y dirección de los efectos que estaban siendo investigados. Considere que los investigadores en el campo de la pericia y el desempeño de los expertos sugieren que el logro de la maestría dentro de muchos dominios requiere 10 años de práctica deliberada (Ericsson, 2006; Feltovich, 2013; Hoffman, 2014; Schneider, 2013), y aunque están surgiendo evidencias de que el desarrollo puede acelerarse, por cuánto se desconoce (Hoffman, 2014). Parece justificada una estimación más cuidadosa de la cantidad mínima de tiempo necesaria para que la influencia del coaching surta efecto, especialmente cuando capacidades tan complejas y multidimensionales como el liderazgo transformacional sirven como una variable de interés dependiente. Dicha estimación debe considerar el tiempo necesario para adquirir y dominar nuevas prácticas, técnicas, mentalidades y comportamientos de liderazgo, así como el ritmo al que los encuestados pueden detectar dicho crecimiento y dominio en sí mismos y en los demás. El aumento de la duración del estudio, aunque potencialmente más gravoso, también apoyaría la validez interna. Además, aumentaría la confianza en la evaluación de la magnitud y dirección de las relaciones entre el coaching ejecutivo y el desarrollo de líderes de cambio estratégico y los resultados próximos relacionados con el cambio.

Evaluar la naturaleza de estas relaciones puede ayudar a los investigadores a comprender mejor el desarrollo de los líderes del cambio estratégico y cómo mejorar su eficacia. Del mismo modo, esta información puede influir en la forma en que las empresas utilizan las intervenciones de L&LD, como el coaching ejecutivo, para mejorar su implementación del cambio estratégico. Dada la frecuencia con la que tienen lugar los esfuerzos de cambio estratégico, la gran dependencia de las organizaciones de los resultados de dichos esfuerzos, la frecuencia con la que fracasan los esfuerzos de cambio y la frecuencia con la que se responsabiliza a los líderes de cambio estratégico de su fracaso, la necesidad de una investigación teórica y empírica rigurosa en esta área es notable, urgente y apremiante.

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