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Academic Paper

The Impact of Professional Coaching on Emerging Leaders

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Abstract

Coaching is a well-established developmental tool for senior managers and leaders, but almost no research has examined the value of coaching for young, emerging leaders. This paper presents two studies examining the impact of leadership coaching among university students. Study 1, a waitlist-controlled experiment, revealed that students who worked with a professional coach (compared to those in the waitlist group) exhibited larger changes in leader identity, self-concept clarity, humility, sense of purpose, satisfaction with life, and psychological distress. Study 2 supported the validity of these changes through observations of growth by peers, underscoring the developmental value of coaching for young, emerging leaders.

Keywords

leadership coaching, identity, purpose, humility, wellbeing

Article history

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Introduction

The professional coaching industry has exploded in recent decades, turning it into a multi-billion-dollar industry (ICF, 2012). Recent trends suggest that coaching is one of the most commonly used tools to develop leaders in organisations (Burt, & Talati, 2017). Professional leadership coaching (often referred to as executive coaching) is traditionally understood as a one-on-one relationship in which the coach and the client work together to assess and understand the client's developmental needs and to co-create goals that are associated with effective leadership behaviours (Ely, Boyce, Nelson, Zaccaro, Hernez-Broome, & Whyman, 2010). Thus, professional leadership coaching is not "life coaching," nor is it mentoring or counseling. The support role assumed by the coach is integral in sustaining client development and the progress clients make toward their goals (Ting & Hart, 2004). Traditionally, professional leadership coaching is offered to relatively senior-level managers or C-suite leaders within the workplace (Grant, Curtayne, & Burton, 2009). The studies reported in this paper extend research on coaching among senior managers and executives to

examine the efficacy of professional leadership coaching within a less traditional context and population, that of university students.

Professional leadership coaching qualifies as a holistic tool, as past research illustrates the extent to which coaching improves an individual's agency in relation to work performance as well as a person's ability to cope, be resilient, and experience higher levels of wellbeing (e.g., Dyrbye, Shanafelt, Gill, Satele, & West, 2019; Grant et al., 2009). A recent meta-analysis by Jones and colleagues (Jones, Woods, & Guillaume, 2016; see also Sonesh, Coultas, Lacerenza, Marlow, Benishek, & Salas, 2015) further concluded that that coaching has a positive impact on skill-based outcomes (e.g., technical skills, leadership skills), affective outcomes (e.g., self-efficacy, career-satisfaction), cognitive outcomes (e.g., problem solving skills), and individual results (e.g., enhanced productivity levels).

Although considerable resources are directed toward developing managers or individuals occupying high-level leadership roles in industry, professional leadership coaching is seldom used as a developmental tool among university students, despite its established benefits. However, interventions that have proven effective in developing senior leaders ought to be applied to emerging leaders in colleges and universities for several reasons. First, these students are likely to be the primary population from which the next generation of leaders is drawn (Wai & Rindermann, 2017). Second, the impact of such developmental work with younger, emerging leaders will tend to pay dividends over a much longer period of time than similar investments in senior-level managers and executives (Kolditz, 2019). In the following sections, we explore how professional leadership coaching might enhance a wide variety of outcomes in young, emerging leaders, ranging from psychological wellbeing (which has been previously studied in relation to coaching) to leader identity (a new outcome variable not examined in previous studies of coaching).

Outcomes Hypothesised to Be Enhanced by Professional Coaching

Leadership scholars argue that to be an effective leader, a person needs to acquire a complex mix of cognitive, behavioural, and social-emotional skills (Lord & Hall, 2005). Acquisition and mastery of such skills may occur at different rates and through different learning experiences (Day & Halpin, 2004). Lord and Hall (2005), for instance, emphasise the crucial role of leader identity in determining the long-term development of a leader. They assert that leader identity serves as a cognitive structure around which a leader can organise his or her knowledge relevant to leadership, as well as a source of drive and motivation to pursue leadership experiences and developmental opportunities.

Enabling people to shape their leader identity is crucial for developing efficacious leaders. Avolio and Luthans (2006) theorise that "trigger events" help to mould individuals' leader identity and subsequent leader development. These scholars note that high-impact leader development opportunities, such as executive coaching, can serve as trigger events, alongside leadership failures and challenging leadership roles. These theorists further assert that individuals who are "developmentally ready" for coaching are likely to channel the disruption created by the trigger events towards constructively approaching current or future challenges, issues or opportunities (see also Avolio & Hannah, 2008).

