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Co-Editors Editorial – Special Issue: Positive Psychology

Michael Cavanagh & Stephen Palmer

WELCOME TO THE LATEST ISSUE of the *ICPR* and to our first special issue! It seems very fitting that the first special issue should deal with the interface between coaching psychology and positive psychology. As Drs Alex Linley and Carol Kauffman have pointed out in their editorial, coaching psychology and positive psychology share similar roots. Both branches of psychology are committed to helping people lead more productive and fulfilling lives, and both seek to nurture the development of strengths, and are committed to the development of theory and practice in ways which extend beyond the remediation of deficit. It is little wonder that this edition is such a bumper edition.

Speaking of the development of strengths, the contributions from around the globe clearly show something of the depth of strength available in the areas of positive and coaching psychology. This is perhaps not so surprising as for many psychologists the language of positive psychology articulates a direction and emphasis which has always been in their practice, at least in a nascent form. In this sense, as Stephen Joseph points out in his interview, the boundaries between different areas of applied psychology are quite blurred. The remediation of deficit and the development of positive function are often two sides of the same coin. As psychology develops more and more toward a cohesive vision of the human person, the distinctions between areas of applied psychology are likely to become more blurred rather than distinct.

Alex Linley and Carol Kaufman have done a marvellous job as guest editors for this special issue. They have selected articulate researchers and writers and have brought those contributions together neatly. Kauffman and Linley's final paper (titled, *A pragmatic perspective, putting positive coaching psychology into practice*), nicely draws out some practical implication of each of the papers presented.

We hope to make at least one of the issues of the *ICPR* a special issue each year. To this end we are looking for suggestions of what you would like to see as focus topics. If you have an area of passion in coaching psychology, and/or would like to act as a special editor, please drop us a line.

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Guest Editors Editorial – Positive coaching psychology: Integrating the science of positive psychology with the practice of coaching psychology

P. Alex Linley & Carol Kauffman

POSITIVE PSYCHOLOGY AND coaching psychology are often recognised as complementary bedfellows, but to date there have not been many systematic attempts to explore how each can inform the other. This special issue of the *International Coaching Psychology Review* was conceptualised as a way of beginning this integrative process, and seeks to provide coaching psychologists with some perspectives from empirical and theoretical work at the intersection of these areas. Additionally the special issue includes interviews from leading positive psychologists, and four positive psychology book reviews, the intention of which are to introduce some of the breadth and excitement of this field to the coaching psychologist who may not be familiar with it.

So, to begin, what is positive psychology, and how did it come about? The advent of 'positive psychology' as we know it today can be traced back to Martin E.P. Seligman's 1998 Presidential Address to the American Psychological Association (Seligman, 1999). Seligman realised that psychology had largely neglected the latter two of its three pre-World War II missions: curing mental illness, helping all people to lead more productive and fulfilling lives, and identifying and nurturing high talent. The advent of the Veterans Administration (in 1946) and the National Institute of Mental Health (in 1947) had largely rendered psychology a healing discipline based upon a disease model and illness ideology (see also Maddux, 2002; Maddux, Snyder & Lopez, 2004). With this realisation, Seligman resolved to use his APA Presidency to initiate a shift in psychology's focus toward a more positive psychology (Seligman, 1999).

However, it is also eminently clear from a cursory examination of the research literature that positive psychology did not 'begin' in 1997, or 1998, or 1999, or 2000 (see also McCullough & Snyder, 2000). More than 50 years ago, Abraham Maslow – who also called for a 'positive psychology,' but one that would study the extreme positive ends of the distribution – also lamented psychology's preoccupation with disorder and dysfunction:

> 'The science of psychology has been far more successful on the negative than on the positive side. It has revealed to us much about man's shortcomings, his illness, his sins, but little about his potentialities, his virtues, his achievable aspirations, or his full psychological height. It is as if psychology has voluntarily restricted itself to only half its rightful jurisdiction, and that, the darker, meaner half' (Maslow, 1954, p.354).

We would argue that positive psychology has always been with us. We are equally sure that many coaching psychologists reading this special issue will proclaim, if only to themselves – 'but this is what I have believed – and practiced – all along.' This is a common refrain that we hear often. Yet we also suggest that it is only with the advent of the positive psychology movement as we know it today that we have developed a shared language and acknowledged heritage that

allows us to lift up and celebrate what we *do* know about what makes life worth living, as well as carefully delineating the areas where we need to do more. If nothing else, positive psychology has served to give a voice and identity to the things that many of us always did, but that often went unrecognised (see Linley & Joseph, 2004).

How might one define positive psychology? A simple definition that is often used is 'the scientific study of optimal human functioning,' but here are some other ways of understanding this approach:

> 'The field of positive psychology at the subjective level is about valued subjective experiences: well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present). At the individual level, it is about positive individual traits: the capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future mindedness, spirituality, high talent, and wisdom. At the group level, it is about the civic virtues and the institutions that move individuals toward better citizenship: responsibility, nurturance, altruism, civility, moderation, tolerance, and work ethic.' (Seligman & Csikszentmihalyi, 2000, p.5).
>
> 'What is positive psychology? It is nothing more than the scientific study of ordinary human strengths and virtues. Positive psychology revisits 'the average person,' with an interest in finding out what works, what is right, and what is improving…positive psychology is simply psychology.' (Sheldon & King, 2001, p.216).
>
> 'Positive psychology is the study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions.' (Gable & Haidt, 2005, p.104).

There is much in these definitions that resonates with what we do – and what we believe – as coaching psychologists. Writing about perspectives on the integration of positive psychology and coaching psychology, Linley and Harrington (2005) identified three primary reasons as to why positive psychology and coaching psychology 'fit.' First, they are both concerned with the enhancement of performance and well-being. Second, they focus on the plus side of human nature, and thus to an extent at least, have challenged practitioners to think about their fundamental assumptions about human nature. And third, they both attend to people's strengths and what they do well (see also Linley & Harrington, 2006).

At a superficial level, the view has often been expressed that positive psychology can provide the research backbone for the practice of coaching psychology. We see this relationship as much more symbiotic than this view may suggest. There are undoubtedly instances, and probably many instances, where positive psychology research findings can inform the practice of coaching psychology. But we do not need to claim, or even suggest in any way, that positive psychology has the monopoly on the research underpinning coaching psychology. Indeed, a stark differentiator between coaching and coaching psychology is the psychological base from which coaching psychology explicitly draws its principles. That said, there are of course areas where positive psychology has a lot that it might offer the practicing coaching psychologist. One example could be the positive interventions work reported by Seligman, Steen, Park and Peterson (2005) who demonstrated that having people use their strengths in new and different ways each day, and writing down three good things that had happened to them each day, both produced significant increases in happiness at a six-month follow-up. This research, rigorously conducted, lends itself easily to applications within the coaching psychology engagement. But the information-flow needs to go both ways: academic researchers are often quite detached from the practical applications of their work, and as practicing coaching

psychologists we should ensure that part of our agenda should be about influencing the nature and direction of academic research to make it more applied and relevant to real world, everyday issues. One of the most powerful ways of doing so is at the grassroots level through collaboration between academic researchers and applied practitioners tackling questions of mutual interest together. The academic brings a wealth of background knowledge and theory, while the practitioner has a handle on what can really be used in practice. Any readers looking for a template of how to understand the different drivers of academic research and applied research are recommended to consider the pragmatic-pedantic-populist-puerile matrix provided by Anderson, Herriot and Hodgkinson (2001). While this was developed in relation to organisational psychology, it is readily applicable to any other researcher-practitioner interface.

Our aim for this special issue of the *International Coaching Psychology Review* was to collate a series of contributions that speak to the positive psychology – coaching psychology interface, and thereby to provide coaching psychologists with a first foray into the different ways in which positive psychology can be applied in coaching psychology practice. In the first article, Sulynn Choong and Kathryn Britton explore how the MBTI and the VIA Inventory of Strengths relate to each other. Many coaching psychologists will be familiar with the MBTI, but perhaps less so with the VIA Inventory of Strengths, and this article shows how using them both can add real value to understanding the preferences and strengths of your clients. Suzy Green, Anthony Grant and Jo Rynsaardt then explore the use of evidence-based life coaching for senior high school students as a means to build hardiness and hope. High school can be a time of transition and turmoil for many students, so building their psychological resources to deal with this through coaching is a valuable activity. Karen Wesson and Ilona Boniwell explore the implications of flow theory for coaching psychology, and demonstrate how flow as a positive psychological concept can be both created and harnessed through the coaching psychology engagement. Building on this theme of peak performance, Cristina Rolo and Daniel Gould report on an intervention study that was designed to enhance hope in student athletes. Clearly, enhancing athletic performance is an area where coaches (in the traditional sense of the word) and psychologists have been very active, and their article shows how work is now beginning to apply some core positive psychology tenets and theories to real world settings. Daniel Burke and Alex Linley continue this theme of application of theory to coaching, with a study that examines the effects of coaching on self-concordance. They show that even short coaching interventions can increase goal self-concordance, which in other work has also been related to goal attainment and well-being (Sheldon & Elliot, 1999: Sheldon & Houser-Marko, 2001). As such, this linkage may be one through which coaching has its positive effects. Taking a variant on the question of 'what works for whom?' Jordan Silberman examines if people can accurately self-select the interventions that may be most appropriate for them. His data indicate 'no,' which suggests an important role for the informed expert coaching psychologist, who can make recommendations based on the state of the empirical literature. Moving the perspective slightly wider, the last empirical article is from Dana Arakawa and Margaret Greenberg who explored the role of optimism and positivity in managers and the implications for performance. They found that optimistic managers who operated from a strengths focus achieved better results, and examine the implications of this work for coaching psychologists who are working with executives and within organisations. The special issue then includes a series of short interviews with leading positive psychology figures (Ilona Boniwell, Chris Peterson, Shane Lopez, Robert Biswas-Diener, Stephen Joseph), exploring their perspectives on the

further integration of positive psychology and coaching psychology. Our concluding article then reviews the contributions to this special issue and in the spirit of researcher-practitioner integration, draws out some of the pragmatic applications of the studies that have been presented. The special issue closes with three positive psychology book reviews that are designed to further introduce the reader to positive psychology, and especially the applications of positive psychology to coaching psychology. We hope that the special issue inspires you with the possibilities that positive psychology research and practice offers for coaching psychology, as well as enthusing you as coaching psychologists to engage with academics in positive psychology and more broadly to shape the research agenda so that the research being conducted is more aligned with, and supportive of the directions for our practice, both now and into the future.

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Character strengths and type: Exploration of covariation

Sulynn Choong & Kathryn Britton

Objective: *To explore covariation between character strengths and psychological types as per the MBTI®.*
Design: *Using a survey design, the study collected data on the Values in Action Inventory of Strengths and the MBTI®.*
Method: *98 adult volunteers participated in this exploratory study of potential links between psychological type as determined by the Myers-Briggs Type Indicator® and signature strengths as identified by the Values in Action Inventory of Strengths.*
Results: *The results show significant covariations between nine signature strengths and single type dimensions namely, creativity (intuition), open-mindedness (thinking), love of learning (introversion), integrity (sensing and thinking), persistence (judging), vitality (extraversion), love (extraversion and feeling), fairness (sensing), and gratitude (extraversion). Love, integrity, and gratitude also covary with multiple paired type combinations. Curiosity covaries only with a single paired type combination (introverted intuition).*
Conclusion: *There is meaningful covariation between psychological type and character strengths. The discussion addresses the applicability of the results to coaching psychology.*
Keywords: MBTI®; character strengths; covariation.

Character strengths and type

PSYCHOLOGISTS HAVE LONG searched for possible explanations of how a person thinks, feels, and behaves. Positive psychology emphasises the experience of human flourishing and focuses much attention on the three pathways to happiness, namely subjective well-being, engagement of strengths, and pursuit of meaning (Seligman, 2002). Understanding how happy individuals think, feel, and behave provides a basis for helping individuals and institutions perceive and act upon factors within their control that foster life satisfaction and improve human performance. Coaching, as one of the primary applications of positive psychology, places a strong emphasis on self-awareness, particularly awareness of positive factors such as strengths and preferences.

The Myers-Briggs Type Indicator (MBTI) and the Values-in-Action Inventory of Strengths (VIA-IS) are widely used for increasing self-awareness of positive factors. These instruments are built on different theoretical platforms but both provide information that coaches can use to help individuals increase life satisfaction (Myers & Myers, 1995; Seligman, 2002). The MBTI helps people understand the implications of their preferences in mental functioning, while the VIA-IS ranks character strengths in the order that people tend to express them. The ones that are most often and naturally used are *signature strengths.* Using the MBTI, coaches can help people understand their own mental preferences and accept that other people may prefer to think and so behave differently. Using the VIA-IS results, coaches can help people build on their strengths as foundations of successful change.

Character strengths and virtues

According to Seligman (2002), people can enhance happiness by discovering their signature strengths, owning them, and choosing to use them in the main realms of life. Peterson and Seligman (2004) studied character strengths and values and defined 24 character strengths that seem to be valued

by virtually every culture and hold true across time and geographic borders. These strengths are grouped under six virtue categories, namely, *wisdom, courage, humanity, justice, temperance* and *transcendence*. According to the criteria set by Peterson and Seligman (2004), a character strength is fulfilling and morally valued in itself, does not diminish others, is pervasive and trait-like, is distinct from other strengths, is embodied by paragons and prodigies, and is supported by rituals within the larger society. Table 1 shows a summary of the 24 character strengths in the VIA classification.

Seligman (2002) says that the highest success in life comes from enhancing and using our character strengths rather than focusing on our weaknesses. Coaches can use the VIA-IS to help people shift focus from weaknesses to strengths. Furthermore, coaches can use awareness of signature strengths to tailor client action requests and positive interventions for specific individuals, improving the probability of significant impact.

Psychological type

Myers and Briggs extended Jungian psychological type theory (Jung, 1927/1971) to form a discipline for helping people understand and use natural preferences of mental functioning (Myers & Myers, 1995). The MBTI embodies the practical application of type theory, enabling people to understand their own and others' psychological types and to integrate such understanding into everyday life (Myers, McCauley, Quenk & Hammer, 1998).

MBTI indicates preferences on four type dichotomies, each consisting of two opposite poles representing the natural ways that people use their minds differently (Myers, 1998). The four type dichotomies vary independently and result in 16 psychological types. Psychological type is 'an underlying personality pattern resulting from the dynamic interaction of our four preferences, environmental influences, and our own choices' (Myers, 1998, p.5).

Two of the dichotomies represent *functions*, that is, the basic mental processes that take in information *(perceiving)* and act upon it *(judging)*. The opposite poles of the perceiving function are *sensing* (S) and *intuition* (N), and those of the judging function are *thinking* (T) and *feeling* (F). The other two dichotomies, known as *orientations*, affect the expression of the perceiving and judging functions. The two opposite poles of the *orientation of energy* are *extraversion* (E) and *introversion* (I). Orientation to the external world indicates that a person prefers to deal with the external world by using either the *judging* (J) function or the *perceiving* (P) function.

The perceiving (S-N) function represents the way information is taken in for processing without evaluation. Ss (sensing types) attend to information that is observable and discernible through the five senses, and Ns (intuitive types) attend to meanings, relationships or possibilities that come by way of insight or have been 'worked out beyond the reach of conscious mind' (Myers *et al.*, 1998, p.6). The judging (T-F) function represents the way perceived information is evaluated and decisions are made. Ts (thinking types) tend to make impersonal decisions on the basis of logical consequences whereas Fs (feeling types) decide primarily on the basis of personal and group values.

The orientation of energy (extraversion-introversion) refers to the direction to which energy is directed and from which energy is drawn. Es (extraverted types) focus energy on the outer world of people and activity, and receive 'energy from interaction with people and from taking action', while Is (introverted types) direct energy inward into their 'inner world of ideas and experience", and receive energy "from reflecting on their thoughts, memories, and feelings' (Myers, 1998, p.6).

The fourth dichotomy, the orientation to the external world, represents how a person prefers to deal with the outer world. Js (judging types) typically use thinking or

Table 1: VIA Classification of Character Strengths.

Wisdom: Cognitive strengths involving acquisition and use of knowledge.
- Creativity: Thinking of novel and productive ways to do things.
- Curiosity: Exploring, discovering, taking an interest in all ongoing experience.
- Open-mindedness (Judgment): Examining things from all sides, thinking things through.
- Love of learning: Mastering skills or topics, adding systematically to bodies of knowledge.
- Perspective: Providing wise counsel to others.

Courage: Emotional strengths that exercise the will to accomplish goals in the face of obstacles.
- Bravery: Acting on convictions without shrinking from threat or difficulty.
- Persistence: Finishing what gets started, continuing in the face of obstacles.
- Integrity: Acting according to personal values, taking responsibility for one's self and actions.
- Vitality: Approaching life with energy and excitement.

Humanity: Interpersonal strengths.
- Love: Valuing and fostering close reciprocal relationships with others.
- Kindness: Helping others, doing good deeds and favours.
- Social Intelligence: Understanding motives and feelings of self and others, fitting in socially.

Justice: Civic strengths that underlie healthy community life.
- Citizenship: Working well as a member of a group, doing one's share, being loyal.
- Fairness: Giving everyone a fair chance, treating people the same according to a sense of justice.
- Leadership: Organising group activities and seeing that they happen.

Temperance: Strengths that protect against excess.
- Forgiveness and mercy: Forgiving those who have done wrong, giving second chances.
- Humility and modesty: Letting accomplishments speak for themselves, not seeking limelight.
- Prudence: Being careful, refraining from saying or doing what would later be regretted.
- Self-regulation: Being disciplined, controlling appetites and emotions.

Transcendence: Strengths of connection to the larger universe that provide meaning.
- Appreciation of beauty and excellence: Awe for excellence in art, nature, all domains of life.
- Gratitude: Being thankful for the good things that happen.
- Hope: Expecting the best and believing one can work to achieve it.
- Humour: Seeing the light side, bringing smiles and laughter.
- Spirituality: Having beliefs about the meaning of life that shape conduct and provide comfort.

Note: These are excerpts from Table 27.1 (Park & Peterson, 2004), reproduced with permission.

feeling (the judging processes) and prefer to live in a planned, orderly manner, seeking to regulate, structure, and organise the outer world in pursuit of closure (Myers, 1998). Ps (perceiving types) use sensing or intuition (the perceiving processes) when dealing with the outer world and prefer to live in a flexible and spontaneous way, remaining open to experience and understanding, rather than controlling life (Myers).

These eight mental processes are available to and used by everyone, but each person has a natural preference for one of the two opposing poles in each dichotomy. These natural preferences cause individuals to develop habits of behaviour and personality patterns characteristic of the preferred processes (Jung, 1927/1971; Myers *et al.*, 1998). Myers *et al.* observed that some people are able to use their type differences more effectively than others. Type psychologists encourage building on natural preferences before dealing with less preferred functions or orientations.

Coaches can help people explore how well they capitalise on their natural preferences both in everyday behaviour and in periods of stress. Unlike most personality measurements, MBTI directly addresses interactions between people, both those who share the same preferences and those who do not. Using MBTI information, coaches can help clients raise energy and optimism by reframing the way they interpret difficulties arising from their differences with others. They can then adapt behaviour and communication styles (Myers *et al.*, 1998) to interact with others more effectively.

Covariation between type and signature strengths

This study explores the value of looking at people from the two perspectives of psychological type and signature strengths. The VIA-IS and MBTI instruments both provide information about the uniqueness of an individual, and both have been completed extensively by thousands of individuals worldwide. However, there is to date no published research of which we are aware that examines the associations between these two widely used instruments. This study begins an exploration of using type and strengths together by posing the basic question of whether there are covariations between type preferences and particular signature strengths.

Method

Participants

Ninety-eight adults between the ages of 20 and 65, 70 female and 28 male, participated in this study by submitting to the researchers a list of their top five VIA character strengths and their MBTI type. The sample population was gathered by the snowball sampling method. Proficiency in the English language was required for participation because the materials used were in English. All participants signed informed consent forms allowing their data to be used in this study. Further demographic information was not collected.

Measures and materials

Psychological type was determined using MBTI Form G, a proprietary self-report instrument owned by Consulting Psychologists Press. Form G, the research version, is an inventory of 126 forced-choice phrase questions and word pairs (Myers *et al.*, 1998). Respondents mark their answers to the questions on custom Form G answer sheets. Answer sheets are scored by the Center for Application of Psychological Type (CAPT), and respondents receive the results through the administrator.

Character strengths were determined using the Values in Action Inventory of Strengths (VIA-IS) web-based self-report questionnaire (Values-in-Action Institute, n.d.). The VIA-IS comprises 240 five-point Likert scale items relating to the 24 character strengths in the VIA classification (Peterson & Seligman, 2004). Participants indicate the degree to which they endorse statements presented in the questionnaire. The VIA-IS responses are computer-scored

using ipsative rank scoring. A list of the top five strengths is made instantly available to the respondent.

Procedure

We administered the MBTI Form G to 75 participants in small groups. Completed answer sheets were sent to the CAPT for batch processing. Each participant received notification of his/her MBTI results and general information on characteristics frequently associated with the 16 type profiles. The remaining 23 participants provided type information they had obtained previously in work or school settings.

All participants completed the web-based VIA-IS questionnaire and submitted their lists of top five signature strengths to the researchers through electronic mail.

Results

The frequency of occurrence of individual character strengths ranged from a count of 3 for *self-control* to 45 for *curiosity*. The covariation of MBTI types with character strengths was explored using *chi-square* analysis on actual and expected frequency measures for each MBTI preference or paired combination against each of the 24 VIA character strengths. Identification of significant covariation was based on computed exact two-sided significance levels. Some of the character strengths did not occur frequently enough in the sample for the results to be conclusive, given they had chi-square scores with one or more cells with an expected count less than five. In the spirit of exploration, these inconclusive results, which are clearly marked, are included for discussion as they may indicate interesting possibilities for research with larger samples.

Table 2 shows the results for each of the four individual type dichotomies. In summary, the character strengths of *vitality* ($p<.005$) and *love* ($p<.05$) are more likely among Es than Is, and *love of learning* ($p<.005$) and *humility* ($p<.05$) are more likely among Is than Es although there were too few occurrences of humility in the sample for the results to be conclusive. Ss are more likely to have *integrity* ($p<.005$) and *fairness* ($p<.05$), while Ns are more likely to have *creativity* ($p<.05$). Inconclusive results were found for *prudence* among Ss ($p<.05$), and *vitality* ($p<.05$) and *social intelligence* ($p<.05$) among Ns. Ts are more likely to have *open-mindedness* ($p<.05$), while Fs are more likely to have *love* ($p<.05$), and *gratitude* ($p<.005$). *Persistence* is more likely among Js ($p<.05$); no relationship was found to be significant for Ps.

Tables 3, 4, and 5 show the chi-square test scores on covariation of character strengths with paired type combinations such as EI x TF, which stands for Extraversion/Introversion combined with Thinking/Feeling, resulting in the paired combinations of ET, EF, IT, IF.

Table 3 shows that *curiosity* covaries significantly with the IN paired combination ($p<.05$) in contrast to Table 2 that shows no significant covariation of *curiosity* with any individual type dichotomy. It also shows significant covariation between the EF paired combination and the character strengths *love* ($p<.01$) and *gratitude* ($p<.005$). The other significant covariations in this table are suggestive but inconclusive.

Table 4 shows that *integrity* covaries significantly with both ST and SF ($p<.05$), while *love* ($p<.01$) and *gratitude* ($p<.005$) covary with EF.

Table 5 shows that *gratitude* covaries significantly ($p<.005$) with both FP and FJ.

The paired combinations of IF, IP, NJ, TJ, and TP do not show significant covariance with any character strength.

Table 2: Incidence of individual MBTI type preferences with particular character strengths (*N*=98).

Strengths	E	I	χ^2	*p*	S	N	χ^2	*p*	T	F	χ^2	*p*	J	P	χ^2	*p*
	49	49	*df*=1		39	59	*df*=1		54	44	*df*=1		65	33	*df*=1	
Creativity	17	10	2.51	.17	5	22	7.04	.01	19	8	3.51	.07	15	12	1.94	.23
Curiosity	21	24	0.37	.34	13	32	4.13	.06[a]	27	18	0.81	.42	30	15	0.00	1.00
Open-mindedness	12	18	1.73	.27	16	14	3.31	.08[a]	22	8	5.81	.03	23	7	2.07	.17
Love to learn	5	18	9.60	.00	7	16	1.10	.34	15	8	1.24	.19	15	8	0.02	1.00
Perspective	10	3	4.35	.07	4	9	0.51	.56	10	3	2.89	.13	8	5	0.15	.76[a]
Bravery	3	7	1.78	.51[a]	5	5	0.48	.75[a]	5	5	0.12	.75[a]	7	3	0.07	1.00[a]
Persistence	7	14	2.97	.14	9	12	0.11	.80	13	8	0.50	.62	18	3	4.50	.04
Integrity	12	20	2.97	.13	20	12	10.22	.00	19	13	0.35	.67	23	9	0.66	.50
Vitality	12	0	13.67	.00	1	11	5.65	.03[a]	6	6	0.14	.76	7	5	0.39	.75[a]
Love	25	12	7.34	.01	12	25	1.35	.29	14	23	7.16	.01	25	12	0.04	1.00
Kindness	14	13	0.05	1.00	12	15	0.34	.65	13	14	0.73	.50	17	10	0.19	.81
Social Intelligence	7	1	4.90	.06[a]	0	8	5.76	.02[a]	5	3	0.19	.73	4	4	1.04	.44
Citizenship	9	8	0.07	1.00	10	7	3.11	.10	9	8	0.04	1.00	11	6	0.02	1.00
Fairness	14	20	1.62	.29	19	15	5.62	.03	19	15	0.01	1.00	20	14	1.31	.27
Leadership	5	7	0.38	.76	4	8	0.24	.76[a]	8	4	0.74	.54	9	3	0.46	.54
Forgiveness	11	10	0.06	1.00	8	13	0.03	1.00	11	10	0.08	.81	13	8	0.23	.80
Humility	1	8	6.00	.03[a]	3	6	0.17	.74	6	3	0.54	.51[a]	6	3	0.00	1.00[a]
Prudence	1	6	3.85	.11[a]	6	1	6.63	.02[a]	6	1	2.86	.13[a]	4	3	0.29	.69
Self-Control	1	2	0.34	1.00[a]	0	3	2.05	.27[a]	3	0	2.52	.25[a]	3	0	1.57	.32[a]
Beauty	9	9	0.00	1.00	4	14	2.84	.11	9	9	0.23	.79	10	8	1.15	.41
Gratitude	18	13	1.18	.39	14	17	0.55	.51	8	23	15.73	.00	21	10	0.04	1.00
Hope	9	5	1.33	.39	5	9	0.11	.78	7	7	0.17	.78	7	7	1.95	.22
Humour	13	7	2.26	.21	7	13	0.24	.30	9	11	1.04	.33	15	5	0.85	.43
Spirituality	9	10	0.07	1.00	11	8	3.22	.12	7	12	3.18	.12	14	5	0.57	.59

[a] Results are inconclusive because one or more cells have counts less than five.

Table 3: Frequency of paired type combinations for character strengths: EI x SN and EI x TF (*N*=98).

Strengths	EI x SN						EI x TF					
	ES	EN	IS	IN	χ^2	*p*	ET	EF	IT	IF	χ^2	*p*
	12	37	27	22	*df*=3		22	27	32	17	*df*=3	
Creativity	1	16	4	6	8.98	.03[a]	11	6	8	2	8.17	.04[a]
Curiosity	5	16	8	16	9.45	.02	12	9	15	9	2.73	.44
Open-mindedness	4	8	12	6	4.00	.27	7	5	15	3	7.20	.07
Love of learning	0	5	7	11	14.43	.00[a]	2	3	13	5	10.41	.01[a]
Perspective	2	8	2	1	4.63	.22[a]	7	3	3	0	9.71	.02[a]
Bravery	0	3	5	2	3.61	.33[a]	0	3	5	2	3.60	.32[a]
Persistence	1	6	8	6	3.34	.36[a]	3	4	10	4	3.37	.35[a]
Integrity	6	6	14	6	11.00	.01[a]	5	7	14	6	3.39	.35
Vitality	1	11	0	0	17.54	.00[a]	6	6	0	0	13.96	.00[a]
Love	6	20	7	5	7.98	.05[a]	9	16	5	7	12.16	.01
Kindness	5	9	7	6	1.43	.73[a]	7	7	6	7	3.06	.39[a]
Social Intelligence	0	7	0	1	9.56	.02[a]	4	3	1	0	5.85	.11[a]
Citizenship	4	5	6	2	4.01	.28[a]	3	6	6	2	1.07	.76[a]
Fairness	4	10	15	5	7.55	.06[a]	6	8	13	7	1.65	.65
Leadership	1	4	3	4	1.00	.81[a]	3	2	5	2	0.97	.84[a]
Forgiveness	3	8	5	5	0.25	.97[a]	7	4	4	6	5.57	.14[a]
Humility	0	1	3	5	8.04	.04[a]	0	1	6	2	6.84	.07[a]
Prudence	1	0	5	1	8.36	.03[a]	0	1	6	0	9.98	.02[a]
Self-Control	0	1	0	2	3.94	.26[a]	1	0	2	0	2.65	.55[a]
Beauty	2	7	2	7	4.85	.19[a]	4	5	5	4	0.46	.95[a]
Gratitude	6	12	8	5	2.74	.44[a]	3	15	5	8	16.10	.00
Hope	1	8	4	1	3.68	.31[a]	3	6	4	1	2.46	.49[a]
Humour	4	9	3	4	3.09	.37[a]	6	7	3	4	3.64	.32[a]
Spirituality	4	5	7	3	3.51	.34[a]	1	8	6	4	5.11	.17[a]

[a] Results are inconclusive because one or more cells have counts less than five.

