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Research Article

Development of a new scale to measure subjective career success: A mixed-methods study

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Summary Career success is a main focus of career scholars as well as organizational stakeholders. Historically, career success has been conceptualized and measured in an objective manner, mainly as salary, rank, or number of promotions. However, the changing nature of work has also necessitated a change in the way many employees view success, adding a more subjective component. Although there has been theoretical discussion and calls to develop a comprehensive measure of subjective career success, no contemporary comprehensive quantitative measure exists. The goal of this study was to create and validate a measure of subjective career success, titled the Subjective Career Success Inventory (SCSI). The SCSI includes 24 items that address subjective career success via eight dimensions. The scale was developed and validated through four phases of data collection, beginning with interviews and focus groups, followed by item sorting tasks, then item refinement through confirmatory factor analysis, and finally convergent and discriminant validity quantitative analysis. Theoretical and practical implications are discussed. Copyright © 2015 John Wiley & Sons, Ltd.

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Much of the career literature is focused on creating theories (e.g., Seibert, Kraimer, & Liden, 2001), models (e.g., Judge, Kammeyer-Mueller, & Bretz, 2004), and career intervention programs (e.g., Solberg et al., 1998) whose purpose is to ultimately predict and facilitate career success (Heslin, 2005). Historically, career success has been measured through objective factors, such as salary and promotions (Hall, 2002; Ng, Eby, Sorenson, & Feldman, 2005). However, these traditional objective factors are becoming less aligned with the landscape of contemporary organizations and the attitudes of contemporary employees. Specifically, organizational hierarchies have become increasingly flat, providing limited opportunities for upward advancement (Hall, D., & Associates, 1996). Simultaneously, many employees have adopted a self-directed protean (Hall, 2002) or boundaryless (Arthur & Rousseau, 1996) mindset, no longer anticipating lifelong, upwardly mobile career trajectories within a single organization. Together, these structural and attitudinal shifts highlight the increasingly important role of non-objective factors in career success, a concept known as subjective career success (SCS, Arthur, Khapova, & Wilderom, 2005; Sullivan, 1999; Wang, Olson & Shultz, 2013).

Although SCS was identified as a meaningful construct over 50 years ago (Hughes, 1958), a relatively small amount of scholarly work has focused on understanding its fundamental nature (Greenhaus, 2003; Heslin, 2003, 2005). As evidenced by Arthur et al.'s (2005) review of career success journal publications from 1992 to 2002, this has contributed to a lack of consistent operationalization and measurement of SCS. Approximately 50 percent of

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studies operationalize it in a unidimensional manner, most commonly as career satisfaction (e.g., Greenhaus, Parasuraman, & Wormley, 1990) or overall success perceptions (e.g., Turban & Dougherty, 1994). Otherwise, there is little consistency in what represents subjective success, and definitions include a range of components, such as social support (e.g., Harris, Moritzen, Robitschek, Imhoff, & Lynch, 2001) and career plateauing (e.g., Tremblay, Roger, & Toulouse, 1995). Our review of studies between 2003 and 2014 suggests a similar trend (46 percent of studies conceptualized SCS as career satisfaction, 24 percent as overall success perceptions, and 4 percent as both of these). The diversity in the operationalization of SCS may have grave implications for research, as it hinders researchers' ability to build upon each other's findings in a systemic manner, ultimately undermining the development of a comprehensive career success theory.

As a potential remedy to these issues, several researchers (e.g., Gunz & Heslin, 2005; Greenhaus, 2003; Heslin, 2005; Arthur et al., 2005) have called for a more comprehensive operationalization and measurement of SCS. The purpose of the present study is to answer these calls. Specifically, we follow the advice of Heslin (2005) and use qualitative research to better understand the meaning of career success for individuals in diverse occupations and varied career stages. Based on the qualitative results, we invoke quantitative methods to develop a multidimensional scale that assesses SCS: the Subjective Career Success Inventory (SCSI).

Defining careers

Before diving into the concept of career success, it is imperative to provide our working definition of a career. We invoke Hall's (1976, p. 4) explanation of a career as "the individually-perceived sequence of attitudes and behaviors associated with work-related experiences and activities over the span of a person's life." This definition allows us to consider work-related experiences in contemporary society, where individuals are becoming less bound to a single organization. Likewise, it does not limit the career to upward advancement or only professional occupations, as previous, historical definitions have (Greenhaus, 2003). Thus, in the remainder of this paper, any mention of career success is made in reference to this more broad and encompassing definition of a career.

Defining career success

Career success is defined by Arthur et al. (2005) as the "accomplishment of desirable work-related outcomes at any point in a person's work experiences over time" (p. 179). As previously noted, career success encompasses both objective and subjective criteria (Hughes, 1958). The literature generally coalesces on the definition of the objective criteria as that which is directly observable and thus easily measured and verified. Objective career success typically relies on "landmarks" that can be readily compared across people as a means of judgment for success (e.g., Arthur et al., 2005; Abele & Wiese, 2008; Heslin, 2005; Hughes, 1958). Definitions for subjective success are considerably more vague, including "a self-evaluation of career progress" (offered by Arthur et al., 2005, p. 179, based on Stebbins, 1970), "individual's subjective apprehension and evaluation of his or her career" (Van Maanen, 1977, p. 9), "individuals' perceptual evaluations of, and affective reactions to, their careers" (offered by Ng and Feldman, 2014, p. 170, based on Greenhaus et al., 1990; Turban and Dougherty, 1994).

These definitions can be interpreted in two ways. First, they suggest that people form an overall subjective evaluation of their career success, which may or may not be driven by objective factors. Second, the definitions imply that there are additional components to career success beyond objective factors that require subjective evaluation (i.e., cannot be retrieved from a standard organizational database). In the present study, we focus on the latter interpretation. Based on several modern career theories, we argue that a person's career success is driven by objective factors in addition to those that are less tangible in nature and require subjective interpretation. We aim to identify these core subjective factors and create a means to measure them and facilitate comparisons across individuals. In the following sections, we describe how career theories support the inclusion of subjective factors

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beyond an overall subjective appraisal. Next, we discuss the manner in which SCS has been operationalized in the literature to date, highlighting the deficiencies of these operationalizations as a means of assessing SCS.

Career theories and subjective career success

Several modern career theories suggest that for many people, career success extends beyond traditional objective factors. Moreover, many of these theorists suggest that SCS is multifaceted. For example, Hall (1976) proposed the concept of the protean career, highlighting the importance of flexibility, freedom, continuous learning, and intrinsic rewards for many people navigating the modern career landscape. Arthur and Rousseau (1996) introduced the boundaryless career, defined as a career that is independent from traditional organizational career arrangements with a single organization (DeFillippi & Arthur, 1996). Subsequent research on the topic suggests that certain factors are more important to success in those with a boundaryless mindset, such as learning and development (Granrose & Baccili, 2006) and work–life conflict (Wille, De Fruyt, & Feys, 2013). Lastly, the kaleidoscope career model (Mainiero & Sullivan, 2006) describes how people change the path of their career to match different aspects of their lives both inside and outside of work. The authors explicitly highlight the role of three key motivators: authenticity, challenge, and work–life balance. Thus, although these theoretical perspectives differ to some extent in their focus, the idea that success has an internal evaluative component based on multiple criteria is a consistent theme.

Common conceptualizations of subjective career success

Beyond theory, several researchers have applied the concept of SCS to empirical work. There has been considerable variety in researchers' interpretations of SCS, as evidenced by the number of different constructs listed in Arthur et al.'s (2005) review. As evidence of this diversity in constructs, a list of items from measures that are frequently used to represent the most common operationalizations of SCS (i.e., career satisfaction, perceived overall career success, and multidimensional conceptualization of success) is provided in Table 1.

Career satisfaction

The most common representation of SCS is found in Greenhaus, Parasuraman, and Wormley's (1990) career satisfaction measure (Heslin, 2005; Ng et al., 2005; Zhou, Sun, Guan, Li, & Pan, 2013). This scale assesses satisfaction regarding progress toward personal career goals in four areas: overall career, income, advancement, and new skills. As previously discussed, there are many other factors beyond satisfaction that researchers have noted as important to SCS. Satisfaction seems to be an important component of SCS, but alone, it is a deficient measure of the concept (Heslin, 2003, 2005).

Overall success perceptions

Measures of overall success perceptions, such as Turban and Dougherty's (1994) scale, align with the first interpretation of SCS offered above—that people form an overall assessment of their career based on their own subjective interpretation. While useful in its own right, this perspective lacks information about subjective factors that drive the overall assessment of success. As such, measures of this nature may not provide a comprehensive assessment of the construct, nor may they account for as much variance in the true score as would a multidimensional measure.

