Workplace coaching: testing whether personality traits and their ABCD components predict authentic self-development via affect balance

Received 8 February 2022
Revised 4 July 2022
Accepted 25 July 2022

Tünde Erdös
Department of Business and Organizational Management, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands
Joshua Wilt
Case Western Reserve University, Cleveland, Ohio, USA, and
Michael Tichelmann
Fachhochschule Technikum Wien, Wien, Austria

Abstract

Purpose – Little is known about how individual differences play out in the process of authentic self-development (ASD) through workplace coaching. This article explores whether the Big Five personality traits and affective, behavioral, cognitive and desire (ABCDs) components of the Big Five personality traits were relevant to ASD, specifically examining the role of affect as a potential mediator.

Design/methodology/approach – In total, 176 clients' personality was assessed pre-coaching. Aspects of ASD (perceived competence, goal commitment, self-concordance and goal stability) were assessed post-coaching. Clients' affect balance (AB) scores were obtained post-session.

Findings – Multilevel path models showed that higher levels of mean AB (but not the slope) mediated the associations between personality and perceived competence and goal commitment. Personality predicted goal self-concordance, but these effects were not mediated by AB, neither personality nor AB predicted goal stability.

Research limitations/implications – The authors encourage randomized controlled trials to further test findings of this study. Ruling out method variance is not possible completely. However, the authors put forth considerations to support the authors' claim that method variance did not overly influence our results.

Practical implications – These results suggest the necessity of an optimal experience of affect for ASD in workplace coaching and the understanding of how ABCDs, AB and ASD are related beyond coaching psychology.

Social implications – A deeper understanding of personality processes is important for fostering ASD to meet the challenges of management development in the authors' volatility, uncertainty, complexity and ambiguity (VUCA) world.

Originality/value – This is the first study to test personality as a process in workplace coaching linking personality to one of the most valued leadership skills: authenticity.

Keywords Workplace coaching, ABCD components, Big five, Affect balance, Authentic self-development

Paper type Research paper

1. Introduction

Most recently, coaching psychology has been found to enhance personal agency through goal-focused self-regulation (Grant and Atad, 2021). This recent development implies that

Journal of Management Development
Vol. 41 No. 6, 2022
pp. 367-392
Emerald Publishing Limited
0262-1711
DOI 10.1108/JMD-02-2022-0034

workplace coaching may be moving away from coaching as a goal-directed change intervention for narrowing the gap between client's current situation and their desired end-state (Heckhausen *et al.*, 2010); specifically, some theorists have proposed that workplace coaching will foster authentic self-development (ASD) (Fusco *et al.*, 2015) demonstrating the organizational benefits of authentic leadership (e.g. trust, team productivity and increased work engagement). The study by Fusco *et al.* (2015) looked at authenticity in leadership theory as a set of four dimensions of Authentic leadership (Walumbwa *et al.*, 2008) consisting of self-awareness, relational transparency, balanced processing and internalized moral perspective reflecting the concept of "the unobstructed operation of one's true self" (Kernis, 2003, p. 1) in social psychology. Fusco *et al.* (2015) revealed that authentic leaders became conscious, competent, confident and congruent over the course of the coaching process and that authenticity involved a process category in workplace coaching. Those findings suggest that authenticity is a process of change (ASD). In that change process, the self is constructed as a person interacts with their social context and "identity, self-relevant goals, values . . . are built, maintained, promoted, and protected" (Mischel and Morf, 2003, p. 29). The elements of identity, goals and values are all relevant for workplace coaching (Bozer and Jones, 2018). For our study, following Bozer and Jones (2018), we define workplace coaching as a one-to-one custom-tailored learning and development intervention in organizations provided to all levels of employees by external or internal coaching practitioners without any supervisory authority over the client. In this context, coach and client collaborate in a goal-focused relationship to reflect over time and with the mental space, support and guidance that the client may need to make sense how to achieve professional outcomes that reflect the client's values and identity in an organizational context. Against this background, we view the process-oriented developmental perspective on authenticity in workplace coaching as an important frontier both in the science and practice of coaching. This novel perspective is likely to complement the existing goal-focused and outcome-driven approach to coaching as it explores ASD (a) through the lens of client's fine-grained personality as a set of affective, cognitive, behavioral and motivational facets (Wilt and Revelle, 2015) that are more likely to predict outcomes than their constituent traits (Paunonen and Ashton, 2001) and (b) through how clients self-regulate balancing their emotional states through workplace coaching as a goal-focused self-regulatory intervention (Grant and Atad, 2021). The process view might help coaches, clients and organizational developers to make more discerning choices when investing in workplace and leadership development through workplace coaching. All the more, as authenticity has been found to support flourishing (Sutton, 2020) and flourishing at work has been demonstrated to affect employees' intention to leave, work performance and organizational citizenship behavior (OCD) (e.g. Redelinghuys *et al.*, 2018). Thus, we claim that ASD through workplace coaching is relevant for positive organizational practices.

1.1 Authentic self-development

Authenticity is not absolute but rather a malleable quality of self that develops and can be developed through experiences (Erikson, 1956). The concept of self as a process is not new. It is an established core principle in acceptance and commitment therapy (ACT) (Hayes *et al.*, 2006) and is in line with contemporary concepts of self as an "organised dynamic, cognitive-affective-action system" as well as "an interpersonal self-construction system" (Mischel and Morf, 2003, p. 23) in social psychology. The latter theoretical perspective suggests that interpersonal cognitive, affective and behavioral processes between coach and client help clients to self-reappraise, realign and self-reflect in coaching, which are key elements of crafting an authentic self (Mischel and Morf, 2003). While the construction of client's self may carry an interpersonal element between coach and client, the process of ASD varies from person to person as a function of each person's dynamic cognitive-affective-motivational-action system.

This intrapersonal quality of a person's self-construction system depends on how well a person can regulate, for instance, feelings of ambivalence that can impede progress (e.g. avoidance; Miller and Rollnick, 2002). Therefore, this paper focuses (a) on the process of client's ASD from the perspective of client's patterned personality as a key element of their intrapersonal self-construction system and (b) on how client's capacity to balance their emotional states explains how their patterned personality as a dynamic affective-cognitive-motivational-action system relates to their ASD through workplace coaching. Social psychology supports this focus on the intrapersonal conceptualization of ASD. It theorizes that progress enabled through skills is only beneficial when individuals pursue goals that are aligned with their true self in social psychology (Sheldon and Kasser, 1998). Conceptually, a person's pursuit of goals that represent that person's coherent self-identity is mostly attributed to intrinsic goal-orientation and self-concordance anchored in self-determination theory (SDT) (Deci and Ryan, 1985), which some coaching scholars (Spence and Oades, 2011) claim is important to advance evidence-based coaching practice. The view that self-concordance fosters a coherent self-identity is corroborated by Fusco *et al.* (2015) in that leaders develop a congruent self in how they develop authenticity through workplace coaching. It is further supported in coaching literature (Prywes, 2012; Spence, 2008) indicating that goals may not even need to remain stable over time for clients to report effective outcomes. Intrinsic goal-orientation and self-concordance relate to the three basic human needs of autonomy, competence and relatedness as expressed forms of self-determination (Deci and Ryan, 1985). They refer to the degree to which a goal is aligned with individuals' intrinsic interests, needs, values and motivations (Sheldon and Elliot, 1998; Sheldon *et al.*, 2015).

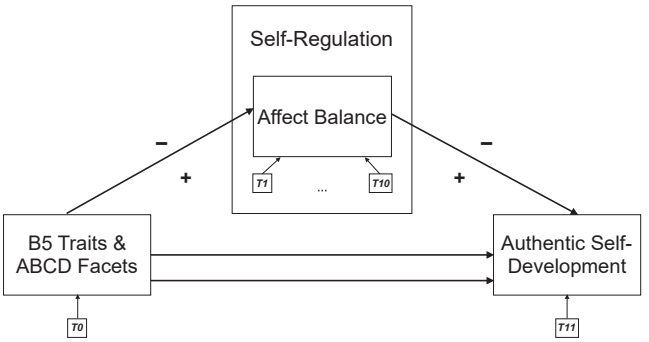
Despite the recent surge in literature on authenticity (Sutton, 2020), the processes by which clients attain ASD through workplace coaching are not well understood. Therefore, to support our understanding of ASD through workplace coaching, we hypothesize that personality traits and their narrower components (ABCDs) predict ASD via affect balance (AB) in workplace coaching (Figure 1), which we will clarify in detail in the following chapter.

1.2 Affect, behavior, cognition and desire in personality traits

The Big Five (Goldberg, 1990) traits are most commonly used to examine how individual differences may relate to client outcomes in coaching research. For example, extraversion positively associated with self-reported benefits of coaching (Jones *et al.*, 2014), while openness, conscientiousness and emotional stability positively predicted client's self-reported transfer of learning (Stewart *et al.*, 2008). However, studying mean levels of the Big Five traits has produced sparse findings, which are mostly descriptive rather than explanatory in nature (Terblanche and Heyns, 2020).

Generally, while the affective (A), behavioral (B), cognitive (C) and desire (D) components of the Big Five (Wilt and Revelle, 2015) are relatively untested measures, there are at least three reasons for instrumentalizing the ABCD approach in this study. First, the ABCDs add conceptual value because they identify and delineate psychological components of the Big Five. Other trait and facet-level taxonomies do not focus on these components explicitly. Second, most Big Five assessments include unbalanced levels of ABCD content (Pytlik Zillig *et al.*, 2002; Wilt and Revelle, 2015). Therefore, it is unclear which psychological component is responsible for predictive associations. Third, like any facet-level approach, different facets may have different associations with outcome variables. This may mask associations at the trait level.

Specifically, the ABCDs represent four distinct modes of effective functioning (Ortony *et al.*, 2005). Affect is a higher-order category comprising one's patterns of emotions, feelings, feeling-like states and preferences. Behavior constitutes a person's physical and directly observable (moving, talking, etc.) or unobservable (e.g. increases in heart rate) actions. Cognition relates to the process of meaning-making of a person's environment, reflecting



Note(s): Basic prediction model, in which ABCD stands for A (affective), B (behavioral), C (cognitive), and D (desire) facets of the B5 (Big Five Personality Model): Self-regulation as measured through affect balance is predicted to mediate the relationship between the Big Five Traits/the ABCD Facets (Agreeableness, Conscientiousness, Emotional Stability, Extraversion, Openness) and authentic self-development. T0 indicates pre-coaching assessment of ABCDs/Big Five Traits, *T1 … T10* indicates the post-session assessment of Affect Balance as per dyadic engagement, *T11* indicates the post-coaching assessment of Authentic Self-Development as goal outcomes three months after completion of the coaching engagement

Figure 1.
Basic prediction model

thoughts, beliefs and modes of thinking and problem-solving. Desires represent goals, wants, strivings, and motivations that are reflected in the tendency to behave in certain ways. Several theorists point to the ABCDs as potentially driving the relationships between the Big Five and consequential outcomes based on the rationale that ABCDs interact with situations over time to produce different life trajectories (e.g. Fleeson and Jayawickreme, 2015). Thus, we employ a recently developed measure of the Big Five that includes facet-level scales for assessing ABCD components (Wilt and Revelle, 2015).

In our paper, we take the fine-grained approach above to conceptualizing the Big Five. We attempt to demonstrate the extent to which ABCD components predict ASD and will detail our hypothesis in section 1.2.1 below.