Table 4: Frequency of paired type combinations for character strengths: EI x JP and SN x TF (*N*=98).

Strengths	EI x JP						SN x TF					
	EJ	EP	IJ	IP	χ^2	*p*	ST	SF	NT	NF	χ^2	*p*
	30	19	35	14	*df*=3		23	16	31	28	*df*=3	
Creativity	7	10	8	2	7.88	.05[a]	4	1	15	7	11.66	.01[a]
Curiosity	13	8	17	7	0.39	.94	8	5	19	13	5.49	.14
Open-mindedness	9	3	14	4	3.45	.33[a]	12	4	10	4	8.83	.03[a]
Love of learning	1	4	14	4	12.36	.01[a]	4	3	11	5	3.65	.33[a]
Perspective	6	4	2	1	4.38	.23[a]	3	1	7	2	3.94	.28[a]
Bravery	2	1	5	2	1.81	.65[a]	5	0	0	5	10.47	.01[a]
Persistence	5	2	13	1	8.58	.03[a]	6	3	7	5	0.60	.91[a]
Integrity	9	3	14	6	4.08	.27[a]	12	8	7	5	10.39	.02
Vitality	7	5	0	0	13.77	.00[a]	1	0	5	5	6.20	.10[a]
Love	17	8	8	4	8.53	.04	5	7	9	16	8.24	.04
Kindness	9	5	8	5	1.00	.82[a]	5	9	23	21	2.63	.46[a]
Social Intelligence	4	3	0	1	5.70	.12[a]	0	0	5	3	6.33	.08[a]
Citizenship	5	4	6	2	0.28	.96[a]	5	5	4	3	3.75	.31[a]
Fairness	9	5	11	9	6.46	.09[a]	12	7	7	8	6.15	.11
Leadership	4	1	5	2	1.09	.81[a]	3	1	5	3	1.05	.83[a]
Forgiveness	6	5	7	3	0.35	.97[a]	4	4	7	6	0.37	.95[a]
Humility	0	1	6	2	6.48	.09[a]	3	0	3	3	2.12	.61[a]
Prudence	1	0	3	3	6.53	.09[a]	5	1	1	0	10.28	.02[a]
Self-Control	1	0	2	0	1.88	.77[a]	0	0	3	0	6.69	.09[a]
Beauty	4	5	6	3	1.43	.72[a]	2	2	7	7	2.99	.41[a]
Gratitude	13	5	8	5	3.50	.32[a]	4	10	4	13	17.07	.00
Hope	3	6	4	1	5.91	.12[a]	3	2	4	5	0.41	.94[a]
Humour	10	3	5	2	4.47	.22[a]	4	3	5	8	1.65	.66[a]
Spirituality	5	4	9	1	2.42	.50[a]	5	6	2	6	6.83	.08[a]

[a] Results are inconclusive because one or more cells have counts less than five.

Table 5: Frequency of paired type combinations for character strengths: SN x JP and TF x JP (*N*=98).

Strengths	SN x JP						TF x JP					
	SJ	SP	NJ	NP	χ^2	*p*	TJ	TP	FJ	FP	χ^2	*p*
	31	8	34	25	*df*=3		38	16	27	17	*df*=3	
Creativity	4	1	11	11	8.02	.04[a]	11	8	4	4	6.41	.10[a]
Curiosity	9	4	21	11	7.09	.07[a]	20	7	10	8	1.59	.67
Open-mindedness	14	2	9	5	4.81	.20[a]	17	5	6	2	7.31	.06[a]
Love of learning	5	2	10	6	1.61	.66	10	5	5	3	1.40	.72[a]
Perspective	3	1	5	4	0.58	.92[a]	6	4	2	1	3.74	.29[a]
Bravery	4	1	3	2	0.50	.93[a]	4	1	3	2	0.35	1.00[a]
Persistence	9	0	9	3	5.08	.17[a]	11	2	7	1	4.80	.19[a]
Integrity	15	5	8	4	11.17	.01[a]	12	7	11	2	5.09	.17
Vitality	1	0	6	5	5.80	.12[a]	4	2	3	3	0.60	.94
Love	11	1	14	11	2.82	.45[a]	10	4	15	8	7.49	.06[a]
Kindness	9	3	8	7	0.71	.83[a]	8	5	9	5	1.30	.70[a]
Social Intelligence	0	0	4	4	6.10	.10[a]	2	3	2	1	2.96	.42[a]
Citizenship	8	2	3	4	3.63	.31[a]	6	3	5	3	0.11	1.00[a]
Fairness	13	6	7	8	9.52	.02[a]	11	8	9	6	2.23	.52
Leadership	4	0	5	3	1.32	.82[a]	7	1	2	2	2.48	.54[a]
Forgiveness	7	1	6	7	1.33	.74[a]	8	3	5	5	0.85	.87[a]
Humility	3	0	3	3	1.06	.86[a]	4	2	2	1	0.62	.86[a]
Prudence	4	2	0	1	8.39	.04[a]	3	3	1	0	5.07	.15[a]
Self-Control	0	0	3	0	5.83	.12[a]	3	0	0	0	4.89	.22[a]
Beauty	3	1	7	7	3.40	.34[a]	7	2	3	6	4.56	.23[a]
Gratitude	11	3	10	7	0.57	.88[a]	7	1	14	9	16.51	.00
Hope	3	2	4	5	2.13	.55[a]	6	1	1	6	9.51	.02[a]
Humour	5	2	10	3	3.24	.36[a]	7	2	8	3	2.20	.55[a]
Spirituality	10	1	4	4	4.98	.17[a]	6	1	8	4	4.08	.25[a]

[a] Results are inconclusive because one or more cells have counts less than five.

Discussion

We now discuss the meaningful and interpretable patterns of covariation in the results.

From a type perspective

Sixteen of the 24 VIA character strengths covary with one or more of the MBTI type dichotomies or paired combinations, although the test results on six of these remain inconclusive. Eight of the nine most prevalent strengths in this sample (*curiosity, love, fairness, integrity, gratitude, love of learning, creativity* and *open-mindedness*) have significant covariation(s) with one or more of the MBTI type dichotomies or paired combinations. Of note is the strong covariation between *vitality* and extraversion ($p<.005$). It is also interesting that *curiosity*, the most frequently occurring strength in the sample, covaries with the paired combination of introversion and intuition (IN) but not with any particular type dichotomy. *Love* is the only strength that covaries with more than one individual type dichotomy, namely, with E and F.

It seems that that paired combinations might have a carryover effect from one of the dichotomies in the pair. For example, SF covaries with both *integrity* and *gratitude*, whereas *integrity* only covaries with S but not F, and *gratitude* covaries with F but not S. In the four cases where there is no likelihood of carryover effect, namely *curiosity, perspective, bravery* and *hope*, it may be that the combination of individual types produce a dynamically unique type profile that is more than just the sum of the parts.

Curiosity is such a strength that only covaries with IN but not I or N. What is it about the pairing of I and N that creates an association that does not show up with I or N independently? Table 1 describes *curiosity* as discovery, exploration, and taking an interest in all ongoing experience, while Myers describes the IN combination as finding 'greatest value in the interpretation of life and the promotion of understanding' (1998, p.81). *Perspective* covaries with ET without covarying with either E or T separately. This strength is characterised by giving wise counsel to others, so an extraverted thinker who tends to have a broad experience of what life presents and a bent toward 'enlargement of human knowledge and understanding' (1998, p.68) could be expected to have more worldly wisdom to share with the outer world. *Hope*, described in Table 1 as expecting the best, covaries inconclusively with FP. It is understandable how the F focus on happy endings influenced by the P tendency to stay open to whatever life hands outs, eagerly expecting new experiences and loathe to foreclose any situation with irrevocable judgment, might be the same as being hopeful. *Bravery* covaries with SN and TF pairs rather inconclusively since only 10 participants included *bravery* as a signature strength and half of them were STs and half were NFs. This may be a sampling anomaly worth exploring in a larger sample.

From a strengths perspective

Wisdom strengths are cognitive strengths (see Table 1) that are logical and rational in nature (Peterson & Seligman, 2004), which may explain the covariation of the logical and impersonal T types with all but one of the wisdom strengths. *Curiosity* is the exception. Wisdom types are clustered around the EI and SN dichotomies with *creativity* and *perspective* more common among Es and *curiosity* and *love of learning* more common among Is. *Creativity*, *curiosity*, and *love of learning* all covary with Ns who crave inspiration and prefer the joy and enterprise of opportunities and possibilities (Myers, 1998). In contrast, we note that *open-mindedness* is more common among Ss who are practical, factual and detail-oriented (Myers, 1998), reflecting the individual's search and evaluation of evidence and opinions different from those held personally (Peterson & Seligman, 2004). An earlier finding of a correlation between N and the character strength of *perspective* (Stone, 2005) was not seen in the results of our study.

Curiosity and *love of learning* both covary with IN, a type combination that tends to

value knowledge for its own sake (Myers, 1998). The covariation with IN indicates that both *love of learning* and *curiosity* are more of an internal state than an activity. Cognitive process theory indicates that curiosity is fuelled by the anxiety-provoking nature of inner conceptual conflicts (Hebb, 1949; Beswick, 1971, as cited in Peterson & Seligman, 2004), which corresponds to an IN's drive to make sense of amassed information through internal pattern recognition and concept formation (Myers *et al.*, 1998). The covariation of *love of learning* with J while *curiosity* has no other covariations provides a helpful insight into the difference between the two. The J covariation represents the action orientation and need for organisation involved in *love of learning* described in Table 1 as systematic accrual of knowledge. This is consistent with the view that *love of learning* may be conceptualised as 'effectance motivation: the drive to interact competently with the world' (Peterson & Seligman, 2004, p.103), thus necessitating more decisiveness than *curiosity* (White, 1959 as cited in Peterson & Seligman, 2004; Myers, 1998).

The VIA-IS does not include sensation-seeking as a construct for *curiosity*, which helps explain the association of curiosity with I types. Introverts delight in novel, unanticipated, and affect–arousing experiences but not the sensation-producing aspects of experiences, according to a study which examined correlations between type and Zuckerman's Sensation Seeking Scale (Thorne & Gough, 1991). In terms of the EI orientation, past research had shown that Es tend to be sensation-seekers whereas I types prefer to reduce the sensation-producing aspects of their experience (Thorne & Gough, 1991).

The strengths with an EN covariation, namely, *creativity, love, vitality* and *social intelligence*, are strengths that involve other people and the external world. This supports observations of ENs who tend to be enthusiastic about living well, find meaning in life through shared values and successful interpersonal relationships, and use their 'intuitive and global thought processes' (Berens & Nardi, 1999, p.36) to change the reality of the world around them (Myers, 1998).

That *creativity* also covaries with EN, ET, EP, NT, and NP type pairs seems to add up to ENTP, a type profile that matches the definition of *creativity* being both original and adaptive (Peterson & Seligman, 2004). Berens and Nardi describe the ENTP as an imaginative and clever *explorer inventor* who enjoys the creative process, sees the world from 'multiple perspectives using multiple models' and trusts instincts to find 'creative, unusual and efficient' solutions to resolve problems (1999, p.32).

Type studies indicate that Ns respond favourably to 'open, fluid, task-linked environments' (Thorne & Gough, 1991, p.73), and Ss prefer friction-free, defined, and regularised environments where they can focus on practical and realistic problem-solving. Introverted Sensing (IS) types tend to be 'thoughtful realists' (Myers, 1998, p.30), and this is perhaps well-reflected in its covariation with the signature strengths of *integrity, fairness* and *prudence*, all of which are concerned with what is true, proper and right. *Persistence* covaries with IJ, the introvert who deals with the world using the judging function, marching to a personal drum beat as it were, seemingly adamant and inflexible until convinced by compelling reason to change course or timing (Myers *et al.*, 1998).

The VIA description of *prudence* and the ISTJ profile are very close. The prudent person according to the VIA classification is very careful and avoids potentially dangerous situations by thinking through consequences (Peterson & Seligman, 2004). This is a very close match for ISTJ types, the dependable, sensible and risk adverse *planner inspectors* whose theme is planning ahead meticulously, monitoring and regulating, and ensuring predictable quality and conservation of resources or culture (Berens & Nardi, 1999).

Love covaries with E, F, EF, EJ and NF types. Putting the various type combinations together suggests that the ENFJ type may

characterise the signature strength of 'capacity to love and be loved' (Steen, Kachorek & Peterson, 2003). For ENFJs, meaning and purpose in life comes from nurturing relationships and empathic connections that foster mutual growth through communication and sharing values, 'drawing the best out of others' (Berens & Nardi, 1999, p.36). These results mirror the VIA definition of love being 'within a reciprocated relationship with another … marked by the sharing of aid, comfort and acceptance … (involving) strong positive feelings, commitment, and even sacrifice' (Peterson & Seligman, 2004, p.293). Comparing type tendencies to the VIA constructs of *love*, we find that the EF combination may account for the outpouring of care and affection as well as the concern for harmony and acceptance. NF's profound insights into human relationships may support the willingness to take risks in building relationships, *and* the tendency of EJs to cause things to happen makes them active and effective in caring for others (Myers *et al.*, 1998).

Gratitude covaries very significantly with F alone ($p<.005$) and in EF, SF, FJ/ FP combinations ($p<.01$). Grateful people are prompt and profuse in appreciating the good around them and in others (Peterson & Seligman, 2004). This may be observed in SFs who exude warmth and concern for others based on personal values and empathy and EFs who reach out to people and expect mutual appreciation of who they are and their contributions. Both the FJs who express support and encourage others' growth and FPs who are 'adaptable, affiliative harmony seekers' (Myers *et al.*, 1998, p.54), add to the grateful caricature. All said, for the ESFJ/ESFP, being happy and living harmoniously means that life is a process of acceptance and giving on a day-to-day basis (Berens & Nardi, 1999).

This study highlighted several areas of significant covariation between signature strengths and type. Some are inconclusive due to cell count deficiency. The findings of this study imply that observations of type (Myers *et al.*, 1998, Berens & Nardi, 1999) and several constructs of character strength (Peterson & Seligman, 2004) are mutually supportive. Further study is warranted to validate these findings and to explore the implications of these covariations for coaching and other positive psychology applications.

Improvements to method and procedure

The external validity of data and findings in a study like this may be threatened by the effect of social desirability on participant responses or by individuals who second-guess the intention of the survey/questionnaire and respond to perceived demand characteristics (Bordens & Abbott, 2002). In order to mitigate the threat to external validity, we adhered to a written script in the administration of the MBTI to ensure proper framing of the situational context for the self-report. A better alternative to eradicate the effect of social desirability and narcissism would be the use of non-transparent self-report instruments (Peterson & Seligman, 2004).

The sample size for this study was also a limiting factor which might have led to 34 out of 55 of the significant test results being inconclusive. To validate the results of this study, a replication with a considerably larger sample size of 500 to 1000 people, would be ideal.

The findings in this study may be skewed as a result of the data that we used in the analysis. We had only asked for the participants' five VIA signature strengths and the 4-letter type, instead of the full score details. It seems that the VIA-IS ranking of signature strengths is processed by sorting the strengths by score size and where the scores are identical, the strengths are arranged alphabetically. Without access to the raw VIA scores, we were unable to determine the extent of variability across the 24 character strengths. Similarly, we did not use the MBTI preference scores which could have yielded information about the clarity of the preference in each dichotomy instead of the assumed extreme choice. As a result, we

lacked the ability to determine how much any covariation depended on the intensity of a strength or the clarity of a type preference. To enhance the understanding of the relationship between type preference and character strength, future researchers should consider using the actual scores on both the MBTI and VIA-IS, which are available upon request from their respective owners.

The sample diversity in this study was handicapped by the snowball sampling method used, given that participants tend to recruit others like themselves demographically. Using sample recruitment methods that are more random could yield a more representative sample in terms of gender, age, education, and ethnicity, thus making the results more generally applicable.

Implications for coaching

Jungian psychology tells us that the sixteen psychological types are merely indicative of mental preferences and that there are multitudes of variations in behaviour due to other influences. We suggest character strengths as defined by the VIA are important among these influences.

Coaches and clients use personality measures like MBTI and VIA independently to increase client self-awareness and to tailor action requests to enhance client success. This study provides a very preliminary indication that using the MBTI and VIA measures in combination *(strength-type combinations)* may become a means for skillful coaches 'to forward the action and deepen the learning' (Whitworth, Kimsey-House & Sandahl, 1998, p.11).

An informed coach can use awareness of the covariations between type and character strength as the basis for asking a client to pay attention to the way strengths are affected by mental preferences or vice versa. This offers insight both when the client's strength-type combination is in line with the research results, but even more so when it is not. For instance, our study shows that *vitality* covaries with extraversion. How is *vitality* manifested by an introvert? Does the character strength create impulses so strong that the preference for introversion is overcome? Are there ways that introversion affects the way *vitality* is expressed, and can these be useful for achieving particular goals? How is *vitality* in an extraverted client distinguishable from *vitality* in an introverted individual? Understanding the dynamics of strength-type covariation may provide clues to the action triggers that are prerequisites to behavioural change.

Client and coach can explore the interaction between their own two strength-type combinations as a way to enhance the coaching relationship by promoting better rapport and communication. Similarly, the client's ability to interact with others may be boosted by awareness of strength-type combinations.

Eventually knowledge of strength-type combinations may help coaches pick positive interventions more effectively for specific clients (see also Silberman, this issue). Practitioners of positive psychology are actively building a collection of positive interventions to help people work on resilience, optimism, gratitude, intrinsic motivation, self-efficacy, and other characteristics that contribute to subjective well-being and happiness (Seligman, 2002; Peterson & Seligman, 2004; Peterson, 2006). Not all positive interventions are equally helpful for all people. There is not a great deal of research evidence to help people select positive interventions for particular people, so selection is usually done by trial and error. Over time, empirical research on the outcomes of certain positive interventions could include evaluation of how they work for certain strength-type combinations. For example, our results indicate that *love* is significantly linked to extraverted types with feeling. A coaching assignment for improving expressions of the *love* strength may yield different outcomes among extraverted feelers than among introverted thinkers. Similarly, *gratitude* is one of the factors most highly correlated with happiness (Peterson, 2006), and there are specific

positive interventions such as the three good things exercise (Seligman, 2002; Peterson, 2006) and the gratitude visit (Seligman, 2002) that aim to increase use of this strength. Our data shows that *gratitude* covaries with the feeling type. Are there special challenges for helping people with the thinking type increase the gratitude strength?

Further research on strength-type covariation may highlight certain combinations that support or impede behavioural change, thereby providing valuable information to coaches in the design of strength building assignments as well as guidance in the evaluation of learning and development outcomes. This is a very early stage of exploratory research, and these are early sketches of ways that this data can impact the coaching profession.

Going forward

Further research into this area could take several directions. Going beyond understanding the covariation of the two instruments, we would like to study the synergistic effect of different combinations of signature strengths and type on individual behaviour. Longitudinal studies into the stability and vulnerability of strength-type combinations across individual life spans may yield useful insights for application in the development of character education initiatives. The study of the two measures of strengths and types together might highlight informational gaps that could influence the design of the constructs of the instruments.

Understanding the influences of strength-type combination on behaviour through empirical research might contribute richly to applications of positive psychology. For example, how do strength-type combinations affect explanatory styles? Given that optimism can be learned (Seligman, 1990), it would be interesting to find out how different strength-type combinations enable or inhibit such learning. Such understanding of behaviour might also be useful to coaches and consultants in the design or selection of highly individualised interventions for clients, particularly in reducing the costs associated with trial and error and improving the sustainability of personal change effects. Resiliency training programs would also benefit from research in this area.

The study of synergistic applications of personality profiling instruments could be extended to research using other instruments such as the Gallup Strengthsfinder survey (Buckingham & Clifton, 2001) or the Hermann Brain Dominance Inventory (Hermann International, n.d.). Instead of taking an either-or approach to the selection of personality tools, studies like these could improve the attractiveness of using multiple instruments to add perspective and so enhance the effectiveness of change interventions where self-awareness is a key factor.

This study affirms the need for research that examines, by simple comparison or more complex analyses, the synergistic value of the tools and instruments designed by psychologists in their respective fields to measure specific factors of personality or character. Such research findings would augment and enhance the impact and value of the separate contributions of such measures to the understanding and management of human behaviour, and allow coaches greater insight into the strengths and preferences that guide people to act and respond in the ways they do.

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Evidence-based life coaching for senior high school students: Building hardiness and hope

Suzy Green, Anthony Grant & Jo Rynsaardt

Objective: *To extend the knowledge base on the use of life coaching as an applied positive psychology. Studies to date have utilised community samples with participants of varying ages and most research has used adult community samples. The present study is unusual in that it examined the efficacy of an evidence-based (cognitive-behavioural, solution-focused) life coaching programme in enhancing cognitive hardiness and hope in senior female high school students.*

Design: *In a randomised controlled experimental design, 56 female senior high school students (mean age 16 years) were randomly allocated to an individual life coach (N=28) or to a wait-list control group (N=28).*

Method: *10 teachers were trained in theories and techniques of coaching psychology through a manualised 'Teacher as Coach' workshop. Participants were randomly allocated to a Teacher-Coach with whom they met individually for 10 sessions over two school terms.*

Results: *Life coaching was associated with significant increases in levels of cognitive hardiness and hope, and significant decreases in levels of depression.*

Conclusions: *Life coaching may be an effective intervention for high school students.*

Keywords: Evidence-based life coaching, hope theory, cognitive hardiness, resilience.

LIFE (OR PERSONAL) COACHING can be understood as a collaborative, solution-focused, results-orientated systematic process, in which the coach facilitates the enhancement of the coachee's life experience, goal attainment and well-being and fosters the self-directed learning and personal growth of the people from normal (i.e. non-clinical) populations.

Recent studies have provided preliminary evidence for the efficacy of evidence-based life coaching. These studies, from the emerging field of coaching psychology, have indicated that an evidence-based life coaching intervention can enhance goal striving, well-being and hope (Green, Oades & Grant, 2006), increase goal attainment and satisfaction with life, increase perceived control over environmental factors and result in greater openness towards new life experiences (Spence & Grant, 2005). In addition, life coaching can increase quality of life, and reduce depression anxiety and stress (Grant, 2003). To date, such life coaching research has focused on adult, community populations.

Within the life coaching industry, varying niche applications have developed, such as retirement coaching, relationship coaching, and financial coaching. One emerging specialised area lies within the educational setting. Life coaching within educational settings is distinct from educational coaching (or tutoring) which is specifically aimed at improving academic performance.

A pilot life coaching study conducted by Campbell and Gardner (2005) in an educational setting examined the effects of life coaching on high school students' personal and academic development (Year 12). Their findings indicated that life coaching may have the potential to build resilience and well-being in young people, and help students cope with the stresses of high school. In the Campbell and Gardner (2005) pilot study, only 12 students took part in the

life coaching programme, and the coaching was delivered by the school counsellor. The present study sought to extend the work of Campbell and Gardner (2005) by training teachers to be the life coaches and by using a larger sample size.

The challenge of senior high school

Senior high school (15 to 18 years) is a difficult time for many students. Students frequently feel under considerable pressure to perform well academically, as performance at high school impacts on university entry and future career prospects. A large-scale study in Sydney, Australia, involving over 400 high school students showed that over 50 per cent of respondents had levels of anxiety, depression and stress that were above the 'normal' range (Smith & Sinclair, 2000). High school students typically worry about a range of issues including academic performance, relationships, family, and friends and peers (Amen & Reglin, 1992).

Interventions that have attempted to help students deal with the challenges of high school typically focused on identifying students with problems (Tait & Entwistle, 1996) and delivering study skills training (Zimmerman, Bonner & Kovach, 1996). However, with the rise of the positive psychology movement, there is interest in developing interventions that build high students' resilience and well-being, rather than merely treating symptoms of dysfunctionality. Resilience has been described as an individual's capacity for maintenance, recovery or improvement in mental health following life challenges (Ryff, Singer, Dienberg Love & Essex, 1998).

Cognitive hardiness

Cognitive hardiness is an important dimension of resilience (Bonanno, 2004).

Hardiness, originally described by Kobasa and Maddi (1977), comprises an individual's *commitment* to their life goals, a sense of *control* or belief that they can control life events, and a perception of change as a *challenge*. Thus hardiness assists individuals to face stressful situations and provides protection from possible damaging effects (Maddi, 2002).

Indeed, it has been shown that hardiness provides a buffering effect to stress and as such protects mental health (Oullette, 1993). College students high in hardiness tend to have more effective coping strategies, lower levels of stress and better academic grades (McHenry, 1993). Furthermore they perceive potential future stressors as being more controllable (Gerson, 1998). However, much resilience and hardiness research in student populations has focused on college or university students (e.g. Mathis & Lecci, 1999; Lindberg, 2002) or young elementary students (Borman & Overman, 2004), and such work has tended to focus on dysfunctional or at-risk populations (e.g. Nettles, Mucherah & Jones, 2000).

There has been little work in looking at the enhancement of hardiness in 'normal' high school students, although the hardiness construct seems useful in assisting high school students in dealing with both school-related stressors such as exams and the more personal issues associated with adolescence. The present study sought to address this gap in the literature.

Hope

Hope is defined as 'the process of thinking about one's goals, along with the motivation to move toward those goals (agency) and the ways to achieve those goals (pathways)' (Snyder, 1995, p.355). Hope as a cross-situational construct has been shown to correlate positively with self-esteem, perceived problem-solving capabilities, perceptions of control, optimism, positive affectivity, and positive outcome expectancies (Synder *et al.*, 1991).

Hope has predicted problem-focused coping and mental health outcomes (Snyder *et al.*, 1991). Additionally Hope Scale scores have correlated positively with perceived scholastic competence (Onwuegbuzie & Daley, 1999), greater academic satisfaction (Chang, 1998), and hope has been shown to

predict better overall grade point averages (Snyder *et al.*, 2002).

It has been found that thinking about goals immediately triggers the agentic and pathways thoughts that are both necessary for goal-directed behaviour. Thus helping individuals to articulate their goals, as is required in an evidence-based life coaching intervention, may enhance hope (Snyder, 1999). Snyder (2000) argues that hope enhancement is best achieved by integration of solution-focused, narrative and cognitive-behavioural interventions with hope therapy designed to 'help clients in conceptualising clearer goals, producing numerous pathways to attainment, summoning the mental energy to maintain the goal pursuit and reframing insurmountable obstacles as challenges to be overcome' (p.123). These are the key features of the evidence-based approach to life coaching used in the present study.

Aims of the research

The present study sought to investigate the impact of an evidence-based life coaching programme, in an educational setting utilising a randomised, wait-list control design with a sample of high school students who were not dysfunctional or at-risk. It was anticipated that the life coaching programme would be associated with increases in cognitive hardiness, hope and decreases in depression, anxiety and stress.

Method

Participants

Participants were 56 adolescent females (16 to 17 years, mean age=16.09) from a normal (non-clinical) population. Their scores on the Depression, Anxiety and Stress Scale (DASS-21, Lovibond & Lovibond, 1995) all fell within the normal range of psychopathology. Participants were all senior high school students in Year 11 attending a private girls' high school in Sydney, Australia. The 56 participants were randomly assigned to Group 1 (Coaching Group, *N*=28) or Group 2, a Wait-list Control Group (Control Group, *N*=28) and completed self-report measures at Time 1 (pre-intervention) and Time 2 (post-intervention). Of the 56 participants assigned to take part in the study, seven participants (four control, three experimental) withdrew from the study prior to completion of the intervention (before Time 2). It should be noted that participants were volunteers and thus self-selected. Sample size was sufficient to detect a medium to large effect size (Cohen, 1977).

Experimental design

A between-subjects design was utilised. Hope, cognitive hardiness, depression, anxiety and stress of both groups were assessed at Time 1 and Time 2. Academic performance and goal attainment measures were not taken.

Procedure

The life coaching programme was advertised through an information session held during school hours with all Year 11 girls in attendance. Additionally, the programme was advertised in the school newsletter and at an information evening for parents of Year 11 students held at the beginning of the year. Interested students were provided with a Participant Information Sheet and a Consent Form for both themselves and their parents to sign if they wished to participate in the study.

Participants were assigned to enter the Coaching Group or the Control Group utilising a wait-list control, randomisation procedure with 28 participants in each group. Participants assigned to the Coaching Group completed a 10-session life coaching programme while those participants randomly assigned to the Control Group completed a 10-week waiting period concurrently.

Participants in Group 1 were randomly assigned to a Teacher-Coach. Ten teachers were trained as coaches. The Teacher-Coaches had been trained in the theories of Coaching Psychology through two half-day workshops conducted by the School Counsellor who has a Masters in Applied Science

(Coaching Psychology). The workshop was based on a manualised programme (available from the authors).