Avolio and Luthans (2006) further argue that in a professional coaching engagement, direct feedback and discussions related to strengths, challenges, and weaknesses can also enhance self-awareness. Coaches typically utilise systematic tools (e.g., feedback, developmental plans) to provide their clients with self-insights and to help them formulate action plans that facilitate goal progression (Joo, 2005; Wasylyshyn, 2003). Coaches help their clients to devise goals, understand the importance of their goals within the context of their future plans, and integrate feedback they receive from significant others and from their own experiences into their existing identity (Grant,

2012). Coaches facilitate such self-development by helping their clients engage in adaptive self-reflection, which promotes self-concept clarity (Avolio, Wernsing, Chan, & Griffith, 2007). Self-concept clarity, also described as representing the internal dimension of self-awareness (Prentice-Dunn & Rogers, 1982), refers to the extent to which people have a clear, consistent set of beliefs about who they are and what they value. These beliefs tend to be internally consistent and stable when self-concept clarity is achieved (Campbell, Trapnell, Heine, Katz, Lavallee, & Lehman, 1996). Having self-concept clarity enables individuals to utilise their experiences to modify their existing sense of self (Avolio & Hannah, 2008). Leaders with heightened self-concept clarity are able to determine an overarching purpose and formulate priorities that are consistent with this purpose. Thus, in addition to enhancing leader identity, we suggest that professional coaching is likely to enhance self-concept clarity as well.

If professional leadership coaching enhances leader identity, might it do so by artificially inflating people's egos? If so, then we should expect to see reductions in humility alongside increases in people's leader identity after a coaching engagement. However, if the boost to leader identity that we expect to see among emerging leaders who work with a coach is more deeply transformative and developmental in nature, then the expected increase in their tendency to see themselves as leaders and to feel confident and willing to lead might not produce an artificial inflation of their egos. Furthermore, if professional leadership coaching also enhances self-awareness, as expected, then we might even see increases in clients' sense of humility. Thus, humility serves as a complementary outcome measure to leader identity, balancing and clarifying the nature of any boosts to leader identity that might result from a professional coaching engagement.

Beyond identity, self-awareness, and humility, several previous studies on the effects of professional coaching have shown that coaching can enhance wellbeing. In part, such wellbeing benefits might be predicted from the benefits to identity and the self that we have already outlined. For instance, past research has shown that when individuals are aware of how their personal goals and motivations are aligned with personal values, they experience higher levels of life satisfaction and wellbeing (Lent, 2004). The adaptive reflection that coaches encourage their clients to engage in brings more clarity to the linkage between clients' goals and values (Avolio & Hannah, 2008). Additionally, this form of self-reflection equips clients to deal with challenges (as they are more aware of their strengths and weaknesses), which in turn enhances their efficacy beliefs (Baron & Morin, 2010). Furthermore, augmented self-efficacy beliefs are associated with positive expectations for future outcomes. This sense of positivity and openness tends to increase people's sense of wellbeing (Fitzgerald & Schutte, 2010).

According to previous scholarship, psychological wellbeing has three prominent facets. First, wellbeing is a state of mind; more specifically, people tend to express that they are happy when they believe that their lives have meaning and purpose (Diener, 1994). Second, wellbeing is associated with less negative emotional states; for example, individuals who experience higher levels of wellbeing are less likely to experience negative emotions, such as depression and anxiety, or to experience them less intensely. Third, wellbeing reflects a global evaluation of one's life as satisfying (Diener, 1994; Paraducci, 1995). Although, as we have noted, several studies support the expectation that coaching will enhance psychological wellbeing (e.g., Grant et al., 2009), none of these studies have been conducted with college students to date, and most such studies measure only one or two facets of wellbeing, rather than all three. In the present research, we will examine all three of these facets.

The Present Studies

The purpose of the two studies reported here was to investigate the ability of professional coaching to facilitate changes in a set of core psychological characteristics related to leadership (e.g., leader identity, self-awareness) in a sample of college-aged, emerging leaders. Study 1 was specifically designed to determine whether any of the changes observed in coached students can be causally

linked to the coaching experience, or whether these changes were simply a function of the developmental trends already present in the type of students who elect to participate in a non-credit experience like leadership coaching. Study 1 used a waitlist-controlled experimental design, randomly assigning a sample of students who had signed up to participate in coaching to either a coached condition or a waitlisted condition. All participants, regardless of condition, completed the same set of pre and post measures at the beginning and end of a single semester—specifically, measures of leader identity, self-concept clarity (the internal dimension of self-awareness), sense of purpose, life satisfaction, psychological distress, and intellectual humility).