Multidimensional approaches

Numerous researchers have proposed multidimensional models of SCS founded on qualitative research. As a precursor to the development of the SCSI, a review of existing SCS measures based on qualitative research was compiled (see Table 2). The studies were identified by conducting a PsycINFO database search, reviewing the

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Table 1. Commonly used existing measures of subjective career success.

Study	Measures
Gattiker & Larwood (1986)	Job success 1. I am receiving positive feedback about my performance from all quarters. 2. I am offered opportunities for further education by my employer. 3. I have enough responsibility on my job. 4. I am fully backed my managers in my work. 5. I am in a job which offers me the chance to learn new skills. 6. I am most happy when I am at work. 7. I am dedicated to my work. 8. I am in a position to do mostly work which I really like. Interpersonal success 9. I am respected by my peers. 10. I am getting good performance evaluations. 11. I am accepted by my peers. 12. I have my superior's confidence Financial success 13. I am receiving fair compensation compared to my peers. 14. I am drawing a high income compared to my peers. 15. I am earning as much as I think my work is worth. Hierarchical success 16. I am pleased with the promotions I have received so far. 17. I am reaching my career goals within the time frame I set for myself. 18. I am in a job which offers promotional opportunities. Life success 19. I am happy with my private life. 20. I am enjoying my non-work activities. 21. I am satisfied with my life overall. 22. I am dedicated to my work.
Greenhaus, Parasuraman, & Wormley (1990)	I am satisfied with… 1….the success I have achieved in my career. 2…the progress I have made toward meeting my overall career goals. 3…the progress I have made toward meeting my goals for income. 4… the progress I have made toward meeting my goals for advancement 5… the progress I have made toward meeting my goals for the development of new skills.
Turban and Dougherty (1994)	1. How successful has your career been? 2. Compared to your coworkers, how successful is your career? 3. How successful do your significant others feel your career has been? 4. Given your age, do you think that your career is on schedule, or ahead or behind schedule?

reference sections of career success articles, and from a review piece (Dries, 2011). Common themes were identified (quality of work/performance, relationships/influence on others, financial factors, advancement, life beyond work, growth and learning, autonomy, satisfaction, respect/recognition, and having an impact/meaning), and dimensions from each measure were classified into one or more of these themes.

In only three known cases have researchers created corresponding measures to their multidimensional SCS model. First, following the work of Gattiker (1985), Gattiker and Larwood (1986) created a scale assessing five factors of SCS: interpersonal, financial, job, hierarchical, and life success. The first four dimensions were considered a part of organizational success, and life success was considered non-organizational success. Second, Parker and Arthur (2002) conducted focus groups with Master of Business Administration students and, based on that data, created numerous items to reflect a three-factor scale of "knowing-how," "knowing-why," and "knowing-whom" success factors. Within each factor are 12, 10, and 10 subfactors, respectively. Third, Zhou et al. (2013) used interviews with Chinese employees as the basis for a career success scale with three dimensions: intrinsic fulfillment, external compensation, and work–life balance.

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Table 2. Qualitative studies of subjective career success.

Study	Description of sample	Quality of work/ performance	Relationships/ influence on others	Financial factors	Advancement	Life beyond work	Growth and learning	Autonomy	Satisfaction	Respect/ recognition	Having an impact/ meaning
Subjective Career Success Inventory (SCSI)	30 employees across industries and ages	Quality work	Influence			Personal life	Growth and development	Authenticity	Satisfaction	Recognition	Meaningful work
Zhou et al. (2013)	30 Chinese employees			External compensation		Work–life balance			Intrinsic fulfillment		
van den Bos (2012)	20 employees in non-profit and profit firms			Job security		Work–life balance			Job satisfaction, career satisfaction		
Kets de Vries (2010)	160 senior executives	Winning/ overcoming challenges	Power	Acquiring wealth		Good relationship with family, ability to maintain friendships	Winning/ overcoming challenges		Satisfying work	Recognition/ fame	Meaningful work
Enke and Ropers-Huilman (2010)	26 senior students at Catholic women's colleges					Balance between work and family					Contributing to a community
Dries et al. (2008)[a]	22 managers in Belgium	Performance	Cooperation	Security	Advancement		Self-development		Satisfaction	Recognition	Contribution
McDonald and Hite (2008)	20 young professionals			Adequate compensation	Job progression	Having adequate time for family and time to devote to non-work	Continually challenging oneself, developing skills			Recognition	Meaningful work
Hennequin (2007)	25 French blue-collar workers	Job success (autonomy, expertise, interest, pleasure)	Interpersonal relationships	Monetary rewards, fringe benefits, social status	No. of promotions, hierarchical position	Life balance		Job success (autonomy, expertise, interest, pleasure)	Career satisfaction, job success (autonomy, expertise, interest, pleasure)	Social status, recognition, reputation	
Lee et al. (2006)	87 professionals/ managers across organizations	Performing well			Upward mobility	Having a life outside of work	Learning		Fun and enjoyment, doing interesting work	Appreciation/ recognition, peer respect	Having an impact/ making a contribution

(*Continues*)

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Table 2. (Continued)

Study	Description of sample	Quality of work/ performance	Relationships/ influence on others	Financial factors	Advancement	Life beyond work	Growth and learning	Autonomy	Satisfaction	Respect/ recognition	Having an impact/ meaning
Parker and Arthur (2002)[b]	Three focus groups of MBA students		Supportive work atmosphere, stability, influence others, working with others, leadership, coaching, learning through feedback, gaining support, company-specific relationships, support for potential, work relationships, suppliers, internal support, working in teams, mentoring	Providing for family, security		External relationships	Innovation, skills and knowledge, challenge, learning, developing new knowledge, distinctive skills, job situations, learning through feedback	Flexibility		Approval	Societal approval, projects
Juntunen et al. (2001)	18 Northern Plain Indians across professions and ages		Contribute to well-being of others	Material gain					Personal satisfaction		
Sturges (1999)[c]	36 managers in UK telecom company	Accomplishment, sense of personal achievement	Influence	Rewards		Balance			Enjoyment	Personal recognition	Making contributions
Duxbury, Dyke, and Lam (1999)	254 employees federal government employees in Canada	Self-esteem, reward, and accomplishment	Ability to contribute and influence	Recognition and extrinsic rewards	Career progress		Learning		Enjoyment and satisfaction in the work itself	Self-esteem, reward, and accomplishment, recognition and extrinsic rewards	Ability to contribute and influence
Gattiker (1985)	32 managers and support staff in manufacturing plant	Job success	Interpersonal success	Financial success	Hierarchical success	Life success					

[a]One dimension, creativity, was identified that did not clearly fit in the common categories.
[b]Three dimensions were identified that did not clearly fit into the common categories. In some cases, this was because the listed examples of these categories seemed to be addressing multiple concepts. The categories are personal ambition (having employment to suit my lifestyle and fulfilling personal goals through my work), influence on environment (exerting influence over a changing environment), and strategic thinking (becoming a strategic thinker and being able to bring out the best in other people).
[c]One dimension, integrity, was identified that did not clearly fit in the common categories.

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Despite these previous empirical efforts, we believe there is room for additional developmental work in the area of SCS measurement. First, Gattiker and Larwood's (1986) measure was created over 20 years ago. As reviewed by Sullivan and Baruch (2009), changes over the past few decades in the nature of work and demographics of the workforce have contributed to a change in individuals' career attitudes and behaviors. Namely, the participation of women in the workforce has increased (Bureau of Labor Statistics, 2013), as have shifts in general employment priorities to values such as flexibility, authenticity, and work–life balance (Abele & Wiese, 2008; Converse, Pathak, DePaul-Haddock, Gotlib, & Merbedone, 2012; Mainiero & Sullivan, 2006). Thus, it is possible that the existing scale may not account for contemporary factors (an idea that is reinforced by several dimensions listed in Table 2 that are unaccounted for in this measures). Second, both Gattiker and Larwood's and Parker and Arthur's (2002) measures were based on qualitative work within rather narrow populations (i.e., managers and support personnel in a manufacturing plant and Master of Business Administration students), calling into question the generalizability of these models to other types of workers. Third, Parker and Arthur's measure suffers from some methodological issues. The factor analysis used to validate the scale was based on a small sample size ($n = 95$) relative to the number of items, the authors failed to find a three-factor solution when all items were considered simultaneously, some items were allowed to load on multiple dimensions, and theoretically some of the items that map onto the same subfactor seem quite distinct (e.g., the subdimension of strategic thinker involves "becoming a strategic thinker" and "being able to bring out the best in other people").