The coaching programme

The life coaching programme consisted of ten individual face-to-face coaching sessions with the allocated Teacher-Coach, and was conducted over a period of two school terms (28 weeks including a two-week semester break). The life coaching programme involved participants holistically examining aspects of their lives and identifying two issues that they wished to be coached on; one school-related and one personal. The programme was based on a solution-focused cognitive-behavioural framework that has been utilised in two previous randomised, controlled studies on evidence-based life coaching (for details see Green, Oades & Grant, 2006; Spence & Grant, 2005). Each coaching session involved the setting of session goals, followed by a discussion of what was going on in the coachee's life. The aim of the coaching was to raise the coachee's personal awareness of their current situation. Participants were then coached to identify personal resources that could be utilised in moving towards their goals, and to develop self-generated solutions and specific action steps, systematically working through the self-regulation cycle of setting goals, developing action plans, monitoring and evaluating progress.

Measures

Participants of both groups completed all of the following questionnaires at Time 1 and Time 2.

The Trait Hope Scale (Snyder *et al.*, 1991) is a 12-item measure of the two dimensions of hope ranging from 1 (definitely false) to 4 (definitely true). It consists of four agency items (i.e. items that tap the belief in one's ability to initiate and maintain movement towards goals); four pathways items (i.e. items that tap the ability to conceptualise routes to a goal and four filler items). A total score is used as a measurement of the global concept of hope and is calculated as the sum of the eight agency and pathways items (range=8 to 32). Test retest reliabilities for the Hope Scale suggest temporal stability (.83 over a three-week interval, .73 over an eight-week period) (Synder *et al.*, 1991). Alpha coefficients for the two subscales are acceptable (agency=.71 to .77; pathway=.63 to .80) (Snyder *et al.*, 1991). The alpha coefficients in this study were .79 for agency and .80 for pathways. This instrument demonstrates both internal and temporal reliability, with two separate and yet related factors, as well as an overarching hope factor (Babyak, Snyder & Yoshinobu, 1993). Several studies have confirmed its convergent and discriminant validity (Snyder, 2000).

The Cognitive Hardiness Scale (Nowack, 1990) was utilised to measure cognitive hardiness, based on Kobasa's (1979) concept of hardiness comprising the dimension of Commitment, Control and Challenge. This measure consists of 30 items on a five-point Likert-type scale assessing personal beliefs about life. Nowack (1990) reported an internal consistency of .83. The alpha coefficient in the present study was .78.

The Depression Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995) was utilised as a measure of psychopathology. The DASS-21 is designed to be used with both clinical (Brown, Chorpita, Korotitsch & Barlow, 1997) and community populations (Antony, Bieling, Cox, Enns & Swinson, 1998), uses a dimensional rather than categorical approach to mental health assessment, and views the differences between normal and clinical populations in depression, anxiety, and stress as being essentially differences of degree. As such it is a useful tool in life coaching research for screening participants in order to detect mental health issues that require referral, and for monitoring levels of depression, anxiety and stress that fall within both the normal and clinical ranges. Internal consistency (Lovibond & Lovibond, 1995) and test-retest reliability has been found to be good (r=.71 to .81; Brown *et al.*, 1997). The internal reliability in this study was .91.

Results

Before the analyses were conducted, the data was checked for violations of normality. Violations were detected on the variables of Depression and Anxiety and the appropriate non-parametric tests were utilised. Means for the Coaching Group and the Control Group on the major variables for Time 1 and Time 2 for are shown in Table 1 (alongside).

Hope

A repeated measures ANOVA revealed a significant treatment by time interaction effect for Hope, $F(1,35)=6.65$, $p<.05$. Follow-up tests revealed significant increases in Hope, $t(17)=-4.076$, $p<.001$, for the Coaching Group whereas participants in the Control Group showed no such changes.

A repeated measures ANOVA revealed significant treatment by time interaction effect for Agency, $F(1,36)=4.622$, $p<.05$. Follow-up tests revealed significant increases in Agency, $t(18)=-4.776$, $p<.001$ for the Coaching Group whereas participants in the Control Group showed no such changes. A repeated measures ANOVA revealed a significant treatment by time interaction effect for Pathways, $F(1,35)=4.98$, $p<.05$. Follow-up *t*-tests revealed significant increases in Pathways, $t(17)=-2.601$, $p<.05$ for the Coaching group whereas participants in the Control Group showed no such changes.

Cognitive hardiness

A repeated measures ANOVA revealed a significant treatment by time interaction effect for Cognitive Hardiness, $F(1,33)=7.631$, $p<.05$. Follow-up tests revealed significant increases in Cognitive Hardiness, $t(17)=-8.401$, $p<.001$, for the Coaching Group whereas participants in the Control Group showed no such changes.

Depression, anxiety and ctress

The Wilcoxon Signed-Rank Test was performed to examine changes within each group over time for the variables Depression and Anxiety. Results revealed significant decreases from Time 1 to Time 2 on the variable Depression ($T=-1.968$, $p<.05$) for the Coaching Group, whereas the Control Group showed no significant change in these scores over the same period. There were no significant changes for either group from Time 1 to Time 2 for Anxiety. A repeated measures ANOVA on Stress revealed no significant treatment by time interaction. It is important to note that all participants fell within the 'normal' range of psychopathology, and thus in this respect were not an 'at-risk' or dysfunctional population.

Discussion

It has been argued that it is important to investigate holistic salutogenic approaches to health and well-being rather than focusing on issues related to overcoming dysfunction or adverse life events in at-risk populations (Linley & Joseph, 2005). The present study represents a small step in that direction by showing that a holistic life coaching intervention in a 'normal' high school population is associated with increased hope and cognitive hardiness and significant decreases in depression.

Past research has investigated the enhancement of hardiness through training programmes specifically designed to target hardiness (e.g. Khoshaba & Maddi, 2001). Maddi, Kahn and Maddi (1998) describe a four-part training programme incorporating: (i) a structured psycho-educational component; (ii) cognitive behavioural techniques such as situational reconstructing (stretching the imagination to develop a broader understanding of the stressor), focusing on bodily sensations in order to develop emotionally based insights; (iii) developing of action plans to deal with stressors; and (iv) a relapse prevention phase. Such programmes are associated with improvement in self-reported hardiness (Maddi *et al.*, 1998), improvements in college grade and retention rates, job satisfaction and health (Maddi, 2002).

Hardiness training tends to focus specifically on enhancing hardiness and overcoming stressors through a diagnostic

Table 1: Means and Standard Deviations for Major Study Variables for Times 1 and 2.

Variable	Coaching Group		Control Group	
	Time 1	*Time 2*	*Time 1*	*Time 2*
Agency	*N*=19		*N*=19	
M	21.17	24.84	20.92	18.68
SD	5.43	5.55	5.31	6.86
Pathways	*N*=25		*N*=24	
M	22.79	24.79	23.03	21.05
SD	4.68	4.28	4.22	7.63
Total Hope	*N*=25		*N*=24	
M	43.86	49.63	43.96	39.74
SD	9.35	9.36	8.70	14.27
Cognitive Hardiness	*N*=18		*N*=17	
M	88.00	108.89	88.00	99.41
SD	7.96	10.79	8.53	10.62
Depression	*N*=25		*N*=22	
M	14.87	8.63	9.36	8.33
SD	11.33	11.86	6.80	7.77
Anxiety	*N*=25		*N*=24	
M	11.07	11.00	6.82	6.22
SD	9.11	10.63	6.16	5.82
Stress	*N*=16		*N*= 18	
M	15.25	13.86	13.33	9.22
SD	7.44	10.29	8.00	7.52

psycho-educational process (Maddi, 1987). Although similar to hardiness training in some respects, the life coaching programme used in the present study differed in that it involved participants holistically examining their lives, looking for ways to enhance their life experience, rather than merely addressing issues related to distress. Participants then set goals, identified personal resources and developed goal-focused action steps. Despite the differences in emphasis, the current life coaching programme appeared to be an effective hardiness-enhancing intervention.

In regard to hope, it was found that participants who had completed the life coaching intervention reported significant increases in agency, pathways and total hope. These results are consistent with hope theory which suggests the articulation of goals stimulates hope (Snyder, 1999). In the present study, in addition to talking about their goals and action plans, cognitive-behavioural techniques were used to help participants identify positive self-talk that would help them in the goal striving process, and in this way were encouraged to increase their agentic thoughts. The use of solution-focused techniques helped participants determine possible routes to their goal, thereby increasing pathways thinking. As such, a cognitive-behavioural, solution-focused coaching intervention, such as the one utilised in this study becomes a hope-enhancing intervention. These results are consistent with Green *et al.*'s (2006) study, which also found significant increases in agency, pathways and total hope as a result of an evidence-based life coaching intervention.

Given the correlation between depression, anxiety and stress (Lovibond & Lovibond, 1995), it is interesting that this study found that only depression (not anxiety or stress) was reduced. The reason for this is not immediately clear. It may be that the items on the DASS that measure depression include questions related to pessimism about the future and being unable to be interested or involved in life, whereas the anxiety and stress scales refer to being panicky, being aware of a dry mouth, breathing difficulties, and pounding of the heart. This study specifically focused on helping participants find ways to enhance their life experience and build hope and resilience, rather than reducing stress or anxiety, thus the primary impact on psychopathology may have been a reduction in depression (which can be viewed as the opposite of hope) rather than a reduction in anxiety or stress.

A limitation in the current study is that participants were self-selected members of a specific community (all females attending a private high school), who may not be representative of the general population. Students volunteered and as such may have been highly motivated. Further, academic performance measures were not taken. This was because the participants were studying a wide range of different subjects, at varying levels of difficulty, and there was no valid or reliable means of making comparisons. In addition, no longitudinal measures were taken, thus it is not known if these results were maintained over time. However, it should be noted that in a longitudinal study, Green *et al.* (2006) found that gains from a similar life coaching programme were maintained at a 30-week follow-up.

Whereas many high school-based interventions are aimed at teaching skills targeted at enhancing academic performance, or counselling for bullying or other distressing factors, life coaching programmes have the potential to be an effective holistic mental health promotion strategy for high school students. Such positively-framed programmes, with a lack of the stigma often associated with remedial counselling, may assist in increasing long-term social and emotional well-being, provide a preventative function and potentially achieve significant savings in mental health costs. The findings of the present study suggest that meeting life's challenges with a positive and confident attitude regarding one's ability or competence to survive life challenges appears to insulate against depression. This is particularly relevant during major life transitions such as those experienced by senior high school students.

By utilising a wait-list control and an experimental design, the present study has demonstrated that life coaching can be effective for female high school students. However, it may be that the attention of a caring supportive adult alone would be sufficient to enhance hope and resilience in high school students. It is noteworthy, however, that recent research (Spence & Grant, in press; Sue-Chan & Latham (2004) has found that, in an adult sample, peer coaching was not as effective as a professionally-trained coach. Emphasising the importance of expertise in coaching, Spence and Grant (in press) argued that the presence of a supportive person was a necessary but insufficient condition for enhancing well-being and goal attainment. Future studies using high school students should extend this line of research and compare the effect of a supportive adult with participation in a life coaching programme.

Future research should also use other educational samples (e.g. students in primary and junior high school, and both males and females) and also measure academic performance. Life coaching interventions that utilised participants from one specific educational cohort would allow the accurate and meaningful comparison of academic performance. Further, studies that compared life coaching interventions with educational tutoring or positive parental involvement would provide additional information about the effectiveness of life coaching for students. In addition, it would

be useful to conduct longitudinal studies to examine if such life coaching interventions have a long-term prophylactic effect, and a follow-up study of the present intervention is planned.

Summary

This study is the first controlled study of an evidence-based life-coaching intervention for senior high school students. It provides preliminary evidence that a cognitive-behavioural, solution-focused life coaching group programme can be effective in increasing hope and cognitive hardiness, and in decreasing self-reported symptoms of depression. This study provides encouraging empirical support for the usefulness of evidence-based life coaching interventions in an educational setting. An evidence-based life coaching programme implemented in schools may provide a platform for an applied positive psychology, delivering a multitude of benefits that impact positively on students' overall health and well-being.

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Flow theory – its application to coaching psychology

Karen Wesson & Ilona Boniwell

Purpose: *Being 'in flow' or 'in the zone' enables individuals to focus on tasks more fully and to maximise performance. As this phenomenon results in pleasure being experienced whilst mastery is gained, it can be a natural aid to goal-oriented activities such as coaching. This paper explores the applications of flow theory to coaching psychology.*

Method: *Various conditions are thought to influence the acquisition and maintenance of psychological flow. These are reviewed and linked to the work of coaches and coaching psychologists.*

Results: *The literature and models reviewed indicate that flow theory has a number of applications to coaching psychology, and that it can provide a useful framework for coaching psychology practice.*

Conclusions: *This paper suggests how these factors may be captured by coaching methodology thereby: (i) helping the client and coach to find focus and fulfilment during sessions; and (ii) encouraging the client to remain 'on task' whilst engaging in goal actioning activities afterwards.*

Keywords: Coaching, flow, strengths, flow-favouring methodology, flow-enhancing model.

FLOW IS A SUBJECTIVE STATE related to an intense engagement in an activity. It is characterised by a person experiencing a loss of self-consciousness to an extent that action and awareness become merged, a sense of control over what they are doing and an altered sense of time (Csikszentmihalyi, Abuhamdeh & Nakamura, 2005). Most activities can be flow-conducive, irrespective of whether they are work or leisure based. Thus, for example, flow may be found when people undertake hobbies such as reading, mountain climbing and amateur astronomy. It might occur in activities at work one perceives as stretching - for instance, when creating a script for a software package, producing a piece of art work, performing surgery or being on stage. Coaching psychologists may feel in flow whilst they are working with clients, undertaking research or writing an academic paper. At a physiological level changes may occur in the brain which elicit increased focusing on specific activities (Durstewitz, Kelc & Gunturkun, 1999) and result in feelings of pleasure, happiness and satisfaction (Ashby, Isen & Turken, 1999).

Flow may have significance from an evolutionary point of view in that natural selection could have favoured those individuals who enjoyed learning how to master and control a hostile and changing environment (Csikszentmihalyi, Abuhamdeh & Nakamura, 2005). These individuals would have become the best hunters and home builders as they used the resources around them to shield their families from adversity. These families would have prospered and grew in their number, whilst others declined. Optimal efficiency requires that various physiological needs are met and that during our lifetime we are able to engage in a changing array of activities. The requirement to sleep and recuperate after activity will result in propensity to find flow varying with time.

Over the last 30 years much research has been undertaken by the originator of the concept, Mihaly Csikszentmihalyi, and others to elucidate the situations in which flow is experienced, its characteristics and conditions leading to its occurrence (e.g. Csikszentmihalyi, 1975; Csikszentmihalyi, 1992; Nakamura & Csikszentmihalyi, 2002). It has been established that flow is most commonly experienced when the level of

challenge encountered is high and skills are tested to the full (Csikszentmihalyi, 1992). If the task in hand is too difficult, activity slows down or stops because the person becomes anxious and if the activity is too easy, one is likely to become bored.

With regard to factors which help to encourage flow, a number of researchers suggest that identification and use of one's strengths may play a role in this process. According to Linley and Harrington (2006a), a strength is a natural capacity for behaving, thinking, or feeling in a way that allows optimal functioning and performance in the pursuit of valued outcomes. Linley and Harrington (2006b, p.45) propose that a 'strengths coaching approach' leads to increased engagement, energy and motivation resulting in positive emotions, greater creativity, mental flexibility, resilience and enhanced performance. Seligman (2003) advocates that identification and use of 'signature strengths' directly contribute to living a 'good life', which he sees in obtaining gratifications (which are activities we like doing, akin to flow).

Over the years Csikszentmihalyi has suggested a number of elements of flow (e.g. Csikszentmihalyi, 1992), without always necessarily distinguishing between its characteristics and conditions. However, in a recent publication Csikszentmihalyi, Abuhamdeh and Nakamura (2005) drew a clear distinction between these two categories. In addition to the characteristics introduced in the opening paragraph of this paper, they propose three conditions that are important in encouraging flow. They include: having a clear set of goals, a balance between perceived challenges and perceived skills, and clear and immediate feedback. The authors add that two further factors affect how much a person commits to a task. These relate to the importance the individual places on doing well in the activity and the perceived congruence between higher and lower level goals. The authors also note that flow experience appears to be positively related to individual differences, such as autonomy orientation (the amount a person's behaviour emanates from one's self) and absorption. Even though no causal relationships have been established, it is reasonable to assume that developing both autonomy and the capacity for absorption may contribute to experiencing and maintaining flow.

Although Csikszentmihalyi, Abuhamdeh and Nakamura (2005) do not mention signature strengths in their account, it is possible to see how using a strengths model may support the flow favouring conditions which they do include. When clients use their strengths, it is likely that their perception of their skills in relation to the perceived challenge will remain at a high level which would help to facilitate flow. They might also be able to work with greater autonomy and be more mindful and appreciative of issues involved in their strength areas, so will apply themselves to a task with greater ease.

Given the benefits of flow and the quality of experience associated with it, it is possible to argue that enhancing a client's sense of flow can be seen as a worthwhile objective of coaching. This paper aims to apply the conditions of flow identified by Csikszentmihalyi, Abuhamdeh and Nakamura (2005) outlined above to the processes involved in coaching, thereby proposing a flow-enhancing model of coaching. It is believed that application of this model may result in a higher likelihood of flow being experienced both within and outside sessions.

The processes of coaching

Coaching generally refers to an activity where a client is assisted in achieving well-defined goals. These goals may be either those of an organisation, as in work-based and executive coaching, or of an individual, as in life coaching. In addition to facilitating specific achievement, successful coaching may also result in increased insight (Anderson & Anderson, 2005), self-direction, self-esteem and efficacy (Cox & Ledgerwood, 2003). Green, Oades and Grant (2006) suggest that goal striving, well-being and hope may be

enhanced by the use of a cognitive-behavioural solution-focused coaching approach.

Before proposing our flow-enhancing model we will consider the processes involved in coaching. Generally this activity can be presented as consisting of a series of processes, each of which can utilise different tools and interventions. Typically these include communicating a framework, contracting and possibly assessment, goal-setting, modifying goals, actioning goals and closure.

However, our experience as coaches indicates that the processes of coaching cannot be reduced to a **'goal-setting progression'** as described above. A whole range of life situations surround each client in terms of their life experience, valuing systems and the context in which they live. These factors will affect a client's level of self-efficacy, autonomy and awareness with respect to goal-orientated tasks. Whilst goals are set and actioned a coach is therefore **'identifying and addressing additional issues'**, some of which may emerge during the contracting session and others later in a coaching programme.

Our model will, therefore, refer to these two coaching areas and will consider how flow-favouring methodology may be utilised in each. We would like to propose a flow-enhancing model that:

1. Looks to maximise opportunities for finding flow during the activities of coaching.
2. Transforms the patterns of everyday experience, enabling the client to pinpoint times of optimal experience.
3. Helps the client to identify competition for attention that comes from external sources, thus equipping them to make more informed decisions in the future in respect to how they choose to use their time and energy.

As previously discussed, Csikszentmihalyi, Abuhamdeh and Nakamura (2005) list seven conditions thought to promote engagement in activities conducive to flow. A coach who wished to facilitate flow could look to maximise the inclusion of these seven factors during a coaching programme. It is proposed that some of these conditions may be more important during the 'goal-setting progression' and others whilst 'identifying and addressing additional issues'. These conditions are listed below.

Conditions which are important during the 'goal setting progression'

- Having clear goals.
- Balancing challenges and skills.
- Maintaining a high level of goal congruence.
- Importance placed on doing well.
- Having clear and immediate feedback.

Various factors, including commitment to task, feedback, task complexity and the proximity of goals, have been shown to be important in enhancing performance (Locke, Shaw, Saari & Latham 1981). These factors, which will be addressed later, appear to encompass the conditions listed by Csikszentmihalyi, Abuhamdeh and Nakamura (2005) which we see as being significant during the 'goal-setting progression'.

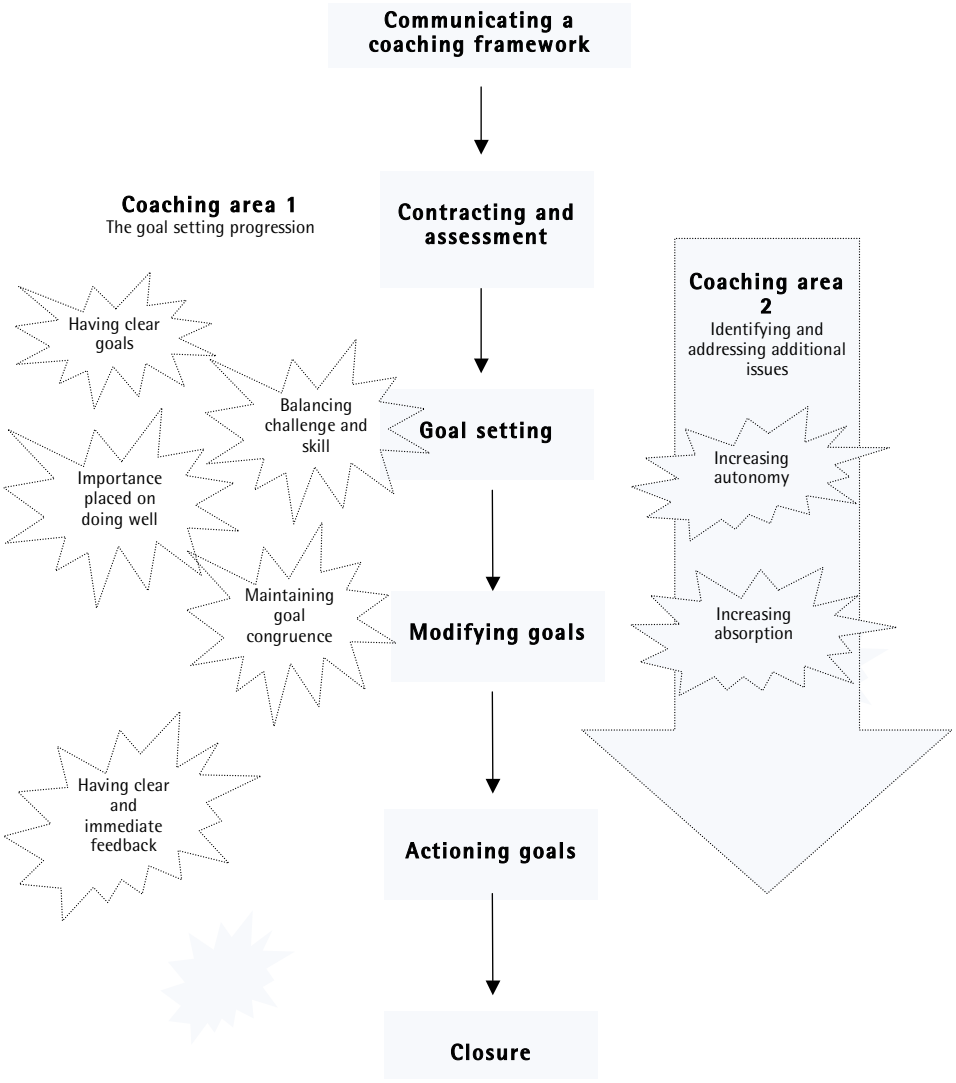
Conditions which are important whilst 'identifying and addressing additional issues'

- Increasing autonomy.
- Increasing absorption.

Superimposing these seven conditions onto the coaching framework described earlier results in the flow-enhancing model of coaching that can be found in Figure 1 (overleaf). The star-like shapes indicate stages during a coaching programme when each of the above conditions is particularly relevant.

The paper will now elaborate on how these seven conditions may be incorporated into coaching. We will also discuss how certain coaching tools may be used to satisfy each of these factors. These tools are also summarised in Table 1.

Figure 1: The flow-enhancing model of coaching.



1. Having clear goals

According to our model, clarification of goals can start during the contracting and assessment session and be continued in the meetings that follow. Csikszentmihalyi, Abuhamdeh and Nakamura (2005, p.601) suggest that 'goals serve to add direction and purpose to behaviour' and their value 'lies in their capacity to structure experience.' Goal setting is an integral part of coaching and a number of different models can be used to assist this process, including SMART (Locke and Latham, 1990) and Graham Alexander's GROW model (Whitmore, 2002).

The role of a coach involves encouraging divergent thinking by asking questions such as 'How will you achieve this goal?', 'What will you need?' and 'When will you complete this?'. This helps to provide a clearer picture of what is entailed. Once goals are set it is easier for a client to conceptualise and face the challenge, committing themselves to the task as best they can. Without this structure of goals it is difficult for them to know where to apply their effort and this uncertainty can lead to a reduction in the capacity for flow.

2. Balancing challenge and skill

Csikszentmihalyi, Abuhamdeh and Nakamura (2005) contend that flow is dependent on maintaining a balance between perceived challenge and perceived skill. Figure 1 shows this condition as initially having importance at the time when goals are set although it then needs to be sustained throughout the coaching programme. Flow theory implies that clients are happiest setting goals which they feel are just slightly beyond their capabilities. This stretches an individual and encourages then to develop new skills. If challenges begin to exceed skills by too much, a person becomes anxious, and if skills begin to exceed challenges, they become bored. The role of the coach includes encouraging the client to pace a challenge, to break down goals so they are achievable or encourage greater levels of challenge at each point. At the same time opportunities for skill enhancement are provided, thereby helping the client to work within new areas. These may include acquiring new skills or developing existing skills that would help the client to achieve his or her goals.

The levels of perceived challenge and perceived skill also have relevance to the coaching session itself. If a client comes to a session feeling anxious, a sensitive practitioner will be able to work on increasing the client's confidence in handling the session. If the client comes to the session bored, a practitioner can attempt to increase the challenge provided. The best possible scenario would be a session where both client and coach felt they were experiencing flow most of the time.

Seligman (2003) proposes that flow is more likely if a person concentrates on using their 'signature strengths'. During the initial stages of coaching, emphasising the use of a client's strengths might help to improve the match between perceived skill and perceived challenge. Flow-favouring methodology would also suggest that at a later stage, as confidence increases and greater challenge is sought, a coach might find opportunities to work with a client on improving strengths which are less strong.

3. Importance placed on doing well

An individual's application to task might be affected by the importance they place on doing well in that activity. By an early age children are able to differentiate between the relative importance of effort and ability in achievement. They realise that if they have ability in a subject, it is possible to outshine their classmates with relatively little effort, but that keeping up in other areas requires working harder (Elliot, 2005). They may discern that recognition is given to those who perform well and this may affect their application to different tasks. This perception, when carried on into adult life, might not always lead to individuals engaging in activities most conducive to their growth.

According to the 'Flow-enhancing model of coaching' the 'importance placed on doing

well' first has significance when goals are set. If a coach can help a client see why competence in a particular activity is important this might enable the client to give more time to that endeavour. A client who is initially indifferent or bored by an activity might then experience flow when they discover they can master it successfully (Csikszentmihalyi, Abuhamdeh & Nakamura, 2005).

At a later stage it might become apparent that there are substantial barriers to progress and that a client's interest in achieving their goals is limited. It might then be necessary to explore the reasons for this and realign the goals so that they are more significant to the client. Careful pacing of activity and increased feedback may enable the client to experience satisfaction as they work in areas which previously they had not tried.

4. Maintaining goal congruence

At any time a person has a particular set of concerns that are important to them which will determine the goals they set (Smith & Spurling, 2001). According to Figure 1, maintaining goal congruence has particular relevance when goals are modified. As coaches we recognise that clients are unlikely to discuss goals which are most important to them until rapport is built up and trust established. A client might come to the first session listing a set of goals they wish to achieve. However, after a couple of sessions it might become apparent that another set of interests more accurately represents the client's aspirations.

Goal congruence is to some extent affected by perceived choice. Research using flow questionnaires suggests that disabled people are often better able to discover new opportunities for optimal experience despite only being able to invest their attention in a subset of activities, relationships and values (Delle Fave & Massimini, 2003). One could envisage this narrowing down of options as possibly improving the congruence of remaining goals, encouraging activity to be focused in areas where more satisfaction will be found.

Rogers (2004) outlines the scope of coaching and describes techniques and approaches coaches may use. This handbook provides an array of activities which can help clients to establish goal congruence, for example, the priorities and balance wheel, drawing life now and in the future, and writing a personal mission statement. Although some of these techniques may appear simplistic at first sight, they are widely used in coaching practice.

5. Having clear and immediate feedback

According to our model 'having clear and immediate feedback' has most relevance when goals are being actioned. During a session a practitioner may prompt the client to think divergently to deepen their self-knowledge. Additional awareness could come through reflective practice; thoughts that come to mind during the course of an activity could be noted down in a logbook and assimilated at a later stage. Thinking tools such as Mind mapping (Buzan & Buzan, 2003) and Ishikawa fishbone diagrams (Cameron, 2001) might also be helpful. By reflecting on activities in this way it is possible to consolidate emerging ideas and consider new ways forward.

Csikszentmihalyi, Abuhamdeh and Nakamura (2005) suggest that because flow takes place at a high level of challenge, an individual is likely, at stages, to receive negative feedback. As long as the person perceives that they have adequate skill to take on the challenge this feedback will help in establishing corrective action without the flow experience being diminished.