The purpose of Study 2 was to determine whether the self-reported changes in Study 1 reflected real transformation, according to the observations of peers, who provided ratings of the growth they had observed in students who had just completed their professional coaching engagement. These peer observers rated how much growth they had observed in coached students (distinct from the sample used in Study 1) with respect to self-confidence, self-awareness, and the specific goal that each coached student had been working on, as well a set of conceptual foils (i.e., non-dependent variables; Shadish, Cook, & Campbell, 2002) that we did not expect to change as a function of leadership coaching. In sum, Study 1 addressed the issue of the causal impact of coaching on a set of relevant outcomes, whereas Study 2 addressed the issue of the validity of the self-reported changes measured in Study 1 using independent but knowledgeable observers.

Study 1

Method

Participants

One hundred first-year undergraduates enrolled in an elite, private university in the southwestern U.S. participated in Study 1. All participants signed up to work with a leadership coach for the semester. Soon after sign-up and the completion of all pre-test measures, participants were randomly assigned to either the coaching or waitlist condition. Students in the latter condition were asked to wait until the following semester to begin working with their coach but to still complete a brief survey (in actuality, the post-test measures) at the end of the current semester as part of a study related to the coaching programme. Three participants assigned to the waitlist condition declined to participate in the study, two of them citing their inability to commit to the time needed for the coaching engagement the following semester. These students were immediately assigned to a coach, but their data were not included as part of the coaching condition in this study. Thirteen participants across conditions did not complete the post-test measures, so their data were also not included in the study, leaving a final sample of 84 students (44 in the coaching condition, 40 in the waitlist condition). Participants were almost evenly split by gender (56% self-identified as female), and 10.7% identified as Hispanic (5.7% did not report their ethnicity).

Because participant gender and ethnicity were unrelated to any changes on any outcomes in this study, these variables were not included in the analyses reported below. Participants represented a wide variety of majors from across campus. Previously reported analyses show that students who participate in the leadership institute's programmes are highly representative of the broader student body on campus (Brown & Varghese, 2019).

Procedure

Participants voluntarily signed up at the beginning of the semester for leadership coaching. They completed measures assessing leader identity, self-concept clarity, humility, and wellbeing (specifically, psychological distress, satisfaction with life, and sense of purpose) as pre-tests prior to the commencement of coaching. Coached students typically completed 5 (but some as few as 4; M

= 4.95), one-hour coaching sessions over a period of 10-14 weeks. During the first two sessions, students completed and were debriefed on the results of an independently administered emotional intelligence measure, the EQi-2.0, and completed a leader development plan with their coach. This leader development plan asked students to reflect on the meaning of leadership, to articulate what their "leadership best self" might look like, and to define a goal or set of goals that they wanted to pursue over the course of the semester in order to grow toward their articulated leadership best self. Such elements have been theorised to be critical features of facilitating sustained change by leadership coaches (Taylor, Passarelli, & Van Oosten, 2019). Beyond these basic early elements, coaches were not forced to use only one type of approach or coaching model, choosing instead whichever approach seemed the best fit to the needs of each student client. At the end of the final coaching session, students were administered the same measures given to them at pre-test, in addition to measures on which they assessed their coach and the coaching experience overall. Students assigned to the waitlist condition were compensated $50 for both waiting until the next semester to begin working with a coach and to complete the time 2 measures at the end of the semester (minus question pertaining to their experience of coaching, which did not apply to waitlisted students).

The 11 coaches used to deliver leadership coaching were all certified by the International Coaching Federation (ICF) at least at the associate certified coach (ACC) level. None of these coaches were authors of the study, and all were blind to the study and its hypotheses.

Measures

Participants completed the following measures during the sign-up process as a pre-test, and then again at the end of the semester. All outcome measures exhibited good reliability at both time points, with internal consistency estimates ranging from .73 to .85. Participants responded to all measures on a 5-point Likert scale (1= Strongly disagree to 5 = Strongly agree). All measures have been used frequently in prior research and are well validated, with the exception of the leader identity scale, which was developed in-house for the purposes of measuring identity-related outcomes associated with leadership coaching.