1.2.1 Traits, ABCDs and authentic self-development. One the one hand, one pole of each Big Five trait – higher extraversion, conscientiousness, emotional stability and openness – typically relates to more positive psychosocial outcomes, including higher eudemonic well-being and authenticity (e.g. Soto and John, 2017). Thus, we predict that these traits will positively relate to ASD in workplace coaching. On the other hand, we also look at associations between ABCDs and ASD. Various studies have shown that the ABCD approach is fruitful for studying the relations between personality and important outcomes: pro-social behavior (Schmitz, 2019), health-promoting behavior (Sirois and Hirsch, 2015), goal-attainment (Wilt *et al.*, 2016) and creative work performance (Kaufman *et al.*, 2016). Furthermore, facet-level approaches have shown higher fidelity than their constituent traits for predicting narrower outcomes (Paunonen and Ashton, 2001). Thus, we predict that the ABCDs associated with higher levels of extraversion, conscientiousness, emotional stability and openness will also predict ASD in workplace coaching (a relatively narrow outcome) and that the ABCD-level associations will be more consistent than trait-level associations.

1.2.2 Affect balance as a potential mediator. It is important to determine why some clients have difficulty achieving ASD, while others are more successful. We propose that considering affective processes underlying self-regulation (Sirois and Hirsch, 2015) may enhance our understanding of why certain traits predict ASD. Specifically, the self-regulation model (SRRM) by Sirois (2015a, b) considers the relative balance between positive and negative affect as influencing adaptive self-regulation and enhancing successful goal-directed functioning (Sirois, 2015b). In SRRM, positive affect promotes a future-oriented mindset (Sirois, 2014), attenuates stress (Fredrickson, 2001), and restores an individual's self-regulatory capacities (Tice *et al.*, 2007). Conversely, negative affect promotes short-term mood repair and bias people toward choice of short-term rewards in threatening situations, which will hamper goal-directed activities (Tice *et al.*, 2001).

We propose three reasons why traits may predict ASD via AB. First, personality research suggests that the more adaptive poles of the Big Five traits predict more optimal AB. For instance, extraversion positively associates with positive affect and emotional stability negatively associates with negative affect (e.g. Kuppens *et al.*, 2007). While extraversion and emotional stability as trait domains contain the highest pure affect items (Wilt and Revelle, 2015), they differ in their respective semantic content. Extraversion contains stable affect (i.e. low frequency of mood swings) and emotional stability contains positive affect (i.e. loving excitement). The semantic content as a distinguishing mark corroborates that there is no conceptual overlap of the two aspects of affect in extraversion and emotional stability. Second, personality research also shows that agreeableness and conscientiousness positively associate with positive affect and negatively associate with negative affect (e.g. Komulainen *et al.*, 2014). There is also meta-analytic evidence that openness positively associates with positive affect (Steel *et al.*, 2008). Third, self-regulation research shows that AB positively mediates associations between certain personality traits (e.g. self-compassion and perfectionism) and health-promoting behaviors (Sirois *et al.*, 2015).

Therefore, in the coaching process, clients with more adaptive traits (and ABCDs) may have access to self-regulatory resources provided by AB. In turn, we expect traits (and ABCDs) to predict ASD in part through higher AB (Figure 1). In running a longitudinal study, we aim to heed McDowall's (2017) assertion that only longitudinal research can bring to light the complexity of direct and indirect influences of personality on client's outcomes.

2. Method

All methods were approved by the research institute's review board (IRB).

2.1 Procedure

First, this study involved only trained professional coaches specialized in various fields of workplace coaching (e.g. leadership, career management, business and executive coaching) with at least 100 h of paid coaching experience. Coaches enrolled in the study needed to deliver face-to-face in-presence workplace coaching either as external or internal practitioners in the areas for performance management or skill development required for clients to engage more fully in their workplace development. The goal was to study coaching engagements that reflected the realities of coaching contracts as authentically as possible (e.g. any coaching method, no language, contracting or coaching-style restrictions, frequency and duration of sessions to be defined by coach and client). Coaches were also required to evidence adherence to at least one professional coaching organization. Identifying coaches for enrollment in this study involved (a) delivering 19 online and eight in-presence speaking engagement around the globe, (b) collaborating with several professional coaching bodies (i.e. NOBCO, LVSC, APECS, APAC, ICF, EMCC, WBECS and IoC) and (c) engaging two large organizations with an established internal coaching culture.

Second, the coach recruitment phase ran from May 2018 through to October 2018. A rigorous pre-selection process was run based on in-depth online application interviews with each professional coach. Each interview was conducted by the corresponding author to outline the enrollment criteria and lasted 60 min to ensure coaches had ample space and time to familiarize themselves with participation criteria (i.e. accredited training, adherence with a coaching body and compliance with ethical standards). Coaches were granted a reflection period prior to their coming onboard with clients. From originally 198 coach-client pairs, 176 pairs eventually participated concluding their coaching processes successfully in line with the study requirements. Given its hypothesis-testing design, this study did not involve a client control group.

Third, coaches were required to recruit their workplace coaching clients to ensure client anonymity and conduct up to 10 in-presence workplace coaching interventions (min. 60 min per intervention) as is standard in coaching. This study did not involve any digitally conducted coaching sessions. Both coaches and clients signed a written informed consent (i.e. coaches with the corresponding author and clients with their coach). Clients completed self-report measures of personality traits prior to starting the coaching. In the coaching phase, clients self-reported their AB within 24 h after completion of each session. Clients completed self-report measures of ASD three months after completion of the coaching engagement. Coaches were not invited to complete any measures as this study focuses on client's ASD as an intrapersonal process. For privacy and data safety reasons, questionnaires were administered online and clients received questionnaire links via their coach. Data collection was conducted between October 2018 and October 2019.

Fourth, this study was designed to be maximally naturalistic (i.e. certified coaches, professional coaching, common clients with various employment categories, no specific coaching-style and cultural diversity) to ascertain a certain level of generalizability of examining whether AB (mean level and slope over time) mediates the associations between personality traits and clients' ASD.

2.2 Participants

First, this study involved clients from 31 countries (Table 1).

Each coach and client shared the same geographical background and resided in the same country (Table 1). Second, the $N = 176$ coach-client pairs recruited for this study comprised female-only pairs ($n = 94$; 53.4%), male-only pairs ($n = 14$; 8%) and mixed-gender pairs ($n = 68$; 38.6%). In particular, coach-client pairs had the following gender mix: female-coach male-client pairs ($n = 51$; 29%) and male-coach female-client pairs ($n = 17$; 9.7%). Third, coach participation was based on coach's level of experience rather than age, which was defined by three categories: 1–9 years ($N = 46$ coaches), 10 + years ($N = 45$ coaches) and 16 + years ($N = 5$ coaches) for the purposes of this study. The majority of coaches was accredited with the International Coaching Federation ($N = 73$) while $N = 23$ coaches were accredited with various other certified coach training institutes. $N = 26$ coaches engaged in coaching full-time, and $N = 70$ coaches were part-time practitioners. Fourth, this study design allowed for coaches to work with several clients: $N = 34$ coaches engaged with 1 client, $N = 51$ coaches engaged with 2 clients, $N = 6$ coaches engaged with 3 clients and $N = 5$ coaches engaged with 4 clients. Fifth, clients were identified as having either a non-leadership role, a middle management or an executive leadership function. Figure 2 shows the distribution of clients' employment category in organizations.

Coaches ($N = 96$) were predominantly female ($n = 77$; 80.2% vs male $n = 19$; 19.8%). Clients ($N = 176$) had a slightly more balanced distribution in terms of gender (female $n = 111$; 63.1% vs male $n = 65$; 36.9%). Most clients were between ages 26–60 (age < 26 $n = 9$; 5.1%; age cluster 26–45 $n = 99$; 56.6%; age cluster 46–60 $n = 58$; 33.1%; age > 60 $n = 9$; 5.1%; invalid entries $n = 1$), with a mean age of 41.9 years ($SD = 10.5$). There were no dropouts.

Country	Frequency	Frequency distribution Valid percent	Cumulative percent
Australia	7	4	4
Austria	2	1.1	5.1
Belgium	4	2.3	7.4
Brazil	4	2.3	9.7
Canada	3	1.7	11.4
Chile	2	1.1	12.5
China	2	1.1	13.6
Czech Republic	4	2.3	15.9
Denmark	2	1.1	17
Ecuador	4	2.3	19.3
Egypt	2	1.1	20.5
Finland	2	1.1	21.6
France	1	0.6	22.2
Greece	9	5.1	27.3
Hungary	2	1.1	28.4
India	5	2.8	31.3
Indonesia	4	2.3	33.5
Ireland	2	1.1	34.7
Italy	4	2.3	36.9
Japan	2	1.1	38.1
Lithuania	2	1.1	39.2
Netherlands	21	11.9	51.1
Poland	2	1.1	52.3
Romania	2	1.1	53.4
Saudi Arabia	19	10.8	64.2
Singapore	1	0.6	64.8
Slovenia	4	2.3	67
South Africa	3	1.7	68.8
South Korea	2	1.1	69.9
The United Kingdom	33	18.8	88.6
The USA	20	11.4	100
Total	176	100	

Note(s): Frequency indicates the number of participants per country. The valid percent column shows the percentage that does not include missing cases. Cumulative percent adds the percentages of each region from the top of the table to the bottom, culminating in 100

Table 1.
Frequency distribution of sample by country

2.3 Instruments and measures

2.3.1 A measure of the Big Five and ABCD components. Each Big Five trait scale (Wilt and Revelle, 2015) contains 28 items, and ABCD components for each trait are measured with 7 items each. Example items for emotional stability across the ABCD components are as follows: "Have frequent mood swings (R)" (Stable Affect), "Barge in on conversations (R)" (Respectful Behavior), "Am easily confused (R)" (Composed Cognition), and "Want things done my way (R)" (Tolerant Desire). Items are rated on a six-point Likert scale. Scores range from 1 ("strongly disagree") to 6 ("strongly agree") and are averaged across items to indicate general agreement on item level.

2.3.2 120-Item version of the revised IPIP-NEO personality inventory. The ABCD scales have not been validated extensively, and thus, we sought to compare the predictive validity of the ABCD scales to a more established Big Five measure that does not explicitly contain balanced ABCD content. We chose the Maples *et al.* (2014) 120-item International Personality Item Pool – Neuroticism, Extraversion & Openness' (IPIP-NEO) measure as a comparison because it contains a similar number of items and has desirable psychometric characteristics.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Executive leadership	78	44,3	44,3	44,3
	Middle management	51	29,0	29,0	73,3
	Non-leadership role	47	26,7	26,7	100,0
	Total	176	100,0	100,0	

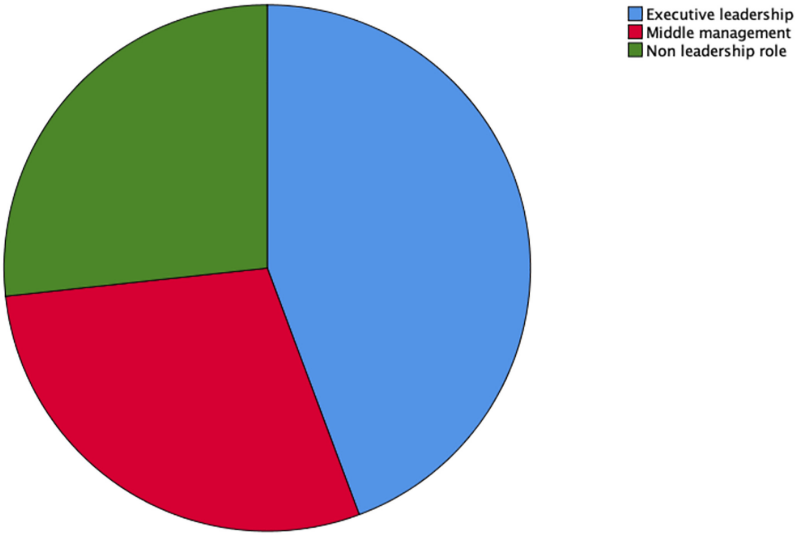


Figure 2.
Distribution of clients' employment category in organizations

The measure manifests good reliability, substantial convergence with the NEO PI-R as well as with Johnson's (2011) IPIP-J inventory and strong criterion validity across two samples.