Whilst experiencing flow, attention is focused and a person is usually well aware of how they are performing. It is important therefore that any feedback given by the coach is accurate, and can be challenged, otherwise it might confuse the client's own assessment. Having correct feedback helps the client to stay on task by reinforcing their own awareness of how different activities are progressing. Clutterbuck (1998) stresses the importance of a client's 'intrinsic feedback'

and says that a practitioner's feedback should be timely and as close as possible to the observed behaviour, any extrinsic feedback from a coach matching the intrinsic observations of the client. Flow during a coaching programme may be helped if there is substantial feedback from the client with regard to the usefulness of activities. This has importance to the practitioner who is concerned to know whether or not their methodology is working.

6. Increasing autonomy

A lack of autonomy may be an important element in constraining flow (Csikszentmihalyi, 2003). Ryan and Deci (2000, p.65) compare 'behaviours that are volitional and accompanied by freedom and autonomy – those that emanate from one's sense of self – and those that are accompanied by the experience of pressure and control and are not representative of one's self.' A coach can work to help a client differentiate between behaviours that show autonomy and those that do not. In doing so the client may appreciate more fully the significance of external demands on their time and energy.

In Figure 1 the process of 'increasing autonomy' has importance throughout a coaching programme. The acquisition of autonomy perhaps becoming more evident later on when a person has gained greater insight into the challenges they face. It may be possible to pinpoint particular times during a series of sessions when a client takes significant steps in establishing their independence and more fully directing their own development.

A coach can help a client to develop independence by encouraging them to explore and extend their own interests. One may use the balance wheel exercise (Rogers, 2004), Ishikawa fishbone diagrams (Cameron, 2001) and Force field analysis (Lewin, 1951) to help clients identify external factors that impact adversely on their lifestyle, and to plan situations where they will have greater autonomy. Activities such as 'An ideal day', and 'A week without going to work' (Rogers, 2004) encourage a client to conceptualise and to experiment with new possibilities. The 'Personal Synthesis' approach that aims to enhance a person's independence and sense of control over their life might also be useful (Popovic, 2005).

7. Increasing absorption

A capacity for absorption may be one factor explaining individual differences with regard to the likelihood of experiencing flow (Csikszentmihalyi, Abuhamdeh & Nakamura, 2005). In order for a person to find an activity absorbing they need to find the subject of interest and possible to focus on. Therefore, other factors relating to a person's openness may also be important in establishing flow, for example a person's awareness and value structure. Nakamura and Csikszentmihalyi (2002) consider the importance of the capacity to direct and regulate one's attention. In our model 'increasing absorption' has importance throughout a coaching programme. At all stages it is helpful for the coach and client to be open to new possibilities and to be aware of emerging issues and opportunities. It is also important that together they are able to explore these new issues in depth.

Sometimes autobiographical work has particular relevance in that it allows delayed reflection on events that occurred earlier on in life and might help a person to become more aware of options available to them and of aspects that might have hindered them in the past. This may allow a client to view similar up and coming challenges in a more positive light, seeing them as opportunities for growth.

At some stage during the coaching programme it may be worth explaining the concept of flow to the client. They may then explore for themselves times of optimal experience and become more mindful of when flow occurs and in which kind of situations. We suggest that a modified version of an 'experience sampling diary' could be kept for a few days outside of the coaching sessions (Hektner, Schmidt & Csikszentmi-

halyi, 2007). It can be designed to enable the client to record: (a) the date and time; (b) their current affective state (for example anxiety, apathy, boredom and flow); (c) the activity being undertaken at that time; (d) an explanation for feeling the way they did; and (e) a consideration of how they could influence a similar situation in the future, which could perhaps be discussed with their coach at their next meeting.

Potential setbacks of flow

Although flow can be useful and lead to increased learning there can also be dangers. It would be misleading to think that all activities that result in flow are beneficial. Taking up a new sport such as golf may affect a person's use of time as they work on improving the finer points of their game; this might affect time spent with their family and on activities at home. A similar situation might occur in the workplace if a director takes an interest in a new area of business that takes her away from dealing with problems that are faced by her staff in the office. Gambling and some anti-social behaviour might also provide flow experience. As responsible coaching psychologists we might wish to discuss both the pros and cons of seeking optimal experience through flow: 'The question regarding flow is not only how we can make it happen, but also how we can manage it; using it to enhance life, yet being able to let go when necessary' (Boniwell, 2006, p.29).

Implications and conclusions

Nowadays, at least in the affluent world, people are often faced with too much choice (Schwartz, 2000) and there is less pressure on individuals to work on areas conducive to personal growth. It is easy to spend time watching television, shopping or shallow socialising rather than engaging in challenging activities where new skills may be learnt. The increased demand for personal as well as professional coaching may be due to people realising that they have potential for development that remains untapped.

The greatest benefit of flow would seem to be that it enables people to be challenged within their capabilities. If these challenge situations are being used to good effect, to bring about personal growth and development, then finding flow can be as advantageous for us now, as it was for our early ancestors.

We have considered seven conditions that are thought to be important in assisting flow and have suggested how flow-favouring methodology can be incorporated into coaching. The flow-enhancing model proposed in this paper works at three levels. Firstly, it helps to establish flow during sessions, enabling the client and coach to find focus and fulfilment in their work. Secondly, it works to increase the likelihood of a client staying on task between sessions and recognising times of optimal experience. Thirdly, it helps to increase awareness of the constraints which reduce opportunities for individuals to find flow. This might have a long-term positive effect in enabling the client to differentiate between activities which are conducive to growth and those which are not.

There are many implications for further research. Bakker (2005) has investigated the transfer of the state of flow from music teachers to their students, and indicated that emotional contagion may play a role in these cases. There may be benefits to coaches in enhancing their own flow if this helps the client to achieve a similar state. Furthermore, in a dynamic coaching relationship each party may affect the level of perceived challenge and perceived skill that the other feels, thereby influencing whether or not the other experiences flow. Once one party has found flow, the other by emotional contagion may enter the same experience. One can envisage situations where both parties help to sustain each other's flow for the duration of a coaching session. Using Experience Sampling Methodology (Hektner, Schmidt & Csikszentmihalyi, 2007), it should be possible to establish if one of the parties acts as a trigger for the flow experience of the other.

Table 1: Tools that may help to facilitate flow.

Flow favouring condition	Interventions that may help to facilitate flow
1. Having clear goals	● SMART ● GROW ● Clear action points
2. Balancing challenge and skill	● Using preferred strengths ● Developing new skills ● Introducing different learning styles
3. Importance placed on doing well in an activity	● Considering the wider implications of success ● Writing resolutions ● Celebrating small steps
4. Maintaining goal congruence	● Priorities and balance wheel ● Drawing life now and in future ● Writing a personal mission statement
5. Receiving clear and immediate feedback	● Log book ● Structured reflection ● Use of thinking tools, e.g. mind mapping and fishbone diagrams ● Minuting meetings ● Touching base with client between sessions
6. Increasing autonomy	● Personal Synthesis model ● Priorities and balance wheel ● Drawing life now and in future ● Autobiographical work ● Considering life chapters ● Reflecting on values
7. Increasing absorption	● Six thinking hats ● Ishikawa fishbone diagrams ● Lewin force field analysis ● ABCDE ● Jo-Hari window ● Social and cultural context reading

Source: Adapted from Csikszentmihalyi, Abuhamdeh & Nakamura (2005, pp.601–602).

It is well known that human interaction and communication is one of the best ways to induce flow (Csikszentmihalyi, 1992). Given that coaching frequently makes use of less traditional means of interaction, such as telephone and internet, it would be interesting to study to what extent the new media has an effect on flow experience in the session. In other words, does the lack of the physical presence have a reverse effect on flow experience?

Survey methods can be used to evaluate coaching programmes in terms of their effectiveness in enabling clients to find flow in areas conducive to growth. The Experience Sampling Method (Hektner, Schmidt & Csikszentmihalyi, 2007) offers opportunities to establish the levels of flow achieved and sustained whilst undertaking different coaching activities. As there exists a potential danger that the data collection would distract from the work of the alliance, both parties need to be aware of these implications and happy to record and comment on their experience. In fact, this method may be of particular interest to coaches involved in peer coaching arrangements who wish to monitor and reflect on their own practice as part of their training and personal development.

The consolidation of ideas around the significance of flow theory for coaching is probably now a real possibility. It is interesting that the tools already used by coaches seem to provide the prerequisites for flow. Is this pure coincidence, or is coaching really just about enabling clients, once again, to use flow for the purpose it was intended for, that is to interact as best they can with their environment and to grow?

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An intervention for fostering hope, athletic and academic performance in university student-athletes

Cristina Rolo & Daniel Gould

Objective: *To examine the effectiveness of an intervention programme in fostering hope (Snyder, 1994), athletic and academic performance in university student-athletes participating in a mandatory structured study.*
Design: *A two-group (hope facilitation intervention vs. no intervention control) pre- vs. post-test design was employed. Between pre-test and post-test the intervention group was exposed to a six-week (12 session) intervention to foster hope.*
Method: *Division I NCAA-member institution University varsity athletic team members were administered measures on the key dependent variables (dispositional and state hope, academic and athletic domain hope, and perceived athletic and academic performance). Using stratified random sampling, 44 student-athletes were selected. Intervention and control groups were each composed of 22 student-athletes (nine female, 13 male; 10 female, 12 male, respectively), with a mean age of 19 years.*
Results: *Repeated measures ANOVA results showed that the intervention programme participants did not differ significantly from the control participants at Time 1 on hope (dispositional, state, athletic and academic), athletic and academic performance. However, after taking part in the six-week hope building programme the intervention group student-athletes' state hope total scores significantly increased.*
Conclusions: *The study hypothesis was partially supported; the intervention programme was effective in fostering university student-athletes' state hope. Support was not found for the effectiveness of the intervention programme in fostering dispositional hope, academic and athletic domain hope or perceptions of athletic and academic performance.*
Keywords: Hope theory, student-athletes hope development, academic and athletic performance enhancement, coaching.

THE AUTHORS WOULD LIKE THE reader to keep in mind, as they read through this article, that diverse methodologies and techniques implemented in the present intervention study with student-athletes have been successfully used to enhance performance and well-being in diverse coaching contexts (e.g. business, education, sports) and in different countries such as United States of America (US) and Portugal. Although this article focus on coaching US university student-athletes to enhance their hope and performance, as you read this article, the authors suggest thinking about how this information could be adapted and used in your own coaching endeavours.

Although differences between student-athletes and other college students may seem subtle, playing an intercollegiate sport often adds an unexpectedly complex layer to student-athletes' lives (Watt & Moore, 2001). In addition to the challenges experienced by non-athletes, such as social adjustment, career exploration, and keeping up with one's daily student routine, student-athletes also have their sport-related activities: practice and competitions, injury treatment, travelling, or studying team plays (Street, 1999). This fact contributes to increased stress and sometimes leads to sport or academic dropouts. Therefore, many university educators and athletic department staff feel that something has to be done in order to help college student-athletes balance

these two life domains and foster their athletic and academic performance.

Positive psychology and hope

Coaches and other athletic staff members often tell their student-athletes: 'stay positive', 'focus on your goals', 'keep your head up', or 'view adversity as a challenge'. In doing so, they assume that staying goal directed and positive will lead to higher levels of motivation and enhanced performance. Their beliefs are not without scientific support. For example, in a study of Olympic champions, Gould, Dieffenbach and Moffett (2002) identified these individuals as being characterised as high on dispositional hope.

Given the focus practitioners and researchers place on optimistically pursuing goals, it is surprising that the relationship between hope, athletic and academic performance has not been more extensively studied in sport psychology (Gould *et al.*, 2002; Curry *et al.*, 1997). Moreover, even fewer intervention studies have been conducted in sport psychology to determine if athletes' hope and performance can be enhanced (Curry & Maniar, 2003). Measurement issues relative to measuring goal driven behaviour, as well as issues relative to measuring athletic performance may have inhibited research in this area. Psychology's focus on deficits and problems may have also contributed. However, a paradigmatic shift has taken place in psychology. As a consequence, it was created the Positive Psychology movement with a renewed focus on making people's lives more productive and fulfilling (Seligman & Csikszentmihalyi, 2000). Positive Psychology focuses on valued subjective experiences such as well-being, contentment, satisfaction, flow, happiness, optimism and hope.

Snyder (1992) defined the hope construct within the context of goal setting behaviour, as a *thinking process about one's goals, in which a person has the perceived pathways and agency to achieve their goals.* Specifically, hope is a goal-related thinking process in which individuals have well-defined goals, knowledge of how to achieve those goals and the determination and energy to act (Snyder, 1994; Snyder, 1995; Snyder, 1997; Snyder, Cheavens & Michael, 1999). Hope is composed of *agency* (the will; the perceived ability to begin as well as to continue along a selected pathway to a goal) and *pathway's* thinking (the way; the perceptions of being able to produce one or more workable routes to goals). These two components have a reciprocal, additive, and positive correlated relationship with one another, but are not synonymous (Snyder, 1995). Snyder further contends that difficulties in one or more of the hope components (agency, pathways) may undermine hopeful thinking, while improvements in any of these may foster it. Furthermore, having information regarding our clients' pathways and agency levels contributes to develop meaningful interventions based on the clients' needs.

Snyder *et al.* (1991, 1996, 1999), have developed several psychometrically sound measures of hope. Research has shown that high levels of hope are associated with better psychological adjustment, achievement, problem solving and health in a variety of populations and life domains (Snyder & McDermott, 1999; Scheier & Carver, 1992; Schneider, 2001; Seligman, 1990; Snyder, Irving & Anderson, 1991). Additionally, high hope people have an advantage in a variety of goal pursuit activities such as academics and sports, and are at lower risk of dropping out of sport and school (Curry & Snyder, 2000; Curry, Snyder, Cook, Ruby & Rehm, 1997). Research in general psychology (Irving, Cheavens, Snyder, Gravel, Hanke, Hilbert & Nelson, in press) has also shown that hope can be fostered with training. Furthermore, Curry and Maniar (2003) found that an academic course combining psychological skills training and life skills education enhanced hope, sports and academic achievement, and contributed to students, and student-athlete's well-being. Likewise, Rolo and Kamphoff (2003) found that an eight-week programme combining psychological skills with life skills

contributed to foster university academic probation students' levels of hope and had a positive impact on academic performance measured by semester Grade Point Average (GPA).

Purposes, rationale and predictions

Taking into consideration that no studies to date have examined the impact of a short-term intervention programme to foster hope and in turn improve academic and athletic performance, the purpose of this study was to do so. It was predicted that from pre-test to post-test the intervention group would increase more than the control group on all hope measures (dispositional, state, academic, and athletic), as well as on academic and athletic performance.

The present intervention study was conceived to assist student-athletes use mandatory structured study hours more effectively. Specifically, the intervention focused on fostering student-athletes' hope (pathways and agency) with the purpose of enhancing their academic and athletic performance.

Method

Design overview

To examine the effectiveness of the short-term intervention programme in fostering hope, athletic and academic performance, university varsity athletic team members participating in mandatory structured study during the Spring semester (N=55) were administered measures on the key dependent variables (dispositional and state hope, academic and athletic domain hope, and perceptions of athletic and academic performance). In addition, semester and cumulative GPA information were collected.

A two-group (hope facilitation intervention vs. control) pre- vs. post-test design was employed. Primarily, the pre-test included student-athlete baseline data on hope, perceptions of academic and athletic performance. Between pre-test and post-test the intervention group was exposed to a six-week/12-session intervention to foster hope, while the control group participated in regular structured study and did not have access to the intervention. Post-test measures were the same taken at pre-test. Information on intervention group student-athletes' perception relative to the intervention programme effectiveness was also gathered.

Participants

Using stratified random sampling based on gender, males and females were selected for each group. Participants were drawn from the initial 55 student-athletes in a mandatory structured study at a Division I NCAA-member institution. Intervention and control groups were each composed of 22 student-athletes (nine female, 13 male; 10 female, 12 male, respectively). Participants' age ranged from 18 to 21, with a mean age of 19 years. Ninety-three per cent (41) of the student-athletes were US Citizens, while 47 per cent (3) were foreign student-athletes from Iceland, South Africa and Venezuela. The majority of participating student-athletes were White (25), 14 African-American, three Hispanic, and the remaining two were included in the 'Other' category. Participants represented the following sports: basketball, cross country, golf, soccer, softball, tennis, track and field, baseball, and wrestling. The groups also included cheerleading and dance team members.

Measures

Adult Trait Hope Scale

The Adult Trait Hope Scale (Snyder, Harris, Anderson, Hollerand, Irving, Sigmon, Yoshinobu, Gibb, Langelle & Harney, 1991) is a 12-item measure of hope and includes two subscales: agency and pathways. It comprises eight items, with four additional unscored items (3, 5, 7, and 11) to disguise the nature of the test. Respondents are asked to use an eight-point Likert scale to indicate how false or true each of 12 statements is for him or her (e.g. 'I energetically pursue my goals', 1=definitely false to 8=definitely true). A total hope score is calculated by summing the four pathways and four agency items.

Overall hope scores range from 8 to 64. A series of studies have demonstrated acceptable internal consistency, test-retest reliability and temporal stability for the dispositional hope scale (Snyder *et al.*, 1991; Snyder *et al.*, 2001). The Adult Trait Hope Scale items are internally consistent, with alpha coefficients ranging from .71 to .76 for the agency subscale, .63 to .80 for pathways subscale, and .74 to .84 for the overall scale.

Adult State Hope Scale

The Adult State Hope Scale (Snyder *et al.*, 1996) is a six-item self-report that assesses goal-directed thinking in a given moment. Respondents are asked to use an eight-point Likert scale to indicate how false or true each of six statements is for him or her (e.g. 'at the present time I am energetically pursuing my goals', 1=definitely false to 8=definitely true). Even numbers are agency items while odd-numbered items reflect pathway thinking. The total hope score is obtained by summing all six-item responses. Snyder (2000) has demonstrated the validity and internal consistency reliability of the Adult State Hope Scale. The state hope scale items are internally consistent, with alpha coefficients ranging from .79 to .95 for the agency subscale, .76 to .95 for pathways subscale, and .59 to .93 for the overall scale.

Domain Hope Scale-Revised

McDermott and Snyder (1999) developed a domain specific measure of hope, which the authors suggest could be used instead of the general hope measure to provide more accurate hope scores for each life domain. Snyder, Shorey and Sympson (2003) developed and validated a revised version of the original domain specific measure of hope, named Domain Hope Scale-Revised. This scale comprises nine areas or life domains: academics, family life, leisure activities, physical health, psychological health, romantic relationships, social relationships, religion/ spiritual life, and work. Due to the relevance of the academic and athletic domains in the present study, the existing academic domain hope scale was used. Since no athletic domain specific hope scale was available, Rolo (2003) developed and used one athletic domain hope scale adapted from Snyder, Shorey and Sympson (2003). Both scales (academic and athletic hope) ask respondents to use an eight-point Likert scale to indicate how false or true each of six statements is for him or her (e.g. 'I actively pursue my school work'; 'I actively pursue my athletic preparation'; 1=definitely false to 8=definitely true). Pathways and agency subscale scores are obtained by summing the three odd- and the three even-numbered items, respectively. The total score is obtained by adding the six item responses (range=6 to 48). To the researchers' knowledge no articles to date have been published reporting the use of the domain hope scale or the scale psychometrics.

Athletic performance

Athletic performance was measured by having student-athletes fill out a modified version of the athletic performance report (Coach Evaluation Rating Scale) developed by Curry and Maniar (2003). Student-athletes were asked to rate on an eight-point Likert scale (1=superior to 8=poor) a series of eight questions (e.g. 'When healthy, the actual level of athletic performance achieved by me to date'). Although Curry and Maniar (2003) looked at each of the eight as a separate predictive outcome to assess intervention effectiveness, in the present study, a total score relative to the sum of the eight questions was used as a marker of student-athletes' perceived athletic performance (range=8 to 64).

Academic performance

Academic performance baseline data was collected using student-athletes' academic self-reports, as well as cumulative and semester GPA. Specifically, the student-athletes' academic performance report form was conceived to match the athletic performance report form and included eight questions (e.g. 'The actual level of academic

performance achieved by me to date'). A total score relative to the sum of the eight questions was used as a marker of perceived academic performance (range=8 to 64).

In addition to the measures mentioned above, information relative to student-athletes' perceptions of the intervention content, methods, duration, if and how they benefited from it, as well as suggestions for improving the intervention were also collected and analysed.

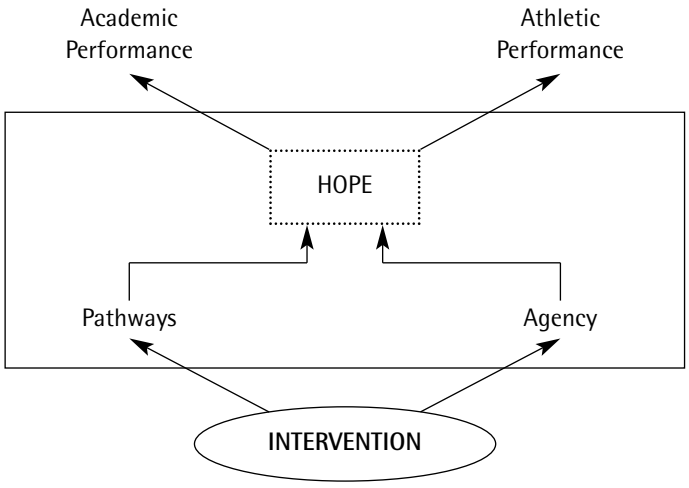
Intervention

The intervention programme called 'First Steps to Athletic and Academic Success' focused on changing student-athletes' perceptions and thought processes relative to hope, in order to assist them change their actions and behaviour. The ultimate goal was to provide tools to assist student-athletes reach their athletic and academic potential. Specifically, the intervention group was exposed to the learning, practicing and monitoring of effective goal setting principles and strategies (as well as other mental and life skills) to foster both pathways and the agency component of hope. Hope was in turn predicted to have a positive impact on academic and athletic performance (see Figure 1).

Duration, organisation and methods

The intervention programme lasted six weeks and was composed of 12 sessions. It included 10 group sessions and 2 individual conferences, with an approximate duration of 60 minutes (Terry, Mayer & Howe, 1998; Manzo, 2003; Jaycox, Reivich, Guillham & Seligman, 1994). Two individual conferences were held with each student-athlete participating in the programme. The first to get to know the student-athletes, and guided by hope theory, assist them develop a comprehensive and specific goal achievement strategic plan, which included setting personal, meaningful, and effective athletic and academic goals. The second focused on re-evaluating, re-adjust or change the goal achievement strategic plans. Intervention programme group size was limited to a maximum of nine student-athletes to facilitate the interaction between participants, and to contribute to the effectiveness of small group activities and respective debriefings (Shatté, Guillham & Reivich, 2000). Throughout the intervention, diverse methodologies were used to facilitate student-athletes' understanding and application of the concepts. These included: group activities, games, discussions, stories, metaphors, quotes, pictures, and worksheets.

Figure 1: Intervention Model.



Content

The intervention focused mainly on cognitive-behavioural interventions, with strong emphases placed upon goal-setting, strategy generation, and modification of negative thoughts and beliefs regarding goal attainment (Curry & Maniar, 2003; Snyder, Ilardi, Cheavens *et al.*, 2000; Shatté, Guillham & Reivich, 2000). The intervention programme content is based upon one main theory: hope (Snyder, 1991) and it was selected with the purpose of: (1) increasing student-athletes' awareness and understanding of hope (pathways and agency), as well as how these constructs influence their behaviours and performance; and (2) assist student-athletes develop the necessary skills to foster hope and in turn improve their athletic and academic performances. Intervention content by session is presented in Table 1, which contains also a reference to the purpose of each activity.

Protocol

Twenty-two student-athletes participated in the intervention programme while 22 were part of the control group. The later group participated in the mandatory academic structured study only and did not have access to the intervention programme sessions. It was emphasised to the intervention group participants that the programme was a process of experiential learning opportunities, which could not be fully acquired by simply conveying the missed content. Therefore, the student-athletes who accepted to participate in the intervention programme were asked to fill out a six-week commitment form. Intervention sessions were scheduled according to student-athletes schedules and preferences and participating student-athletes were asked to keep the content of the intervention programme confidential.

At the end of the 12-session intervention, student-athletes who went through the programme answered a series of questions evaluating the intervention programme content, process, duration, and outcomes. Furthermore, each participant received a certificate of successful completion of the 'First Steps to Athletic and Academic Success' programme.

Procedures

A meeting was held with the University Director of Intercollegiate Athletics, the Associate Director of Athletics for Student Welfare and the Academic Enhancement Programme Director, in which the characteristics of the intervention study and the benefits to the student athletes were explained. As a result, full support was obtained and a letter of agreement to conduct the intervention study was produced and signed.

At the beginning of the semester, after receiving approval by the University IRB, the researcher participated in a meeting conducted by the Academic Enhancement Programme Director. During this meeting, mandatory structured study procedures, rules, and regulations were explained to all student-athletes and the 'First Steps to Athletic and Academic Success' intervention programme was introduced. Study purposes and participation criteria were explained and confidentiality was assured. After conveying the voluntary nature as well as the random selection of potential intervention programme participants, written consent forms were distributed and baseline data was collected. The initial survey completion lasted 15 minutes. Student-athletes provided also information about days/times they would be at study hall and available to participate in the intervention programme. Student-athletes were informed that these two hours would count towards the weekly eight hours of mandatory study time requirement.

At the end of the study, a final report summary of the results as well as a thank you note was given to the student-athletes, coaches and staff involved in the study. Additionally, each student-athlete (intervention and control group) received a clean copy of the *First Steps to Athletic and Academic Success* workbook.

Table 1: Intervention content, activities and purposes.

Session No.	Content and Activities	Purposes
1	Introduce programme purpose, content and methods. Request student-athletes to keep programme content confidential until the end of the six-week period. a. 'Toss a goal' activity. b. Goal Setting 'Maize' activity. c. 'Soccer ball' activity. d. Goal setting principles, SMART goals and common problems in goal-setting.	a, b, c & d. Illustrate goal setting importance and introduce effective goal-setting principles. c. Positive goals & positive thinking/thought replacement.
2	a. Perception of control game. b. Goal setting group activity (Puzzle). c. Power 4 W Success System. (wish, wants, ways and will) d. 'Sand' activity.	a. Perceived control and awareness of possibilities: control over what they chose to focus on (obstacle or solution). b. Goal-setting principles; using available resources; asking for help. c. Introduce 4Power W Success System. d. Time management.
3	a. Power 4 W Success System (quotes, metaphors, written exercises: 'Dan's story'). b. Self Power 4 W Success System for academics and athletics.	a. Power 4 W Success System review and written exercises (practice). b. Apply the Power 4 W Success System to themselves; discuss how each component influences each other, and performance.
4	a. GPA calculation worksheet. b. Academic Strategic Plan. c. Athletic Strategic Plan. Schedule Individual Conferences and remind student-athletes to bring their Strategic Plans next session.	a. Calculate academic semester GPA goal. b. & c. Fill out the academic and athletic strategic plans.
5	Individual Conference.	Get to know reason why student came to the university and why he/she is in study hall. Discuss academic and athletic strategic plans.
6	a. 'Car' Metaphor. b. 'Control Circles' exercise. c. 'Backpack with rocks' Metaphor. d. 'Wall' Metaphor and Quotes.	a. Increase awareness of having direct control over thoughts and behaviours, and indirect control over emotions and physiology. b. Focus on things that are under our control. c. Organisation; prioritising; avoid procrastination; asking for help. d. 4 Power Ws (wish, want, will, and ways).
7	a. 'To Do List'. b. Fill out semester planner (tests, deadlines, competition, etc.). c. Fill out weekly schedule (classes, practice, competition, and study hall).	a. Time management/goal-setting. b & c. Time management. c & d. Goal-setting. e. Explain the benefits of temporary explanations for failure and permanent for success (foster agency).

Session No.	Content and Activities	Purposes
	d. Weekly academic and athletic goal setting worksheet. e. Exercises on explanatory style (permanent/temporary).	
8	a. 'Being in the Moment' exercise b. 'Brain conflict strategy' activity c. 'Concentration grid' activity (while playing distracting tape, and without tape playing).	a. Direct control over the present (not past or future). b & c. Focus, block out distractions or find quiet environment.
9	a. Previous week academic and athletic goal-setting evaluation. b. Weekly academic and athletic goal-setting. c. Exercises on explanatory style (global/specific; internal/external).	a. Goal-setting monitoring. b. Effective goal-setting. c. Explain the benefits of permanent, global, and internal, explanations for success, and temporary, specific, and external for failure (foster agency).
10	a. 4 Power W Success System exercise. b. 'Major goal of the week' exercise. Schedule Individual Conferences and remind student-athletes to bring their Strategic Plans.	a. Remember successful experiences: how they overcame obstacles (ways) and what motivated them (agency). b. 4 Power Ws and Use study hall time wisely.
11	Individual Conference.	Evaluate/readjust academic and athletic strategic plans. Verify programme workbook and classes' notebook organisation.
12	a. Previous week academic and athletic goal-setting evaluation. b. Weekly academic and athletic goal-setting. Review of the programme. Fill out hope questionnaires, academic and athletic report forms. Fill out the programme evaluation form. c. Goal-setting closing game.	a. Goal-setting monitoring. b. Effective goal-setting. Programme review and evaluation. c. Goal setting (three types of goals: safety goal, realistic/challenging goal, barrier braking goal).