Regarding Zhou et al. (2013), the study and measure were developed in an environment with specific cultural values that may not represent the cognitive and affective appraisals made by Western workers. Given the potential influence of national culture on perceptions of SCS (Dries, 2011), the extent to which this measure captures SCS in Western samples is unclear. Moreover, the measure does not actually capture an individual's own SCS. Instead, it asks participants to rate the extent that the items (e.g., "One is highly respected by the colleagues") could be used as criteria for success. Said otherwise, the measure has not been adjusted and validated as an actual indicator of one's own SCS but rather assesses the respondent's subjective importance of various success dimensions.

Present study

Based on this review of the literature, the goal of the present study is to create and validate a multidimensional measure of SCS that extends beyond satisfaction and represents meaningful dimensions of success in the modern career landscape. In doing so, we acknowledge that individual definitions of career success are clearly complex and highly personal. While we believe there is space in the literature for a comprehensive measure, we accept that one predefined measure can never entirely capture this complexity. However, in the interest of producing a means for quantitative assessment that facilitates comparison, prediction, and generalization across populations, we believe the development of such a measure is merited.

In order to create the measure, we follow Heslin's (2005) suggestions for improving the measurement and conceptualization of career success by focusing on how people in different career contexts conceptualize their career success via qualitative methods. We began by conducting qualitative research, specifically asking people of diverse backgrounds, career stages, and occupations to define career success and coded this information for common themes. We used information from Table 2 to compare the themes that emerged in our own research with those from previous research. Next, we applied Hinkin and Tracey's (1999) method of scale development to create items that tap into the dimensions of SCS that we uncovered from our qualitative work. As a final step, we conducted quantitative studies with two different samples to validate, cross-validate, and establish the nomological network (Cronbach & Meehl, 1955) of the newly developed SCS measure, the SCSI. In order to establish this network, we examine criterion-related, discriminant, and convergent validity of the scale as a whole as well as the individual dimensions. Specific hypotheses regarding variables examined in the validation process are detailed below.

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Criterion-related validity

Evidence for criterion-related validity is provided by examining the associations between the construct of interest and theoretically relevant outcomes. Career success is often considered an outcome in research (e.g., Ng et al., 2005), and rarely do theoretical models examine its influence on other variables. Nonetheless, pulling from vocational choice, job performance, and attitude theories, as well as Social Cognitive Career Theory, we argue that the SCSI should relate to other important career-related attitudes.

The foundation of many vocational theories (e.g., Holland, 1966; Schein, 1975; Super, 1957) is the importance of congruence between personal preferences and abilities and the career environment. As such, when fit is low, individuals may respond by withdrawing from their careers, pursuing other career paths, or adjusting their preferences (Gottfredson & Becker, 1981; Vroom, 1966; Schein, 1975, 1978). This concept of fit aligns with the general notion of SCS as a person's own evaluation of their achievement of desired outcomes. It follows then that when SCS is low, employees should be less committed to their current career (i.e., less motivated to stay in that career; Hall, 1971) and will experience a greater amount of career withdrawal cognitions, defined as thoughts about mentally withdrawing from the career or pursuing other career options (Blau, 1985).

Additionally, Social Cognitive Career Theory (Lent, Brown, & Hackett, 1994) posits a positive reciprocal relationship between career outcomes and self-efficacy, generally defined as the beliefs people have about their abilities to complete a task. Self-efficacy has been applied to specific domains, including occupational and career self-efficacy (e.g., Williams & Betz, 1994; Kossek, Roberts, Fisher, & DeMarr, 1998). By applying this concept to the SCS domain, researchers have found that perceptions of SCS (operationalized as overall self-referent and other-referent success perceptions) positively relate to one's occupational self-efficacy, which in turn relates to continued success (Spurk & Abele, 2014). Based on this idea, we expect a positive relationship between the related variable of career self-efficacy and SCSI.

Lastly, support for these relationships can also be drawn from theories at the job level, involving job performance and attitudes. Basic job attitude theories (e.g., Lawler & Porter, 1967) argue that better performance leads to external and internal rewards, which in turn relate to more favorable job attitudes. Similarly, the positive relationship between job performance and self-efficacy at the between-person level is well-documented (cf., Bandura & Locke, 2003). Although job performance and career success are certainly distinct, the theoretical processes may function similarly, such that a person achieving success receives intrinsic (and perhaps also extrinsic) rewards, which drive other career-related attitudes, such as commitment and thoughts of withdrawal. Drawing from these various perspectives, we propose the following hypotheses:

Hypothesis 1: The SCSI negatively relates to (a) career withdrawal cognitions and positively relates to (b) career commitment and (c) career self-efficacy.

Other correlates of SCS lie in the area of personal well-being. Most people spend a substantial amount of time in career-related activities (Bureau of Labor Statistics, 2012), and as such, work is often a central life domain and exerts considerable influence on mental well-being and life as a whole (Blustein, 2006; Crabtree, 2011; Leung, Cheung, & Liu, 2011). This premise is the cornerstone of much career assessment and counseling, which aims to assist people in finding careers where they will experience personal excellence and fulfillment that will carry over to their overall well-being (Hartung & Taber, 2008; Savickas, 2005). Based on these ideas, we argue that the extent to which one feels successful in his or her career should positively impact affective evaluations of life (i.e., life satisfaction) and mental state (i.e., depressive symptoms).

Hypothesis 2: The SCSI positively relates to (a) life satisfaction and negatively relates to (b) depression.

Convergent and discriminant validity

Convergent and discriminant validity provide evidence that a construct is related to theoretically relevant constructs but is distinct from other constructs. Based on the previous discussion, we expect the SCSI to be related to previous

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operationalizations of the construct (career satisfaction and unidimensional perceived career success). Although we argue that none of these constructs is sufficient to represent the full domain of SCS, there is likely to be some relationship. Additionally, although job performance was not discussed in our review of previous conceptualizations, we expect that it will relate to career success, given that it is explicitly incorporated into previous multidimensional models (Dries, Pepermans, & Carlier, 2008; Gattiker & Larwood, 1986; Sturges, 1999) as well as career anchor research (Schein, 1975). Finally, we predict that objective indicators of success (salary and number of promotions) relate to the SCSI. Research suggests that this duality of career success is inexorably intertwined, with the objective and subjective influencing the other throughout the course of the career (Ng et al., 2005; Spurk & Abele, 2014; Van Maanen, 1977).

However, we also suspect that the SCSI is distinct from each of these constructs. To test these ideas, we examine the incremental validity that the SCSI accounts for in the criterion variables examined over and above prior SCS measures. Thus, in this sense, we are establishing convergent and discriminant validity simultaneously.

Hypothesis 3: The SCSI positively relates to (a) career satisfaction, (b) unidimensional perceived success, (c) job performance, (d) salary, and (e) number of promotions.

Hypothesis 4: The SCSI accounts for variance above and beyond that of career satisfaction, unidimensional perceived success, job performance, salary, and number of promotions in (a) career withdrawal cognitions, (b) career commitment, (c) career self-efficacy, (d) life satisfaction, and (e) depression.

Lastly, given the amount of previous research that suggests SCS is multidimensional, it seems important to identify the relationship between the individual dimensions and relevant outcomes. Although we intend to create an overall measure of SCS to be used holistically, we also believe that assessing dimensions separately can facilitate understanding of the relative importance of certain dimensions to certain outcomes. This is useful in building a comprehensive SCS theory, and it could have implications for vocational counseling. For example, one may consider which dimensions most highly relate to valued outcomes and accordingly focus vocational selection on occupations that are likely to facilitate achievement of success in those areas. Rather than propose specific hypotheses, we examine this notion as a research question:

Research Question 1: What is the relative importance of each SCSI dimension in predicting (a) career withdrawal cognitions, (b) career commitment, (c) career self-efficacy, (d) life satisfaction, and (e) depression?

Method

The SCSI scale development and validation process involved four distinct phases. The purpose of the first phase was to determine the appropriate constructs that should be included in the SCSI. To this end, interviews and focus groups were first conducted, followed by open-ended surveys with subject matter experts (SMEs) and an examination of findings in relation to previous theory. The goal of Phase 2 was to develop a pool of items that tapped the dimensions of SCS identified in Phase 1 and to determine the content validity of these items. Phase 3 involved the administration of the revised pool of items for the scale to working individuals in a variety of career situations and stages. The goals of this step were to establish the factor analytic structure of the scale, reduce the number of items based on this structure, and examine evidence for validity. Phase 4 was used to validate the SCSI items in a different sample from that used in Phase 3, to determine if the factor analytic structure of the scale was replicable, and to further examine evidence for validity.