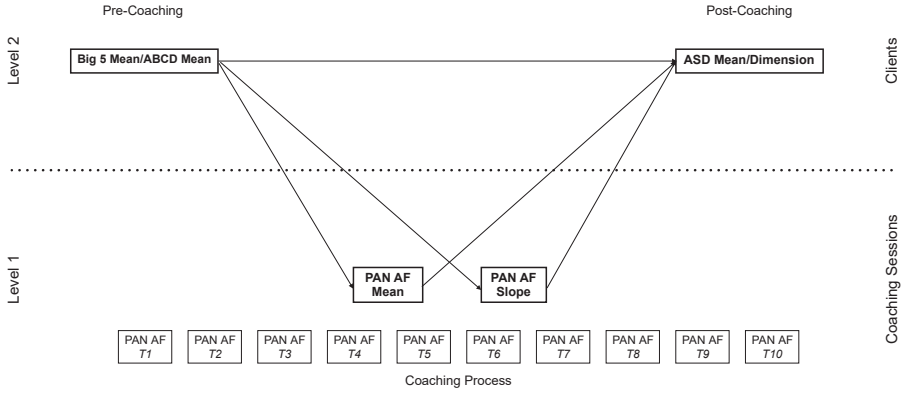
2.3.3 Affect balance (PANAS_AB). The 20-item Positive and Negative Affect Schedule (PANAS; Watson *et al.*, 1988) consists of words that describe various emotions and feelings (e.g. happy, distressed and scared), with 10 items each for positive and negative affect. Clients rated their affective experience on a five-point Likert scale ranging from 1 for "very slightly" to 5 for "extremely" after each session. AB (PANAS_AB) was calculated based on the method by Koydemir *et al.* (2013): the difference between positive affect and negative affect (i.e. positive affect minus negative affect). High scores are indicative of positive AB.

2.3.4 Authentic self-development. The scales used to assess facets of ASD reflect grounded theory on ASD in coaching (Fusco *et al.*, 2015) Each dimension measured has been identified as reflecting ASD (Fusco *et al.*, 2015; Spence, 2008; Spence and Oades, 2011). The ASD measurement instrument included four scales: (1) The *Perceived Competence* (e.g. "I feel confident in my ability to attain my goal.") scale reflects confidence related to achieving coaching-related goals. This scale included four items adapted from the scale created by Williams and Deci (1996). (2) The five-item *Goal Commitment* (e.g. "I think this is a good goal to shoot for.") scale reflects determination to reach a goal (Klein *et al.*, 2001). (3) The *Goal Self-Concordance* (e.g. "I strive for this goal because I really believe it's an important goal to have.") scale reflects the degree to which clients feel autonomous in goal pursuit. The scale was created by Sheldon and Elliot (1998) and later refined by Sheldon and Houser-Marko (2001). (4) The three-item *Goal Stability* (e.g. "My interest in this goal did not change significantly over

the past four weeks or so.") scale reflects the extent to which aspirations evolved over the course of the study (Prywes, 2012). The scale was developed by Prywes (2012) based on Spence's (2008) work on the confounding effects of goal instability in goal setting research. For each scale, participants responded to Likert-type anchors ranging from 1 = Strongly Disagree to 4 = Neutral, to 7 = Strongly Agree. We computed scores for each scale as well as a composite score that was calculated as the mean of all four scales.

3. Statistical analysis: multilevel structural equation modeling

The final dataset consists of multilevel data: measures of personality and ASD (*n*s = 176 each) were assessed between-persons (level 2), and repeated measures of AB (n = 1,267) were assessed within-persons (level 1); thus, they were nested within clients. Given that we sampled from multiple individuals over multiple times, we have both between-person data (across individuals) and within-person data (within individuals over time). Therefore, multilevel modeling approaches are designed to handle such a data structure appropriately. Specifically, multilevel structural equation modeling (MSEM, Preacher *et al.*, 2010) was performed in the statistical modeling software Mplus version 8.4. As the level 2 independent and dependent variables were mediated by the level 1 AB score, a 2-1-2 mediation model (Preacher *et al.*, 2010) was chosen for the analysis. The AB mean and random slope (which allows individual slopes to differ across clients) were modeled as potential mediators of personality and ASD relationships. The mean level reflects average AB across sessions. The slope reflects change over sessions. Maximum likelihood estimation was used in all models, as it accounts for unbalanced cluster sizes (i.e. varied number of sessions) and random slopes. Figure 3 depicts the basic analytical overview of the 2-1-2 mediation model. Importantly, simulation studies have shown that the sample size of level 2 units (176) and average level 1 units (7.20) in this study result in good power



Note(s): Basic analytical 2-1-2 path model reflecting interactions between personality traits as a mean measure (Big 5 Mean comprising Agreeableness, Conscientiousness, Emotional Stability Extraversion, Openness) representing the balanced ABCDs as a mean (comprising Affect, Behaviour, Cognition, Desire) prior to the commencement of the coaching engagement, affect balance (PAN AF) measured within 24 hours after each session over time (PAN AF *T1 … T10*), the mean level of PAN AF over time (*T1 … T10*), the slope of state PAN AF over time (*T1 … T10*), authentic self-development as a mean (ASD Mean) and measures for the dimensions Perceived Competence, Goal Commitment, Goal Self-Concordance, Goal Stability three months after the coaching engagement was completed. Big 5 Mean and ASD Mean form Level 2 variables assess clients, and PAN AF M (*T1 … T10*) mean and PAN AF Slope form Level 1 variables in the 2-1-2 model assess client session self-reports

Figure 3.
Basic analytical overview of 2-1-2 mediation model

for detecting, at least, medium effect sizes at the using multilevel modeling approaches (Scherbaum and Ferreter, 2009). Moreover, Wilt and Revelle (2015) ran factor analyses to identify and confirm the ABCDs making these components more easily measurable also in this study.

3.1 Iterating the 2-1-2 mediation model

There are 25 separate models for each Big Five trait and ABCD component of each trait predicting the composite (mean) ASD score. The models were completely saturated. In iterating the models, the dimensions Perceived Competence, Goal Commitment, Goal Self-concordance and Goal Stability were used instead of the composite score resulting in 125 models for the ABCD scales (see all supplemental materials for a parallel iteration of models on the Maples *et al.* (2014) trait dimensions and facets). We acknowledge that the large number of models and effects raises the Type 1 error rates for individual estimates. However, as we aimed to explore associations, we were interested in the overall pattern of effect sizes (and their magnitudes) rather than numerous null-hypothesis significance tests (Sherman and Funder, 2009).

Parameters of interest in all path models were estimated by standardized regression coefficients. Those included direct effects relating (1) trait (and ABCDs) components to ASD dimensions, (2) trait (and ABCDs) components to mean AB, (3) trait (and ABCD) components to the slope of AB, (4) mean AB to ASD dimensions and (5) the slope of AB to ASD dimensions. Two indirect effects were computed relating (1) the path from trait (and ABCD) components to ASD via mean AB and (2) the path from traits (and components) to ASD dimensions via the slope of AB.

Methodologically, given the complex nature of the iterated mediation model in this study, self-reported variables are likely to correlate. Therefore, there may be concern about the effects of common method variance (CMV) (Podsakoff *et al.*, 2003). While including a control group or other CMV detection techniques (i.e. marker-based methods) is a possible way to determine any link between coaching and artificially inflated relationships among variables at first glance, even the most fervent proponents of marker-based techniques caution that the utility of the marker-based technique depends on the quality of the markers applied to implement those detection techniques (e.g. Williams *et al.*, 2010). Indeed, some authors recur to not recommending the use of any such techniques (e.g. Conway and Lance, 2010). That said, we acknowledge that it is not possible to rule out method variance completely and hold that analytical strategies such as a multimethod multitrait matrix (MTMM) would be ideal (Lindell and Whitney, 2001). In discussing CMV, we put forth considerations to support our claim that CMV did not overly influence our results (see section 5 Discussion below).

4. Results

First, we present descriptive statistics and reliabilities. Next, we turn to Multi-Model Modelling (MLM) path models, first focusing on direct effects and then describing indirect effects, which were central to our research questions in this study.

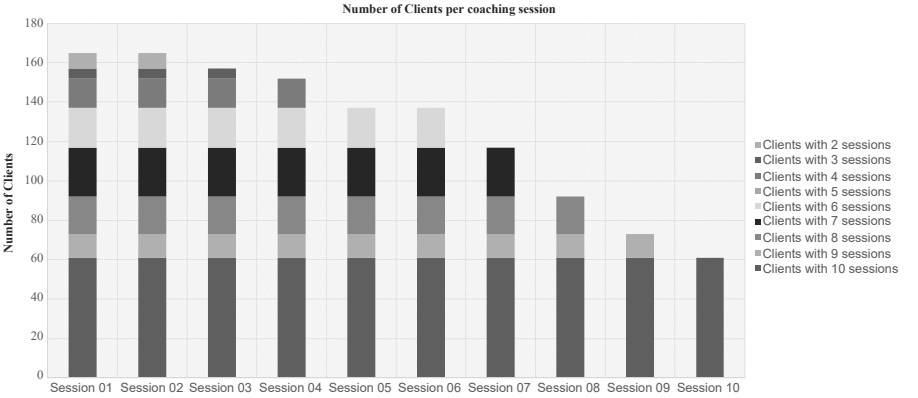
4.1 Descriptive statistics and reliabilities

The values for descriptive statistics and reliabilities were calculated using Statistical Package for the Social Sciences (SPSS) version 25 (Table 2a). Items that had reliability problems at facet level were conscientiousness (affect), extraversion (cognition) and openness (behavior) with a Cronbach's Alpha $\alpha < 0.8$ (Table 2a). Personality and ASD had no missing data. Because of variance in the number of sessions per client, AB data points showed missing data. The 1,267 AB reports were broken down per session number (Figure 4a), and each session was further clustered by number of sequential sessions (Supplemental Figure 4b). The recorded timespan between coaching sessions was on average 16 days, 3 h and 29 min (Figure 5).