Results

The results presented here assess the effectiveness of the short-term intervention programme in fostering hope, athletic and academic performance in university student-athletes participating in mandatory structured study. Using the data collected on all forty-four student-athletes who participated in the study, descriptive statistics and alpha reliability coefficients were calculated for each of the hope scales (dispositional, state , academic, and athletic) and for the academic and athletic performance report forms (see Tables 2 and 3).

Repeated measures ANOVA were conducted to determine if there were any differences on hope and performance between the groups (intervention and control) and over time (pre- to post-intervention). Specifically, six repeated measures ANOVAs were conducted with group and time used as independent variables (Within: Time 1, Time 2 and Between: Intervention and Control Groups) for each dependent measure used in the present study: dispositional hope, state hope, athletic hope, academic hope, athletic performance and academic performance. These results are presented here.

State Hope

Repeated measures ANOVA results showed a significant Time (pre-post intervention) by Group (intervention and control) interaction effect $F(1,42)=7.20$, $p=.01$, revealing a significant increase in intervention group student-athletes' state hope scores at Time 2, after taking part in the six-week hope building programme. Specifically, Time 2 state hope mean (M=40.0) was significantly greater than the Time 1 state hope mean (M=37.1). Furthermore, intervention group state hope scores at Time 2 (M=41.5, SD=4.5) were significantly greater than the state hope scores obtained at Time 1 (M=36.3, SD=6.9).

Table 2: Dispositional Hope, State Hope, Athletic Hope and Academic Hope descriptive statistics and reliabilities.

	N		*M*		*SD*		*SK*		*KU*		*a*		
Assessment Time	1	2	1	2	1	2	1	2	1	2	1	2	Range
Dispositional Hope total													8-64
Intervention Group	22	22	49.18	54.27	5.65	5.14	-.29	-.86	-.35	.75	.80	.83	
Control Group	22	22	49.09	51.23	9.29	5.30	-1.95	.13	6.04	-.52	.92	.74	
Total Sample	44	44	49.14	52.75	7.60	5.38	-1.72	-.32	6.20	-.56	.89	.80	
State Hope total													6-48
Intervention Group	22	22	36.27	41.50	6.87	4.50	.17	-1.57	-1.03	2.38	.92	.91	
Control Group	22	22	38.00	38.55	6.58	5.55	-.22	-.01	-.95	-1.45	.88	.87	
Total Sample	44	44	37.14	40.02	6.71	5.21	-.029	-.64	-1.08	-.81	.90	.89	
Athletic Hope total													6-48
Intervention Group	22	22	41.73	42.68	3.67	6.84	.41	-3.08	-.94	11.48	.80	.93	
Control Group	21	22	40.52	41.91	8.10	3.99	-2.80	.16	10.35	-1.34	.95	.83	
Total Sample	43	44	41.14	42.30	6.19	5.55	-3.00	-2.55	14.73	10.77	.92	.91	
Academic Hope total													6-48
Intervention Group	22	22	37.27	40.68	6.48	5.30	-.44	-1.26	-.66	1.91	.91	.90	
Control Group	22	22	37.14	38.82	8.86	4.77	-1.77	-.76	4.58	-.58	.96	.83	
Total Sample	44	44	37.20	39.75	7.67	5.07	-1.40	-.91	3.48	.37	.94	.87	

** $p<.01$ level (2-tailed). * $p=.01$ level (2-tailed).

Table 3: Student-athletes' perceptions of Athletic and Academic Performance descriptive statistics and reliabilities.

	N		*M*		*SD*		*SK*		*KU*		*a*		
Assessment Time	1	2	1	2	1	2	1	2	1	2	1	2	Range
Athletic Performance													8-64
Intervention Group	22	22	45.91	50.95	8.15	8.73	.24	-.63	-.18	-.09	.91	.92	
Control Group	22	21	46.77	48.00	9.83	8.25	.06	-.11	-1.2	-.09	.94	.91	
Total Sample	44	43	46.34	49.51	8.93	8.53	.15	-.34	-.85	-.40	.93	.92	
Academic Performance													8-64
Intervention Group	22	22	38.41	43.27	5.96	8.89	.20	-.55	.21	-.07	.81	.92	
Control Group	22	22	38.77	41.41	11.66	10.50	.11	.14	-.48	-1.37	.95	.95	
Total Sample	44	44	38.59	42.34	9.15	9.66	.17	-.17	.40	-1.00	.92	.94	

** $p<.01$ level (2-tailed). * $p=.01$ level (2-tailed).

Table 4: Repeated measures ANOVA using State Hope total as the dependent variable.

Source	*SS*	*df*	*MS*	*F*	η^2	ϕ
Between Subjects						
Group	8.28	1	8.28	.15	.00	.06
Error	2271.66	42	54.08			
Within Subjects						
Time	183.28	1	183.28	10.94**	.21	.90
Time by Group	120.56	1	120.56	7.20*	.15	.75
Error	703.66	42	16.75			

** $p<.01$ level (2-tailed). * $p=.01$ level (2-tailed).

The significant increase in intervention group student-athletes' state hope scores between pre- and post-intervention may have been due to the fact that although the intervention programme focused on developing athletic and academic hope, hope related thinking as applied to other life domains such as work or personal relationships may have also increased. The development of hope related thinking is illustrated in the following student-athletes' quotes: 'I learned a lot about goal setting, organising and prioritising my time, ways to achieve goals and overcome obstacles in my way'; 'helped me become a person with discipline in life'; 'I can use these in my life to become a better person and perform better'.

Dispositional, Athletic and Academic Hope

Repeated measures ANOVA results revealed that the intervention programme participants did not differ significantly from the control group participants (at Time 1 and Time 2) on any of the other dependent variables examined in this study: dispositional hope, athletic hope, academic hope, athletic performance and academic performance. Although most scores improved from pre- to post-intervention, especially for the intervention group, no statistical significant differences were found between the two groups. There was a significant time effect for all key measures in the study (except for athletic hope), but no significant differences were found in the overall means for the interven-

tion and control groups. Likewise, the group by time interaction was not significant. Specifically, repeated measures ANOVA results using the dispositional hope scores as the dependent variable indicated a significant time main effect $F(1,42)=2.50$, $p<.001$. That is, when the intervention and the control groups were combined, the overall means at Time 1 (37.1) and Time 2 (40.0) were significantly different. When comparing the dispositional hope scores obtained in the present study with the ones obtained by Snyder *et al.* (2002), pre-scores for both groups (intervention and control respectively, $M=49.2$; $M=49.1$) were considered to be at moderate levels. Dispositional hope post-scores for the control group ($M=51.2$) were considered moderate, whereas post-scores for the intervention group ($M=54.3$) tended to approach Snyder *et al.* (2003) high-hope mean score of reference ($M=58.8$). Moreover, the intervention group post-intervention dispositional hope mean score was just slightly below the dispositional hope mean score obtained in Gould *et al.*'s (2002) study for US Olympic athletes ($M=55.9$, $SD=3.48$). Therefore, it appears that intervention group's dispositional hope level at Time 2 was relatively high.

The results of the repeated measures ANOVA conducted with athletic hope scores as the dependent variable revealed that the time and group main effects as well as the interaction effect were not significant. A factor that may help explain the intervention and the control groups not showing a significant increase on the athletic hope scores, is the fact that their mean score was already relatively high (41.7 and 40.5 out of 48, respectively) at the outset of the study. Additionally, the fact that throughout the intervention programme the majority of the intervention group student-athletes appeared to focus more on the academic domain (area they needed to improve to maintain their athletic eligibility and to be released from study hall) may also help explain not finding significant differences.

Repeated measures ANOVA results using the academic hope scores as the dependent variable showed a significant time main effect $F(1,42)=4.94$, $p<.05$, with overall means at Time 1 (37.2) and Time 2 (39.8) being significantly different.

Athletic and academic performance

A Repeated Measures ANOVA was conducted with athletic performance as the dependent variable indicated a significant time main effect $F(1,41)=7.11$, $p<.01$. When the intervention and the control group scores were combined, the overall means at Time 1 (46.3) and Time 2 (49.5) were significantly different. The repeated measures ANOVA conducted with academic performance as the dependent variable showed a significant time main effect $F(1,42)=7.71$, $p<.01$. The overall means at Time 1 (37.1) and Time 2 (40.0) were significantly different. For all the repeated measures ANOVA, conducted in this study there was no significant difference in the overall means for the intervention and control groups (except for state hope). Likewise, the group by time interaction was not significant.

Hope and Academic performance

To examine the relationships among hope and performance, Pearson correlation coefficients were calculated using the total sample. Results revealed that the hope measures (dispositional, state and academic) were significantly and positively related with GPA. However, only state hope ($r_{42}=.47$, $p<.01$, $r_{42}=.39$, $p<.05$), and academic hope ($r_{42}=.34$, $p<.05$, $r_{42}=.35$, $p<.05$) were significantly related respectively with cumulative and semester GPA.

A one-way ANOVA conducted with semester GPA as a dependent variable and the dispositional hope groups (high, medium and low) as the independent variable did not show significant differences between the groups. However, significant differences were found when a one-way ANOVA was conducted with academic hope (low, medium, and high) as the independent variable and the dependent variable being

semester GPA. Results indicated that the high and low hope groups significantly differed on semester GPA scores $F(2,37)=1.6$, $p<.01$, $h^2=21$. Specifically, semester GPA means for high-hope (M=55.4) student-athletes was 2.5, while for the low-hope group (M=41.5) was 1.94. It is interesting to note that student-athletes with high academic hope had semester and cumulative GPA mean scores of 2.5, the minimum required for student-athletes to be released from mandatory structured study. Based on the previous results, it seems that academic hope scores may be a useful indicator of how well student-athletes are doing academically (and vice versa). This finding is consistent with Snyder *et al.* (1999; Curry *et al.*, 1997; Snyder *et al.*, 2002) in which hope correlated highly with superior academic performances.

Overtime the intervention group did improve on academic hope and perceptions of academic performance, but so did the control group. Some of these results may be due to the fact that throughout the intervention programme, 10 control group students-athletes participated in mandatory weekly meetings with the structured study graduate assistants. These control group student-athletes received a great deal of personal attention, tools and support, which may have contributed to foster their academic hope levels and their perceptions of academic performance. This parallel intervention going on at the same time the intervention programme was taking place, may in part explain not finding significant differences on academic hope and perceptions of academic performance between the intervention (confounding variable) and control group.

Intervention programme evaluation

Considering that student-athletes are by nature very active, the methodologies (e.g. activities, games and metaphors) used in the intervention programme were considered to be very effective. It appeared that they learned better by participating in the activities and taking part in the debriefings, rather than just listening to the programme instructor explain the hope related key concepts. Furthermore, the individualised nature of the programme contributed to the effectiveness of the intervention programme. It allowed the instructor and the student-athlete to get to know each other better, and helped student-athletes improve their strategic plans. The weekly goal setting also made it more meaningful as it directed the programme towards student-athletes individual needs.

Information regarding student-athletes perceptions of the intervention programme content, methods and effectiveness indicated that the majority of the student-athletes rated the time management activities, as well as the goal setting activities (e.g. weekly goal setting, and strategic plans) as being the most beneficial. Curry and Maniar (2003) found similar results. Specifically, the authors found that for course-taking student-athletes who perceived positive behaviour change on their approach to performance, goal-setting assignments/ interventions were the ones they mentioned the most. This fact may guide the development of future interventions aimed at fostering hope, which should definitely include a major goal setting related component. Other factors such as the student-athletes received considerable attention from the programme instructor, may have also contributed to the results found in the present study. As illustrated by student-athletes' written programme evaluation, they perceived that the programme instructor really cared about them, which may have had a positive impact on the results obtained. This is similar to Curry *et al.* (2003) belief his programme implementation could not be solely attributed to the programme content and methods, as these were also greatly influenced by the characteristics of the person that delivers it.

Overall, the results of the present study suggest that the six-week intervention programme was successful in fostering state hope. However, there were no statistically significant improvements on dispositional,

academic and athletic hope, as well as on perceptions of athletic and academic performance.

Study strengths and limitations

The study strengths include stratified random assignment of participants to groups from the available pool of student-athletes participating in mandatory structured study, as well as the use of a control group (often non existent in intervention studies of this nature). To the knowledge of the researchers, the present study was the first to use specific domain (academic and athletic) measures of hope, with results revealing that hope may significantly vary across domains.

The researchers' knowledge of the context as well as the trust built over the years working with the student-athletes, athletic and academic staff was a major factor contributing to the success of this intervention. The student-athletes were highly involved and considered the programme to have helped foster their academic and athletic performances. Specifically, the student-athletes mentioned that little changes they made in their daily routine, as the result of their participation in the programme made them manage their time more efficiently helped them set and achieve goals, and made them change some habits (e.g. being more disciplined, eating properly). These in turn allowed them to get more rest and be more energised to study, practice and compete.

There are also several limitations of the present study. First, athletic and academic performance measures used in this study were based on perceptions of performance and not based on actual performance behaviours statistics. However, this was the best option available at the time to measure performance across different sports. As Curry and Maniar (2003) also recommend, the results obtained by using such athletic performance measures should be interpreted with caution because they are not markers of behaviours, but rather opinions based on perceptions of behaviour. The fact that several sports were included is also considered a limitation. Because not all sports were in season, performance measures did not have the same meaning across sports. Having injured athletes in the sample may also have affected the study results, as they were not able to perform.

Another limitation of the present study was the fact that two Academic Enhancement Programme graduate assistants had weekly individual meetings with ten control group student-athletes. This parallel intervention going on at the same time the intervention programme was taking place, may in part explain not finding significant differences between the intervention and control group on the academic variables. Although the present study found that the intervention programme had a positive impact on state hope, cause-effect relationship cannot be verified. Caution, then, must be made in generalising the findings.

Practical implications and future research directions

The present study attempts to contribute to advancing the field in this area, by providing insight on how hope may differ within the same individuals across domains, and how these relate to performance. No studies to date have simultaneously used a general hope questionnaire as well as domain specific (academic and athletic) hope questionnaires. Specifically, it was found that although student-athletes had moderate state hope and moderate academic hope scores at baseline, athletic hope scores were high. If the researcher had only used the state hope measure, these differences in academic and athletic hope would not have been found. It appears that both measures provide meaningful information to assist practitioners define areas for intervention.

Practically, this intervention study assisted student-athletes develop skills to foster hope. Furthermore, the fact that student-athletes with high academic hope had significantly higher semester GPA (2.5) as compared to the student athletes low on

academic hope (semester GPA <2.0) illustrates the usefulness of fostering academic hope. The results obtained in the present study suggest that individual differences in hope scores may help counsellors and coaches identify student-athletes who are at risk of having low performances, which in turn may lead to dropping out of school or sport (Curry & Snyder, 2000). Intervention programmes implemented to foster student-athletes hope are greatly recommended as they may contribute to enhance performance as well as increase sport and academic adherence. Future studies should empirically explore this relationship.

In order to improve the quality of field research related to athletic performance, there is a need to develop objective markers of performance across sports. It is also recommended to examine the relationship between these makers and hope. Although this study attempted to explore the relationship between hope and performance across sports, more research is needed to further explore this relationship with more accurate measures of performance.

In designing the present study, a model (see Figure 1) was developed to guide the intervention programme. The study results suggest that there may be a reciprocal relationship between performance and hope. Specifically, hope seems to simultaneously influence performance and be influenced by performance levels. Based on these results, the model should be revised and tested in the future.

Furthermore, if hope can be enhanced through an intervention (as preliminary findings tend to indicate), then it is necessary to continue examining what modalities are the most effective in initiating this change. Cognitive-behavioural interventions, with strong emphases placed upon goal-setting, strategy generation, and modification of negative beliefs regarding goal attainment have been well suited to generating hope (Snyder *et al.*, 2000; Curry & Maniar 2003). Therefore, these strategies are greatly recommended. Moreover, to contribute to develop more adapted intervention programmes and increase the probability of having positive results, the programme instructor should have good understanding of the context, rules and group dynamics. Additionally, to maximise the intervention effectiveness it is recommended to identify and work with low-hope clients. The development of interventions to raise their levels of hopeful thinking may enhance their performance and foster their well-being and adherence.

The authors trust that this intervention study will inspire coaches to develop, implement and evaluate similar programmes in the future. As a result of the 'First Steps for Academic Success' intervention programme success, while working with university student-athletes in the US, the programme was later adapted and implemented in Portugal. For two consecutive years the programme named 'Academic Success' was conducted in a high-school setting with significant positive impact on students' academic performance and well-being. As a result, two academic success handbooks (student manual and instructor guide) are currently being written for the Portuguese Ministry of Education.

Conclusions

The purpose of the present study was to examine the effectiveness of a short-term intervention programme in fostering hope, athletic and academic performance in US university student-athletes participating in mandatory structured study. Although more research is needed to further explore this study's findings, the researchers consider it important to emphasise that the short-term (six-week/12-sessions) intervention programme was effective in fostering student-athletes' state hope. Furthermore, although in this study statistically significant differences were not found relative to student-athletes performance, qualitative results revealed that the programme had a positive impact on student-athletes behaviours. According to student-athletes written feed-

back, the intervention contributed to facilitate their performances and fostered their well-being.

Student-athletes mentioned that, what they gained by being in the programme can be applied not only in academics and athletics, but also in other life domains. This is consistent with Snyder *et al.* (2002) when the authors say that fostering hopeful thinking has the potential to improve student-athletes' goal pursuits in all domains of their lives. These results provided evidence that supports existing research in general psychology (Snyder *et al.*, 1999; Snyder *et al.*, 2002) and sport psychology literature (Curry *et al.*, 1997; Curry & Maniar, 2003), in which intervention programmes successfully developed hope, increased performance and well-being in different contexts.

Measuring hopeful thinking can be a great tool for coaches, support staff and counsellors working with student-athletes, to identify individuals who are low in hope and whom may benefit from special assistance. The development, implementation and evaluation of programmes to develop hope are necessary as they may have a positive impact on performance, well-being and adherence.

While the intervention and research described here focuses on the student-athletes, we trust that readers can adapt the methodologies and techniques presented in this study and use them to coach executives or other high performers. Assessing and developing hopeful thinking is a great tool for coaching in general, as it may contribute to clients improved performance and well-being, the most often desired outcomes.

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Enhancing goal self-concordance through coaching

Daniel Burke & P. Alex Linley

Objectives: *Research shows that self-concordant goals are more readily pursued, better achieved, and their attainment can lead to increases in well-being. This study assesses whether executive coaching in turn affects self-concordance.*

Design: *We hypothesised that the heightened awareness produced by coaching leads to changes in self-concordance (type of motivation) and commitment (a measure of the amount of motivation). A single group design with repeated measures was used.*

Method: *26 participants – all senior managers in business – identified three goals and then received a one-to-one coaching session focused on one goal, but received no coaching on the remaining goals.*

Results: *The hypothesis was supported, with significant changes (increases) in self-concordance and commitment for the coached goal. There were also significant increases in self-concordance and commitment for some of the other non-coached goals.*

Conclusion: *These results are discussed with reference to the goal attainment and coaching literature, and suggestions made for further research.*

POSITIVE PSYCHOLOGY (SELIGMAN, 1999), aims to apply rigorous psychological science to the study of optimal functioning and positive characteristic in individuals and organisations – as opposed to dysfunction and pathology. Since its inception, research into positive psychology has grown rapidly with the publication of hundreds of research papers, journal special issues, and books dedicated to the topic (Linley, Joseph, Harrington & Wood, 2006). Like positive psychology, coaching is also an area enjoying rapid growth. Yet this is occurring without any substantial research basis – at least to date. This project was designed to provide one small step towards an understanding of the processes through which coaching may be effective.

Coaching may be defined as 'a solution-focused, result-oriented systematic process in which the coach facilitates the enhancement of work performance and the self-directed learning and personal growth of the coachee' (Grant, 2001). Kauffman and Scoular (2004) reviewed coaching from a positive psychology perspective and found that many coaching methods could be traced to underlying psychological theory, (e.g. behavioural approaches, cognitive behavioural therapy, brief solution-focused therapy, etc.), but that despite the popularity and rapid growth of coaching, there was very little evidence of its efficacy. Grant (2001) examined peer-reviewed journals in psychology and found 1435 citations to coaching, but of these only 17 represented actual scientific studies of adult coaching, and many of these 17 were single-participant studies.

While evidence is beginning to emerge that coaching is effective (e.g. Green, Oades & Grant, 2006; Spence & Grant, in press), less is known about the mechanisms or processes through which coaching may have its effects. The possible link between self-concordance and coaching has been postulated (Linley, 2004) but has to date not been empirically tested. When people change their goals, they typically do so towards goals which are more self-concordant, and consequently experience increases in well-being and goal attainment (Sheldon, Arndt & Houser-Marko, 2003). Joseph and Linley (2004, pp.356–357) suggested that this evidence is part of a growing body of evidence for the actualising

tendency, and for the organismic valuing process (OVP) (Rogers, 1964). The actualising tendency implies that people can be trusted to know their own best directions in life, and the OVP refers to people's innate ability to know what is important to them and what is essential for a fulfilling life. From these premises, people are considered to be acting self-concordantly when they are pursuing the directions in life that are right and fulfilling for them. On the basis of the goal change literature (e.g. Sheldon *et al.*, 2003; Sheldon & Kasser, 1995), we hypothesised that one of the directions through which coaching may be effective is by enhancing intrinsic motivation and enabling people to follow more self-concordant goals.

The *Self-Concordance Model* of healthy goal striving and internalised motivation (Sheldon & Elliot, 1999) describes self-concordant goals as those that are 'consistent with our developing interests and core values'. The self-concordance model posits that when pursuing self-concordant goals, success is achieved through the greater sustained effort put into achieving them, and the greater well-being which follows when we achieve them (enabled by the satisfaction of basic needs for autonomy, competence, and relatedness). In a series of studies, Sheldon and Elliot (1999) showed that their model provided a satisfactory fit to three longitudinal data sets and was independent of the effects of self-efficacy, implementation intentions, avoidance framing, and life skills. Hence, the self-concordance model would suggest that the more self-concordant a goal is, the more readily it will be pursued and achieved, and the more well-being will be experienced as a result. Given these apparent beneficial effects of (greater) self-concordance, and since coaching is commonly applied to assist individuals in working towards and achieving their goals, the question arises as to how coaching might affect self-concordance.

Sheldon and Elliot (1999) concluded in their studies of self-concordance: '… along with Rogers (1961), we believe that individuals have innate developmental trends and propensities that may be given voice by an organismic valuing process occurring within them. This voice can be very difficult to hear, but the current research suggests that the ability to hear it is of crucial importance for the pusuit of happiness' (p.495). In other words, if people can be helped to hear their inner voice, they will be better able to make more concordant goal choices, or to increase their degree of concordance for existing choices – with the beneficial consequences alluded to above. A primary focus of this study is to ask whether coaching might lead to changes in self-concordance through allowing this inner voice to be heard.

This study brings together the recent positive psychology approaches noted above, and coaching. The specific one-to-one coaching approach used was the **GROW** model (Whitmore, 2002), in which the first author has extensive experience. This approach assumes the existence of an actualising tendency that the coach calls forth. Whitmore (2002) suggests that 'we are like an acorn, which contains within it all the potential to be a magnificent oak tree. We need nourishment, encouragement, and the light to reach toward, but the oaktreeness is already within' (p.9). This fundamental assumption of the GROW model is consistent with the central premises of the self-concordance model and the actualising tendency view of human nature.

Within the context of an overall objective to raise awareness and reponsibility in the mind of a coachee, GROW is an acronym for the stages of the process: setting a clear **G**oal for the session; considering the current **R**eality; considering the **O**ptions thoroughly; and identifying what the coachee **W**ill do. This process, which is also characterised by following the interest of the coachee (and so allowing the inner voice to be heard), is intended to lead to a heightened level of awareness about the goals and their meaning and importance to the coachee, and specific actions to pursue them. This heightened awareness may lead to goals being changed or abandoned.

This study focuses on the extent to which coaching changes certain aspects of motivation: our hypothesis is that the heightened awareness produced by coaching (using GROW) will result in changes in self-concordance (type of motivation). In addition, given the nature of the GROW process, it is expected that there will also be changes in commitment (a measure of the amount of motivation). The study covers new ground in examining the effects of coaching on self-concordance. Drawing together these two promising new fields of research – self-concordance and coaching – may enable more options in the coach's repertoire.

We hypothesised that there would be a significant change (either positive or negative) in self-concordance measures and commitment measures in the coaching condition. A positive change would be indicative of increases in self-concordance and commitment (becoming more intrinsically engaged with a goal) and a negative change would be indicative of decreases in self-concordance and commitment (ultimately to the point of withdrawing from the goal). The direction of this change was not considered fundamental to the current research question, because our focus was on the change itself (i.e. shifts in self-concordance and commitment facilitated by coaching), rather than the use of coaching to increase self-concordance.

We did not specify directional hypotheses for the non-coached goals, because there were two equally plausible scenarios that we wished to test. First, the non-coached goals may not show any significant shifts in self-concordance and commitment, thus demonstrating the specific efficacy of coaching intervention. Second, the non-coached goals may show significant shifts in self-concordance and commitment, through the 'spillover' or practice effects of participants applying the coaching lessons from the coached goal to other goals in their lives.

Method

Participants

Participants were a convenience sample drawn from the business and personal network of the first author. Twenty-six individuals took part, all graduates or postgraduates, and all were senior managers in organisations of varying sizes. There were nine males and 17 females, with an age range of 27 to 84 years, with a mean age of 47.9 years for males and 39.3 years for females. (The 84-year-old was a male retired Chief Executive still with a number of active interests; the next oldest participant was aged 58 years.) Participants did not receive any incentive for participation other than contributing to research and gaining a one-to-one coaching session free of charge.

Measures

Self-concordance was measured using the *Perceived Locus of Causality* (PLOC) (Sheldon & Elliot, 1999, following Ryan & Connell, 1989). This enabled participants to rate (using a seven-point scale anchored by 1='not at all' and 7='extremely') their reasons for pursuing each goal in terms of each of four reasons: external, introjected, identified, and intrinsic. The external reason was *'because somebody else wants you to or because the situation demands it'*. The introjected reason was *'because you would feel ashamed, guilty, or anxious if you didn't'*. The identified reason was *'because you really believe it's an important goal to have'*. The intrinsic reason was *'because of the fun and enjoyment that it provides you'*. Following Sheldon and Elliot (1999), a composite self-concordance variable was created by summing the identified and intrinsic scores, and subtracting the introjected and external scores.

Alignment with Personal Values was assessed using the same seven-point scale with the question *'To what extent do you think this goal reflects your personal values?'*. This measure was included to give an additional perspective on self-concordance.

Commitment was assessed using the seven-point scale with the question *'How committed are you to this goal?'*.

Design

A single group pre-post design with repeated measures was used. The independent variable was the coaching condition which had two levels (A: one-to-one coaching, B: no-coaching). Participants identified three goals and then received a single one-to-one coaching session focused on one of the goals selected at random (condition A); but received no coaching on the other two goals (condition B). There was no specific intervention in respect of the two non-coached goals (apart from the fact that they belong to the same participant who was coached on the other goal). This raised the possibility of some spillover (or practice) effect onto the non-coached goals, which formed the focus of our second research question. All coaching sessions were conducted by the first author, who is a senior qualified coach.

Three dependent variables were measured before and immediately after the coaching session, for all three goals (i.e. for both conditions A & B): type of motivation (or *self-concordance*), *alignment with personal values*, and *commitment*.

Procedure

Preliminary testing. A trial run of the study with draft questionnaires was conducted by the first author, with a trained counsellor as a participant. This led to a number of refinements to the documentation and procedure. In particular, the number of goals was reduced from four to three, so that the coaching would be focused on one goal only (rather than two). This new format had the dual advantage of reducing the time spent on form filling for the participants, and also making the coaching process more realistic. In (real life) practice, coaching sessions are usually focused on a single goal.

Preparation for coaching (participants). Participants were invited by a standardised e-mail to take part in a study designed to examine the way in which executive coaching affects various aspects of motivation. The invitation offered a free one-to-one coaching session with a professional business coach, and also explained that the study would involve participants in setting goals, receiving coaching on one of them, and answering a few questions in connection with the goals at the session and on three occasions afterwards.

For the purposes of the study, a goal was described as being *'Something you think about, plan for, carry out, and sometimes (though not always) complete or succeed at'* (Little, 1993). The guidance note also explained that the goals selected should be not long-term or major life-changing endeavours, but *'the sort of thing you would normally expect to work towards over a period of two months or so'*. The guidance also contained examples of the sorts of goal that people might choose, and space to make an initial brainstorm list of possible goals. Participants were instructed to then select the goals that were most important to them, and for which they would potentially like to receive a coaching session. The coach then reviewed these goals to ensure that as far as possible they met the criteria for the study. This included a check to ensure that the goals were not simply restatements of each other.

The participant selected one of their three goals at random by selecting one of three folded Post-It notes on which were written (and hidden by the folding) the three numbers 1, 2, and 3 respectively, relating to their three goals. The coaching session followed, using the GROW model as a structure for the coaching, that is, employing a sensitive, considerate and client-centred ethos and checking with the participant on a couple of occasions that they were comfortable with the process and procedure so far, and that they were happy to continue.