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Phase 1: Qualitative Examination

Participants were 30 full-time employees. Of the 30 participants, 16 were female (53 percent), and 25 were Caucasian (83 percent). The average age of the participants was 38.7 years ($SD = 13.04$). Three participants were in the beginning stage of their career (10 percent), 24 participants were in the middle stages of their career (80 percent), and three participants were planning for or had already entered retirement (10 percent). Twenty-three participants' highest educational obtainment was a four-year college degree or higher (77 percent), six participants had some college education (20 percent), and the remaining two participants obtained a high school degree (7 percent). The participants occupied a wide range of jobs, with titles such as administrative assistant, network engineer, university professor, optometrist, registered nurse, CEO, and sports broadcaster. Participants were recruited through the research team's personal and professional networks.

Participants were interviewed by a member of the research team using a structured interview process within an individual interview setting (23 participants) or a focus group (seven participants). The interviewers asked a standard set of five questions that were developed to elicit discussion about career success from multiple angles (see Appendix). The average length of the individual interviews was 20 minutes, and the focus group lasted 120 minutes. All interviews and the focus group were transcribed from audio tapes. Procedures for conducting the interview and focus group were drawn from various resources (i.e., Dillon, 1990; Corbin & Strauss, 2008; Krueger & Casey, 2009; Seidman, 2006; Warren, 2001).

The number of participants was determined based on the saturation method (Saumure & Given, 2008), where data were collected to the point where subsequent participants fail to provide unique information on the topic under investigation. Evidence of saturation was based on coding subsets of the data. The first subset consisted of seven interviewees, the next subset consisted of the seven focus group members, the third subset included the next 10 interviewees, and finally the last coding round, where saturation was achieved based on a lack of new information, included six interviewees. A sample size of 30 participants meets the minimum recommendation of 25 for qualitative research aimed at item development (Sandelowski, 1995) and 20–30 for non-ethnographic qualitative interviewing (Warren, 2001).

In line with the saturation establishment process, a multistep content analysis procedure was used to conduct a content analysis of the interview and focus group transcripts. A deductive approach was first taken, with an *a priori* set of categories identified based on previous research and initial coding of a subset of interviews ($N = 7$) by the two first authors. After this step, an inductive process was followed with each of the four rounds of coding, where new categories were added to the initial subset when necessary. Transcripts were recoded by the third and fourth authors so that quotations fitting into the new categories were not overlooked. The coefficient of agreement was 89 percent. Discrepancies were resolved via discussion by the two coders as well as the two coders from the first round. There were a total of 75 individual category codes created and 702 associated quotes. Quotes were then grouped by category code and reviewed for redundancies; redundant quotes were removed from the pool. After quotes were categorized, the total number of categories was reduced by collapsing those with common underlying themes or eliminating categories with only a few relevant quotations. A list of 12 dimensions was generated from this analysis, namely, recognition, quality product, meaningful work, relationships with colleagues, employability, influence, self-management, work–nonwork balance, growth and development, satisfaction, advancement, and financial stability.

As a final step in dimension identification, we conducted an online survey using career researchers as SMEs. The SMEs were recruited using the Academy of Management CareerNet listserv, where a description of the study's overall purpose and the task requested of the SMEs was described. The survey first listed and defined the 12 dimensions. Then, for each dimension, the following questions were presented: (1) How much does the average person consider this dimension in appraising their own career success? (on a 5-point Likert scale from *not at all* to *a good deal*); (2) Does the definition adequately describe the dimension? (yes or no; if no, describe); (3) Please describe the scope of the dimension (on a 5-point Likert scale ranging from *much too specific* to *much too vague*); and (4) Does the dimension definition match its label? (yes or no; if no, describe). The SMEs were also asked to identify whether

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any aspects of career success seemed to be missing from the dimension list as well as provide additional comments on each dimension and the scale as a whole.

Based on the responses of 19 SMEs, the categories were revised, resulting in a final list of 10 distinct dimensions. Specifically, a category was reconsidered if less than 50 percent of the SMEs indicated "a good deal" to Question 1 above. Two categories fit this description, relationships with colleagues and employability, and were thus removed. Additionally, open-ended comments to Questions 2 and 4 were reviewed, and definitions were tweaked accordingly (e.g., the name of self-management, quality product, and work–nonwork balance were changed to authenticity, quality work, and personal life, respectively, based on SME comments). SMEs mentioned a few "missing" categories, including self-fulfillment, autonomy, ability to contribute to society (two mentions), and pride in work. We did not add any new categories based on these ideas, as we felt they were mostly captured by existing dimensions (meaningful work, authenticity, and satisfaction). Lastly, in the general comments section, four SMEs commented on whether financial stability and advancement were subjective and should be included in the scale. One SME made this comment regarding recognition. We ultimately made the decision to not include financial stability and advancement in the SCSI because they do seem to align more with objective, measurable factors that are encompassed in traditional objective career success measures. Two dimensions that may have some objective components, influence and recognition, were retained because the qualitative comments suggested that they extended beyond easily quantifiable components (i.e., influence may depend on rank but can occur with peers or in an upward manner, and recognition may be formal but is often less informal and less readily observable to an outsider). Thus, the SCSI includes eight dimensions. The dimensions, definitions, and some exemplary quotes from interviewees are presented in Table 3.

Phase 2: Item Creation and Refinement

Items representing each dimension were written by nine psychology doctoral students that had recently completed a seminar course in career development. A total of 124 items were received; redundant items were deleted, resulting in a final pool of 71 items (between 7 and 9 items for each dimension). Items for a ninth dimension, financial stability, were included but ultimately not used based on the aforementioned rationale.

Content validity was established using Hinkin and Tracey's (1999) analysis of variance (ANOVA) approach. Participants (165 undergraduates from a southeastern university) were presented with the operational definitions of each category and rated the items on how well they fit with each category on a 5-point Likert scale that ranged from *does not fit* (1) to *great fit* (5) (i.e., each item was rated nine times). Undergraduates were deemed a suitable sample for the rating task, as it requires sufficient intellectual knowledge to categorize statements into preexisting categories but does not require subject matter expertise of the categories (Colquitt, Baer, Long and Halvorsen-Ganepola, 2014; Schriesheim, Powers, Scandura, Gardiner, & Lankau, 1993). In an attempt to avoid fatigue effects, the items were randomly divided into three groups, and each participant was only presented with one group of items. This resulted in between 39 and 65 ratings for each item. Next, ANOVAs were conducted on each item with Duncan multiple-range *post hoc* tests, which indicated whether mean ratings for the *a priori* specified category were significantly greater than mean ratings for the other categories. Six items were eliminated because the *a priori* identified dimension did not have a significantly higher mean, resulting in a pool of 65 items total, or 59 items, not including financial stability. As an example, the item "Organizations I have worked for have recognized me as a good performer" received a mean fit rating of 4.33 on the recognition subscale, which was significantly higher than the mean rating on any other subscales, $F(8, 342) = 5.12$, $p < .01$, and was thus retained. An item written for the meaningful work subscale, "My work has been important," was not retained because the mean rating on the meaningful work subscale (4.10) was not significantly different than that of two other subscales (quality work and influence, 3.90 and 3.49, respectively), though the overall ANOVA was significant, $F(8, 342) = 10.35$, $p < .01$.

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Table 3. Subjective Career Success Inventory dimension definitions.

Dimension	Definition and exemplary statements	Mean (*SD*) importance rating
Authenticity	Shaping the direction of one's career according to personal needs and preferences "I felt successful when I was able to practice closer to the way that is consider the ideal way to practice by most—autonomy, setting your own hours—in a time period when the odds were against being able to do that." "A successful person is one who is able to dictate what he wants to do and how much time he wants to devote to different things."	3.70 (0.91)
Growth and development	Growing in one's career through the development of new knowledge and skills "I believe that's another part of success. Recognizing that you are going to do mistakes, but using that information to continuously improve." "Things change, you either have to change with it or move on or you are going to fall behind. You can't stay the same."	4.15 (0.76)
Influence	Having an impact on others within the organization and on the organization itself "You are successful if you feel that you are making a contribution to the effort or the workplace." "I had an important contribution to the whole organization, which impacts people everyday."	3.60 (0.97)
Meaningful work	Engaging in work that is personally or socially valued "I am going there and I am making a difference." "A person is successful if he or she feels that the career a calling, that they are contributing to something larger than themselves."	4.11 (0.88)
Personal life	Having a career that positively impacts life outside of work "I think that ifO you have a successful career, it makes everything in life a little bit easier. You have the time and the resources to do the things you want to do in your life." "Some people really focus on family life, enjoy doing it and still have time to do their jobs well, I think this is one thing I also want to do."	3.72 (0.95)
Quality work	Producing a high-quality product or providing high-quality service "Well I have a friend who is a homicide detective and she takes her work very seriously and is able to transform that into big success rate in solving her crimes." "…where I have taught a lesson and it's gone really well."	4.25 (0.70)
Recognition	Being formally or informally acknowledged for your work by valued others "Getting positive feedback from others in the company. Meeting senior level management, meeting the head of HR and having them give you compliments on your work after only being there for seven months feels pretty good." "People who are successful are recognized by their peers. They are respected."	3.25 (0.86)
Satisfaction	Positive affect or feelings toward one's career in general "Well primarily of course is happiness, because unless you achieve happiness in what you're doing, you're not successful." "If you aren't happy doing what you are doing, then I don't think the money stuff matters."	Not rated