	N	Min	Max	M	SD	*α*
Trait agreeableness	176	2.04	5.89	4.64	0.54	0.79
Agreeableness – A-sympathetic affect	176	1.86	6.00	4.59	0.73	0.67
Agreeableness – B-considerate behavior	176	1.71	6.00	4.66	0.74	0.65
Agreeableness – C-trusting cognitions	176	1.86	5.57	4.41	0.65	0.58
Agreeableness – D-affiliative desire	176	2.00	6.00	4.89	0.61	0.53
Trait conscientiousness	176	2.25	5.61	4.20	0.54	0.66
Conscientiousness – A-affinity for routine affect	176	2.00	5.14	3.60	0.68	0.46
Conscientiousness – B-responsible behavior	176	1.86	6.00	4.17	0.88	0.71
Conscientiousness – C-perceptive cognition	176	2.00	6.00	4.74	0.65	0.60
Conscientiousness – D-perfectionistic desire	176	1.71	6.00	4.30	0.85	0.78
Trait emotional stability	176	2.18	5.64	3.93	0.68	0.72
Emotional stability – A-stable affect	176	1.57	6.00	4.00	0.91	0.76
Emotional stability – B-respectful behavior	176	1.57	6.00	4.26	0.87	0.72
Emotional stability – C-composed cognition	176	1.14	5.86	3.96	0.99	0.82
Emotional stability – D-tolerant desire	176	1.57	5.71	3.51	0.91	0.77
Trait extraversion	176	2.25	5.32	3.90	0.61	0.76
Extraversion – A-positive affect	176	1.43	6.00	4.26	0.87	0.76
Extraversion – B-gregarious behavior	176	1.00	5.71	3.63	0.89	0.77
Extraversion – C-spontaneous cognition	176	2.00	5.14	3.82	0.64	0.50
Extraversion – D-attention-seeking desire	176	1.71	5.57	3.87	0.77	0.69
Trait openness	176	1.75	5.68	4.64	0.66	0.83
Openness – A-appreciation for beauty affect	176	1.57	6.00	4.88	0.76	0.68
Openness – B-challenging behavior	176	1.71	5.71	4.27	0.71	0.56
Openness – C-intellectual cognition	176	1.57	6.00	4.68	0.91	0.87
Openness – D-inquisitive desire	176	1.00	6.00	4.71	0.86	0.85
Agreeableness – ABCD	176	2.04	5.89	4.64	0.54	0.79
Conscientiousness – ABCD	176	2.25	5.61	4.20	0.54	0.66
Emotional stability – ABCD	176	2.18	5.64	3.93	0.68	0.72
Extraversion – ABCD	176	2.25	5.32	3.90	0.61	0.76
Openness – ABCD	176	1.75	5.68	4.64	0.66	0.83
PAN AffectBalance T1	176	−24	40	16.81	11.98	0.79
PAN AffectBalance T2	165	−25	40	19.07	12.67	0.72
PAN AffectBalance T3	157	−6	40	20.83	10.16	0.76
PAN AffectBalance T4	152	−13	39	20.68	12.16	0.75
PAN AffectBalance T5	145	−16	40	20.81	12.21	0.75
PAN AffectBalance T6	137	−9	40	22.51	11.30	0.80
PAN AffectBalance T7	115	−13	40	22.70	11.91	0.76
PAN AffectBalance T8	92	−18	40	22.33	11.82	0.73
PAN AffectBalance T9	73	−20	40	23.42	13.24	0.69
PAN AffectBalance T10	61	−10	40	23.85	11.01	0.75
ASD mean	176	2.84	6.74	5.40	0.66	0.89
ASD perceived competence	176	2.50	7.00	5.96	0.89	0.91
ASD goal commitment	176	1.60	7.00	5.87	0.97	0.81
ASD self-concordance	176	2.50	7.00	5.55	1.02	0.62
ASD goal stability	176	1.00	7.00	3.99	1.34	0.58

Note(s): Sample size (*N*), means (M), standard deviations (SD), minimum (Min) and maximum (Max) ratings per variable across the sample size, and Cronbach's alpha (*α*) as a measure of reliability. Ratings range for Big Five Traits and ABCD scales from 1 to 6, for AffectBalance from −40 to 40, for ASD values from 1 to 7. ABCD denotes cumulative descriptive values for the Big Five components per trait dimension. T1 to T10 indicates the number of sessions as measurement points for the PAN (PANAS) AffectBalance measures. ASD indicates the measures used for assessing client's authentic self-development in their goal attainment

Table 2. Descriptive statistics, reliabilities for Big Five Traits, ABCDs, PANAS, and ASD values for authentic self-development

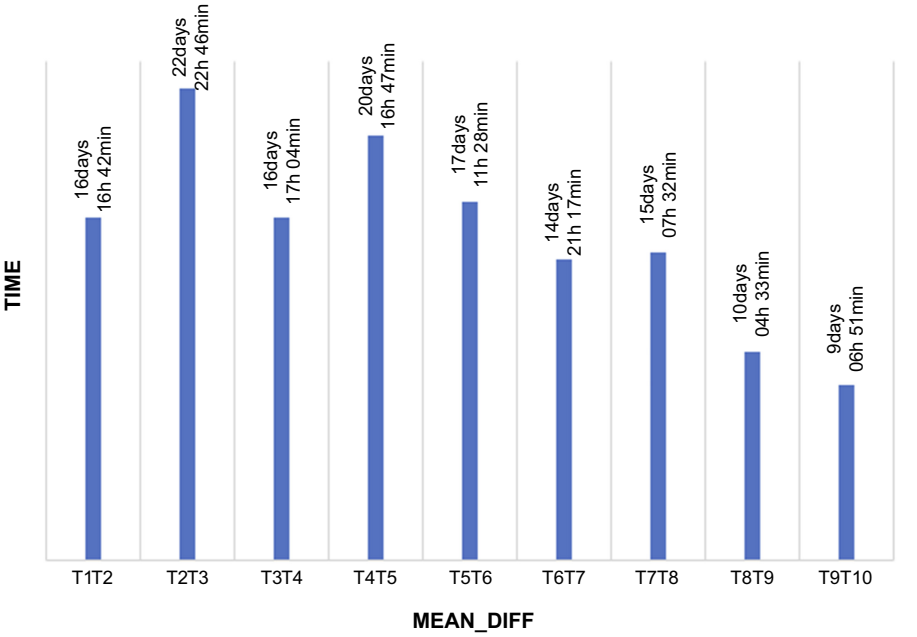


Note(s):

Session 01	Session 02	Session 03	Session 04	Session 05	Session 06	Session 07	Session 08
176	165	157	152	137	137	117	92

Session 09	Session 10
73	61

Figure 4.
Data structure of affect balance measures per session



Note(s): MEAN_DIFF depicts the average timespan between sessions *T1-T2*, *T2-T3*… . TIME indicates the amount of days, hours and minutes of the timespan between sessions

Figure 5.
Frequency distribution of session completion by dyads

The ABCD scale mean values ranged from $M = 3.50$ to $M = 4.88$ with the standard deviation value ranging from $SD = 0.61$ to $SD = 0.99$. The AB mean value ranged from $M = 16.81$ to $M = 2.85$ with the standard deviation value ranging from $SD = 10.16$ to $SD = 13.24$. Cronbach's Alpha for all measures were calculated (Table 2a). The measures used in this study generally showed moderate to good degrees of reliability; a few scales showed relatively low internal consistencies by conventional standards which is expected with brief scales (Gosling, 2017). The mean value ranges and standard deviation value ranges for the Maples *et al.* (2014) dimensions and facets are detailed in supplemental Table 2b.

4.2 Multilevel path models

The complete path model results (all direct and indirect effects) for Big Five traits and ABCD components per ASD dimension are included in Table 3a. Table 3a includes standard correlations showing associations between the ABCDs, AB and ASD dimensions.

In nearly all models, traits and ABCDs positively predicted the mean of AB but were unrelated to the slope of AB (i.e. traits and ABCDs associated with average AB across sessions but not changes in AB across the entire study). In turn, mean AB nearly always positively predicted perceived competence and goal commitment; however, results were mixed for goal self-concordance (some positive effects and some null effects) and were mostly null for goal stability. The slope of AB rarely predicted any ASD dimension. Supplemental Table 3b details the key values for significant direct and indirect effects obtained from the multilevel path models for Maples *et al.* (2014) dimensions and facets; results were relatively comparable to the ABCD assessment.

The indirect effects for the traits and ABCDs are most central to the mediation hypotheses. Across trait measures, indirect effects including the slope of AB as a mediator were not significant across the ASD composite and individual dimensions. In contrast, many indirect effects from traits and ABCDs to ASD through the mean of AB were significant (Table 4a). Specifically, indirect effects including mean of AB as a mediator were largely significant for the composite and dimensions of perceived competence and goal commitment, but not for goal self-concordance or goal stability. For all effects, agreeableness, conscientiousness, emotional stability, extraversion and openness predicted higher levels of ASD through more positive AB means, which are consistent with our expectations.

There were some nuances in the indirect effects results across trait measures. Of the 25 indirect effects relating the ASD composite to ABCD scales through the slope of AB, 22 were significant. Similar patterns of results were obtained for the goal dimensions of perceived competence (23/25) and goal commitment (22/25). Table 5a depicts the absolute values of indirect effect sizes relating personality to perceived competence and goal commitment. That table shows the number of indirect effects within certain ranges (0.00–0.10, 0.11–0.20, 0.21–0.30, > 0.30) for each measure, which were separated by traits and facets.

The Maples *et al.* (2014) facets showed relatively similar effects (Supplemental Table 5b).

5. Discussion

In this study, we tested whether individual differences in clients' ASD could be predicted from personality traits and ABCD components, and we tested whether AB (mean and slope) mediated associations between personality and ASD. Although we used client self-reports to assess all variables, there are several characteristics of the findings that are not consistent with CMV (Podsakoff *et al.*, 2003). First, there were non-significant associations between variables assessed with the same method, which would not be expected if CMV were a strong contributor to the findings (Lindell and Whitney, 2001).

Table 3.
Mediation analysis: types of measurement for big five traits and facets per ASD dimension

Effect	ASD A on trait		Slope on trait		ASD A on slope		Indb		AfBa on trait		ASD A on AfBa		Indd	
	Est	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*
Goal dimension A: Big Five traits means														
Agreeableness	0.420	0.014	−0.564	0.051	0.300	0.015	−0.169	0.126	7.432	0.000	0.037	0.000	0.278	0.001
Conscientiousness	0.324	0.043	−0.707	0.009	0.276	0.058	−0.195	0.124	6.668	0.000	0.040	0.000	0.269	0.000
Emotional stability	0.254	0.033	−0.174	0.342	0.192	0.204	−0.033	0.451	6.490	0.000	0.037	0.000	0.238	0.001
Extraversion	0.228	0.028	0.037	0.878	0.184	0.223	0.007	0.880	4.572	0.004	0.040	0.000	0.185	0.027
Openness	0.363	0.021	−0.543	0.034	0.320	0.020	−0.174	0.127	6.300	0.000	0.037	0.000	0.232	0.001
ASD dimension A: ABCD means														
Affect	0.709	0.004	−0.858	0.022	0.312	0.013	−0.268	0.104	12.709	0.000	0.032	0.001	0.409	0.001
Behavior	0.312	0.160	−0.816	0.020	0.258	0.069	−0.211	0.127	10.501	0.000	0.040	0.000	0.422	0.000
Cognition	0.788	0.000	−0.392	0.232	0.229	0.101	−0.090	0.361	10.773	0.000	0.022	0.015	0.238	0.017
Desire	0.876	0.001	−0.725	0.049	0.304	0.016	−0.221	0.137	13.154	0.000	0.026	0.003	0.339	0.005
ASD dimension A: ABCD per Big Five trait														
Agreeableness affect	0.094	0.412	−0.369	0.073	0.263	0.052	−0.097	0.166	3.753	0.002	0.044	0.000	0.164	0.012
Agreeableness behavior	0.222	0.056	−0.485	0.022	0.270	0.035	−0.131	0.086	4.688	0.000	0.041	0.000	0.190	0.002
Agreeableness cognition	0.249	0.027	−0.092	0.704	0.208	0.137	−0.019	0.703	4.765	0.001	0.039	0.000	0.187	0.011
Agreeableness desire	0.472	0.003	−0.509	0.031	0.327	0.009	−0.166	0.097	5.591	0.000	0.037	0.000	0.205	0.000
Conscientiousness affect	0.143	0.155	−0.455	0.011	0.237	0.152	−0.108	0.176	−0.136	0.921	0.046	0.000	−0.006	0.922
Conscientiousness behavior	0.123	0.141	−0.348	0.024	0.234	0.108	−0.081	0.150	3.337	0.002	0.043	0.000	0.142	0.003
Conscientiousness cognition	0.334	0.026	−0.439	0.072	0.267	0.060	−0.117	0.221	8.016	0.000	0.035	0.000	0.277	0.000
Conscientiousness desire	0.081	0.291	−0.218	0.208	0.222	0.134	−0.049	0.323	2.648	0.013	0.044	0.000	0.116	0.026
Emotional stability affect	0.200	0.012	−0.139	0.281	0.204	0.166	−0.028	0.399	3.921	0.000	0.038	0.000	0.149	0.002
Emotional stability behavior	0.052	0.503	−0.199	0.144	0.210	0.169	−0.042	0.276	2.471	0.012	0.044	0.000	0.109	0.019
Emotional stability cognition	0.212	0.007	−0.100	0.457	0.188	0.224	−0.019	0.550	4.404	0.000	0.035	0.001	0.153	0.001
Emotional stability desire	0.033	0.626	0.066	0.668	0.204	0.187	0.013	0.686	2.878	0.002	0.044	0.000	0.127	0.003
Extraversion affect	0.138	0.088	−0.055	0.774	0.201	0.170	−0.011	0.775	3.670	0.001	0.041	0.000	0.149	0.019
Extraversion behavior	−0.028	0.711	0.159	0.139	0.207	0.182	0.033	0.343	0.523	0.607	0.045	0.000	0.024	0.616
Extraversion cognition	0.305	0.002	0.039	0.836	0.178	0.227	0.007	0.841	3.813	0.006	0.039	0.000	0.150	0.023
Extraversion desire	0.221	0.005	−0.077	0.687	0.213	0.164	−0.016	0.708	3.492	0.004	0.040	0.000	0.140	0.021
Openness affect	0.127	0.313	−0.393	0.061	0.276	0.038	−0.109	0.170	4.704	0.000	0.042	0.000	0.198	0.001
Openness behavior	0.043	0.478	−0.460	0.012	0.251	0.128	−0.115	0.211	4.377	0.000	0.045	0.000	0.195	0.005
Openness cognition	0.315	0.001	−0.266	0.156	0.266	0.051	−0.071	0.241	3.450	0.001	0.037	0.000	0.127	0.009
Openness desire	0.298	0.016	−0.423	0.031	0.323	0.013	−0.137	0.114	4.508	0.000	0.037	0.000	0.167	0.001