The actual coaching sessions (all on a one-to-one basis) took place in a variety of locations including the offices of the participants, the office of the coach, and the homes of the participants. In all cases, the environment was appropriate for a confidential coaching discussion.

Ethical considerations. From an early stage of the study design, due consideration was

given to the relevant ethical considerations, and in particular the need to minimise the potential risk inherent in coaching, namely that depending on the nature of the goal, thinking and talking about a goal might lead to distress. For example, the coaching might lead to a realisation that the motivation for, perceived ability for, or opportunity to pursue, a particular goal is low, which might lead to the goal being abandoned, possibly resulting in distress. (On the other hand, such realisations might also, depending on the goal, lead to relief and gratitude in the participant.) Accordingly, suitable guidance to ensure that as far as possible only suitable goals were chosen was provided. All of the relevant ethical guidelines per the British Psychological Society were observed appropriately. This included participants being asked for, and giving, their fully informed consent to be involved in the study.

Results

Does coaching influence self-concordance?

Table 1 shows the summary statistics for participants both before and after the coaching intervention, and also for the difference score ('after' minus 'before'), for each of goals 1, 2, and 3. For goal 1, the goal for which the participant received coaching, the mean scores for self-concordance, alignment with personal values, and commitment, all showed an increase following the coaching intervention. The same pattern emerged for goal 2 and goal 3. Of further note is that the difference scores for goal 1 (the coached goal) are greater than those for goals 2 and 3 (the non-coached goals).

Using a series of Wilcoxon Signed Rank Tests we examined the statistical significance of these differences. This conservative approach (rather than *t*-tests) was followed since scrutiny of the data suggested they did not fully meet the criteria required to use parametric tests. For *self-concordance* scores as measured before and after the coaching intervention: for goal 1, there was a significant increase ($Z=-2.38$, $p<0.05$, two-tailed test); for goal 2, there was also a significant increase ($Z=-2.27$, $p<0.05$, two-tailed test); but for goal 3, the increase was not significant at the five per cent level ($Z=-0.31$, $p>0.05$, two-tailed test).

For *alignment with personal values* scores as measured before and after the coaching intervention: for goal 1, there was a significant increase ($Z=-2.65$, $p<0.01$, two-tailed test); for goal 3, there was also a significant increase ($Z=-2.14$, $p<0.05$, two-tailed test); but for goal 2, the increase was not significant at the five per cent level ($Z=-1.79$, $p>0.05$, two-tailed test).

For *commitment* scores as measured before and after the coaching intervention: for goal 1, there was a significant increase ($Z=-3.58$, $p<0.001$, two-tailed test); for goal 2, there was also a significant increase ($Z=-2.01$, $p<0.05$, two-tailed test); but for goal 3, the increase was not significant at the five per cent level ($Z=-1.80$, $p>0.05$, two-tailed test).

Does coaching influence self-concordance? Qualitative responses

Participants provided comments as to why they thought their self-concordance scores had changed after coaching. The following qualitative comments provide insights into how coaching served to influence self-concordance: *'I now 'own' the goal – note change of description. I'm choosing it, before I felt it was something worthwhile to do*'; *'I have realised that it [achieving the goal] would make me happier, rather than be a chore – it really will help*'; and *'I am now excited about this goal and realise how much fun it is going to be to do.'* However, as we had expected, not all shifts in self-concordance were in a positive direction. One person noted that they *'Realised the goal was wrong. Not about doing it more, but about doing it better and as natural part of my work.'*

Correlations between measures

In order to assess whether the effects for the dependent variables were simply a reflection of the variables measuring the same underlying construct, we conducted Pearson's correlations. For measures taken *before* the coaching intervention, self-concordance

Table 1: Self-assessment scores for participants both before and after the coaching intervention.

	Condition A – Chosen Goal Condition			Condition B – Alternate Goal Condition					
	Goal 1			Goal 2			Goal 3		
Variable M (SD)	Before	After	Diff	Before	After	Diff	Before	After	Diff
Self-concordance	2.58 (4.37)	4.15 (3.95)	1.58* (2.97)	1.62 (5.25)	3.00 (4.72)	1.38* (2.28)	3.58 (4.37)	3.81 (3.71)	0.23 (4.24)
Personal values	5.19 (1.70)	5.65 (1.20)	0.46** (0.76)	4.77 (1.45)	5.15 (1.32)	0.38 (1.06)	5.42 (0.90)	5.85 (0.78)	0.42* (0.95)
Commitment	5.23 (1.21)	6.35 (0.85)	1.12*** (1.18)	5.15 (1.43)	5.73 (1.25)	0.58* (1.27)	5.77 (1.07)	6.12 (0.95)	0.35 (0.94)

Note: Difference scores computed by subtracting 'before' scores from 'after' scores. *$p<.05$ **$p<.01$ ***$p<.001$

correlated at $r=.37$, $p<.01$ with alignment with personal values and at $r=.35$, $p<.01$, with commitment. Alignment with personal values and commitment correlated at $r=.27$, $p<.05$. For measures taken *after* the coaching intervention, self-concordance correlated at $r=.37$, $p<.01$ with alignment with personal values and at $r=.34$, $p<.01$, with commitment. Alignment with personal values and commitment correlated at $r=.41$, $p<.01$. These findings indicate, first, that the variables were related but not substantially overlapping, and second, that the associations between variables were stable and consistent both pre- and post- the coaching intervention.

Gender differences

Gender differences were not a focus of the study design. However, analysis of the self-concordance scores (nine males, 17 females) revealed that the mean self-concordance score across all three goals, measured before the coaching intervention, was 3.29 (SD=4.54) for females and 1.78 (SD=4.76) for males. Although based on a small sample, these findings perhaps point to gender differences being a focus for future investigation.

Discussion

Our findings suggest that one of the mechanisms through which coaching may be effective as a goal attainment support process is through raising people's levels of self-concordance with their goals. Previous research has shown that self-concordant goals are more likely to be achieved and lead to better outcomes when they are achieved (Sheldon & Elliot, 1999; Sheldon *et al.*, 2003); these findings suggest that this may be at least one of the mechanisms of action of successful executive coaching.

Following a single one-to-one coaching session with a trained and experience executive coach, participants demonstrated significant overall increases in each of goal self-concordance, alignment with personal values, and commitment to the goal, in relation to the goal on which they were coached.

There were also spillover or learning effects that influenced the second and third non-coached goals. Scores for alignment with personal values increased for the third goal but not the second goal, and scores for commitment increased for the second goal but not the third goal. Given that the goals were randomly selected (in terms of which goal was coached), this pattern of findings is not meaningful, but does suggest that there are some spillover or practice effects of being coached even on a single goal, that then translate into effects on other, non-coached goals. However, we do note that the goals may not all have been fully independent of each other, which may to a degree mitigate

the extent of these spillover effects. This finding, although preliminary and in need of replication, suggests that there is a potential generalisability effect for coaching; that is, the positive effects of coaching may extend beyond the specific foci of the coaching session. Qualitative participant comments suggest the possibility of this effect, for example: *'Might be slightly more motivated all round as a result of working successfully on other issue'* (case 12).

Another potential explanation for these effects is that the three goals were in some way linked to each other. The qualitative comments obtained from a number of participants made this point explicitly, for example: *'Being able to see that all three goals were linked'* (case 11); *'Realisation that all three goals that I identified were interlinked and that by clearly defining what I want to achieve I can deliver on all three'* (case 18).

Turning to limitations and future research directions, there are a number of ways in which the current study can be improved upon. The current sample size is relatively small for traditional social psychological research, but equally more than respectable when compared to much extant coaching research. The fact that we were able to detect significant effects with this small sample size is indicative of potentially large effect sizes in the population (Cohen, 1992), which is encouraging for future coaching and motivation research.

The present study used only one coaching session, and did not use a control group, whereas coaching is more typically carried out in a number of sessions conducted over a period. However, with significant findings as a result of a single coaching intervention, it is possible that more extended coaching interventions would demonstrate even stronger effects. This should be a focus of future research, especially in relation to the stability of self-concordance over time. More fine-grained individual-level analyses of changes in self-concordance that lead to either enhanced or decreased goal commitment and goal attainment are also warranted, since although our overall findings demonstrated that coaching enhanced self-concordance on the mean level, there was individual variability in this between participants. Research into the effects of coaching on less self-concordant goals (e.g. goals imposed by organisational employers rather than selected by participants themselves) are also warranted. There is also scope for exploring the effect of coaching on other aspects of concordance – for example, Sheldon and Houser-Marko (2001) found an 'upward spiral' effect of increased well-being. Future research may wish to consider how this effect may be accentuated through coaching, both in relation to executive coaching and to life coaching (e.g. Green *et al.*, 2006).

The results of this study provide preliminary support for the view that coaching using the GROW model can lead to changes in goal self-concordance, alignment with personal values, and goal commitment. These findings suggest that one of the mechanisms or processes through which coaching may be effective is through enhancing self-concordance of the goals that people are striving to achieve. These findings add to the small but growing body of research into the processes that may underlie coaching, and indicate fruitful avenues for further research.

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Positive intervention self-selection: Developing models of what works for whom

Jordan Silberman

Objective: *To determine if self-selection is an effective way to match positive interventions to individuals.*
Design: *Each time a participant in the choice group selected one of four positive interventions, a depression-matched yoked control participant was assigned the same intervention.*
Method: *Positive interventions and surveys were administered online. Happiness and depression were assessed at baseline, one week, and two weeks.*
Results: *If participants could identify the positive intervention that was most suitable for them, then interventions should have been more effective for the choice group than for the yoked control group. This was not observed. Both groups experienced significantly increased happiness and decreased depression, but the magnitudes of these changes did not significantly differ between groups.*
Conclusions: *These data suggest that self-selection may not be a good way to identify well-suited positive interventions, and that other selection approaches should be investigated.*
Keywords: Positive psychology, gratitude, happiness, depression, strengths.

SELIGMAN, STEEN, PARK AND PETERSON (2005) have suggested that there are at least 100 strategies for increasing happiness, a class of Positive Psychology (PP) students identified more than 1000 happiness-increasing strategies, and an Amazon.com™ search for books about happiness yields more than 4000 hits. There is no shortage of advice on how to be happy. There is, however, a shortage of advice on choosing a strategy for being happy. Seligman *et al.* (2005) have begun an important step toward narrowing the list: randomised controlled trials of Positive Psychology interventions (also referred to as 'positive interventions' or 'PIs'). Determining how to best match PIs to unique individuals may be an important next step.

The processes through which coaches and clients select PIs are complex. Cognitive, affective, and behavioural patterns; environment; and socioeconomic status are a few of many variables that may inform the selection process. Considering issues addressed or goals sought through coaching may also help coaches select PIs. Unfortunately, very little research is available to guide the complex PI selection process. Some have speculated that person-activity fit may affect the relationship between activities and happiness changes (Lyubomirsky, Sheldon & Schkade, 2005), and evidence suggests that goal-person fit may affect relationships between goal achievement and happiness (e.g. Brunstein, Schultheiss & Grassman, 1998; Sheldon & Elliot, 1999). Researchers have also identified many traits that moderate the efficacy of traditional psychotherapeutic interventions (e.g. Beutler, 1991; Garfield & Bergen, 1986; Kiesler, 1996), though not of PIs. Person-PI fit has yet to be studied empirically.

It should not be assumed that people can identify the PI from which they will benefit most. Expected psychological effects of major life events often drastically differ from actual effects (e.g. Biswas-Diener & Diener, 2001; Brickman, Coates & Janoff-Bulman, 1978; Gilbert *et al.*, 1998). If people cannot accurately predict the effects of significant life events, we should not assume that they can accurately predict effects of PIs. This

work is a preliminary study to determine if people can identify the PIs from which they will benefit most.

The importance of careful PI selection

There are several reasons that it is important for coaches to carefully consider which interventions they recommend to clients. Interventions that are generally inefficacious do work for some. The opposite is also true; generally efficacious interventions do not work for everyone. Without knowledge of person-PI fit, attempts to match people with PIs are constrained by overgeneralisation. Some may avoid generally inefficacious PIs, even if the PIs are well-suited for unique individuals. People may also use poorly-suited though generally efficacious PIs. Knowledge of person-PI fit may reveal when generally inefficacious PIs are likely to work, and when generally efficacious PIs may not.

Knowledge of person-PI fit may also motivate PI use. Tailoring all sorts of things may motivate people to utilise them. Yoga programs have been designed for pregnant women, diets are tailored to different blood types, shampoos are designed for different hair types, and many other products are customised for consumers' unique traits. This marketing strategy motivates purchasing behaviour by tailoring products to clients. The strategy may also apply to PIs; people may 'buy' tailored PIs more readily than generic PIs. This motivation is particularly important within PP because it does not focus on the psychological pain that often prompts people to seek mental health services.

The desire to use tailored interventions, of course, is not unwarranted. PIs that are carefully selected may work better than those that are not. Different interventions resonate with different individuals. More importantly, some interventions may have physical or psychological requirements that some do not meet. Atheists, for example, are unlikely to benefit from faith-based PIs that require belief in a God. Tailored PI selection may ensure that people are matched to well-suited PIs and prevent people from using unhelpful or inappropriate PIs. Starting with poorly-suited PIs may cause several problems. Some may waste time that might otherwise be spent on PIs that suit them better. Others may try many PIs, preventing progression or depth within any one approach to happiness. Initially using a poorly-suited PI may also discourage people from trying other PIs, or even prompt people to abandon PIs altogether.

Approaches to PI selection

Several PI selection approaches may be useful for coaches when they are considering different ways of working with different clients. People may try different PIs until they find one that works or is maximally beneficial (the 'test-drive' approach). Personality or other traits may also be used to select PIs (the trait-based approach). Some may benefit from the skill of a coach who, as previously mentioned, may use the knowledge they construct about the client to select interventions (the coach-selection approach). Others may simply select their own PIs (the self-selection approach). These approaches may of course be combined. For example, a coach and a client may work cooperatively, and may both consider traits, when selecting a positive intervention.

Each approach has pros and cons. The test-drive approach may be useful because early subjective experience with interventions may predict long-term effectiveness (Frisch, 2005, p.346). This approach, however, may also cause the aforementioned problems: wasted time, cursory engagement in many PIs rather than in-depth use of fewer PIs, and the 'PI attrition' that may occur when people cannot find a PI that works. The trait-based approach can be standardised, but is constrained by the countless number of trait-PI combinations. Even if many trait efficacy moderators are identified, there may always be unanticipated but selection-relevant considerations. Fortunately, skilled coaches can consider potentially significant traits, as well as many other

potentially important factors, that have not been empirically investigated. Unfortunately, coaches can also sometimes be wrong. It is not yet clear which of these cost-to-benefit ratios is most desirable. A combination of approaches, and the use of different approaches in different circumstances, may ultimately prove most effective.

The self-selection approach was chosen as a starting place for several reasons. Self-selection is probably the most practical approach. It does not require experimentation with many PIs, nor does it require consultation with an expert. If effective, moreover, the self-selection approach may prevent the need to investigate other approaches. Complex selection procedures may not be necessary if the simplest approach is effective. Selecting one's own PI may also promote perceived autonomy, which itself enhances psychological well-being (e.g. Ryan & Deci, 2000). If people can effectively select their own PIs, finally, then this may allow positive psychologists to be descriptive. Seligman (2003) and others have suggested that PP should be descriptive rather than prescriptive. Positive psychologists should rigorously study happiness and character, and let others decide whether or not to use this information. If people can identify the most beneficial PIs for themselves, then positive psychologists may be more justified in a descriptive approach; they can encourage people to choose their own PIs, rather than 'prescribing' specific PIs.

Method

Seventy-two undergraduates were recruited from psychology courses through lecture announcements and an electronic subject recruitment system. Forty-one per cent were male, and all were given course credit. Accounting for the attrition of two participants, the study had 87 per cent power to detect a moderate difference between choice and yoked groups at p=.05.

Participants completed the 20-item Center for Epidemiological Studies – Depression Scale (CES-D) symptom survey (Radloff, 1977) and the 24-item Authentic Happiness Inventory (AHI). CES-D items included 'I felt depressed,' and 'I talked less than usual,' and responses ranged from 0 *(rarely or none of the time)* to 3 *(most or all of the time)*. AHI items required respondents to choose one of several statements on a scale from 1 (an extremely negative statement such as *'most of the time I am bored'*) to 5 (an extremely positive statement such as *'most of the time I am fascinated by what I am doing'*). The AHI is an updated version of the Steen Happiness Index that was first presented by Seligman *et al.* (2005). Cronbach's alphas for the three administrations of the CES-D were .73, .81, and .73; and those of the AHI were .93, .94, and .95. Surveys were administered online, a method that is probably no less rigorous than the traditional paper-and-pencil approach (Gosling, Vazire, Srivastava & John, 2004; Seligman *et al.*, 2005).

Students were matched based on CES-D scores (the better validated of the two administered instruments). The pair-wise matching procedure involved randomly selecting a 'target participant,' identifying all participants with the same CES-D score, and randomly selecting one of these identically-scoring participants (if there were more than one) as a 'matched participant.' If no participants had the same CES-D score as the target participant, the participants with the closest CES-D scores were identified, and one of them was randomly selected (again, if there were more than one) as the matched participant. This process was repeated until all participants had been assigned to a dyad. Finally, one participant per dyad was randomly selected to be in the choice group, and the other was assigned to the yoked group.

The mean CES-D scores of the choice and yoked groups were 14.1 (SD=8.9) and 15.0 (SD=9.9), respectively. Mean ages of the choice and yoked groups were 19.7 (SD=1.2) and 19.6 (SD=1.1). The choice group was 42 per cent male, and the yoked group was 40 per cent male. AHI-measured happiness was the only variable assessed that significantly

differed between choice and yoked groups at baseline, $F(1,68)=3.97$, $p=.05$, with the choice group reporting lower baseline happiness ($M=69.47$, $SD=12.21$) than the yoked group ($M=75.41$, $SD=12.74$). This difference was controlled for in subsequent analyses.

Choice participants were given brief PI descriptions (see Appendix 1), and asked to select the activity that they expected to bring the most pleasure, engagement, and meaning into their lives. When a choice participant selected one of four PIs, a depression-matched yoked control participant was assigned the same PI (see Figure 1). If a choice participant with a CES-D score of 10 selected the Gratitude Visit, for example, a yoked participant with the same or a similar CES-D score would be assigned the Gratitude Visit.

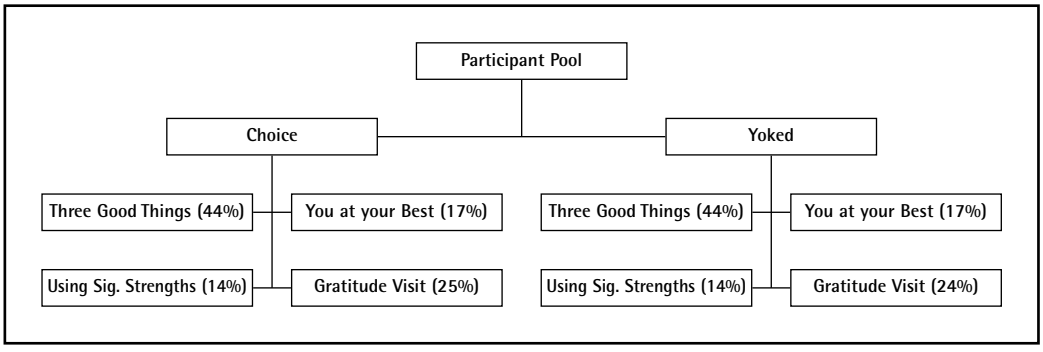
Participants were then given more detailed PI instructions.* They were encouraged to print instructions and store them in an accessible location. Participants got two e-mail reminders early in the first week of the study. These e-mails described the PI they had chosen or been assigned, encouraged adherence, and asked that they contact the study co-ordinator (JS) if they had questions. Participants also got e-mails reminding them about follow-up assessments. These messages were sent on the day before and the day of follow-up assessments. After completing final follow-ups and being assured that they would get extra credit regardless of involvement level, participants were asked if they had carried out the PI instructions.

Results

Seventy of 72 participants completed all follow-ups, and all 70 of these participants reported carrying out the PI instructions. Forty-four per cent of choice group participants completed the 'Three Good Things' PI, 25 per cent completed the 'Gratitude Visit' PI, 17 per cent completed the 'You at your Best' PI, and 14 per cent completed the 'Using your Signature Strengths' PI. Because a yoked participant was assigned a PI each time a choice participant chose that PI, these percentages are nearly identical for the yoked group. The slight between-groups difference in percentages of participants who did the Gratitude Visit was due to the attrition of a yoked participant. One yoked Three Good Things participant also dropped out of the study.

It was essential to verify that, as had been previously reported (Seligman *et al.*, 2005), the interventions were efficacious. If they were not, PI self-selection could not have been evaluated; between-groups differences in intervention efficacy could not have been assessed had PIs not worked for either group. Fortunately, this was not the case.

Figure 1: Participant cohorts.



* Detailed PI descriptions are available upon request.

Repeated measures ANOVAs using combined data from choice and yoked groups showed main effects of time for both happiness scores, $F(1,69)=28.34$, $p<.01$, and depression scores, $F(1,68)=4.04$, $p<.05$ (see Figure 2). LSD comparisons (a statistical procedure used to determine which means significantly differed from which other means) revealed that depression dropped significantly between baseline ($M=14.43$, $SD=9.40$) and two weeks ($M=12.00$, $SD=8.83$), though depression at one week ($M=12.77$, $SD=8.55$) had not decreased sufficiently to reach significance. The depression decrease between one week and two weeks was also not significant. Happiness was significantly greater at one week ($M=76.01$, $SD=12.63$) than at baseline ($M=72.36$, $SD=12.74$), and significantly greater at two weeks ($M=78.86$, $SD=13.98$) than at one week. The percentages of participants who experienced increased happiness and decreased depression are shown in Tables 1 and 2.

Choice did not have significant effects on happiness or depression changes. ANCOVAs for happiness changes, with choice condition as a fixed factor and happiness as the dependent variable, revealed no significant effects of choice at one week, $F(1,68)=.97$, $p>.05$, or two weeks, $F(1,68)=.40$, $p>.05$. Again, the baseline happiness difference between choice and yoked groups was controlled for. ANOVAs for depression changes were conducted in the same manner (without any need to control for baseline differences), and also showed no significant effects of choice at one week, $F(1,68)=.11$, $p>.05$, or two weeks, $F(1,67)=3.36$, $p>.05$ (see Figure 3).

Figure 2: Overall efficacy of positive interventions. Significantly increased happiness and decreased depression were observed.

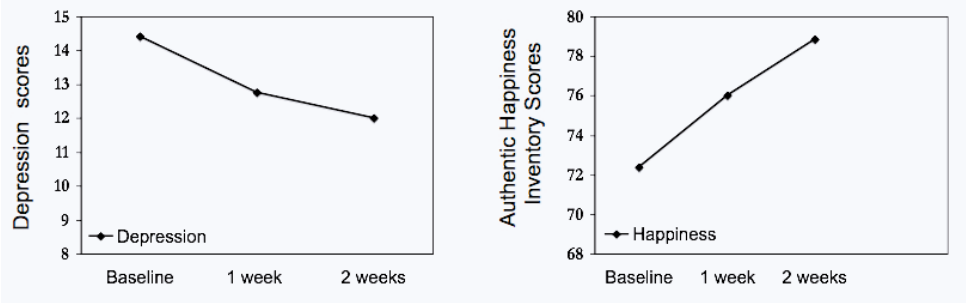


Figure 3: Between-groups comparisons of intervention efficacy. There were no significant differences in the amounts that happiness increased or depression decreased between the choice and yoked groups; interventions appeared to be equally efficacious regardless of which choice condition participants were in.

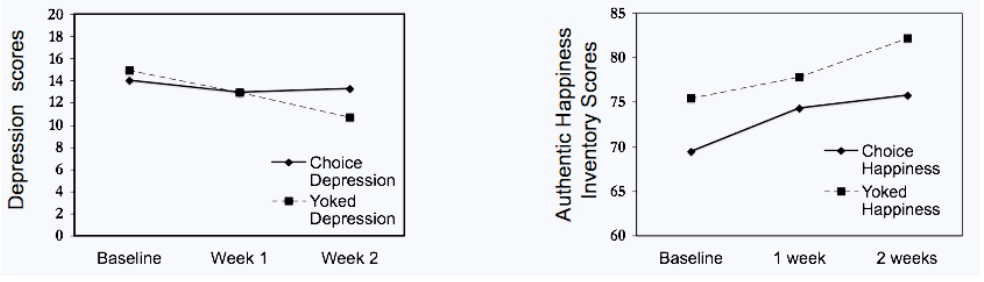


Table 1. Number of participants who experienced increased happiness.

	Number of participants who experienced increased happiness between:		
	Baseline and 1 week	1 week and 2 weeks	Baseline and 2 weeks
Three Good Things	22/31 (71.0%)	24/31 (77.4%)	25/31 (80.6%)
Gratitude Visit	8/17 (47.1%)	10/17 (58.8%)	10/17 (58.8%)
You at your Best	11/12 (91.7%)	8/12 (66.7%)	10/12 (83.3%)
Using Signature Strengths	6/10 (60.0%)	7/10 (70.0%)	9/10 (90.0%)
All Choice	26/36 (72.2%)	22/36 (61.1%)	28/36 (77.8%)
All Yoked	21/34 (61.8%)	27/34 (79.4%)	26/34 (76.5%)
Total	47/70 (67.1%)	49/70 (70.0%)	54/70 (77.1%)

Table 2. Number of participants who experienced decreased depression.

	Number of participants who experienced decreased depression between:		
	Baseline and 1 week	1 week and 2 weeks	Baseline and 2 weeks
Three Good Things	17/31 (54.8%)	16/31 (51.6%)	23/31 (71.0%)
Gratitude Visit	11/17 (64.7%)	8/17 (47.1%)	11/17 (64.7%)
You at your Best	8/12 (66.7%)	7/12 (58.3%)	8/12 (66.7%)
Using Signature Strengths	7/10 (70.0%)	6/10 (60.0%)	7/10 (70.0%)
All Choice	20/36 (55.6%)	14/36 (38.9%)	19/36 (52.8%)
All Yoked	23/34 (67.6%)	23/34 (67.6%)	29/34 (85.3%)
Total	41/70 (61.4%)	37/70 (52.9%)	48/70 (68.6%)

Discussion

Data suggest that those who chose PIs benefited no more than depression-matched participants who were assigned the same PIs. While both groups experienced significantly increased happiness and decreased depression, there were no significant between-groups differences in the magnitudes of these changes. If people could identify the PI from which they would benefit most, then the choice group would have benefited more than the yoked group. This was not observed, suggesting that participants were unable to select the best-suited PI.

Although participants appeared unable to choose the PI that they would derive greatest benefit from, they tended to improve psychologically regardless of which PI they utilised. This suggests that randomly selecting an intervention of empirically-validated efficacy may not be a bad strategy. However, to match a person to the PI that

will be *most* beneficial, it may be necessary to go one step further. A different approach to PI selection, perhaps involving the assistance of a skilled coach, may help achieve more optimal person-PI fit.

Study limitations

Assessments were relatively short-term. The undergraduates studied, moreover, are not representative of other populations. Self-knowledge gained as people age, for example, may help older people choose PIs more effectively. Confounds, of course, are also possible. Like baseline AHI scores, variables that were not assessed may have been unevenly distributed across groups. Finally, a type II error is possible; the 87 per cent power may not have been sufficient to detect the effects of the choice variable.

Future directions and conclusion

More research is needed to understand the long-term effects of PI self-selection, and to study PI self-selection in other populations. This study investigated just one of several PI selection approaches, and future research might also explore other approaches. The test-drive, trait-based, or coach selection approaches may be more effective than self-selection.

It is also noteworthy that all PIs investigated are generally efficacious (Seligman *et al.*, 2005), and that results may have differed had participants chosen from a group that included both efficacious and inefficacious PIs. People may be better at distinguishing 'good from bad' as opposed to 'good from better.' Future research might explore this possibility.

As more PIs are empirically studied, it will be useful to simultaneously investigate traits that may moderate intervention efficacy. This component of PI trials might be standardised just as pharmaceutical trials routinely investigate side effect moderators (e.g. analysing alcoholism as a moderator of adverse reactions). Models might then be developed for evidence-based PI selection. This would be more efficient than conducting separate studies to investigate PI efficacy and person-PI fit.

Enhancing our ability to match people with PIs may have numerous benefits. It may prevent overgeneralisations from directing people away from well-suited but generally inefficacious PIs, prevent overgeneralisations from directing people toward poorly-suited but generally efficacious PIs, motivate engagement in well-suited PIs, maximise benefits of utilised PIs, prevent people from wasting time with poorly-suited PIs, prevent cursory use of many poorly-suited PIs rather than in-depth use a well-suited PI, prevent the 'PI attrition' that may occur when people cannot find well-suited PIs, and help coaches select PIs despite a lack of psychopathologies to use as selection criteria. Through these and other mechanisms, PI selection research may enhance the efficacy of positive interventions.