Leader identity

The 9-item authentic leader identity scale (Brown & Varghese, 2019) measures the extent to which participants perceive themselves as leaders, feel a sense of confidence and willingness to lead, and are self-aware of their leadership strengths and weaknesses (for example, "I see myself as a leader"; "I feel confident to lead when opportunities arise").

Self-concept clarity

The extent to which individuals have a clear and coherent sense of who they are and what they believe about themselves was measured using a 12-item scale (for example, "My beliefs about myself often conflict with one another"; "Sometimes I think I know other people better than I know myself") developed by Campbell and colleagues (1996).

Humility

The 6-item intellectual humility scale was created by Leary and colleagues (Leary, Diebels, Davisson, Jongman-Sereno, Isherwood, Raimi, Deffler, & Hoyle, 2017) to measure the extent to which people are open to the possibility that they are fallible and that what they believe might, in fact, be wrong (for example, "I accept that my beliefs and attitudes might be wrong"; "I like finding out new information that differs from what I already think is true"). The measure has exhibited strong internal and test-retest reliability, a uni-dimensional factor structure, and excellent construct validity in previous research.

Sense of Purpose

The extent to which participants perceived their life as purposeful or meaningful was measured using a five-item scale (for example, “My life has a clear sense of purpose”; “I understand my life’s meaning”) developed by Steger, Frazier, Oishi, & Kaler (2006).

Satisfaction with life

This construct was measured using a five-item scale (e.g., “I am satisfied with my life”; “If I could live my life over, I would change almost nothing”) developed by Diener, Emmons, Larsen, & Griffin (1985).

Psychological distress

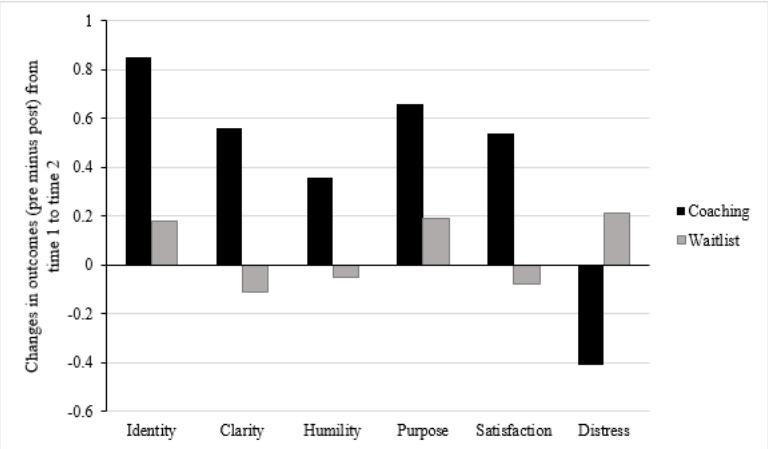
The extent to which participants experienced psychological distress in the previous two weeks was measured using a four-item scale (for example, “Lately, I have felt nervous, anxious, or ‘on edge’”; “Lately, I have not been able to stop worrying”) developed by Kroenke, Spitzer, Williams, & Lowe (2009).

Results

Table 1 displays the means of all dependent variables for the coaching and waitlisted conditions at time 1 and time 2. Baseline levels on all dependent measures across the coaching and waitlisted conditions were not significantly different from each other (ps > .13). For our hypotheses to be supported, the interaction between condition (coaching vs. waitlisted) and time must be significant, such that the change in each outcome from time 1 to time 2 is significantly greater in the coaching condition than in the waitlisted condition. Furthermore, a significant simple effect of time within the coaching condition is also necessary for our hypotheses to be supported. Main effects of condition and time emerged for almost every measure, but for the sake of simplicity and clarity, we present here only the results associated with tests of the study’s main hypotheses—specifically, the interaction between condition and time, and the simple effects of time within condition (full results are available from the authors).

We conducted a series of mixed (between-within), 2 (condition: coached vs. waitlisted) × 2 (time: pre-test vs. post-test) ANOVAs to examine effects of coaching on our 6 outcome variables (leader identity, self-concept clarity, humility, sense of purpose, satisfaction with life, and psychological distress). Changes in each outcome (post-test minus pre-test) are displayed in Figure 1.