Phases 3 and 4: Validation Process

Participants

Participants for Phase 3 were recruited using multiple methods to ensure diversity of occupations and career stages. First, a description of the study and link to the online survey were posted on a social networking site (i.e., Facebook). Second, participants were contacted via email using a university alumni database and asked to participate in the study. Participants were 298 employees representing 23 different industries (the largest percentage (19 percent) was in education, training, and libraries). The average tenure was as follows: 11.5 years in current occupation, 6.5 years in current organization, and 5.5 years in current position. The race/ethnicity breakdown was 89.3 percent White, 5.4 percent Black/African-American, 2.3 percent Asian, 1.7 percent other race, and 3.4 percent Hispanic

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(percentages do not sum to 100 percent as some participants identified as multiple races). Fifty-seven percent of participants were female, and most were in the third career stage (37.6 percent), followed by the second (35.9 percent), first (14.8 percent), and fourth (11.4 percent). Career stages were assessed by asking participants to identify which of the following best represented their stage: "I have recently started my career and am just beginning to explore my career options. I am involved in self-examination and trying to discover the kind of work and career that will best suit me" (Stage 1), "I am mostly concerned with securing my place in my organization, demonstrating outstanding performance, establishing relationships with others at work, and advancing to new levels of responsibility. I feel relatively stable in my career" (Stage 2), "I am focused on preserving my career achievements already attained and my self image in the organization. I have a strong personal identification with my career and organization" (Stage 3), and "I am beginning to detach from my job, organization, and occupation and am approaching retirement" (Stage 4). The median salary was $66,575.00, and the average age was 41.05 years ($SD = 12.79$; median = 38.5). Due to missing data, analyses ranged from 256 to 298.

Participants for Phase 4 were recruited using Amazon.com's Mechanical Turk, an online platform that allows researchers to post human intelligence tasks (e.g., surveys) for participants to complete for monetary incentives. Previous researchers have shown that data from this sample source are at least as valid and reliable as those from community and student samples (Buhrmester, Kwang, & Gosling, 2011; Goodman, Cryder, & Cheema, 2013). In order to be included in the present study, all participants had to be 18 years or older, also working in paid employment for an organization other than Amazon Mechanical Turk, working at least 20 hours per week in paid employment, living in the United States, and had to have at least a 90 percent approval rate from previous Mechanical Turk tasks. Per recommendations (Goodman et al., 2013), to be included in the final dataset each participant also had to pass a data quality check (see Data Quality section below). Each participant was paid $0.75 for his or her participation.

A total of 247 participants completed the survey, after screening for attentional items (detailed below), usable data were available for 216 participants. Due to missing data on some of the SCSI scale items, the confirmatory factor analyses (CFAs) were conducted based on an N of 212, and sample sizes for correlation and regression analyses ranged from 192 to 216. The pool of Mechanical Turk participants includes workers from a wide range of industries. Participants worked an average of 8.68 years in current occupation, 5.40 years in current organization, and 4.30 years in current position. Participants were 54.6 percent female, and the race/ethnicity breakdown was 77.18 percent White, 10.2 percent Black/African-American, 6.9 percent Asian, 3.8 percent other race, and 5.6 percent Hispanic/Latino /Spanish origin. Most participants reported being in the second career stage (40.7 percent), followed by the first (27.3 percent), third (18.5 percent), and fourth (12.9 percent). The median salary was in the $20,001–$40,000 range, and the average age was 34.70 years ($SD = 11.06$; median = 32.50).

U.S. Bureau of Labor Statistics data (www.bls.gov) from 2014 suggest the following demographics for the U.S. labor force: 48.3 percent male, 79.8 percent White, 11.43 percent Black, 5.7 percent Asian, 3.07 percent other race, and 15.9 percent Hispanic/Latino origin, median age of 42.4 years, and median salary of $47,230. Thus, both samples have slightly more women than the general population and underrepresent Hispanic/Latino employees. The Phase 3 demographic also underrepresents African-Americans and slightly underrepresents Asians. The median age of both samples was younger than that of the general workforce, and the salary of the Phase 3 sample was higher than the U.S. average, whereas the salary of the Phase 4 sample was lower.

Measures

The reliability coefficients for all measures are listed in Table 3. *SCS* was measured using the 24 items on the SCSI that were developed for this study (the process of reducing the 59 items to 24 is described below). These items were all presented with the stem "Considering my career as a whole…" and were averaged to create an overall measure of SCS. *Career withdrawal cognitions* were measured with a three-item scale (Carson, Carson, Roe, Birkenmeier, & Phillips, 1999); an example item is "I am thinking about leaving my profession." Diener,

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Emmons, Larsen, and Griffin (1985)'s five-item scale was used to measure *life satisfaction* ("I am satisfied with my life."). *Career satisfaction* was assessed via Greenhaus et al.'s (1990) five-item scale, and *unidimensional perceived success* was measured with Turban and Dougherty's (1994) scale (see Table 1 for items). Williams and Andersen's (1991) six-item performance effectiveness scale ("I adequately complete assigned duties") was used to assess *job performance*. With the exception of life satisfaction and unidimensional perceived success, a five-point Likert response scale that ranged from *strongly disagree* to *strongly agree* was used. Life satisfaction was measured with a 7-point Likert scale. One item from unidimensional perceived success was set on a three-point scale, which necessitated the computation of a *z*-score for all items in order to combine the unidimensional perceived success into a composite measure. All other composites were formed by averaging responses to individual items. Single items were used to assess *salary* (indicate your yearly salary) and *promotions* ("Please indicate the number of promotions you have received over the course of your career"). A promotion was defined as any significant increases in annual salary, significant increases in scope of responsibility, changes in job level or rank, or eligibility for bonuses, incentive, or stock plans.

As a supplementary check on the merit of including the dimensions identified in Phase 1, we included a question that asked "To what extent do you consider the following facets when you evaluate your own career success?" Each SCSI dimension was included, except satisfaction. Participants rated these on a 5-point Likert scale that ranged from *not at all* to *a great deal*.

Additional measures were included in Phase 4 only: career self-efficacy, depression, and career commitment. *Career self-efficacy* was measured with 11 items from Kossek et al. (1998) that the authors adapted from Sherer and Adams (1983). An example item is "When I make plans for my career, I am confident I can make them work." *Depression* was measured via Quinn and Shepard's (1974) 10-item scale. The original scale was set in a work context, but it was modified for the purposes of this study to reflect life in general over the past 3 months. The scale includes a mixture of positively and negatively valenced items, such as "I feel downhearted and blue" and "I still enjoy the things I used to do." The positively valenced items were reverse coded so that higher scores indicated more depression. *Career commitment* was assessed with six items that were adapted from Blau (1985). Blau's measure uses terminology that refers to a specific occupation (e.g., nursing) and that was adapted to more general statements for the purposes of this study (i.e., "my profession"). The three scales were measured using a 5-point Likert response scale that ranged from *strongly disagree* to *strongly agree*.

In addition to the new scales included in Phase 4, salary was also measured differently than in Phase 3. The response scale included 12 salary ranges instead of an open-ended response option. We made this modification to encourage more participants to complete this item, as several respondents did not respond to an open-ended question regarding salary during Phase 3. Lastly, only the 24 items that were derived from the CFA (described below) in Phase 3 were included in data collection for Phase 4.

In an effort to alleviate concerns about the integrity of data from online survey administrations in unproctored settings (see Johnson, 2005), five items were added to detect inattentive responses, following a methodology used by previous researchers (i.e., Cho & Allen, 2012). Each question had a clear correct or expected answer (e.g., all should respond strongly disagree to "All of my friends are aliens"); individuals who chose an incorrect answer were assumed to be responding carelessly. We eliminated any participants who failed to respond as expected to more than one of these questions. This resulted in the removal of 31 participants.