Increasing the 'tonnage of human happiness' (Seligman, 2004) is a primary aim of both Positive Psychology and coaching. Empirical validation of PI efficacy is an essential piece of this process; coaching psychologists and clients are likely to benefit from a broadened range of empirically validated interventions. Scientific PI trials, however, are only the first step of a vital journey. For the aforementioned reasons, PI selection research may be the next important step.

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Appendix 1: Positive intervention descriptions.
More detailed descriptions are available upon request.

Gratitude Visit: Write and then deliver a letter of gratitude in person to someone who has been especially kind to you but whom you have never properly thanked.

Three Good Things: Write down three things that went well each day and their causes every night for one week. In addition, provide a causal explanation for each good thing.

You at your Best: Write about a time when you were at your best and then reflect on the personal strengths displayed in the story. Review the story once every day for a week and reflect on the strengths you identified.

Using Signature Strengths in a New Way: Complete the inventory of character strengths online at www.authentichappiness.org and receive individualised feedback about your top five ('signature') strengths. Use one of these top strengths in a new and different way every day for one week. You must be certain that your chosen activities are entirely safe, and that they entail no more risk of harm than your normal daily activities.

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Optimistic managers and their influence on productivity and employee engagement in a technology organisation: Implications for coaching psychologists

Dana Arakawa & Margaret Greenberg

Objectives: *Executive coaches are often involved in working with executive managers. The objective of this study is to investigate whether teams are more engaged and productive when led by an optimistic manager. Furthermore, we hypothesise that optimistic managers embody positive leadership – employing a strengths-based approach, maintaining a positive perspective, and frequently providing recognition and encouragement – which increases the engagement and productivity of their employees.*

Design: *The study used a cross-sectional survey design at two time points.*

Method: *The researchers developed a survey to measure this concept of positive leadership. In addition, two measures were used: the Life Orientation Test Revised (LOT-R) to measure optimism and the Gallup Organisation's Q^{12} to measure engagement.*

Results: *In a cross-sectional study of 86 employees and 17 managers in an Information Technology (IT) organisation, positive leadership correlated with employee optimism, engagement, and project performance. When we looked at a subset of this data prospectively, with 39 employees and 14 managers, manager optimism predicted project performance.*

Conclusions: *Our data support the claim that positive leadership is correlated with employee engagement and performance, and further extends the importance of optimism in the workplace. Coaching implications are also discussed, in terms of exploring how coaching psychologists can work with executives to develop their managerial style.*

AN OPTIMISTIC EXPLANATORY style has been linked to a wide range of positive performance outcomes in academic, athletic, and work domains (cf. Kamen & Seligman, 1985; Nolen-Hoeksema, Girgus, & Seligman, 1986; Peterson & Barrett, 1987; Peterson & Seligman, 1984). Researchers have found that an optimistic explanatory style significantly correlates with and predicts successful job performance (Seligman & Schulman, 1986). According to Tombaugh (2005, p.16), 'Optimistic leaders are more likely to see problems as challenges, exert greater effort for longer periods to reach their goals, and seek out and appreciate the positive aspects of difficult situations.' On an individual-level analysis, optimism clearly influences work performance. Given that an optimistic explanatory style predicts and precedes a successful job performance, what role does a manager play in influencing employee performance, and how can coaching psychologists working with managers and executives use this knowledge?

According to Gallup researchers Krueger and Killham (2005), managers greatly influence employee well-being and engagement, which in turn play a significant role in organisational performance. Fredrickson's (1998) broaden-and-build theory of positive emotions provides an explanation of how managers might create more engagement in employees. In this model, positive emotions 'broaden an individual's momentary thought-action repertoire, which in turn has the effect of building that individual's physical, intellectual, and social resources' (Fredrickson, 1998, p.300).

Business schools have taken the lead in researching the effects of leadership style on employees. McColl-Kennedy and Anderson (2002) found that frustration and optimism fully mediate the relationship between leadership style and employee performance. This finding brings back the question of how managers can improve the productivity of their employees. We hypothesise that the manager's own optimism can engender employee engagement via positive emotion, which then positively influences work performance.

The importance of manager optimism is supported by Amit, Popper, Gal, Mishkal-Sinai and Lisak (2004), who found that optimism is one of three psychological capacities essential for leadership. Similarly, Humphrey (2002) argues that the emotional displays of leaders have a larger impact on employees than the content of their messages. How do optimistic managers influence the productivity of their teams? The growing body of research in Positive Organisational Scholarship suggests that authenticity is critical for people to feel empowered, engaged, and able to relate to others (Avolio & Luthans, 2003; Quinn, 2004). We hypothesise that optimistic managers embody a positive leadership approach, in which they are more likely to: employ a strengths-based approach to managing employees, maintain a positive perspective when difficulties arise, and provide frequent recognition of employee accomplishments.

The first component in our model of positive leadership is a strengths-based approach to managing. Over the last 30 years, The Gallup Organisation has taken the lead in investigating human talents and strengths. According to Clifton and Harter (2003, p.119), 'top-performing managers have an approach to management that focuses on developing the strengths of the individuals they manage.' From this research, we chose to investigate a strengths-based approach as a key component of positive leadership. As Clifton and Harter (2003, p.119) surmise, 'top-performing managers have been ahead of their time in doing what is psychologically most efficient: they affect engagement and productivity by understanding and positioning individual differences in their employees.'

The second component of positive leadership we investigated is the manager's perspective during difficult times. According to Henry (2005), 'Individuals with a more positive explanatory style are better able to manage the uncertainty of change. This is because these individuals perceive that they have a higher level of control over their environment and implement more active coping strategies to dampen potential downsides. Also, they often reinterpret the negative event as an opportunity for growth.' These findings align with the work of Reivich and Shatte (2002) on resiliency, which includes other components of positive perspective such as de-catastrophising setbacks and appropriate disengagement. Taken together, positive perspective includes de-catastrophising setbacks, accuracy around perceptions of control, appropriate disengagement, emotional coping, solution-orientation, and positive interpretation of the problem.

The third component of positive leadership we investigated is the manager's style in providing recognition and encouragement. Kouzes and Posner (1999, p.4) found that 98 per cent of respondents answered 'yes' to the question, 'When you get encouragement, does it help you perform at a higher level?' Further emphasising the importance of providing encouragement, Losada and Heaphy (2004) discovered that teams of employees displaying more positive than negative interactions outperformed other teams. Building upon this work, Fredrickson and Losada (2005) found that the optimum ratio of positive to negative emotions is 3:1; however, performance declines when the ratio exceeds 11.6:1. In addition, Ryan and Deci (2000, p.70) found that 'positive performance feedback enhanced intrinsic motivation, whereas negative performance feedback diminished it.' Together, these

findings support our hypothesis that an optimistic manager may affect employee productivity by providing frequent recognition and encouragement.

From this review of previous research, we chose to investigate the influence of manager optimism on team productivity and employee engagement in an IT Organisation. This study is driven by two primary research questions investigated through both retrospective and prospective correlational design: (1) Do teams produce better results when led by an optimistic manager? (2) Are employees more engaged at work when led by an optimistic manager? We hypothesise that the answers to both questions will be affirmative, leading us to our secondary research objective: discovering how optimistic managers influence the productivity of their teams. We hypothesise that managers embodying positive leadership – employing a strengths-based approach, maintaining a positive perspective, and frequently providing recognition and encouragement – increase the engagement and productivity of their employees. Related to the activities of coaching psychologists working with executives, this study explores some of the actions that managers can take to improve their leadership, and which may be amenable to change and development as part of a coaching relationship.

Method

Participants

Participants in our study were recruited via e-mail from a highly ranked property and casualty insurance company located in Worcester, Massachusetts. All participants are Information Technology (IT) professionals working on key IT projects within the technology Organisation. These employees represented various individual contributor and managerial roles such as Program and Project Managers, Business Analysts, Developers, and Architects.

The company selected projects with significant scope and duration and aligned employees with these projects in 2005 were identified as potential participants. This selected group was then sent an e-mail soliciting their participation. Toward the latter part of 2005 and early 2006, the technology Organisation underwent a restructuring. Consequently, only a subset of the employees aligned with the 2005 projects continued to be aligned with those same projects in 2006. A total of 155 people received the survey electronically and 117 actually completed the survey for a 75 per cent response rate.

Demographics

We assessed the following demographics on the survey: year of birth, location, gender, race/ethnicity, and length of employment with the company. Eighty-four per cent of the participants are Caucasian; 7.5 per cent Asian or Pacific Islander; 4.7 per cent Other or Unknown; 1.9 per cent Hispanic; and 0.9 per cent each of American Indian or Alaskan Native, Black (not of Hispanic origin). Ninety-seven per cent of the participants are located in the US. Fifty-four per cent are female and 46 per cent are male. Ages ranged from 25 to 59 with a mean age of 44 (SD=7.59). Fifty-five per cent have worked for the company 10 or more years, 20 per cent for one to five years, 20 per cent for five to 10 years, and five per cent worked for an outsourcing firm.

Measures

To measure optimism, engagement, and positive leadership, we constructed two electronic surveys, one for the employees and one for the managers, by combining three separate questionnaires.

The *Life Orientation Test Revised* (LOT-R). The LOT-R (Scheier, Carver & Bridges, 1994) is a 10-item scale designed to assess individual differences in generalised optimism versus pessimism. This measure is available in the public domain and its brevity made it an ideal measure for our project since two other measures were also being used. The LOT-R has demonstrated internal consistency, with a Cronbach's alpha of 0.78 and high test-retest reliability: 0.68 (four

months); 0.60 (12 months); 0.56 (24 months); 0.79 (28 months) (Scheier, Carver, Charles & Bridges, 1994).

The Gallup Organisation Q^{12} (Q^{12}). The Q^{12} is a 12-item scale that measures engagement in the workplace. According to Rath (2006), over eight million employees worldwide have taken the Q^{12}; those with high Q^{12} scores exhibit superior performance, such as lower turnover, higher sales growth, increased productivity, and better customer loyalty. Permission was granted by The Gallup Organisation to use the Q^{12} as part of our study.

Positive Leadership. We developed our own set of questions, both closed and open-ended, to investigate three components of positive leadership. Based upon our literature review we hypothesised that an optimistic manager may be more inclined to employ a strength-based approach, have more perspective when difficulties arise, and provide more recognition than pessimistic managers.

Strength-Based approach (STR). We measured the degree to which the manager employs a strength-based approach to managing by taking the mean of all strength-based questions (as shown in Table 1) such as *'My Project Manager matches my talents to the tasks that need to be accomplished.'* Our definition of a strengths-based approach to management includes: appreciating employees' strengths, matching talents to tasks, and focusing on strengths more than weaknesses.

Perspective (PER). We measured the degree to which the manager maintains a positive perspective when difficulties arise by taking the mean of all perspective-based questions such as: *'When a problem crops up on my project, my Project Manager is able to help me come up with solutions.'* Our definition of positive perspective includes: de-catastrophising setbacks, accuracy around perceptions of control, appropriate disengagement, emotional coping, solution-orientation, and positive interpretation of the problem.

Recognition (REC). We measured the degree to which the manager provides recognition for employee's efforts and accomplishments by taking the mean of all recognition-based questions such as: *'My Project Manager regularly recognises project milestones.'* Our definition of recognition includes: frequently encouraging and rewarding employee accomplishments.

These questions form three psychometrically reliable scales, with Cronbach's alpha reliability scores above 0.8 and item-to-total correlations above 0.6 (see Table 1 overleaf).

To measure project performance (PP), nine key project attributes were examined. The first six attributes listed below are reviewed monthly by members of the senior leadership team and the Project Management Office (PMO); the next two are reviewed after the project is complete; and lastly, the Organisation considers project complexity and degree of difficulty as another attribute in measuring and comparing projects. The nine attributes used to measure Project Performance are:

1. Scope/Requirements Management – requirements were managed throughout project life cycle.
2. Resources – planned staffing and actual staffing closely aligned and managed throughout project life cycle.
3. Schedule – key milestones met or exceeded throughout all life cycle phases, and implementation met scheduled date.
4. Budget – actual project expenses were equal to or lower than planned project expenses.
5. Issue Management – issues identified and managed throughout project life cycle.
6. Dashboard/Review Quality – high degree of accuracy and quality in project performance data throughout life cycle.
7. Quality Defects Delivered – level of defects delivered to baseline.
8. Client Satisfaction – client or end-user satisfaction with product.
9. Degree of Difficulty – project complexity and difficulty.

Table 1: Alpha and Item–Total Correlations for Positive Leadership Measure.

Item	Item–Total Correlations
Strengths-Based Approach	**α=0.858**
'My Project Manager spends more time focusing on my weaknesses than focusing on my strengths.'	0.621
'My Project Manager appreciates my strengths.'	0.804
'My Project Manager matches my talents to the tasks that need to be accomplished.'	0.818
'My Project Manager encourages high performance by helping me fix my weaknesses.'	0.833
'My Project Manager encourages high performance by building on my strengths.'	0.868
Perspective	**α=0.805**
'When a problem crops up on my project, I usually go to my Project Manager for help.'	0.772
'When I have a problem, I avoid going to my Project Manager.'	0.769
'When a problem crops up on my project, my Project Manager is able to help me come up with solutions.'	0.813
'My Project Manager can manage his/her emotions.'	0.758
'My Project Manager tells me to move on when a particular path is a dead-end.'	0.632
Recognition	**α=0.887**
'My Project Manager recognises my accomplishments regularly.'	0.866
'My Project Manager regularly recognises project milestones.'	0.638
'I would describe my Project Manager as a 'cheerleader''.	0.759
'My Project Manager notices even 'little' accomplishments.'	0.830
'I know exactly what my Project Manager expects from me.'	0.615
'I know that my Project Manager will recognise my hard work/devotion.'	0.846
'My Project Manager regularly provides encouragement to me.'	0.870

A score between 1 and 5 was given to each of the nine attributes. The first eight attributes were scored as follows: 1=poor; 2=fair; 3=good; 4= very good; 5= excellent. The last attribute (Degree of Difficulty) was scored as follows: 1=very low; 2=low; 3=medium; 4=high; 5=very high. We calculated the mean for the first eight categories, and then multiplied this average by the Degree of Difficulty score for an overall score on Project Performance. If an employee worked on more than one project, a mean was taken for all the projects worked on. We analysed the data at the individual employee level. If employees had more than one manager, we calculated mean scores on all measures for all managers who worked with that employee.

To control for suggestion effects we titled the survey 'Attitudes and Beliefs in the Workplace'. The LOT-R questions were titled 'Life in General'. The Gallup's Q^{12} questions were titled 'Workplace'. The positive leadership questions were titled 'Relationship with

Project Manager' for the employee survey and 'Relationship with Project Team Members' for the manager survey.

Procedure

We administered the survey during an 11-day period between 28 March and 7 April, 2006. To ensure a good response rate, targeted managers and employees received an email, a day before we launched the survey, from the Chief Information Officer (CIO) alerting them of our study and requesting their participation. In the letter he stressed that participation was optional and confidentiality would be assured.

These managers and employees then received an e-mail from us, which explained the purpose of the study and instructions for completing the survey online. They were informed that by clicking on the link to the survey, they would be granting their consent to participate in our study.

Managers and employees were given one week to complete the survey. A reminder by the CIO was distributed a day before the due date and an extension was granted for an additional three days. After participants completed the survey, we gained retrospective access to the company's internal performance data for key projects in 2005.

Between the time managers and employees completed the survey and the end of the quarter (April to June, 2006), performance data was collected prospectively on these same projects. In addition, prospective performance data were collected for the projects that participants had been reassigned to during the restructuring.

Results

The primary questions of our research study were: (1) Do teams produce better results when led by an optimistic manager? and (2) Are employees more engaged at work when led by an optimistic manager? We hypothesised that manager optimism would positively correlate with project performance and employee engagement. Second, we were interested in the other relationships among manager optimism, manager engagement, employee optimism, employee engagement and project performance. Finally, we wanted to test our model of positive leadership.

To investigate these relationships, we ran the correlations between eight variables: Manager Optimism (MO), Manager Engagement (ME), Employee Optimism (EO), Employee Engagement (EE), Project Performance (PP), Strengths-Based approach (STR), Perspective (PER), and Recognition (REC). Although this was one study, we ran the set of inter-correlations twice: once with the retrospective project performance data from 2005 and once with the prospective project performance data from April to June, 2006.

Retrospective: 2005

The sample size for the retrospective data was comprised of 86 employees and 17 managers. See Table 2 (overleaf) for a comparison of means and standard deviations for the data collected in 2005; correlations are presented in Table 3 (overleaf).

Manager optimism correlated significantly with manager engagement, and this correlation is statistically moderate to large (Cohen, 1988). Manager engagement had a very large and significant correlation with project performance. Employee optimism correlated significantly with employee engagement, and employee engagement significantly correlated with project performance.

Managers who employ a strengths-based approach correlated significantly with manager engagement, employee optimism, employee engagement, project performance, perspective, and recognition.

The degree to which managers maintained a positive perspective correlated significantly with employee engagement, project performance, and recognition.

And, the degree to which managers who frequently provide recognition correlated significantly with employee optimism, employee engagement, and project performance.

Table 2: Means and Standard Deviations for 2005 scores on Manager and Employee Optimism/Engagement, Project Performance, and Positive Leadership.

Measure	M	SD
Manager Optimism	20.58	3.22
Manager Engagement	3.76	0.16
Employee Optimism	17.08	4.46
Employee Engagement	3.65	0.69
Project Performance	9.40	5.00
Manager leverages Strengths	3.61	0.86
Manager has Perspective	3.73	0.85
Manager provides Recognition	3.40	0.90

Table 3: 2005: Intercorrrelations for scores on Manager and Employee Optimism/Engagement, Project Performance, and Positive Leadership.

Measure	MO	ME	EO	EE	PP	STR	PER	REC
Manager Optimism (MO)	–							
Manager Engagement (ME)	0.47**	–						
Employee Optimism (EO)	–0.11	0.00	–					
Employee Engagement (EE)	0.02	0.19†	0.30**	–				
Project Performance (PP)	0.07	0.82**	–0.01	0.30**	–			
Manager uses Strengths (STR)	0.01	0.25*	0.36**	0.69**	0.33**	–		
Manager has Perspective (PER)	–0.04	0.15	0.20	0.26*	0.26*	0.57**	–	
Recognition (REC)	0.08	0.20†	0.31**	0.59**	0.27*	0.80**	0.63**	–

Note: MO=Manager score on Life Orientation Test - Revised; ME=Manager score on Gallup's Q^{12} survey; EO=Employee score on Life Orientation Test – Revised; EE=Employee score on Gallup's Q^{12} survey; PP=Organisation's rating of the project's performance; STR=Employees' rating of whether manager uses a 'strengths-based approach'; PER=Employees' rating of manager's perspective; REC=Employees' rating of how frequently manager provides recognition.
† .05< p<.10 *p<.05 **p<.01

However, in 2005, manager optimism did not correlate with either employee engagement or project performance, as originally hypothesised.

Prospective: 2006

The prospective data were comprised of 39 employees and 14 managers: a subset of the original data with a different alignment. These data came from the same sample as the retrospective data; however, the prospective sample is smaller because some people went to different projects and could not be lined up. See Table 4 for a comparison of means and standard deviations in 2006 and Table 5 for inter-correlations.

Manager engagement significantly correlated with project performance and employee optimism. Employee optimism significantly correlated with employee engagement, and employee engagement significantly correlated with project performance.

Managers who employ a strengths-based approach correlated significantly with employee optimism, employee engagement, project performance, perspective and recognition.

Table 4: Means and Standard Deviations for 2006 scores on Manager and Employee Optimism/Engagement, Project Performance, and Positive Leadership.

Measure	M	SD
Manager Optimism	17.42	2.66
Manager Engagement	3.84	0.35
Employee Optimism	17.18	4.53
Employee Engagement	3.71	0.68
Project Performance	14.96	6.59
Manager leverages Strengths	3.77	0.89
Manager has Perspective	3.83	0.77
Manager provides Recognition	3.51	0.94

Table 5: 2006: Intercorrrelations for scores on Manager and Employee Optimism/Engagement, Project Performance, and Positive Leadership.

Measure	MO	ME	EO	EE	PP	STR	PER	REC
Manager Optimism (MO)	–							
Manager Engagement (ME)	–0.18	–						
Employee Optimism (EO)	0.06	0.35*	–					
Employee Engagement (EE)	0.13	0.28†	0.39*	–				
Project Performance (PP)	0.42**	0.42**	0.26	0.37*	–			
Manager uses Strengths (STR)	0.25	0.08	0.46**	0.64**	0.33**	–		
Manager has Perspective (PER)	0.24	0.27†	0.41*	0.31†	0.35*	0.70**	–	
Recognition (REC)	0.26	0.12	0.49**	0.63**	0.36*	0.91**	0.65**	–

Note: MO=Manager score on Life Orientation Test - Revised; ME=Manager score on Gallup's Q^{12} survey; EO=Employee score on Life Orientation Test – Revised; EE=Employee score on Gallup's Q^{12} survey; PP=Organisation's rating of the project's performance; STR=Employees' rating of whether manager uses a 'strengths-based approach'; PER=Employees' rating of manager's perspective; REC=Employees' rating of how frequently manager provides recognition.
† .05< p<.10 *p<.05 **p<.01

The degree to which managers maintain a positive perspective correlated significantly with employee optimism, project performance, and recognition, and, managers who frequently provide recognition correlated significantly with employee optimism, employee engagement, and project performance.

In 2006, manager optimism did not correlate with employee engagement, but it did have a moderate to large significant correlation with project performance, as originally hypothesised.

Discussion

The primary questions of our research study were: (1) Do teams produce better results when led by an optimistic manager? and (2) Are employees more engaged at work when led by an optimistic manager? In 2005, manager optimism did not result in more engaged employees and better project performance as we expected. This finding could be due to the complexity of aligning individual employees with only one manager in a highly matrixed Organisation typical of today's technology industry. According to Bell (2004), 'Many employees now report to

multiple bosses, team leaders, or process owners.' In 2005, employees worked with up to nine managers on as many as five projects, whereas in 2006, no one worked with more than two managers or on more than two projects. The high amount of overlap in 2005 is evident; the mean number of managers is almost triple the number in 2006.

Optimism and engagement

In 2006, we did find that manager optimism significantly correlated with project performance, but not employee engagement. Although our sample in 2006 was smaller than in 2005, there was less overlap on the number of projects and subsequent number of managers each employee reported to. Only five employees worked on more than one project; no one worked with more than three managers. In comparison, in 2005, employees in our sample worked on an average of three projects with two managers.

We were also interested in the other relationships among manager optimism, manager engagement, employee optimism, employee engagement and project performance. In 2005 we found that manager optimism was significantly correlated with manager engagement, which in turn significantly correlated with project performance – this correlation was also evident in the prospective data. This finding suggests that managers who are more engaged in their work are more likely to manage teams that produce better results. Our findings are consistent with prior research by Krueger and Killham (2005) and Fredrickson (1998) on the link between engagement and productivity.

In both 2005 and 2006 employee optimism was correlated with employee engagement, which in turn was correlated with project performance. Although it is difficult to determine causality, this finding suggests a link between optimism, engagement, and results, consistent with the findings of Tombaugh (2005) and Seligman and Schulman (1986). We also looked at the role the manager plays in influencing employee engagement: in both our retrospective and prospective data a statistically small to moderate trend emerged between manager and employee engagement.

Positive leadership

Finally, we were curious about how leadership style influences optimism, engagement, and project performance, based on previous research by McColl-Kennedy and Anderson (2002), and Amit, Popper, Gal, Mishkal-Sinai and Lisak (2004). We selected three components of positive leadership closely linked with optimism: strengths-based approach, positive perspective, and recognition. All three measures strongly correlated with each other in both the retrospective and prospective data. The large to very large correlations may suggest that these measures are in fact capturing one single component – perhaps an aggregate of leadership effectiveness.

Assuming that a strength-based approach, perspective, and recognition are all qualities of positive leadership, in both years we found that optimistic and engaged employees were more likely to report to a manager that valued their strengths, had a positive perspective and frequently provided recognition. Positive leadership also predicted higher project performance in both years. Our findings support previous research related to strengths-based leadership by The Gallup Organisation; positive perspective by Reivich and Shatte (2002) and Henry (2005); and recognition by Kouzes and Posner (1994). With a larger sample size, path analysis might discover that managers who employ a positive leadership style actually facilitate employee engagement, leading to higher performance.

This finding would suggest that managers who currently embody positive leadership are contributing to the effectiveness of not only their employees, but also the Organisation as a whole. Managers who do not currently value employee strengths, nor maintain a positive perspective, and fail to provide frequent recognition and encouragement, might benefit from positive leadership training and development. Future

research could look at the efficacy of interventions targeting these three components. Karl (1992) found that a training program, focusing on optimism, increased outcome expectations, self-efficacy, motivation, learning, and transfer, when compared to standard training. As one of our participants expressed in the open-ended section of the survey, *'I work with many project managers and each has a different philosophy around how they recognise, reward, or show appreciation. Some are very good while others fail miserably.'* Our research suggests that managers who employ a positive leadership style will have more engaged employees and produce better results.

Study limitations and future research

The main limitation in our study was overlap. It was difficult to isolate which manager the employee was thinking of when he or she completed the survey. In the retrospective 2005 data, there was a large amount of overlap between the number of managers and projects aligned with each employee. Thus, mean scores were used to calculate manager optimism, manager engagement, and project performance. Although the sample size of our prospective 2006 data is smaller, there was less overlap

Due to the highly complex nature of a matrixed Organisation, it was difficult to align an individual employee with just one manager. If this study was replicated, we recommend collecting a larger sample and using more sophisticated data analysis techniques to take into account the non-independence and hierarchal Organisation of the data. With a larger sample size it would be ideal to conduct a Hierarchical Linear Modelling analysis, in addition to simple inter-correlations, to see how different levels of management affect engagement, optimism, and productivity.

Conclusion

According to Seligman (2002, p.83), 'optimism and hope cause better resistance to depression when bad events strike, better performance at work, particularly in challenging jobs, and better physical health.' In today's rapidly changing and uncertain business environment, managers and employees need optimism more than ever before to not only cope, but to innovate and flourish.

Organisations typically rely on streamlining processes to improve productivity and often overlook the gains that can be made by focusing on sound leadership practices, such as the ones defined in the researcher's Positive Leadership model. As this study shows, managers have more influence on employee performance, engagement, and optimism than perhaps they realise. The good news is, if optimism and the behaviours outline in this Positive Leadership model do not come naturally to a manager, they can be learned. Executive coaches can help a manager become more aware of his or her leadership style, through the use of self and 360 assessment instruments. Leadership development programmes can also teach specific skill sets. Development programmes that also utilise coaches can help a manager apply and hone these practices until they become natural. Not only will the manager benefit from learning and applying these practices, but so will his or her employees and the Organisation at large. Through combining the work of the coaching psychologist with empirically validated interventions to build manager capability, Organisations can enhance manager performance to drive organisational performance, thereby helping to build a further business case for the role of executive coaching in the workplace. The findings of this study offer some initial indications in that direction.

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The meeting of the minds: Positive psychology and coaching psychology

Carol Kauffman & P. Alex Linley

As part of this special issue of the *International Coaching Psychology Review*, Carol Kauffman and Alex Linley sought the views of some leading figures in positive psychology about how they saw a positive coaching psychology. Here is what they had to say.

What are your thoughts about applying Positive Psychology to Coaching Psychology?

Ilona Boniwell
With a shared focus on strengths, well-being and optimal performance, coaching and positive psychology are natural allies. Coaching serves as a perfect testing ground for the theories and scholarly ideas of positive psychology, which, in turn, can provide coaching with a much needed empirical base.

Chris Peterson
Coaching is one of the areas that I call a natural home for positive psychology. Excellence is recognised, celebrated, and encouraged. That is what positive psychology is all about. Also, coaching (from my outsider perspective) seems to be area in need of theory and empirical grounding, and positive psychology can provide both.

Shane Lopez
Positive psychology theory and research has a great deal to contribute to people living better lives. My concern about applying positive psychology to coaching is that only the best coaches take the time to learn the in-depth aspects of positive psychology science. Applying popularised notions of positive psychological principles do little to improve the lives of people.

Robert Biswas-Diener
I think it is important for coaches to understand the strengths and limitations of work based on positive psychology. On the one hand, positive psychology is a dynamic new science with lots of promise and is an easy fit with coaching. On the other hand, positive psychology is, at present, essentially a basic science rather than an applied science.

When Martin Seligman championed the idea of focusing on strengths he looked around the profession of psychology and cobbled together researchers who were working in positive areas. People like Dean Simonton who studies genius, Ed Diener who studies happiness, and Paul Baltes who studies wisdom. Each of these scientific giants is primarily interested in investigating the inner workings of positive human psychology. My hunch though, is that they are motivated by a strong curiosity rather than an eagerness to see their research results applied. As positive psychology enters its next stage we are seeing a shift toward more applications and interventions. In fact, I believe that the field will move strongly toward application in the near future. In 10 years I see positive psychology as still being around, but as being largely about application.

The one cautionary note I would include is that, while we ought to be creative with our application of positive psychology research, we should also not get too far-fetched. I have heard of coaches talking about using positive psychology to get through the holidays and to improve parenting. While both of these are certainly worthwhile pursuits there is a

large jump from basic research on strengths, happiness, and optimism to specific discipline techniques for your three year old or what guests to invite for Christmas dinner. To the extent that coaches have a solid knowledge of the background research, and understand the limits and advantages of positive psychology, I believe both fields will benefit. If, however, coaches make wild claims about the power of positive psychology I think both coaching and positive psychology could suffer.