(*continued*)

Table 3.

Effect	ASD B on trait		Slope on trait		ASD B on slope		Indb		AfBa on trait		ASD B on AfBa		Indd	
	Est	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*
Goal dimension B: Big Five traits means														
Agreeableness	0.503	0.002	−0.542	0.062	0.173	0.191	−0.094	0.304	7.417	0.000	0.022	0.010	0.165	0.022
Conscientiousness	0.264	0.164	−0.722	0.007	0.152	0.326	−0.110	0.377	6.698	0.000	0.028	0.001	0.190	0.006
Emotional stability	0.197	0.159	−0.169	0.358	0.061	0.670	−0.010	0.699	6.540	0.000	0.026	0.010	0.169	0.010
Extraversion	0.114	0.394	0.053	0.826	0.057	0.692	0.003	0.850	4.521	0.004	0.030	0.001	0.137	0.052
Openness	0.386	0.006	−0.533	0.038	0.196	0.154	−0.104	0.263	6.255	0.000	0.023	0.006	0.144	0.016
ASD dimension B: ABCD means														
Affect	0.451	0.060	−0.825	0.028	0.144	0.283	−0.118	0.340	12.674	0.000	0.023	0.016	0.296	0.020
Behavior	0.579	0.005	−0.824	0.019	0.174	0.216	−0.143	0.293	10.534	0.000	0.022	0.010	0.236	0.019
Cognition	0.624	0.000	−0.377	0.252	0.081	0.558	−0.030	0.622	10.758	0.000	0.013	0.171	0.144	0.179
Desire	0.765	0.000	−0.716	0.054	0.161	0.227	−0.115	0.334	13.113	0.000	0.015	0.126	0.194	0.133
ASD dimension B: ABCD per Big Five trait														
Agreeableness affect	0.121	0.349	−0.339	0.100	0.124	0.374	−0.042	0.423	3.683	0.002	0.030	0.000	0.112	0.028
Agreeableness behavior	0.380	0.001	−0.491	0.019	0.201	0.120	−0.099	0.197	4.742	0.000	0.024	0.003	0.114	0.022
Agreeableness cognition	0.203	0.097	−0.056	0.818	0.066	0.624	−0.004	0.827	4.411	0.000	0.028	0.002	0.131	0.027
Agreeableness desire	0.522	0.000	−0.507	0.032	0.210	0.123	−0.106	0.231	5.578	0.000	0.023	0.009	0.127	0.017
Conscientiousness affect	0.091	0.461	−0.476	0.008	0.110	0.486	−0.052	0.499	−0.106	0.939	0.034	0.000	−0.004	0.939
Conscientiousness behavior	0.065	0.599	−0.362	0.019	0.110	0.457	−0.040	0.495	3.361	0.002	0.031	0.000	0.104	0.010
Conscientiousness cognition	0.276	0.081	−0.419	0.085	0.106	0.447	−0.045	0.500	8.002	0.000	0.023	0.020	0.184	0.014
Conscientiousness desire	0.099	0.261	−0.225	0.196	0.105	0.475	−0.024	0.551	2.652	0.012	0.031	0.000	0.082	0.039
Emotional stability affect	0.088	0.390	−0.132	0.312	0.067	0.634	−0.009	0.668	3.953	0.000	0.029	0.002	0.116	0.009
Emotional stability behavior	0.158	0.067	−0.209	0.123	0.102	0.467	−0.021	0.498	2.509	0.010	0.030	0.000	0.074	0.045
Emotional stability cognition	0.116	0.268	−0.092	0.492	0.059	0.686	−0.005	0.735	4.422	0.000	0.026	0.008	0.117	0.012
Emotional stability desire	0.031	0.689	0.063	0.684	0.076	0.611	0.005	0.757	2.914	0.002	0.032	0.000	0.093	0.007
Extraversion affect	0.050	0.598	−0.046	0.810	0.071	0.609	−0.003	0.820	3.654	0.001	0.031	0.001	0.112	0.038
Extraversion behavior	0.011	0.900	0.170	0.114	0.075	0.608	0.013	0.627	0.487	0.632	0.033	0.000	0.016	0.639
Extraversion cognition	0.244	0.044	0.042	0.825	0.048	0.735	0.002	0.857	3.781	0.007	0.028	0.001	0.106	0.050
Extraversion desire	0.033	0.735	−0.059	0.756	0.079	0.573	−0.005	0.783	3.432	0.004	0.032	0.000	0.109	0.041
Openness affect	0.117	0.355	−0.369	0.081	0.139	0.309	−0.051	0.385	4.640	0.000	0.029	0.001	0.136	0.006
Openness behavior	0.123	0.387	−0.444	0.016	0.133	0.379	−0.059	0.418	4.330	0.000	0.030	0.000	0.130	0.016
Openness cognition	0.295	0.000	−0.275	0.143	0.149	0.273	−0.041	0.397	3.451	0.001	0.025	0.002	0.085	0.023
Openness desire	0.315	0.001	−0.418	0.033	0.199	0.141	−0.083	0.250	4.481	0.000	0.023	0.005	0.105	0.014

(*continued*)

Table 3.

Effect	Goal C on trait		Slope on trait		Goal C on slope		Indb		AfBa on trait		ASD C on AfBa		Indd	
	Est	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*
ASD dimension C: Big Five traits means														
Agreeableness	0.836	0.000	−0.557	0.054	0.394	0.012	−0.219	0.105	7.439	0.000	0.008	0.382	0.059	0.392
Conscientiousness	0.355	0.122	−0.739	0.006	0.349	0.087	−0.258	0.139	6.736	0.000	0.019	0.060	0.129	0.069
Emotional stability	0.297	0.030	−0.163	0.373	0.230	0.245	−0.037	0.393	6.536	0.000	0.014	0.217	0.091	0.214
Extraversion	0.305	0.023	0.040	0.866	0.208	0.278	0.008	0.875	4.530	0.004	0.017	0.088	0.075	0.167
Openness	0.656	0.000	−0.538	0.036	0.405	0.012	−0.218	0.100	6.264	0.000	0.009	0.363	0.056	0.367
ASD dimension C: ABCD means														
Affect	0.152	0.000	−0.843	0.024	0.384	0.015	−0.323	0.078	12.707	0.000	0.003	0.811	0.033	0.810
Behavior	0.945	0.001	−0.818	0.021	0.366	0.032	−0.299	0.075	10.519	0.000	0.009	0.402	0.091	0.395
Cognition	0.862	0.000	−0.399	0.219	0.276	0.098	−0.110	0.235	10.802	0.000	−0.001	0.890	−0.016	0.890
Desire	1.169	0.000	−0.723	0.049	0.354	0.026	−0.256	0.097	13.120	0.000	−0.002	0.868	−0.024	0.869
ASD dimension C: ABCD per Big Five trait														
Agreeableness affect	0.319	0.017	−0.360	0.081	0.332	0.064	−0.119	0.166	3.724	0.002	0.018	0.051	0.068	0.133
Agreeableness behavior	0.576	0.000	−0.492	0.020	0.404	0.007	−0.199	0.045	4.746	0.000	0.012	0.191	0.056	0.214
Agreeableness cognition	0.405	0.001	−0.076	0.749	0.232	0.194	−0.018	0.733	4.765	0.001	0.014	0.133	0.066	0.184
Agreeableness desire	0.710	0.000	−0.521	0.027	0.426	0.011	−0.222	0.080	5.615	0.000	0.011	0.251	0.062	0.261
Conscientiousness affect	0.063	0.677	−0.466	0.008	0.261	0.266	−0.122	0.347	−0.102	0.940	0.023	0.017	−0.002	0.941
Conscientiousness behavior	0.144	0.224	−0.365	0.017	0.294	0.143	−0.107	0.173	3.367	0.002	0.021	0.037	0.070	0.065
Conscientiousness cognition	0.443	0.022	−0.447	0.064	0.330	0.069	−0.147	0.152	8.059	0.000	0.010	0.367	0.082	0.356
Conscientiousness desire	0.078	0.444	−0.235	0.177	0.271	0.159	−0.063	0.295	2.660	0.012	0.022	0.025	0.059	0.109
Emotional stability affect	0.097	0.351	−0.130	0.318	0.242	0.222	−0.031	0.382	3.953	0.000	0.020	0.062	0.080	0.066
Emotional stability behavior	0.217	0.020	−0.209	0.118	0.275	0.147	−0.058	0.128	2.525	0.009	0.020	0.043	0.049	0.115
Emotional stability cognition	0.174	0.067	−0.090	0.497	0.224	0.255	−0.020	0.477	4.419	0.000	0.015	0.172	0.065	0.183
Emotional stability desire	0.103	0.264	0.074	0.629	0.235	0.238	0.017	0.646	2.895	0.002	0.020	0.059	0.058	0.069
Extraversion affect	0.265	0.007	−0.055	0.773	0.225	0.209	−0.012	0.757	3.668	0.001	0.015	0.122	0.053	0.198
Extraversion behavior	0.041	0.658	0.167	0.119	0.234	0.261	0.039	0.401	0.471	0.644	0.023	0.020	0.011	0.655
Extraversion cognition	0.264	0.026	0.023	0.899	0.219	0.261	0.005	0.904	3.808	0.006	0.018	0.065	0.068	0.136
Extraversion desire	0.181	0.070	−0.068	0.715	0.240	0.204	−0.016	0.697	3.443	0.004	0.019	0.052	0.065	0.127
Openness affect	0.512	0.000	−0.384	0.067	0.380	0.011	−0.146	0.107	4.670	0.000	0.011	0.243	0.051	0.260
Openness behavior	0.274	0.044	−0.435	0.017	0.299	0.143	−0.130	0.193	4.322	0.000	0.019	0.054	0.082	0.113
Openness cognition	0.353	0.001	−0.284	0.129	0.332	0.057	−0.094	0.199	3.471	0.001	0.015	0.129	0.051	0.158
Openness desire	0.452	0.000	−0.421	0.032	0.389	0.012	−0.164	0.084	4.481	0.000	0.012	0.221	0.052	0.237

(*continued*)

Table 3.