Phase 3 and 4 Results

The SCSI was refined through a multistep CFA procedure based on maximum likelihood estimation using Phase 3 data (Chou & Bentler, 1995). The first step in the process was to select a smaller subset of items from the larger pool in order to create a more efficient and usable scale. In order to determine the best items for each of the eight dimensions, eight separate one-factor models were estimated, each containing only the items specified *a priori* to load onto

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that factor. The three items with the highest standardized loadings were retained. In all cases, the factor loadings were significant, and the data fit the model well. The items included in the final scale are listed in the Appendix. Next, to confirm the dimensionality of the new measure, CFA was conducted with all eight dimensions together. The eight-factor model demonstrated acceptable fit based on Phase 3 data (CFI = 0.955, TLI = 0.945, RMSEA = 0.052). The mean importance ratings for each dimension are listed in Table 3. All dimensions were rated higher than the scale midpoint, reinforcing the idea that the dimensions of the scale are generally considered important components of SCS by most participants. An important step of any scale development project is to validate the final scale in another sample to determine if the factor structure replicates. Phase 4 data were used for this purpose. The eight-factor model exhibited acceptable fit, although slightly poorer than that of Phase 3 (CFI = 0.930, TLI = 0.914, RMSEA = 0.066). The RMSEA value falls within Kline's (2005) and Hu and Bentler's (1998) criteria for reasonable fit (between 0.05 and 0.08 and "close to 0.06," respectively). The CFI and TLI fit Kline's (2005) fit criteria (>0.90) but do not fit Hu and Bentler's (1998) suggestion of 0.95. However, other researchers note that TLI and CFI tend to produce worse fit as the number of observed variables (i.e., indicators) is larger (around ≥20), particularly when sample size is smaller (Fan & Sivo, 2007; Kenny & McCoach, 2003); thus, Hu and Bentler's (1998) general rules of thumb may be too stringent given the large number of dimensions estimated in the CFA. It should also be noted that large number of variables can have the opposite effect on RMSEA.

Table 4 presents the means, standard deviations, and correlations of the variables included in the validation process. With regard to career stage, in Phase 3, SCS was significantly lower for people in the first career stage compared with all other career stages ($F(3, 273) = 6.11$, $p < .01$). In Phase 4, career success only differed between those in the first and third career stages (higher in the third, $F(3, 196) = 3.40$, $p < .05$). A review of specific dimensions suggests the differences were in quality work, influence, and satisfaction for both samples and authenticity and meaningful work for Phase 3 and recognition and growth and development for Phase 4.

Hypotheses 1 and 2 focused on criterion-related validity. All hypotheses were supported in both samples, as the SCSI was significantly negatively related to career withdrawal cognitions (rs = −.45, −.51, ps < .05, Phases 3 and 4, respectively) and depression ($r = -.53$, $p < .05$, Phase 4) and was significantly positively related to career commitment ($r = .63$, $p < .05$, Phase 4), life satisfaction (rs = .59, .55, ps < .05, Phases 3 and 4, respectively), and career self-efficacy ($r = .56$, $p < .05$, Phase 4). Hypothesis 3 focused on convergent validity. It was supported, as the SCSI was significantly positively related to career satisfaction (rs = .74, .63, ps < .05), unidimensional perceived success (rs = .64, .57, ps < .05), job performance (rs = .49, .34, ps < .05), salary (rs = .23, .14, ps < .05), and number of promotions (rs = .17, .14, $p < .05$) in Phases 3 and 4, respectively. As evidence of discriminant and incremental validity, Hypothesis 4 predicted that the SCSI would account for variance above and beyond that of the aforementioned convergent validity variables. This hypothesis was tested using hierarchical regression, and significance was determined based on the change in the R^2 from the initial step, where all convergent validity variables were included, to the second step where the SCSI was added. Hypothesis 4 was supported (see Table 5), and ΔR^2 ranged from .03 to .16. In all cases, the SCSI significantly uniquely predicted each outcome variable, and the change in R^2 with the addition of the SCSI was statistically significant. Given the correlations between predictors, the variance inflation factor (VIF) was examined. In no case did the VIF exceed 2.75, which falls under the conservative rule-of-thumb threshold of 5 (e.g., Menard, 1995) and indicates inconsequential collinearity.

Research Question 1, concerning the relative importance of each SCSI dimension in relation to outcomes, was tested using relative weights analysis. This analysis overcomes limitations associated with multiple regression when predictors are highly correlated, as is the case with the SCSI dimensions. Analyses were conducted following the procedures of Johnson (2000) and LeBreton and Tonidandel (2008). Statistical significance of the relative weights was estimated using Tonidandel, LeBreton, and Johnson's (2009) bootstrapping procedure. The relative weights indicate the percentage of variance that each dimension accounts for in the total R^2 for a given outcome. Additionally, multivariate relative weights analyses (LeBreton & Tonidandel, 2008) were conducted for the career attitudes (career commitment, self-efficacy, and withdrawal cognitions) and the two well-being constructs (depression and life satisfaction) for Phase 4 data. Results of these analyses are displayed in Table 6. Overall, the results suggest that there was considerable variety in the relative importance of various dimensions in predicting the different outcomes.

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Table 4. Intercorrelations among study variables.

	M	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. SCSI	4.03	0.51	*.94*	.72**	.63**	.82**	.75**	.85**	.60**	.68**	.82**	−.51**	.55**	.63**	.57**	.34**	.14*	.14*	−.57**	.56**	.63**
	3.90	0.61	*.93*																		
2. Rec	4.14	0.66	.74**	*.79*	.50**	.49**	.66**	.54**	.30**	.37**	.46**	−.31**	.26**	.35**	.41**	.41**	.06	.21**	−.37**	.38**	.35**
	4.15	0.74		*.78*																	
3. Qual Work	4.27	0.6	.68**	.55**	*.80*	.44**	.41**	.40**	.33**	.61**	.33**	−.12	.35**	.33**	.40**	.55**	.09	.15*	−.37**	.56**	.22**
	4.32	0.57			*.86*																
4. Meaning	3.95	0.82	.74**	.35**	.40**	*.83*	.56**	.68**	.36**	.43**	.72**	−.50**	.49**	.48**	.40**	.17*	.05	.06	−.46**	.36**	.61**
	3.69	0.94				*.89*															
5. Inf	4.00	0.72	.72**	.61**	.47**	.50**	*.86*	.59**	.27**	.36**	.49**	−.26**	.34**	.35**	.41**	.24**	.12	.24**	−.38**	.31**	.37**
	3.86	0.90					*.82*														
6. Auth	3.98	0.77	.82**	.53**	.38**	.58**	.55**	*.77*	.44**	.51**	.75**	−.49**	.47**	.57**	.48**	.21**	.08	.08	−.51**	.45**	.59**
	3.70	0.86						*.81*													
7. Personal	3.78	0.80	.46**	.31**	.19**	.19**	.12	.29**	*.74*	.42**	.37**	−.26**	.44**	.39**	.31**	.19**	.13	−.10	−.42**	.31**	.30**
	3.86	0.82							*.75*												
8. G&D	4.17	0.6	.62**	.41**	.53**	.34**	.36**	.40**	.15*	*.77*	.48**	−.25**	.37**	.57**	.49**	.34**	.12	.12	−.39**	.60**	.38**
	4.08	0.65								*.87*											
9. Satisf	3.96	0.88	.80**	.44**	.43**	.64**	.46**	.73**	.22**	.43**	*.92*	−.68**	.48**	.57**	.48**	.10	.16**	.04	−.42**	.38**	.78**
	3.57	1.06									*.92*										
10. Withdr Cog	2.12	1.11	−.45**	−.22**	−.17**	−.36**	−.25**	−.47**	−.12*	−.15*	−.58**	*.96*	−.40**	−.48**	−.30**	−.03	−.17*	.00	.41**	−.28**	−.80**
	2.68	1.29										*.93*									
11. Life Sat	5.00	1.32	.59**	.40**	.35**	.36**	.29**	.54**	.53**	.21**	.54**	−.32**	*.91*	.63**	.56**	.16*	.24**	−.05	−.57**	.38**	.46**
	3.17	1.01											*.91*								
12. Greenhaus et al.	3.65	0.80	.74**	.53**	.45**	.48**	.52**	.70**	.29**	.44**	.66**	−.39**	.62**	*.91*	.76**	.16*	.32**	−.02	−.47**	.43**	.52**
	3.32	0.96												*.88*							
13. Turban and Dougherty	0.00	0.83	.64**	.47**	.38**	.40**	.51**	.59**	.29**	.36**	.53**	−.29**	.59**	.58**	*.83*	.24**	.41**	.07	−.42**	.52**	.40**
	0.00	0.81													*.86*						
14. Job Perf	4.53	0.50	.49**	.47**	.63**	.17**	.34**	.29**	.22**	.45**	.27**	−.15*	.24**	.35**	.33**	*.84*	.10	.05	−.25**	.50**	.05
	4.52	0.48														*.86*					
15. Salary	84.2K	76.4K	.23**	.18**	.20**	.11	.21**	.22**	.03	.17**	.17**	−.10	.19**	.31**	.30**	.13*		.21**	−.04	.15*	.15*
	2.87	1.84																			
16. Promos	3.84	4.15	.17**	.21**	.14*	.09	.23**	.13*	.02	−.01	.14*	−.10	.02	.19**	.15**	.17**	.20**		−.01	.05	.00
	2.70	2.63																			
17. Depress	3.07	1.11																	*.90*	−.48**	−.48**
18. Car Self Eff	3.88	0.60																		*.79*	.36**
19. Car Com	3.05	0.98																			*.90*

Note: SCSI = subjective career success index; Rec = recognition; Qual Work = quality work; Meaning = meaningful work; Inf = influence; Auth = authenticity; Personal = personal life; G&D = growth and development; Finance = financial stability; Satisf = satisfaction; Withdr Cog = withdrawal cognitions; Life Sat = life satisfaction; Job Perf = job performance; Depress = depression; Car Self Eff = career self-efficacy; Car Com = career commitment.