Figure 1: Changes (post minus pre) in leader identity, self-concept clarity, humility, sense of purpose, satisfaction with life, and psychological distress as a function of coaching condition (Study 1).



For leader identity, the condition × time interaction was significant, $F(1, 82) = 48.02$, $p < .001$, as was the simple effect of time within the coached condition, $t(43) = 12.77$, $p < .001$, $d = 1.95$. For self-concept clarity, the condition × time interaction was significant, $F(1, 82) = 23.09$, $p < .001$, as was the simple effect of time within the coached condition, $t(43) = 4.94$, $p < .001$, $d = 0.75$. For humility, the condition × time interaction was significant, $F(1, 82) = 13.08$, $p < .001$, as was the simple effect of time within the coached condition, $t(43) = 5.59$, $p < .001$, $d = 0.85$. For sense of purpose, the condition × time interaction was significant, $F(1, 82) = 8.20$, $p < .01$, as was the simple effect of time within the coached condition, $t(43) = 5.23$, $p < .001$, $d = 0.80$. For life satisfaction, the condition × time interaction was significant, $F(1, 82) = 13.91$, $p < .001$, as was the simple effect of time within the coached condition, $t(43) = 4.37$, $p < .001$, $d = 0.67$. Finally, for psychological distress, the condition × time interaction was also significant, $F(1, 82) = 11.31$, $p < .001$, as was the simple effect of time within the coached condition, $t(43) = 2.83$, $p < .01$, $d = 0.43$.

In the waitlisted condition, only leader identity changed significantly over time, $t(39) = 2.52$, $p = .016$, $d = 0.38$, although the significant interaction between condition and time for leader identity shows that the change in leader identity in the coached group was significantly larger than was the change in the waitlisted group. Furthermore, the increase in psychological distress in the waitlisted group was marginally significant, $t(39) = 1.92$, $p = .063$, indicating that not all outcomes changed in a positive direction just with time alone, despite the unexpected increase in leader identity in the waitlisted group.

Table 1. Descriptive statistics for all outcome variables by condition and time, Study 1.

	Time 1			Time 2		
	M	SD	α	M	SD	α
Leader Identity			.73			.81
Coaching group	3.61a	0.52		4.46a	0.39	
Waitlist group	3.44b	0.53		3.62b	0.52	
Self-concept Clarity			.88			.85
Coaching group	2.86c	0.69		3.42c	0.66	
Waitlist group	2.85	0.72		2.74	0.71	
Humility			.76			.82
Coaching group	4.25d	0.49		4.61d	0.43	
Waitlist group	4.13	0.49		4.08	0.59	
Sense of Purpose			.83			.85
Coaching group	3.29e	0.71		3.95e	0.84	
Waitlist group	3.18	1.00		3.37	0.95	
Satisfaction with Life			.81			.81
Coaching group	3.49f	0.81		4.03f	0.68	
Waitlist group	3.26	0.96		3.18	0.92	
Psychological Distress			.79			.85
Coaching group	2.48g	0.84		2.07g	0.83	
Waitlist group	2.72	0.78		2.93	0.89	

Note: Means (M) within conditions (rows) that share a subscript are significantly different from Time 1 to Time 2 via simple effects tests ($p < .001$).

Discussion

These results strongly support our contention that leadership coaching is a valuable developmental tool for emerging leaders within a university setting, showing significant effects of coaching across a broad array of outcomes. Indeed, although some of the outcomes examined in this study, such as those measuring wellbeing, have been examined in previous studies on the effects of professional coaching (see the meta-analysis by Burt & Talati, 2017), other outcome variables are unique to the present work and have not previously been examined in the context of coaching (for example, leader identity, humility). Furthermore, the experimental design of Study 1 means that the changes observed in the coaching condition can be attributed to the effects of coaching, rather than to an alternative explanation associated with coached students' ordinary developmental trajectories.

Study 1 thus joins a small number of experimental designs (most involving managers or executives) demonstrating the effects of professional coaching.

Despite the apparent benefits of coaching for the outcomes that we assessed, Study 1 suffers from at least one important design limitation. Specifically, the outcomes all depend on self-reports. Although self-reports are perfectly appropriate for the types of outcomes that we measured in this study, there is still a reasonable question as to how valid these apparent changes are. Study 2 was designed to deal with that design limitation by examining the extent to which peers who see coached students in their day-to-day lives are able to observe growth and change on the types of outcomes that we assessed in Study 1.