Effect	Goal D on trait		Slope on trait		Goal D on slope		Indb		AfBa on trait		ASD D on AfBa		Indd	
	Est	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*	*Est*	*p*
ASD dimension D: Big Five traits means														
Agreeableness	0.038	0.885	−0.543	0.062	−0.411	0.078	0.223	0.236	7.448	0.000	−0.007	0.594	−0.054	0.602
Conscientiousness	0.184	0.500	−0.708	0.008	−0.368	0.132	0.261	0.228	6.705	0.000	−0.010	0.439	−0.065	0.451
Emotional stability	0.107	0.586	−0.195	0.278	−0.425	0.061	0.083	0.400	6.595	0.000	−0.008	0.573	−0.052	0.574
Extraversion	0.108	0.556	0.051	0.831	−0.433	0.054	−0.022	0.828	4.559	0.004	−0.005	0.709	−0.023	0.710
Openness	0.115	0.622	−0.530	0.038	−0.394	0.093	0.209	0.250	6.261	0.000	−0.009	0.492	−0.058	0.496
ASD dimension D: ABCD means														
Affect	0.267	0.495	−0.850	0.024	−0.402	0.072	0.342	0.218	12.775	0.000	−0.013	0.371	−0.164	0.375
Behavior	0.278	0.409	−0.820	0.019	−0.379	0.100	0.311	0.225	10.568	0.000	−0.012	0.364	−0.127	0.381
Cognition	0.170	0.568	−0.388	0.233	−0.434	0.054	0.342	0.218	10.773	0.000	0.022	0.015	0.238	0.017
Desire	0.876	0.001	−0.725	0.049	0.304	0.016	0.168	0.353	10.801	0.000	−0.011	0.447	0.122	0.455
ASD dimension D: ABCD per Big Five trait														
Agreeableness affect	−0.031	0.868	−0.336	0.102	−0.417	0.077	0.140	0.251	3.691	0.002	−0.005	0.720	−0.017	0.720
Agreeableness behavior	0.028	0.877	−0.487	0.020	−0.387	0.095	0.189	0.205	4.751	0.000	−0.007	0.605	−0.032	0.610
Agreeableness cognition	0.027	0.884	−0.054	0.823	−0.422	0.057	0.023	0.826	4.751	0.001	−0.004	0.750	−0.020	0.755
Agreeableness desire	0.027	0.906	−0.505	0.033	−0.415	0.078	0.209	0.222	5.614	0.000	−0.006	0.636	−0.036	0.640
Conscientiousness affect	0.075	0.681	−0.468	0.008	−0.390	0.127	0.182	0.171	−0.125	0.927	−0.002	0.857	0.000	0.937
Conscientiousness behavior	0.081	0.582	−0.348	0.022	−0.370	0.112	0.129	0.228	3.361	0.002	−0.007	0.562	−0.024	0.568
Conscientiousness cognition	0.035	0.880	−0.431	0.075	−0.426	0.069	0.184	0.246	8.041	0.000	−0.009	0.544	−0.070	0.548
Conscientiousness desire	0.099	0.459	−0.222	0.196	−0.397	0.078	0.088	0.329	2.659	0.012	−0.006	0.630	−0.016	0.637
Emotional stability affect	0.010	0.936	−0.151	0.249	−0.415	0.063	0.063	0.392	3.982	0.000	−0.004	0.744	−0.018	0.743
Emotional stability behavior	0.159	0.211	−0.213	0.111	−0.392	0.076	0.083	0.289	2.532	0.009	−0.007	0.566	−0.018	0.574
Emotional stability cognition	0.035	0.790	−0.101	0.440	−0.425	0.062	0.043	0.513	4.462	0.000	−0.006	0.670	−0.027	0.671
Emotional stability desire	0.008	0.950	0.039	0.794	−0.406	0.078	−0.016	0.797	2.935	0.002	−0.003	0.839	−0.008	0.840
Extraversion affect	0.017	0.894	−0.044	0.819	−0.419	0.058	0.018	0.824	3.688	0.001	−0.004	0.767	−0.015	0.769
Extraversion behavior	−0.006	0.962	0.166	0.117	−0.401	0.077	−0.067	0.238	0.495	0.625	−0.003	0.824	−0.001	0.832
Extraversion cognition	0.085	0.627	0.047	0.800	−0.425	0.059	−0.020	0.798	3.790	0.007	−0.004	0.738	−0.016	0.742
Extraversion desire	0.202	0.168	−0.061	0.748	−0.427	0.050	0.026	0.760	3.458	0.004	−0.008	0.539	−0.028	0.544
Openness affect	0.128	0.471	−0.374	0.079	−0.400	0.071	0.150	0.260	4.684	0.000	−0.009	0.528	−0.040	0.528
Openness behavior	−0.039	0.849	−0.437	0.017	−0.414	0.091	0.181	0.224	4.318	0.000	−0.005	0.715	−0.021	0.717
Openness cognition	0.086	0.572	−0.268	0.147	−0.393	0.086	0.105	0.322	3.438	0.001	−0.007	0.566	−0.025	0.571
Openness desire	0.041	0.826	−0.415	0.034	−0.403	0.087	0.167	0.242	4.488	0.000	−0.007	0.582	−0.034	0.585

Note(s): 2-1-2 mediation model output estimate (Ext.) and two-tailed *p*-value (*p*) for Authentic Self-Development (ASD) Dimensions on Big Five trait facets and domains. Slope refers to grow slope of Affect Balance per session. Indirect effects between slope of mediator on Big Five trait and slope of ASD on slope of mediator (indb) and indirect effects between slope of Affect Balance on Big Five trait and slope of ASD on Affect Balance (indd). ASD Dimension A = Perceived Competence; ASD Dimension B = Goal Commitment; ASD Dimension C = Goal Self-Concordance; ASD Dimension D = Goal Stability

Second, in the multilevel path analyses, there were unique associations between (1) traits and measures of ASD controlling for AB and (2) between AB and measures of ASD controlling for traits. It is unlikely that those unique associations would be so prevalent if CMV were a strong contributor to findings. Third, separation of assessment in time (measurement of traits at T1, AB measured repeatedly across sessions and ASD measured three months after the completion of the coaching) as a methodical approach helps alleviate concerns about CMV.

The reliability issues relating to the A (affect) content in conscientiousness, the C (cognition) content in extraversion and the B (behavior) content in openness may to do with how Wilt and Revelle (2015) report that (1) conscientiousness is primarily a behavioral trait, (3) extraversion is primarily behavioral-affective and (4) openness is primarily cognitive in content.

In this sense, as suggested in our rationale for the ABCD approach in coaching research, this approach is a way to translate traits into terms that may be understandable semantically and psychologically in coaching. Therefore, we call coaching research to investigate the relationship between coaching interventions (e.g. learning styles) and client's ASD through the lens of ABCDs as a conscientious person may benefit from workplace coaching that utilizes behavioral growth tools more than from approaches that target shifts in emotion or cognition.

Moreover, the potential issues associated with assessing traits as unbalanced representations of ABCD content in coaching, as elaborated in the conceptual part of this paper, may present serious conceptual and practical limitations to the current use of psychometric tools in coaching and coaching research reinforcing our lack of understanding of the role that personality can play in workplace coaching.

5.1 The role of personality and affect balance in authentic self-development

As expected, both traits and ABCD components had direct effects on the ASD composite and most dimensions of ASD (i.e. perceived competence, goal commitment and goal self-concordance but not goal stability). While trait measures had moderate effect sizes, ABCDs tended to have small effect sizes, although we had expected the ABCDs to have stronger or more consistent associations. This may be attributable to the balanced representation of the ABCDs across traits (Wilt and Revelle, 2015). Specifically, each ABCD component may add predictive value. When combined as they were in our trait measures, they are likely to have had higher predictive power than ABCDs assessed separately. The lack of a balanced ABCD assessment in previous studies may also explain why previously reported associations between some personality traits and coaching outcomes were inconsistent and tended to be small (Stewart *et al.*, 2008; de Haan *et al.*, 2019). That is, trait measures in those studies potentially included only a portion of ABCD content, reducing the predictive power of the measures.

Finding that neither traits nor ABCDs related to goal stability is explainable by goal stability being neither a purely trait nor state measure. Instead, coaching scholars

Table 5a.
Absolute values of indirect effect sizes relating personality to perceived competence and goal commitment via mean affect balance

	Absolute value of indirect effect size					
	Perceived competence			Goal commitment		
Scale	10	0.11–0.20	0.21–0.30	0.00–0.10	0.11–0.20	0.21–0.30
ABCD scale composite traits	0	1	4	0	5	0
ABCD scale facets	2	16	2	7	13	0

Note(s): Numbers indicate how many indirect effect sizes fall within the specified effect size range

(e.g. Clutterbuck and Spence, 2017) theorize that goals need to be viewed in a more systemic manner as they form a part of client's more complex context (e.g. current concerns, general life tasks, personal projects and strivings; level of difficulty of a goal as it challenges clients mentally, emotionally and physically and level of abstraction and specificity of goals). Therefore, goals need to be considered as "temporary responses to a set of needs" (Clutterbuck and Spence, 2017, p. 218) requiring clients to be flexible to adapt internal and external changes. In line with Boyatzis and Howard (2013), we call for a more nuanced approach to goal stability that considers adaptive aspects of both rigidity and flexibility (Brandtstädter and Rothermund, 2002). Specifically, flexible goal adjustment in terms of goal instability and tenacious goal pursuit in terms of goal stability can both facilitate ASD in workplace coaching. Future studies may benefit from measuring these two aspects.

5.1.1 The role of the mean and slope of affect balance in mediation. Mean levels of AB rather than change in AB partially explained associations between personality and two dimensions of ASD (perceived competence and goal commitment). For instance, more conscientious clients showed higher goal commitment in part due to their higher average (or consistent) capacity to balance positive and negative mood rather than the increase in their capacity for AB. As such, our finding builds on personality literature indicating that traits predict optimal affective functioning (e.g. Steel *et al.*, 2008) and that such functioning may partially explain associations between traits and better outcomes (Sirois *et al.*, 2015). Our finding also supports the idea that AB generally constitutes a powerful self-regulatory resource that helps people to advance toward valued outcomes (Sirois, 2015b).

In contrast, AB did not mediate personality associations with goal stability and goal self-concordance. As there was no main effect found for personality on goal stability in client's ASD, a mediator analysis for AB is immaterial (Baron and Kenny, 1986). While personality predicted goal self-concordance, we offer some post-hoc reasoning why self-regulatory resources such as AB may not be important for explaining these associations. We reason that clients with more adaptive traits are likely to experience coaching as guiding them towards goal-related behaviors that are already in line with their personalities (i.e. self-concordant goal pursuit). Thus, coaches may encourage more extraverted, agreeable, conscientious, emotionally stable and open behaviors to facilitate those clients' goals. Conversely, clients who score lower on adaptive traits may feel that their goal process is not self-concordant, as they would by trying to behave "out of character." In latter case, there is no need to invoke AB as a mediator.