Phase 3 data are below the diagonal ($N = 256–298$); Phase 4 data are above the diagonal ($N = 192–209$). Means, standard deviations, and internal consistency reliability estimates (listed on diagonal) for Phase 3 are listed below those for Phase 4. All scales were measured on a 5-point Likert scale, with the exception of life satisfaction, which was measured on a 7-point Likert scale. Turban and Dougherty scores were converted to *z*-scores due to different response scales across items. In Phase 4, salary was measured using the following ranges: 1 = <$20,000; 2 = $20,001–$40,000; 3 = $40,001–$60,000; 4 = $60,001–$80,000; 5 = $80,001–100,000; 6 = $80,001–$100,000; 7 = $100,001–$120,000; 8 = $120,001–$140,000; 9 = $140,001–$160,000; 10 = $160,001–$180,000; 11 = $180,001–$200,000; 12 = >$200,000.

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

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Table 5. Regression results from variables in Phases 3 and 4 samples.

	Career withdrawal cognitions		Life satisfaction		Depression		Career commitment		Career self-efficacy	
Variable	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Career satisfaction (Greenhaus et al.)	−.56** (−.38**)	.39** (.17)	.47** (.43**)	.35** (.27**)	−.37**	−.18	.50**	.25*	.16	−.01
Perceived success (Turban & Dougherty)	.11 (−.04)	.21 (.03)	.18 (.27**)	.11 (.22**)	−.18	−.07	.06	−.09	.38**	.28**
Job performance	.03 (.04)	.11 (.12)	.07 (.01)	.01 (−.06)	−.18*	−.09	−.05	−.17**	.38**	.31**
Salary	−.01 (.06)	−.07 (.06)	.05 (.00)	.09 (.00)	.15	.09	−.05	.04	−.09	−.03
Promotions	.01 (−.06)	.06 (−.06)	−.07 (−.10)	−.10 (−.10)	−.04	.01	.00	−.07	.02	−.03
SCSI		−.39** (−.40**)		.26** (.29**)		−.40**		.56**		.37**
F	10.61 (10.11**)	12.88** (11.34**)	24.81** (33.75**)	23.60** (31.91**)	13.82**	16.52**	12.51**	21.03**	27.76**	30.11**
df	5, 169 (5, 240)	6, 168 (6, 239)	5, 169 (5, 242)	6, 168 (6, 241)	5, 169	6, 168	5, 169	6, 168	5, 169	6, 168
Overall R^2	.24 (.16)	.32 (.22)	.42 (.41)	.46 (.44)	.29	.37	.27	.43	.45	.52
Δ in R^2		.08** (.06**)		.03** (.03**)		.08**		.16**		.07**

Note: Coefficients listed are β unless otherwise specified. Values in parentheses are from the Phase 3 sample; other values are from the Phase 4 sample. Δ in R^2 represents the change from Step 1, which included all variables except SCS, to Step 2, which included the full set of variables.
SCSI = subjective career success index.
*$p < .05$; **$p < .01$.

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Table 6. Results from relative weights analysis.

	REC	QW	MW	INF	AUTH	PERS	G&D	SAT
Car With Cog	5.64	1.65	17.61*	3.17	14.58*	3.72	3.60	50.04*
	(3.04)	(2.06*)	(11.40*)	(4.16)	(23.21*)	(1.02)	(2.30)	(52.81*)
Life Sat	2.67	8.91*	18.85*	7.33	13.37*	23.55*	7.59*	17.69*
	(6.95*)	(6.98*)	(5.18*)	(3.05*)	(18.27*)	(35.70*)	(1.65)	(22.20*)
Depression	8.04	9.48	14.80	8.17	20.87*	19.51*	9.50	9.62
Career Commit	4.09*	1.36	19.35*	4.33*	15.21*	3.03	5.72*	76.92*
Car self-efficacy	7.46	30.64*	4.82	3.08	11.20*	4.82	31.94*	6.02
Well-being	7.77*	8.66*	16.15*	7.58*	17.01*	20.15*	8.11*	14.56*
Career attitudes	5.56*	16.01*	12.61*	4.34	11.75*	3.45	16.01*	30.26*

Note: Values listed are rescaled relative weights. Values in parentheses are from the Phase 3 sample; other values are from the Phase 4 sample. REC = recognition; QW = quality work; MW = meaningful work; INF = influence; AUTH = authenticity; PERS = personal life; G&D = growth and development; SAT = satisfaction; Car With Cog = career withdrawal cognitions; Life Sat = life satisfaction; Car Commit = career commitment.
*$p < .05$.

Each dimension exhibited at least two significant relative weights across the outcomes, and only authenticity exhibited a significant weight across all five outcomes.

Discussion

The objectives of the current study were twofold: to gain better insight into the concept of SCS as a multidimensional phenomenon distinct from career satisfaction and objective success and to create the SCSI, a new measure to reflect this new conceptualization. To do this, we conducted four phases of data collection, beginning with a qualitative methodology for construct establishment, followed by sorting quantitative ratings to establish content validity, and finally conducting criterion-related, convergent, and discriminant validation studies utilizing two different samples.

The results from the qualitative portion of the study confirm the statements of previous researchers (e.g., Arthur et al., 2005; Greenhaus, 2003) that career success is a multidimensional construct. The scope of these dimensions was tremendous, as 75 unique categories emerged from our initial coding of the data. Although these categories were eventually refined and collapsed into only eight dimensions, this initial diversity enforces the inherent subjectivity of career success perceptions, further highlighting the importance of considering the objective–subjective duality when assessing career success. Our dimensions had substantial overlap with previous qualitative research, providing further evidence for the existence and validity of the dimensions identified through interviews and focus groups.

Moreover, an important component of the scale development process is quantitatively establishing evidence for validity (namely criterion-related, convergent, and discriminant validity). Hypotheses regarding validity were supported. As evidence for criterion-related validity, the SCSI negatively related to career withdrawal cognitions and depression and positively related to career commitment, career self-efficacy, and life satisfaction. Evidence for convergent validity was observed with relationships in the expected direction in both Phases 3 and 4 samples between the SCSI and Greenhaus et al.'s (1990) career satisfaction measure, Turban and Dougherty's (1994) measure of unidimensional perceived success, job performance, salary, and number of promotions. Finally, discriminant validity was examined by testing the incremental validity of the SCSI beyond the convergent validity variables in the criterion-related validity variables. In all cases, there was significant evidence of prediction above and beyond the other variables. Taken together, the quantitative data provide considerable evidence for the validity of the SCSI.

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In an exploratory manner, we also examined the relationship between each of the eight dimensions of the SCSI to the career attitude and well-being variables using relative weights analysis. There was considerable variation across the outcomes, highlighting the importance of different factors in different contexts. The relative weights associated with three of the dimensions, satisfaction, meaningful work, and authenticity, were most consistently significantly related to the outcomes. Although satisfaction has frequently been mentioned as a component of success, meaningful work and authenticity are relatively new concepts. Authenticity, defined as shaping the direction of one's career according to personal needs and preferences, aligns well with the notion of the "new career" as self-directed and on one's own terms. The finding that authenticity is an important predictor of several career attitudes and life satisfaction provides additional support for this class of theories (Arthur & Rousseau, 1996; Hall, 2002; Mainiero & Sullivan, 2006), extending the ideas of the modern careerist mindset to interpretations of success.