Study 2

Method

Participants

Forty-five students participated in this study, although data from 4 participants were omitted due to low self-reports of their levels of interactions with the coached student whose growth they were supposed to observe (see below for more details). The majority of the 41 remaining participants was female (65.9%). Likewise, 29.3% were first-year undergraduates; 31.7% were second-year undergraduates; 14.6% were third-year undergraduates; 7.3% were fourth-year undergraduates; and 14.6% were graduate students (1 participant did not report year in school). Participants reported knowing the person they were rating very well on average; the mean response to the question, “How well do you know this person?” was 4.32 (on a 5-point scale, with 1 = not at all well, and 5 = extremely well). Respondents reported having known the coached student for a median of 16 months, with a range from 6 to 240 months. Most respondents (53.7%) indicating that they were close friends with the person they were rating; 24.4% indicated they were roommates; 4.9% indicated they were work colleagues or lab mates; 7.3% indicated they were romantic partners; 4.9% indicated they were classmates/casual friends; and 4.9% indicated they were siblings. We also asked respondents the extent to which they had had enough interactions with the person they were rating during the current semester to observe any changes in the person. In the full sample, most (91.1%) responded to this question with either a 4 or 5 on a 5-point scale (1 = definitely not, 5 = definitely yes). As noted already, data from 4 respondents who responded with less than a 4 to this question were excluded from analyses.

Procedure

Contact information for acquaintances (e.g., friends, roommates, teammates) of students involved in the leadership coaching programme was solicited from coached students. The only restrictions placed on eligibility of these acquaintances were that they must not have ever been (or currently be) involved in the coaching programme, and they must have had enough contact with coached students to be able to provide current observations about them. Acquaintances whose information we obtained were emailed a survey link with information about the study and were offered a $10 gift card to the campus coffee house for completing it.

Measures

Prior to sending the survey to acquaintances, we first coded the goal that coached students had been working on with their leadership coach during the semester. Coding was conducted to simplify the language used to describe students’ goals (for example, “I worked on getting better at expressing myself” was coded as “self-expression” for the acquaintance survey). We inserted this

goal into the survey that was sent to acquaintances, and we refer to this characteristic henceforth as "personal goal."

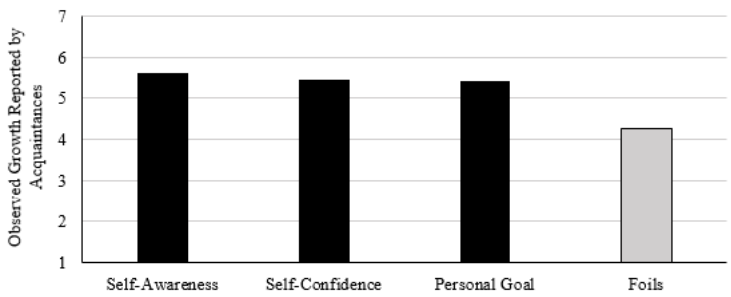
Following basic demographic and relationship questions described above, participants were asked to rate the extent to which they had observed changes during the current semester in coached students with respect to 6 characteristics: self-awareness, self-confidence, the personal goal of the coached student (the specifics of which were inserted into the survey individually for each responding acquaintance), enthusiasm for school athletics, concern for the environment, and interest in cultural diversity. The latter 3 characteristics were included as coaching-irrelevant conceptual foils, or what Shadish et al. (2002) have termed "non-dependent variables," which serve as the functional equivalent of an outcome-level control group when no participant-level control group is available (as often occurs in studies of training effects; Haccoun & Hamtiaux, 1994; Salas, Weaver, & Shuffler, 2012). These 3 characteristics were chosen for their developmental appropriateness and for the fact that they had little, if anything, to do with leadership coaching. Indeed, no student in the previous 3 semesters of leadership coaching within this programme had ever chosen one of these foils as a goal to work on with their coach. In contrast, Brown and Varghese (2019) noted that self-awareness and self-confidence were two of the most common goals that students tended to work on with their coach in this programme. Because self-awareness and self-confidence were common goals among coached students, we were unable to insert a unique personal goal into the survey for 10 coached students because they did not list any developmental goals that were not either about self-awareness or self-confidence, which affected the degrees of freedom for analyses reported below.