6. Implications for workplace coaching and management development

6.1 Theoretical implications for workplace coaching

First, the ABCD assessment, as compared to traditional Big Five measures, resulted in clearer associations between client's personality and ASD over time. Thus, we call for longitudinal research to further investigate both the direct and indirect influences of traits and ABCDs as process measures on ASD to advance our theoretical understanding about the nuanced role of client's personality both in goal-focused workplace coaching (Clutterbuck and Spence, 2017) and workplace coaching as a process of developing client's authenticity. All the more, coaching psychologists (e.g. Lai and McDowall, 2014) increasingly seek to more deeply understand how personality as a process (Hampson, 2012) plays out in workplace coaching. Second, based on the results of this study and as suggested by Fusco *et al.* (2015), ASD as the "process of becoming" a continuously congruent self across contradictory behaviors may most probably take place against someone else's taste or will in a social context. For instance, workplaces represent a specific social context for clients. Therefore, we need further research into the role that social context plays in client's ASD in coaching as a unique self-regulatory intervention

that supports clients in their process of "becoming one". Third, the mediational findings (i.e. higher levels of AB over the course of coaching partially explained associations between personality and dimensions of ASD) highlight the importance of supporting a more optimal affective experience for clients during workplace coaching. As affect is an internal experience, we propose that future studies examine whether external/contextual factors of coaching strengthen/weaken client's positive internal coaching experiences (Erdös *et al.*, 2020). It is possible that specific contextual factors (e.g. virtual setting, specific positive interactions between coach and client and quality of coach–client relationship) are contributing to the associations between client's personality, AB and ASD in complex ways that only process research can bring to light through advanced interactional study designs in workplace coaching (Erdös and Ramseyer, 2021). Therefore, it will be important to clarify those kinds of associations because doing so is likely to (1) advance our understanding of the nuanced interactions between client's internal and external/contextual factors that will contribute to better client outcomes and (2) provide practical guidance on how coaches may foster management environments that are more conducive to positive growth.

6.2 Theoretical implications for management development

In the wider theoretical fields of social psychology, organizational behavior and leadership development, our study is important for at least two reasons. First, we urge coaching scholars to identify ties between workplace coaching both to client's nuanced personality and ASD because those ties can move workplace coaching science further toward becoming a more mature interdisciplinary intervention toward positive organizational practices such as OCD as a set of behaviors that promote effectiveness in organizational functioning (e.g. Redelinghuys *et al.*, 2018). As authenticity is reported to support flourishing (Sutton, 2020) and as flourishing at work has been found to affect employees' intention to leave, work performance and OCD, we urge coaching scholars to investigate the impact of ASD through workplace coaching on positive organizational practices. Second, in our modern-day society of volatility, uncertainty, complexity and ambiguity (VUCA) (Barber, 1992), we need a deeper understanding of how workplace coaching can support leaders' capacity to take purposeful decisions in high-pressure situations and develop continuity across potentially contradictory behaviors driven by VUCA. Leaders understanding their self as a set of affective-cognitive-action-based intrapersonal and interpersonal dynamics (Mischel and Morf, 2003) through workplace coaching towards ASD can inform practices (i.e. self-concordance and continued adjustability) that will foster authentic leadership, which again will enhance trust, team productivity and increased work engagement (Fusco *et al.*, 2015).

6.3 Practical implications for workplace coaching

First, our findings suggest that coaches may need to expand their styles beyond those that focus on goal attainment to include those that reflect process knowledge about coaching as a change intervention that has a self-regulatory influence on clients (i.e. each coaching session forms more than the sum of its individual parts). Clients do not need more AB. What seems to be important for client's ASD is how well rather than how much more or less clients arrive at regulating their emotional states across sessions and over time. Second, findings suggest that coaches may need to consider client's ASD as an important outcome for clients. Third, coaches may need to get trained in skills that enhance client's ability to work with goal instability. The purpose is for clients to grow as self-determined individuals adjusting goals as a way of (1) developing continuity in the face of contradictory behaviors and (2) integrating inconsistent behaviors into a coherent self-concept. As goals are understood to be malleable,

coaches will need to support clients in developing authentically through maintaining their stability of goal-directed functioning rather than the stability of any particular goal clients have. Repeated goal-orientation and task-setting are likely to foster client's AB toward "continued adjustability" in pursuing goals, which is more likely to support their "becoming one" in line with their personality than goal stability. Fourth, we propose that coaches need to develop a more complex understanding of the relations between client's personality, AB and ASD: (1) AB is not found to fully explain the relationship between client's personality and ASD as coaching *per se* seems to produce a self-regulatory effect on client's ASD; (2) when goals match client's personality, clients will feel more self-concordant in their goal pursuit. Clients will feel a strong conviction and will be interested in pursuing their goals as an expression of their ASD, which implies that self-concordance as a personality trait does not require any self-regulatory resources through AB and (3) as goes for change in AB, clients with a conscientious personality will not be affected by change in mood in how they stay committed to goals. Instead, client's average increased capacity to balance their moods may determine how well they can stay committed to goals over time. Therefore, coaches need to develop an awareness of the complex interactions between client's personality, AB and ASD to become more effective in supporting client's development and growth through workplace coaching over time.

7. Limitations

First, given the correlational design of this study, we cannot make strong causal conclusions. Despite the relatively low representative value of the convenience sampling design, the naturalistic intercultural character of the sample supports generalizability of our findings. Hence, this study may be considered as an important step toward research into the temporal dynamics of workplace coaching, which normally goes unheeded in traditional outcome-type studies.

Second, we acknowledge that it is not possible to rule out CMV (Podsakoff *et al.*, 2003) completely and hold that analytical strategies such as a MTMM would be ideal (Lindell and Whitney, 2001). However, the considerations put forth in section 5 Discussion support our claim that CMV did not overly influence our results.

Third, we did not inquire into the coaches' perspectives about client learning dynamics, which seems a lost opportunity and future process research can enhance the study design to include outcome measures for coaches to complement our understanding of how ASD relates to workplace coaching as a change process. Additionally, client self-reports come with well-known limitations and biases.

Fourth, while our ABCD approach to personality trait assessment is new and thus may be a limitation, the operationalization of the balanced ABCD content across the traits adds conceptual strength.

8. Conclusions

This study was designed to be in line with calls (Fusco *et al.*, 2015; Kinsler, 2014) to better understand factors that predict ASD during the coaching process. Specifically, we tested the extent to which ABCD components of the Big Five influence dimensions of ASD via AB. Our findings are important for determining why some clients have difficulty achieving greater self-congruence, while others are more successful in coaching. Self-congruence forms an integral part of authentic leadership, which enhances trust, team productivity and increased work engagement (Fusco *et al.*, 2015). Consequently, based on our findings we call for additional, longitudinal research to bring to light yet undiscovered direct and indirect predictors of ASD.

References

Barber, H. (1992), "Developing strategic leadership: the US army war college experience", *Journal of Management Development*, Vol. 11 No. 6, pp. 4-12.

Baron, R.M. and Kenny, D.A. (1986), "The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations", *Journal of Personality and Social Psychology*, Vol. 51 No. 6, pp. 1173-1182.

Boyatzis, R.E. and Howard, A. (2013), "When goal setting helps and hinders sustained, desired change", in David, S., Clutterbuck, D. and Megginson, D. (Eds), *Beyond Goals: Effective Strategies for Coaching and Mentoring*, Gower, Aldershot, pp. 211-228.

Bozer, G. and Jones, R.J. (2018), "Understanding the factors that determine workplace coaching effectiveness: a systematic literature review", *European Journal of Work and Organizational Psychology*, Vol. 27 No. 3, pp. 342-361, ISSN 1464-0643, doi: 10.1080/1359432X.2018.1446946.

Brandtstädter, J. and Rothermund, K. (2002), "The life-course dynamics of goal pursuit and goal adjustment: a two-process framework", *Developmental Review*, Vol. 22 No. 1, pp. 117-150.

Clutterbuck, D.A. and Spence, G. (2017), "Working with goals in coaching", in Bachkirova, T., Spence, G. and Drake, D. (Eds), *The SAGE Handbook of Coaching*, Sage Publications, pp. 218-237.

Conway, J.M. and Lance, C.E. (2010), "What reviewers should expect from authors regarding common method bias in organizational research", *Journal of Business and Psychology*, Vol. 25, pp. 325-334.

de Haan, E., Gray, D. and Bonneywell, S. (2019), "Executive coaching outcome research in a field setting: a near-randomized controlled trial study in a global healthcare corporation", *Academy of Management Learning and Education*, Vol. 18 No. 4, pp. 581-605, doi: 10.5465/amle.2018.0158.

Deci, E.L. and Ryan, R.M. (1985), *Intrinsic Motivation and Self-Determination in Human Behavior*, Plenum, New York.

Erdös, T., de Haan, E. and Heusinkveld, S. (2020), "Coaching: client factors and contextual dynamics in the change process", *Coaching: An International Journal of Theory, Research and Practice*. doi: 10.1080/17521882.2020.1791195.

Erdös, T. and Ramseyer, F.T. (2021), "Change process in coaching: interplay of nonverbal synchrony, working alliance, self-regulation, and goal attainment", *Frontiers in Psychology*, Vol. 12, 580351, doi: 10.3389/fpsyg.2021.580351.

Erikson, E.H. (1956), "The problem of ego identity", *Journal of the American Psychoanalytic Association*, Vol. 4, pp. 56-121.

Fleeson, W. and Jayawickreme, E. (2015), "Whole trait theory", *Journal of Research in Personality*, Vol. 56, pp. 82-92.

Fredrickson, B.L. (2001), "The role of positive emotions in positive psychology: the broaden-and-build theory of positive emotions", *American Psychologist*, Vol. 56 No. 3, pp. 218-226, doi: 10.1037/0003-066X.56.3.218.

Fusco, T., O'Riordan, S. and Palmer, S. (2015), "Authentic leaders are … conscious, competent, confident, and congruent: a grounded theory of group coaching and authentic leadership development", *International Coaching Psychology Review*, Vol. 10 No. 2, pp. 131-148.

Goldberg, L.R. (1990), "An alternative 'description of personality': the Big-Five factor structure", *Journal of Personality and Social Psychology*, Vol. 59 No. 6, pp. 1216-1229.

Gosling, S.D. (2017), "Ten item personality measure (TIPI)", available at: https://gosling.psy.utexas.edu/scales-weve-developed/ten-item-personality-measure-tipi/.

Grant, A.M. and Atad, O.I. (2021), "Coaching psychology interventions vs. positive psychology interventions: the measurable benefits of a coaching relationship", *The Journal of Positive Psychology*, Vol. 17 No. 4, pp. 532-544, doi: 10.1080/17439760.2021.1871944.

Hampson, S.E. (2012), "Personality processes: mechanisms by which personality traits 'get outside the skin'", *Annual Review of Psychology*, Vol. 63, pp. 315-339.

Hayes, S.C., Luoma, J.B., Bond, F.W., Masuda, A. and Lillis, J. (2006), "Acceptance and commitment therapy: model, processes and outcomes", *Behaviour Research and Therapy*, Vol. 44 No. 1, pp. 1-25, doi: 10.1016/j.brat.2005.06.006, PMID: 16300724.

Heckhausen, J., Wrosch, C. and Schulz, R. (2010), "A motivational theory of life-span development", *Psychological Review*, Vol. 117, pp. 32-60.

Johnson, J.A. (2011), "Development of a short form of the IPIP-NEO personality inventory", *Poster presented at the meeting of the Association for Research in Personality*, Riverside, California.

Jones, R.J., Woods, S.A. and Hutchinson, E. (2014), "The influence of the five-factor model of personality on the perceived effectiveness of executive coaching", *International Journal of Evidence Based Coaching and Mentoring*, Vol. 12 No. 2, pp. 109-118.

Kaufman, S.B., Quilty, L.C., Grazioplene, R.G., Hirsh, J.B., Gray, J.R., Peterson, J.B. and DeYoung, C.G. (2016), "Openness to experience and intellect differentially predict creative achievement in the arts and sciences", *Journal of Personality*, Vol. 84 No. 2, pp. 248-258.

Kernis, M.H. (2003), "Toward a conceptualization of optimal self-esteem", *Psychological Inquiry*, Vol. 14 No. 1, pp. 1-26, doi: 10.1207/S15327965PLI1401_01.