The role of meaningful work has been mentioned by several scholars (e.g., Cochran, 1990; Olson & Shultz, 2013; Praskova, Hood, & Creed, 2014) and is a dimension frequently uncovered in qualitative work conducted in the past 10 years. Why this dimension of success has emerged as important over time is unclear, particularly given that nationally representative research shows the importance of altruistic values across generations is actually slightly decreasing (Twenge, Campbell, Hoffman, & Lance, 2010), despite much anecdotal and popular press statements to the contrary. Nonetheless, conceptualizations of success and values are distinct concepts; it is possible that employees do not realize the value of finding purpose or meaning in their work, but when it is achieved, it has wide-reaching implications for career attitudes and well-being. Overall, results of the relative weights analysis highlight the importance of considering the individual dimensions of the SCSI as well as the global construct. In the present study, our aim was to create an overall measure that aims to incorporate many facets of success, but depending on the purpose of the study, future researchers may wish to extend the items for each dimension to create stand-alone measures. This could be useful in understanding, for example, how certain personality or human capital variables predict specific SCS dimensions.

In addition to the theoretical applications touched on above, the results of the present studies have several practical implications. First, the SCSI accounted for a relatively large amount of variance (16 percent) beyond other predictors in career commitment. Career commitment is, by definition, self-focused on the individual's career, but it is related to other concepts with direct implications for the organization, including job satisfaction, job involvement, organizational commitment, and withdrawal intentions (Duffy, Dik, & Steger, 2011; Goulet & Singh, 2002; Zhang, Wu, Miao, Yan, & Peng, 2014). Thus, by aiming to design jobs such that they support the achievement of success in the eight identified domains, organizations may be able to positively influence career commitment, productivity, and tenure. In particular, the results of the relative weights analysis suggest that authenticity and growth and development dimensions hold the most weight in predicting career commitment. Enhancing authenticity, by providing greater autonomy, and supporting growth and development, by providing more training and educational opportunities and providing employees with challenging work opportunities, would be meaningful ways to promote career commitment among employees.

As career success is a topic of considerable research interest, a plethora of studies have been conducted examining its predictors, correlates, and taxonomies. Given the limited scope of preexisting career success conceptualizations, we believe that a first step for future research is a re-examination of these topics using the SCSI, as this would be informative for both theory building and applied research efforts. For example, it would be interesting to see if the pattern of relationships confirmed in previous meta-analytic research where SCS was operationalized as career satisfaction (Ng et al., 2005) is consistent with the SCSI. Along the same lines, exploration of gender differences with the new measure may uncover some important distinctions, particularly since there are known gender gaps in objective factors (salary and promotion) in favor of men (Blau & DeVaro, 2007; Institute for Women's Policy Research, 2013).

Furthermore, certain dispositional and situational factors may make various dimensions of SCS more salient than others. In other words, part of the subjectivity of career success is determining favorable outcomes across dimensions that are valued by the individual (Van Maanen, 1977; Heslin, 2005). The goal of creating the SCSI was to generate a comprehensive, multidimensional approach that included facets of success deemed important to

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most people. However, the inventory could also be used to accommodate idiosyncratic preferences by asking participants to indicate the level of importance of each dimension to their own personal definitions of success. These importance ratings could then be used to differentially weight success on different factors. In this case, rather than being subjective in the sense that it allows for one's own interpretation of success statements, the measure would be subjective in that it allows people to determine for themselves what the relevant success dimensions are.

The use of personal definitions of career success as an individual difference variable opens a wide array of research paths to explore, such as its relationship with other work attitudes, work–life balance, or performance. One example of how this individual difference variable may be used is in mentoring contexts. Much attention has been given to examining the importance of aptly matching mentors and protégés (cf., Allen, Finkelstein, & Poteet, 2009). Using definitions of career success as a matching factor may impact the type and amount of mentoring the protégé receives. If both members of the dyad agree that influencing others, for example, is a marker of a successful career, then the mentor may provide opportunities for the protégé to take the lead in a team project. Subsequently, a closer match between the dyad may lead to improved relationship quality, commitment, and a supportive environment for both the mentor and protégé. Additionally, examination of how success perceptions are formed and how they change over time would be informative, particularly given that some differences were observed by career stage. Socialization factors (e.g., gender and socioeconomic status) may impact success perceptions, but they may also change over time, particularly in line with cognitive dissonance theory (Festinger, 1957) if a person is unable to realize previous conceptions of success.

Our study has several limitations. First, the samples for the study were largely convenience based. Although we made an effort to recruit a diverse sample with respect to gender, race, and career stage, our sample is not perfectly representative of the U.S. workforce. Relatedly, the majority of our participants were of Western nationality, and, thus, the extent to which findings generalize is unknown. It is worth noting that our dimensions overlap with those found by the Zhou et al. (2013) study conducted in China. Nonetheless, additional research is needed in different cultural contexts to fully assess the generalizability. Second, as is the nature of qualitative research, interpretation of the interviews and focus groups was subjective. We tried to limit subjectivity as much as possible by using both inductive and deductive coding processes and involving multiple raters, but this limitation should still be noted. Additionally, all data were collected from a single source at a single point in time, meaning causal inferences cannot be implied and there is potential for common method variance. Third, the fit indices of the CFA were below those deemed acceptable by some standards (e.g., Hu & Bentler, 1998) and otherwise generally fell within the range of acceptable rather than good fit. This could have implications for reliability estimates, as some research suggests that a weak CFA fit coupled with highly correlated residuals results in an overestimation of internal consistency reliability (Gignac, Bates, & Jang, 2007).

Lastly, the magnitude of the correlation between the SCSI and Greenhaus et al.'s (1990) career satisfaction measure was quite large in both samples, although the SCSI predicted incremental validity in all of the examined outcomes. Regardless, this calls into question the utility of using the longer scale when the same information could potentially be gained more efficiently through five items. The correlation is reduced slightly when the satisfaction dimension of the SCSI is removed but still remains substantial. Nonetheless, additional research is still needed to truly understand the relative predictive ability of the SCSI compared with Greenhaus et al.'s (1990) scale. It may be particularly useful to examine the relative pattern of relationships between relevant predictors (e.g., human capital, sociodemographic factors, and mentoring) and the SCSI or satisfaction, as career success is typically considered an outcome in research. We also believe that the ability of the SCSI to be interpreted by dimension in addition to a global interpretation allows for more nuanced examination and is another argument for using the more comprehensive measure. Of final note is the high correlation between some dimensions of the SCSI, notably authenticity with meaningful work, influence, and satisfaction. This might suggest that authenticity in particular may play a certain role in allowing people to feel that they can achieve success in other ways. Similarly, recognition and influence were highly related as were quality work and growth and development. Research investigating directional relationships between success factors (i.e., are some precursors to others?) is another interesting avenue for future research that can enhance our understanding of SCS.

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Given organizational research's heavy reliance on career success as an outcome, we believe that the new conceptualization of SCS and the development and validation of the SCSI will attract a diverse array of researchers and research topics. This is an important and exciting subject with much potential to advance the overall field of career success.

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Appendix. Interview/Focus Group Questions for Phase 1

1. What are the characteristics of someone with a successful career?
2. What are the characteristics of someone with an unsuccessful career?
3. Think about someone you know who has a successful career. Why is this person successful?

   3a. For those individuals in advanced career stages only…. Reflect back on your early career. How would you have answered this question then? What about your mid career?

4. Tell me about a time in your career when you felt you had achieved a measure of success. Do you consider yourself to have a successful career? Why or why not?

   4a. For those individuals in advanced career stages only…. Reflect back on your early career. How would you have answered this question then? What about your mid career?

SCSI Items

The stem for each item is "Considering my career as a whole…"

Recognition

…my supervisors have told me I do a good job.
…the organizations I worked for have recognized me as a good performer.
…I have been recognized for my contributions.

Quality Work

…I am proud of the quality of the work I have produced.
…I have met the highest standards of quality in my work.
…I have been known for the high quality of my work.

Meaningful Work

…I think my work has been meaningful.

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…I believe my work has made a difference.
…the work I have done has contributed to society.

Influence

…decisions that I have made have impacted my organization.
…the organizations I have worked for have considered my opinion regarding important issues.
…others have taken my advice into account when making important decisions.

Authenticity

…I have been able to pursue work that meets my personal needs and preferences.
…I have felt as though I am in charge of my own career.
…I have chosen my own career path

Personal Life

…I have been able to spend the amount of time I want with my friends and family.
…I have been able to have a satisfying life outside of work.
…I have been able to be a good employee while maintaining quality non-work relationships.

Growth and Development

…I have expanded my skill sets to perform better.
…I have stayed current with changes in my field
…I have continuously improved by developing my skill set.

Satisfaction

…my career is personally satisfying.
…I am enthusiastic about my career.
…I have found my career quite interesting.

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