Observed growth ratings across all 6 of these dimensions were made on a 7-point response scale (1 = none at all, and 7 = a great deal). We averaged acquaintances' observed growth ratings across the 3 coaching-irrelevant conceptual foils for comparison to each of the 3 target characteristics.

Results and Discussion

Acquaintances' observed growth ratings across the characteristics of self-awareness, self-confidence, and coached students' personal goal were compared via paired-samples t-tests. Means for each of these characteristics, as well as the mean of the growth ratings across the conceptual foils, are displayed in Figure 2. Acquaintances' observed growth ratings were significantly higher for self-awareness ($M = 5.63$, $SD = 0.92$), $t(40) = 6.52$, $p < .001$, $d = 1.03$, self-confidence ($M = 5.46$, $SD = 1.16$), $t(40) = 6.82$, $p < .001$, $d = 1.08$, and their personal goal ($M = 5.42$, $SD = 1.12$), $t(30) = 4.94$, $p < .001$, $d = 0.90$, compared to the mean of the conceptual foils ($M = 4.28$, $SD = 1.39$ for personal goal comparison; $M = 4.34$, $SD = 1.31$ for the other two comparisons).

Figure 2: Ratings of growth across multiple domains, as reported by acquaintances of students participating in professional coaching (Study 2). For the foils, the mean from the total sample is shown here.



These results support the validity of the pre-post changes measured over the course of a semester of leadership coaching described in Study 1. Although Study 1 did not ask participants to report retrospectively how much they had grown with respect to their leader identities, self-awareness, sense of purpose, etc., the pre-post design of Study 1 still depended on the reports of students involved in leadership coaching, and it is plausible that they might be motivated to justify their investment of time in the coaching process by inflating their self-reported levels of leader identity, self-awareness, etc., at the end of the semester. However, the observations made by coached students' acquaintances in Study 2 suggest that these self-reported changes were more than just self-justifications for time and effort. The fact that peers in Study 2 were able to observe relevant changes in coached students with respect to self-awareness, self-confidence, and the specific goal that students had been working on with their coach supports the validity of the results of Study 1 and further suggests that these internal, psychological changes have external, observable manifestations that can be seen by others.

General Discussion

Two studies examine the potential benefits of professional leadership coaching for emerging leaders enrolled at an elite university. Study 1 established the magnitude of the benefits of leadership coaching across a wide array of outcomes and used a waitlist-controlled experimental design to randomly assign some participants to work with a professional leadership coach. This design allows us to determine whether changes associated with coaching were, in fact, caused by the coaching experience rather than being a manifestation of changes that would have occurred even without the assistance of a coach, simply because the students who signed up to work with a coach were already on a trajectory of personal growth. Study 1 joins a very small list (k = 15) of experimental or quasi-experimental studies on the outcomes of professional leadership coaching (Athanasopoulou & Dopson, 2018), with a sample size that is greater than those typically seen in published studies of professional coaching (Ladegard & Gjerde, 2014).

Some of the outcomes included in Study 1 (for example, life satisfaction) have been examined in previous studies on professional leadership coaching, whereas others (for example, leader identity, humility) were more novel [although see Ladegard and Gjerde (2014), for an outcome similar to leader identity]. Across a wide range of outcomes, we found statistically significant benefits in the group that received coaching, and the magnitude of these benefits was substantial (with effect size estimates ranging from d = 0.43 to 1.95). In contrast, the waitlisted students, who did not receive coaching, experienced no significant changes over time across any of the measured outcomes other than leader identity, and one outcome (psychological distress) even increased (marginally) over time in the waitlisted condition, in contrast to the significant decrease in this outcome seen in the coaching condition.

Study 2 validated the reality of the self-reported changes in Study 1 through the observations of knowledgeable acquaintances for example, friends, roommates, teammates). Acquaintances rated coached students as having grown significantly more during the semester on a set of coaching-relevant outcomes (for example, self-confidence, self-awareness) than on a set of coaching-irrelevant outcomes (for example, concern for the environment, enthusiasm for school athletics). Because acquaintances were uninvolved in the coaching programme, they had no need to "justify their investments" in the coaching experience, unlike coached students. Thus, the observations of growth provided by acquaintances provide strong support for the pre-post changes reported by coached students in Study 1.