Kinsler, L. (2014), "Born to be me . . . who am I again? The development of authentic leadership using evidence-based leadership coaching and mindfulness", *International Coaching Psychology Review*, Vol. 9 No. 1, pp. 92-105.

Klein, H.J., Wesson, M.J., Hollenbeck, J.R., Wright, P.M. and DeShon, R.P. (2001), "The assessment of goal commitment: a measurement model meta-analysis", *Organizational Behavior and Human Decision Processes*, Vol. 85 No. 1, pp. 32-55.

Komulainen, E., Meskanen, K., Lipsanen, J., Lahti, J.M., JylhŁ, P., Melartin, T. and Ekelund, J. (2014), "The effect of personality on daily life emotional processes", *PLoS One*, Vol. 9, p. e110907.

Koydemir, S., Şimşek, Ö.F., Schütz, A. and Tipandjan, A. (2013), "Differences in how trait emotional intelligence predicts life satisfaction: the role of affect balance versus social support in India and Germany", *Journal of Happiness Studies*, Vol. 14 No. 1, pp. 51-66.

Kuppens, P., Van Mechelen, I., Nezlek, J.B., Dossche, D. and Timmermans, T. (2007), "Individual differences in core affect variability and their relationship to personality and psychological adjustment", *Emotion*, Vol. 7, pp. 262-274.

Lai, Y.L. and McDowall, A. (2014), "A systematic review (SR) of coaching psychology: focusing on the attributes of effective coaching psychologists", *International Coaching Psychology Review*, Vol. 9 No. 2, pp. 120-136.

Lindell, M.K. and Whitney, D.J. (2001), "Accounting for common method variance in cross sectional research designs", *Journal of Applied Psychology*, Vol. 86, pp. 114-121.

Maples, J.L., Guan, L., Carter, N.T. and Miller, J.D. (2014), "A test of the International Personality Item Pool representation of the Revised NEO Personality Inventory and development of a 120-item IPIP-based measure of the five-factor model", *Psychological Assessment*, Vol. 26 No. 4, pp. 1070-1084.

McDowall, A. (2017), "The use of psychological assessments in coaching and coaching research", in Bachkirova, T., Spence, G. and Drake, D. (Eds), *The SAGE Handbook of Coaching*, SAGE Publications, London, pp. 627-643.

Miller, W.R. and Rollnick, S. (2002), *Motivational Interviewing: Preparing People for Change*, The Guilford Press, New York.

Mischel, W. and Morf, C.C. (2003), "The self as a psychosocial dynamic processing system: a metaperspective on a century of the self in psychology", in Leary, M.R. and Tangney, J.P. (Eds), *Handbook of Self and Identity*, Guilford Press, New York, p. 2329.

Ortony, A., Norman, D.A. and Revelle, W. (2005), "Effective functioning: a three level model of affect, motivation, cognition, and behavior", in Fellous, J. and Arbib, M. (Eds), *Who Needs Emotions? the Brain Meets the Machine*, Oxford University Press, New York, pp. 173-202.

Paunonen, S.V. and Ashton, M.C. (2001), "Big Five factors and facets and the prediction of behavior", *Journal of Personality and Social Psychology*, Vol. 81 No. 3, pp. 524-539.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88, pp. 879-903.

Preacher, K.J., Zyphur, M.J. and Zhang, Z. (2010), "A general multilevel SEM framework for assessing multilevel mediation", *Psychological Methods*, Vol. 15, pp. 209-233.

Prywes, Y. (2012), "Examining the influence of goal attainment scaling on changes in goal attainment in a coaching versus non-coaching context", Columbia University, available at: https://academiccommons.columbia.edu/doi/10.7916/D8CC16QH/download.

Pytlik Zillig, L.M., Hemenover, S.H. and Dienstbier, R.A. (2002), "What do we assess when we assess a Big 5 trait? A content analysis of the affective, behavioral and cognitive processes represented in the Big 5 personality inventories", *Personality and Social Psychology Bulletin*, Vol. 28 No. 6, pp. 847-858.

Redelinghuys, K., Rothmann, S. and Botha, E. (2018), "Flourishing-at-work: the role of positive organizational practices", *Psychological Reports*, Vol. 122 No. 2, pp. 609-631.

Scherbaum, C.A. and Ferreter, J.M. (2009), "Estimating statistical power and required sample sizes for organizational research using multilevel modeling", *Organizational Research Methods*, Vol. 12 No. 2, pp. 347-367.

Schmitz, J. (2019), "Temporal dynamics of pro-social behavior: an experimental analysis", Springer, Economic Science Association, Vol. 22 No. 1, pp. 1-23.

Sheldon, K.M. and Elliot, A.J. (1998), "Not all personal goals are personal: comparing autonomous and controlled reasons for goals as predictors of effort and attainment", *Personality and Social Psychology Bulletin*, Vol. 24, pp. 546-557.

Sheldon, K.M. and Houser-Marko, L. (2001), "Self-concordance, goal attainment, and the pursuit of happiness: can there be an upward spiral?", *Journal of Personality and Social Psychology*, Vol. 80 No. 1, pp. 152-165, doi: 10.1037/0022-3514.80.1.152.

Sheldon, K.M. and Kasser, T. (1998), "Pursuing personal goals: skills enable progress but not all progress is beneficial", *Personality and Social Psychology Bulletin*, Vol. 24, pp. 1319-1331.

Sheldon, K.M., Prentice, M., Halusic, M. and Schüler, J. (2015), "Matches between assigned goal-types and both implicit and explicit motive dispositions predict goal self-concordance", *Motivation and Emotion*, Vol. 39 No. 3, pp. 335-343, doi: 10.1007/s11031-014-9468-4.

Sherman, R.A. and Funder, D.C. (2009), "Evaluating correlations in studies of personality and behavior: beyond the number of significant findings to be expected by chance", *Journal of Research in Personality*, Vol. 43 No. 6, pp. 1053-1063.

Sirois, F.M. and Hirsch, J.K. (2015), "Big Five traits, affect balance and health behaviors: a self-regulation resource perspective", *Personality and Individual Differences*, Vol. 87, pp. 59-64.

Sirois, F.M., Kitner, R. and Hirsch, J.K. (2015), "Self-compassion, affect, and health behaviors", *Health Psychology*, Vol. 34 No. 6, pp. 661-669.

Sirois, F.M. (2014), "Out of sight, out of time? A meta-analytic investigation of procrastination and time perspective", *European Journal of Personality*, Vol. 28, pp. 511-520.

Sirois, F.M. (2015a), "Perfectionism and health behaviors: a self-regulation resource perspective", in Sirois, F.M. and Molnar, D.S. (Eds), *Perfectionism, Health and Well-Being*, Springer.

Sirois, F.M. (2015b), "A self-regulation resource model of self-compassion and health behavior intentions in emerging adults", *Preventive Medicine Reports*, Vol. 2 No. 0, pp. 218-222.

Soto, C.J. and John, O.P. (2017), "The next Big Five Inventory (BFI-2): developing and assessing a hierarchical model with 15 facets to enhance bandwith fidelity, and predictive power", *Journal of Personality and Social Psychology*, Vol. 113 No. 1, pp. 117-143.

Spence, G.B. and Oades, L.G. (2011), "Coaching with self-determination theory in mind: using theory to advance evidence-based coaching practice. ro.uow.edu.au", available at: http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1106&context=gsbpapers.

Spence, G. (2008), *New Directions in Evidenced-Based Coaching: Investigations into the Impact of Mindfulness Training on Goal Attainment and Well-Being*, VDM Verlag Dr. Mueller, Saarbücken.

Steel, P., Schmidt, J. and Shultz, J. (2008), "Refining the relationship between personality and subjective well-being", *Psychological Bulletin*, Vol. 134 No. 1, pp. 138-161.

Stewart, L.J., Palmer, S., Wilkin, H. and Kerrin, M. (2008), "The influence of character: does personality impact coaching success?", *International Journal of Evidence Based Coaching And Mentoring*, Vol. 6, pp. 32-42.

Sutton, A. (2020), "Living the good life: a meta-analysis of authenticity, well-being and engagement", *Personality and Individual Differences*, Vol. 153, 109645.

Terblanche, N.H.D. and Heyns, M. (2020), "The impact of coachee personality traits, propensity to trust and perceived trustworthiness of a coach, on a coachee's trust behaviour in a coaching relationship", *SA Journal of Industrial Psychology/SA Tydskrif Vir Bedryfsielkunde*, Vol. 46, p. a1707.

Tice, D.M., Bratslavsky, E. and Baumeister, R.F. (2001), "Emotional distress regulation takes precedence over impulse control: if you feel bad, do it", *Journal of Personality and Social Psychology*, Vol. 80 No. 1, pp. 53-67.

Tice, D.M., Baumeister, R.F., Shmueli, D. and Muraven, M. (2007), "Restoring the self: positive affect helps improve self-regulation following ego depletion", *Journal of Experimental Social Psychology*, Vol. 43, pp. 379-384.

Walumbwa, F.O., Avolio, B.J., Gardner, W.L., Wernsing, T.S. and Peterson, S.J. (2008), "Authentic leadership: development and validation of a theory-based measure", *Journal of Management*, Vol. 34 No. 1, pp. 89-126, doi: 10.1177/0149206307308913.

Watson, D., Clark, L.A. and Tellegen, A. (1988), "Development and validation of brief measures of positive and negative affect: the panas scales", *Journal of Personality and Social Psychology*, Vol. 54 No. 6, pp. 1063-1070.

Williams, G.C. and Deci, E.L. (1996), "Internalization of biopsychosocial values by medical students: a test of self-determination theory", *Journal of Personality and Social Psychology*, Vol. 70, pp. 767-779.

Williams, L.J., Hartman, N. and Cavazotte, F. (2010), "Method variance and marker variables: a review and comprehensive CFA marker technique", *Organizational Research Methods*, Vol. 13 No. 3, pp. 477-514.

Wilt, J. and Revelle, W. (2015), "Affect, behavior, cognition and desire in the big 5: an analysis of item content and structure", *European Journal of Personality*, Vol. 29 No. 4, pp. 478-497.

Wilt, J., Bleidorn, W. and Revelle, W. (2016), "Finding a life worth living: meaning in life and graduation from college", *European Journal of Personality*, Vol. 30 No. 2, pp. 158-167.

Further reading

Costa, P.T. Jr and McCrae, R.R. (1992), *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) Professional Manual*, Psychological Assessment Resources, Odessa, FL.

Hofstee, W.K., de Raad, B. and Goldberg, L.R. (1992), "Integration of the big five and circumplex approaches to trait structure", *Journal of Personality and Social Psychology*, Vol. 63 No. 1, pp. 146-163.

Ianiro, P.M., Schermuly, C.C. and Kauffeld, S. (2013), "Why interpersonal dominance and affiliation matter: an interaction analysis of the coach-client relationship", *Coaching: An International Journal of Theoray Research and Practice*, Vol. 6 No. 1, pp. 25-46.

John, O.P. and Srivastava, S. (1999), "The Big Five trait taxonomy: history, measurement, and theoretical perspectives", in Pervin, L.A. and John, O.P. (Eds), *Handbook of Personality: Theory and Research*, 2nd ed., The Guilford Press, New York.

Stelter, R. (2016), "The coach as a fellow human companion", in Van Zyl, L., Stander, M. and Odendaal, A. (Eds), *Coaching Psychology: Meta-Theoretical Perspectives and Applications in Multicultural Contexts*, Springer, pp. 47-66.

Supplemental material

The Supplementary materials for this article can be found online.

Corresponding author

Tünde Erdös can be contacted at: tuende.erdoes@ptc-coaching.com