These studies represent the most comprehensive examination of the developmental value of professional leadership coaching to date among college students, and they also add two novel outcome measures to the broader literature on leadership coaching (leader identity and humility). Together, these two studies also address some of the most common methodological shortcomings

of published studies on professional leadership coaching (Athanasopoulou & Dopson, 2018), such as studies often being correlational rather than experimental, based only on retrospective reports of change, and using data from only a single source (typically, the coach or coaching client). These studies also show that professional leadership coaching can be used to great effect in a population that is much younger than the population that typically receives such an intervention. This latter feature might well be the most important implication of this work, as it points to an important new market for professional coaches that could yield long-term value to society if emerging leaders experience real change in the kinds of outcomes examined here (for example, self-awareness, humility).

Although each of these studies complements the other, with the strengths of each one balancing the weaknesses of the other, the pair is still not without important limitations. First and foremost, none of the outcomes measured in these studies was behavioural. Although behavioural outcomes are not intrinsically more valuable than affective or cognitive outcomes, evidence of behaviour change is of great interest to scholars and practitioners interested in leadership. Exploring the extent to which professional leadership coaching is associated with changes in leadership behaviours remains an important priority for future research (see Brown and Varghese [2019] for an example of a behavioural indicator of leadership associated with professional coaching). Second, the outcomes measured in these studies reflect changes assessed immediately after the end of a semester-long coaching engagement. Thus, we cannot be certain how long these changes will last (Day, 2000). That coaching-related changes in students can be observed and reported reliably by their acquaintances speaks to the validity of these changes (and indirectly speaks to their magnitude, insofar as change in internal variables such as self-confidence and self-awareness must be substantial to be observable to others) and even suggests a behavioural manifestation of these internal qualities. But it will take longitudinal studies following coached students over time to determine how long these changes last beyond the end of a coaching engagement and whether these changes result in measurable shifts in leadership behaviours.

Despite these limitations, the results of these studies strongly support the utility of professional leadership coaching. The strongest effect by far across these studies involved leader identity ($d = 1.95$), whereas the weakest effect involved psychological distress ($d = –0.43$). This divergence in the strength of effects across outcome measures makes sense considering the nature of the coaching under study. Whereas life coaching might entail more direct effects on outcomes such as psychological distress, leadership coaching is likely to have effects on wellbeing that are more indirect, or even secondary, in nature. That coaching exhibited such strong effects on leader identity is important, insofar as developing a strong leader identity is critical for emerging leaders (Lord & Hall, 2005). If people do not see themselves as leaders, lack confidence to lead, and feel unmotivated to lead when opportunities arise (all of which contribute to the construct of leader identity), there is little reason to expect them to enter into leadership roles. Additionally, without the practice that comes from leading, individuals miss out on important opportunities to develop a foundation of basic skills and habits needed to lead well, which can have a reciprocal effect on their identities over time (Miscenko, Guenter, & Day, 2017).

The fact that leadership coaching exhibited effects on outcomes such as sense of purpose and humility is, arguably, of nearly equal value to its benefits for leader identity. People in leadership roles who have a strong sense of identity as leaders but who lack grounding in a larger purpose or a sense of humility might simply be narcissists (Brown, Budzek, & Tamborski, 2009; Owens, Wallace, & Waldman, 2015; Tamborski, Brown, & Chowning, 2012), and recent studies have shown that humility among top leaders is associated with stronger organisational performance (for example, Ou, Waldman, & Peterson, 2018). Thus, we are encouraged to see that coaching did not simply inflate the egos of clients, for instance, or build up their self-confidence without helping them clarify their values and internal compasses as leaders. It is also worth noting that the effects of coaching on humility that we observed in Study 1 are completely novel in empirical studies of professional leadership coaching to date.

Overall, the results across these three studies suggest that professional leadership coaching can be an effective developmental tool for university students. Moreover, because university students have their entire careers ahead of them, investing in leader development at this stage of life creates dividends capable of spanning decades rather than just a few years (the latter of which occurs when developmental interventions are limited to much older, senior-level leaders). This type of early investment will not only result in students entering the workforce with stronger leader identities but also greater wellbeing, sense of purpose, self-awareness, and humility. As such, these individuals will have a strong foundation with respect to some of the fundamental tools necessary to thrive in challenging work environments and contribute to their organisations as leaders.

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