Stephen Joseph

Positive psychologists have said that for too long mainstream psychology has focused on the negative side of life at the expense of the positive side. There seems to be two competing perspectives on the implications of this.

First, there is the idea that we should now be interested in the full spectrum of functioning, both the negative and the positive, and the hope is that this way of thinking will permeate all existing branches of psychology. So we can see a future in which all psychologists eventually become positive psychologists. For example, the clinical psychologist no longer just thinks about the alleviation of depression, but also the facilitation of happiness. Over time the term positive psychology simply withers away, because positive psychology is what everyone does.

Second, there is the idea that positive psychology is separate from existing branches of psychology. For example, the clinical psychologist is interested in depression, and the positive psychologist is interested in happiness. From this perspective, the negative and the positive are two separate domains of enquiry.

My view is that the first perspective is more intellectually sound. The negative and the positive are not separate domains of enquiry. We understand one in relation to the other.

The implication of the first perspective is that we think about coaching psychology across the spectrum of human functioning. Just because other branches of applied psychology such as clinical have traditionally focused on the negative doesn't mean that coaching has to now only focus on the positive. Coaching psychology is about facilitating optimal functioning, but this should not be arbitrarily confined to those who are already well functioning. What can coaching psychology offer to those who are less than fully functioning, in educational settings, clinical and health care settings?

Inevitably, boundaries between the different branches of applied psychology become blurred when we think from the first perspective, and the implication is that the face of applied psychology will radically change in the long term, but that's potentially a very good thing.

Why do you think Positive Psychology and Coaching Psychology have grown so quickly?

Ilona

Both have identified a gap in the science- and practice-as-usual and managed to successfully address it. Rather than operating within a medical or disease paradigm, both positive psychology and coaching have placed an explicit emphasis on fulfilment, achievement and performance. The 'right place, right time' formula seems to have worked for both, not mentioning the right name.

Chris

In the US in particular … (we should not) underestimate the teleconferencing partnering of Ben Dean and Marty Seligman, which introduced the two fields to one another.

Robert

Positive psychology has grown because it resonates with people. We live in an upbeat culture (don't let anyone tell you different) but in the midst of troubled times. People are eager for a hopeful message and positive psychology supplies one. It is a re-imagined

self-help movement, only with academic teeth and scientific backbone. At its heart, positive psychology is a philosophy that says 'Hey! No matter what problems or setbacks you have faced, you are also resourceful and have experienced success.' It is about directing folks' attention back to virtues, wisdom, and hope. I think many segments of society have reached a place of comfort wherein they can turn their attention toward developing themselves or working toward the betterment of their communities, and I believe they would largely prefer scientifically proven routes for doing so.

Stephen
I suspect that for many of us we have always been positive psychologists in how we think and practice, and in that sense the positive psychology movement provided a new umbrella for a range of researchers and practitioners who were already there, as well as offering something which seemed new and exciting to younger researchers and practitioners. But as indicated above the question for me is whether positive psychology is a temporary movement that will transform and reconfigure mainstream psychology, or whether it will become permanent as a separate branch of psychology.

What coaching psychology research would you most like to see?

Ilona
I'd like to see several rigorous randomised control trial studies carried out, comparing the outcomes of coaching psychology with those of counselling and various forms of personal development training.

Chris
Basic outcome research – effectiveness and efficacy.

Shane
All approaches to teaching and practice need to be evidence-based. Coaching research needs to generate Principles of Empirically Supported Applications and agree on a common set of positive outcomes to be pursued by coaches and clients.

Robert
I am very excited that there are established journals for coaching psychology research and believe that an empirical foundation for understanding and practicing coaching psychology is in everyone's best interest. That said, I would love to see more research with non-executive populations, especially because coaching is evolving toward a much wider client base. I would also like to see more efficacy research, both studies aimed at proving coaching effectiveness and those geared toward understanding how specific interventions might be used with various client types or presenting problems.

Stephen
One of the most important light bulb moments for me as a psychologist was the understanding that research findings are not instructions for practice. How we perceive the link between research and practice is a social construction. I'd like to see more emphasis given to scholarly reflection on our role in society, and the philosophical underpinnings of coaching practice. One of the things that I've been interested in is the extent to which coaching psychology has implicitly adopted the medical model. Maybe the medical model is appropriate for coaching psychology, but the profession needs to make explicit what its underlying philosophical underpinnings actually are. An alternative to the medical model is the person-centred model of coaching psychology, and I'd like to see more research which investigated the intrinsic motivation of clients toward optimal functioning and client-centred coaching.

What applied positive psychology research would you most like to see?

Ilona
The number of positive psychology interventions keeps increasing, yet apart from a few papers, we still have very limited empirical evidence of their effectiveness. I would like to see many more studies addressing these issues.

Chris
Linking positive psychology constructs to hard outcome measures – e.g. performance and health—and not just self-reported well-being.

Shane
Applied positive psychology research needs to examine the positive outcomes associated with strengths identification and interventions.

Robert
The truth is, there are very few empirically tested interventions, and we do not know exactly when they are best used, or with which types of clients. First, there are the tested interventions: savouring, positive reminiscence, using signature strengths, and counting blessings. Then, there are the assessments: the VIA classification of strengths can be useful with clients, as can established measures of hope and optimism. I often bring up a specific study or relevant result to my clients and ask them what they think about it, how they might apply it to their own lives, or what lesson they can take away from it. For example, when a client is feeling pessimistic about future success I might introduce them to Rick Snyder's Hope Theory. Rick says that hope is based on self-confidence (the belief you can accomplish your goal) and pathways thinking (the ability to find alternate avenues toward success when a roadblock presents itself). For most clients, this helps them reframe the challenge ahead in easy-to-understand terms. 'Oh,' they say, 'It's just a matter of believing in myself and looking for creative solutions. Let's get to work!' To my mind, those two activities are largely what coaching is all about. My clients love it.

Stephen
I'd like to see research embrace the notion that positive psychology is about changing mainstream practice so I'd like to see positive psychology research that focuses on traditional topics, and asks questions such as what is the positive psychology understanding of trauma, for example. I'd also like us to develop a better understanding of traditional conceptions of mental health such as anxiety and depression and their relationship with positive psychological conceptions such as relaxation and happiness. Are these dichotomous, or are they continuous dimensions?

What is the biggest thing each could learn from the other?

Ilona
Coaching can learn from positive psychology about research and scientific rigour. Both can put to test, through either research or practice, new techniques and interventions suggested within their respective fields.

Chris
Coaching can learn about the need for empirical validation (and maybe the prudence of not sounding like an infomercial – as you see on some coaching websites), and psychology can learn about the importance of studying 'real' people as opposed to college students.

Shane
Partnerships could result in the development of empirically supported treatments.

What key breakthroughs do you see on the horizon?

Ilona
I expect that both coaching psychology and positive psychology would penetrate the existing approaches to science and practice, changing psychology as we know it, though possibly losing their identity as a result. It is possible that coaching might merge with other one-to-one helping-by-talking approaches, thus offering clients a complete package. Positive psychology, on the other hand, is likely to expand beyond the boundaries of psychology as a discipline, setting the foundations for a positive science.

Shane
Meditation appears to have an important role in cultivating positive emotions. Given the potential here, coaches may want to consider extensive training in mindfulness meditation.

Robert
There are new assessments and interventions emerging all the time. Michael Frisch just developed a useful online measure called the Quality of Life Inventory, and Seligman and his team are batting around ideas about 'positive portfolios' and other promising applications. There are also high schools adopting a positive psychology curriculum in both the US and Australia.

As positive psychology moves more toward becoming an applied science I foresee a flood of candidate interventions, and a deeper understanding of how and when to best use them. In part, I see coaches, trainers, and similar professionals as being integral to this process. For instance, I recently discussed 'forgiveness' with Sandra Foster, from Korn/Ferry, and she cautioned me that forgiveness interventions can be, in her experience, too emotionally laden to be used effectively in an executive setting. Although forgiveness is associated with well-being in the research literature, it is only through in-the-trenches experience that we can fully appreciate the strengths and limitations of such interventions.

Stephen
The breakthrough on the horizon is that positive psychology succeeds in transforming and reconfiguring the face of mainstream psychology. But I am rather pessimistic about that because I think that many now perceive positive psychology simply as a new separate branch of psychology rather than a bigger vision for psychology as a whole.

However, the future lies in the hands of those in traditional branches of psychology and the extent to which they become attracted to topics associated with positive psychology.

For example, in my own field of trauma we are beginning to see the topic of post-traumatic growth and positive change following adversity become a mainstream topic among clinical and health psychologists. The best mainstream journals on trauma and clinical psychology now regularly publish on this topic. Clinical psychology trainees often choose it for their thesis topic. So, in certain areas I'm more optimistic of breakthrough.

Perhaps what we will see is that some topics will become mainstream and practice in those areas becomes reconfigured, while the spotlight of positive psychology will narrow to some core topics. We are walking in the early footsteps of humanistic psychology. It too had a grand vision for transforming and reconfiguring the whole of psychology, but what happened is that it became a minority interest with its own specialist journals, and relatively little impact on mainstream psychological practice.

Coaching psychology can draw on positive psychology research, but I think coaching psychology should be wary of becoming seen as the applied arm of positive psychology. Coaching psychology is simply the application of all psychological knowledge to the facilitation of optimal functioning.

What Positive Psychology Coaching Interventions have the most promise?

Ilona
There are several interventions that deserve a mention here, including, for instance, mindfulness meditation, drawing a pyramid of priorities, applying one's strengths in a novel way and putting the learned optimism principles into practice. I personally like a 'Positive Portfolio' exercise, because it facilitates the development of a past-positive temporal perspective that is conducive to well-being, and enables one to re-visit their life values.

Chris
My view is that strengths-based interventions have the most promise.

Robert
I think we are at the beginning stages of creating and understanding positive psychology interventions. There is a set of established, standard interventions such as the gratitude exercise and using memorabilia to enhance positive reminiscing. These are terrific, but I think there is much more to positive psychology than this. I see the structure of the coaching session itself as a kind of intervention, a place where coaches and clients are free to break from social norms around modesty and own their strengths. I particularly like positive introductions – in which strangers speak about their unique talents and virtues – as a way of establishing the culture of the coaching session as a positive one. I try to work this into my intake sessions to set the stage for later work. I also like a concept I pulled from the savouring research literature. The idea is that when you have a success you not only enjoy it, but intentionally take a mental snap shot of the experience with the knowledge that you will go back and savour it later. Coaches can encourage their clients who are facing a likely or predictable win to be prepared to take note of details for later savouring. As we learn more about human cognition, and the relationship between cognition and emotion, I think fascinating new interventions will emerge

Stephen
I think those interventions grounded in the person-centred philosophy developed by Carl Rogers have the most promise. But person-centred psychology doesn't always fit with the needs of contemporary society which wants quick fixes. People often say to me that person-centred psychology is a good idea but we have to be practical. I agree, but I think we have to be practical in a way that keeps us directed towards our ideals. What that means is that there may be a limit to how practical we can be without losing sight of our ideals.

What can practicing coaches do to further research in positive and coaching psychology?

Ilona
I think the best way forward is the collaboration between practicing coaches and academic positive psychologists. This way both sides would play to their strengths, advancing both the science of positive psychology and the practice of coaching.

Chris
Just do it. Maybe partner with research psychologists. I have had a devil of a time in my own research getting access to 'real' people in 'real' settings. I run into the brick wall of HR gatekeepers. Maybe coaches with access could help

Shane
Practicing coaches must systematically collect data on their clients and share it with researchers. Hit and miss outcome data will not do.

Robert
I think the collaboration of coaches and positive psychology researchers could be much stronger. The two professions seem to

only now be meeting one another. Coaches are a terrific resource for researchers as they have the clients needed for efficacy research and the practical experience to test interventions. At the profession-wide level I would like to see coaches becoming more familiar with psychological techniques, and at the individual level I would like to see coaches establishing working relationships with researchers so that both can benefit from the other's expertise.

About the contributors

Ilona Boniwell is Programme Leader, MSc Applied Positive Psychology, at the University of East London, and author of *Positive Psychology in a Nutshell: A Balanced Perspective on the Science of Optimal Functioning* (PWBC, 2006).

Chris Peterson is Professor of Psychology at the University of Michigan, where he is the director of clinical training. He is a major thought leader in positive psychology and lead author, with Martin Seligman of: *Character Strengths and Virtues: A Handbook and Classification* (Oxford University Press, 2004)

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Robert Biswas-Diener is an author and coach who applies positive psychology research to people's lives and work. Robert has worked with clients from England, Australia, Canada, and the US, on issues ranging from professional development, to improving relationships, to philanthropy. Robert is co-author of the book *Positive Psychology Coaching: Putting the Science of Happiness to Work for your Clients* (Wiley, 2007).

Stephen Joseph is Professor of Psychology, Health, and Social Care at the University of Nottingham. He was co-editor of the special issue of *The Psychologist* on positive psychology, and of the volume *Positive Psychology in Practice* (Wiley, 2004). He has published in both *The Coaching Psychologist* and the *International Coaching Psychology Review.*

A pragmatic perspective: Putting positive coaching psychology into action

Carol Kauffman & P. Alex Linley

ALTHOUGH THE SENIOR AUTHOR has many professional roles, her primary endeavour is coaching. As such, she wanted to ensure that this special Positive Psychology issue of the *International Coaching Psychology Review* offered practical tools that readers could translate into coaching acumen; each article had to pass the 'so what?' test. The six empirical studies and one review paper will expand your toolbox of evidence-based coaching practices.

Today, or this week, or the next time you are in sessions, you might take a moment to consider if something from this issue might be useful. We hope these articles will help broaden your theory base, expand your coaching toolbox, and enhance your coaching skills. To do this we must tap into our creativity and synthesis skills, and sense how each article might inspire evidenced-based action. We offer just a few possibilities herein, and it is up to Coaching Psychologists to take this work further. If you make progress or encounter barriers as you strive to apply this or other novel information, consider writing a case study to broaden the knowledge base for fellow coaches. Your work might be suitable for future issues of this or other coaching journals. In addition, notice if the work you create might be studied in a qualitative or quantitative manner with pre and post measures you might use to translate your practice into research. To help you, free sessions with research mentors are available, contact the senior author or the non-profit institute: TheFoundationofCoaching.org.

We will now discuss each article presented in this issue. First, we will provide a detailed description of how this information might be applied, using the first article for illustrative purposes. After discussing application of the first article in some depth, we will discuss application of subsequent articles with less detail.

Choong and Britton's 'Character strengths and type' is chock full of potential coaching applications. First, their work underscores that more people – both clients and coaches – might benefit from completing the Values in Action (VIA) Institute Signature Strengths Questionnaire. Thanks to the generosity of The Mayerson Foundation, creators of the VIA Institute, the VIA Questionnaire is available for free at www.viastrengths.org. The instrument is a powerful pathway to greater self-awareness of strengths.

Relationships between MBTI types and VIA strengths suggest that we explore how these instruments can complement one another. Each provides information that may inform coaching style and help coaches choose what material is offered to the client. The MBTI measure of mental preferences is a fairly pure process instrument. The VIA questionnaire, in contrast, provides a bit more content, measuring cognitive, emotional, interpersonal, civic regulatory, and transcendent domains.

Choong and Britton suggest that we use these tests in tandem to 'tailor client action requests' and explore how people can capitalise on their preferences and strengths. A client of the lead author provides a good example. This senior executive is an ISTP ('I' and 'T' are particularly strong), and her top VIA strengths are: open mindedness, curiosity, persistence, love of learning, and kindness. A large portion of her job involves public speaking and training. Despite brilliance and productivity, her boss was

dissatisfied with her speaking skills. Her combination of cognitive strengths led her to give talks that exhausted audiences. Her boss wanted her to 'lighten up, be funny, and talk more off the cuff.' These suggestions may have been easily-achieved through her boss's strengths, but they were difficult for the client given her psychological constitution. Being asked to lead with her weaknesses, the client felt her energy drain away.

What could she do? What can we learn from the work of Choong and Britton that might help us effectively intervene?

The coaching process began by considering the 'lighten up and be funny' advice in greater depth. It seemed that the client's boss wanted her to connect more with the people she was training, and to keep trainees more engaged. The client explored how she could use her strength of kindness (her only interpersonal strength in the top 10). The coach helped the client to consider how this strength had developed over the years. As the client spoke, the coach anchored and augmented positive things she had to say about herself, asking how it might be possible to bring previous experiences relating to kindness into the present. This unlocked something special almost immediately.

Once the client viewed her training as an outlet for her strength of kindness, her behaviour changed. Being kind to trainees, rather than forcing trainees to learn everything, helped the client establish greater connections with her audiences. The client began to notice when audiences could not keep up with her. In response she slowed down, added more question and answer sessions, and ended on time (none of which were suggested by the coach). Training evaluations rose, the client felt more satisfied with this aspect of her work, and her boss was quite pleased with the improvement!

Choong and Britton's work may help coaches find ways to work through the plethora of information they receive, and to use knowledge of the client's MBTI types and VIA strengths to make sense of the client's experiences. This can reveal ways to tweak the client's task or task perceptions, and help them discover how they can capitalise on their personality type and character strengths.

Green, Grant and Rynsaardt's article on life coaching for students also expands our repertoire of assessments and interventions. The first important implication of their work is to suggest it may be helpful for coaches to assess clients' hardiness and hope and to become familiar with standardised as well as informal instruments to do so. Data presented in this article showed that normal high school students increased in hardiness and hope as a result of coaching. Yet, if we met these students, we might not have immediately thought that raising hardiness and hope would be an immediate goal, they might have looked as if they were doing quite well. In a similar vein we should remember that despite how competent our high level executives are, they may also be well served by our coaching them toward goals of building reserves in these areas. The measures of hardiness also provide a relatively available pre – post outcome measure of how our clients are doing, and offer valuable data that accumulated over time might provide good outcome data. On one hand it could be good feedback to assess if changing coaching strategies might be useful. Alternatively if one accumulates enough data it could form the basis of a pragmatic evidence based research paper.

The research of Green, Grant and Rynsaardt also suggests that hardiness and hope are buffers for stress, and many dozens of other studies support this assertion. This suggests an alternative pathway to stress management. Rather than tackling stress 'head-on,' one can build hope and hardiness – as well as other positive attributes – that may buffer stress in the future. Clients may appreciate being able to choose between these strategies.

Wesson and Boniwell's article on coaching for flow builds on 30 years of research

conducted by Mihaly Csikszentmihalyi. The authors nicely integrate this work with numerous well known interventions, and we recommend keeping Wesson and Boniwell's 'Table 1,' which catalogues methods for facilitating flow, close at hand. Since this entire article is on coaching applications of flow theory we will focus on one facet of the work they present.

One aspect of the large body of work they reviewed focuses on the issue that an optimal balance of challenge and skill is crucial for optimal performance. There are numerous ways to apply this knowledge when working with a client. Coaches can decrease perceived challenge levels by helping clients to break their goals into smaller pieces, or by exploring how the client might lower the bar. In contrast, if perceived challenge is too low, then the client may feel uninspired. The coach might then encourage the client to raise the bar or help them infuse the task with a larger vision. Coaches are often well-versed in these skills, but many may not be aware of the theory underlying these coaching practices.

In addition to modifying challenges, one can also ask questions, make observations, or provide suggestions regarding skill level. Although skills can certainly be lacking, the client's perception of skill level is often the primary obstacle. Fortunately, Wesson and Boniwell provide interventions for changing perceptions of skill level. Clients' perceptions of their own skills might also shift if they begin focusing on their character strengths (as suggested by Choong & Britton), or by using Solution Focused Coaching to build hardiness and hope (as suggested by Green, Grant & Rynsaardt). A list of additional interventions developed by Seligman *et al.*, which can help clients increase positive emotion and awareness of their skills, is available (Kauffman, 2006).

The work of Wesson and Boniwell, and that of Green, Grant and Rynsaardt, offer complementary ideas on how one might coach for flow and peak performance. Increasing hardiness and hope can relieve stress, freeing up psychological energy to do the more nuanced work of balancing challenge and skill. And, as one helps a client to balance challenge and skill, self-efficacy may increase, yielding increased hope and hardiness. This positive spiral, of course, is hypothetical; future research investigating this possibility may be fruitful.

Examining peak performance in greater detail, **Rolo and Gould** explored hope coaching for athletes. Like the work of Green, Grant and Rynsaardt, this study underscores the importance of assessing hope and having hope-increasing interventions in our tool boxes. Rolo's thorough literature review and citations can lead coaches to find out more about the specifics of coaching for hope.

More complex lessons stem from how the authors used hope theory to tailor interventions for college athletes. The authors developed group coaching that included games, activities, regular debriefings, and other components, in accordance with the sports culture of the institution. Most readers will not work with college athletes, but this study is relevant nevertheless; it exemplifies how psychological theories can be used to develop evidence-based interventions, and how assessments can gauge the effectiveness of coaching interventions. In addition, these alterations in usual hope coaching practice can serve as a model for those interested in coaching children for increases in hope and school performance.

The athletes in Rolo and Gould's sample were all under pressure to perform, and an optimal balance of challenge and skill level would be helpful for them. These athletes did not have the option to lower the levels of their challenges. Athletes did, however, learn about goal deconstruction, and identify action steps that helped break overwhelming goals into manageable pieces. Skills were also built through time management training and other programme components. As a result at the least, their perception of their performance went up.

Though not spelled out in detail, careful reading Rolo and Gould's work suggests that it was not just the content of the interventions that was helpful. The athletes qualitative feedback data suggested that the experience of feeling cared about was important to them. Implicit as well is the extent to which the authors had spent years in the institution developing trust of the administration, and how they were able to honour the culture within which their work is embedded. These kinds of processes are clearly congruent with the kinds of challenges executive coaches face regularly, even form the backbone of much of the work. Yet, the myriad of choices coaches make to create these optimal institutional connections are rarely elucidated or studied empirically

Next we turn to **Burke and Linley's** study, which explored how a single coaching session could enhance motivation through self-concordant thinking. The study elucidates how coaching techniques can help the client to listen through the static of multiple competing demands, and tune in to their clear 'inner voice.' As a result, they are more able to remind themselves of what they really want, and bring their goals into greater alignment with their core self and subsequently be more motivated and able to reach their goals. To achieve these ends, the authors used well-known coaching methods, including the GROW model (Goal, Reality, Options, and Will-do) to achieve these goals.

One way to build our own coaching skills from reading this article is to add self-concordance coaching to the tool box if it is not already there. Simply using the PLOC (perceived locus of causality measure), or translating that instrument into coaching questions to help clients explore their goals and priorities, could be of great value.

In essence their paper is a successful attempt to unite academia and coaching. The paper reveals how the science of positive and coaching psychology allows us to dive into the depths of human experience in a scientifically reliable and valid manner. Though the study is preliminary, it exemplifies how masterful coaches can derive hypotheses from theories, apply evidence-based interventions, conduct empirical pilot analyses, and offer major contributions to the field. The Burke and Linley team – a practicing executive coach (DB) and an academic positive psychologist (AL) – help bring together the ivory tower and the real world. More partnerships like this may guide scientists to rich fields of inquiry. Coaches can play a pivotal role in inspiring dissertations and other research, and can help academic positive psychologists study topics that are relevant to their daily coaching practice.

Silberman's study is quietly radical in it's questioning of the exact assumptions Burke and Linely explore above. In his sample of college students, he assessed their abilities to self-select positive interventions from a pool of evidence supported self-coaching exercises. The idea was – would well-being improve more that the group who picked their own interventions, or those that did not have a choice. The results were equal. What is not clear is how well these students really tuned into their inner voice prior to choosing their interventions. However, his results are an important reminder to us, as coaches, to question some of our automatic assumptions. As researchers, we need more basic research about coaching processes.

While Silberman's paper focused on whether choice increases efficacy a more crucial set of results fades into the background – all of these very simple positive psychology interventions made a difference in the wellbeing of the participants. (Longer descriptions of the interventions are available from Silberman, and are also described in Kauffman (2006). This alone is worth noting, and many of us would be well served by putting some of these exercises in our coaching toolbox. While in the US it isn't unusual to present an actual exercise to a client (a try this …) one can also deliver these interventions in a more conversational manner, or offer them as inquiries.

Last and certainly not least, is the remarkable paper on the impact of positive management on the morale and performance. **Arakawa and Greenberg's** study of how manager optimism influences productivity and engagement. Their work is a phenomenal example of how practicing coaches can translate their theories of good management into identifiable behaviours that can then be studied over time.

The first contribution is their clear operationalisation of what they consider to be positive management: Positive Leadership was divided into three clear behaviours (orienting around strengths, being positive during stress and actively recognising and praising worker behaviour. The authors also provide us, as executive coaches, with an additional set of tests and instruments that we can use to assess these dimensions. These could be added to 360 assessments or translated into more open-questions we ask during coaching sessions.

What is also important is that there is evidence that these positive qualities, that can often seem intangible (Positive Leadership) were not only measured reliably, but were connected to performance outcome measures that corporations value. Showing clear pathways to improving these factors suggests a clear ROI that supports coaches offering these services. Lastly, while positive leadership was defined and shown to connect to ROI the authors make the important point that data shows these skills are 'coachable' and not just talent based.

These results, and those from many of the studies presented in this special issue bode well for all of seeking to bring evidence based practices to the real world of coaching.

Postlogue

Stepping back for a moment, let's look once more at the connections between positive and coaching psychology. The definition proposed by Shelly Gable and Jonathan Haidt seems most relevant (2005). 'Positive Psychology is the study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions.'

It seems to us, that the client-coach relationship can create exactly these kinds of conditions and processes. As coaches we can co-create with our clients ideal and empowering contexts that allow them and their institutions to flourish. Echoing the words of Christopher Peterson in Meeting of the Minds, 'coaching is a natural home for Positive Psychology'.

We hope that the intertwining of fields continues, with Positive Psychology providing more theory and research to ground our work in science. Coaching Psychology, as it has evolved and distinguished itself from clinical psychology, has shifted the way practitioners and clients work together and connect with one another (e.g. Peterson, Stober & Kauffman, 2006). Many coaches now believe that clients are whole (or at least potentially so); and that clients will attempt to co-create an optimal working relationship, identify tangible or intangible goals, and use their strengths to overcome obstacles. These foundations of coaching are highly concordant with the foundations of Positive Psychology.

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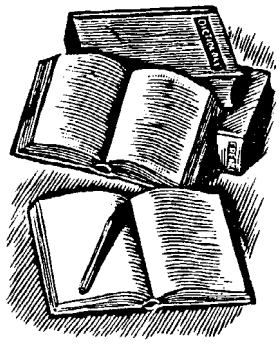
Correction: The title of the Whybrow and Palmer article in the last issue of *ICPR* was incorrect (see Vol. 1, No. 2, 75–85). It should be: **Shifting perspectives: One year into the development of the British Psychological Society Special Group in Coaching Psychology in the UK.**

Book Reviews



Where coaching psychology and positive psychology meet: Positive psychology coaching.

Positive Psychology Coaching: Putting the Science of Happiness to Work for Your Clients.
Robert Biswas-Diener & Ben Dean
Hoboken, NJ: Wiley.
288 pages. £24.99

Reviewed by P. Alex Linley

There has been much talk about positive psychology and coaching psychology, and how each may inform the other. This special issue of the *International Coaching Psychology Review* is, of course, dedicated to providing some answers to that question. But at the time of writing (January, 2007) there is not an accessible source to which the coaching psychologist with an interest in applying positive psychology in their coaching practice can readily turn. And what might coaching psychologists be looking for in a book that purports to do this? An understanding of the scientific backbone of positive psychology? Ready applications to coaching psychology practice? Top tips and recommendations for applying positive psychology in the coaching psychology engagement to leverage strengths, enhance well-being, and drive performance? Or all of the above?

The coaching psychology community is fortunate to count Robert Biswas-Diener and Ben Dean amongst its numbers. For not only have they created and delivered a book that ticks all of these boxes, they have done so in a way that makes it a joy to read and an education in itself. They are uniquely qualified to do so. Robert has literally travelled to the furthest corners of the globe in his quest to understand subjective well-being and character strengths across hugely diverse cultures, including Greenland (where he worked with traditional hunters), Calcutta (where he worked with prostitutes), Israel (where he studied empathy in the West Bank), Kenya (where he worked with Maasai tribal people), and the American heartland (where he worked with the Amish). Ben developed and delivered the hugely successful Authentic Happiness Coaching programme with positive psychology founder Martin E.P. Seligman, as well as running his own coach training organisation, MentorCoach, for over a decade. Their combined experience, expertise, and insight are apparent throughout the book.

Positive Psychology Coaching begins by taking a look at the coaching paradox (coaching has not yet reached its own full potential, despite helping others to achieve theirs) and the positive psychology solution (positive psychology can provide more of the theoretical, empirical, and conceptual maps that it is argued coaching needs to achieve its potential). It then explores happiness, positioning it as the goal that we rarely talk about but the pursuit of which we all engage in. The next two sections examine the two major foundations of positive psychology coaching: happiness and character strengths. Chapters 3 and 4 examine the core factors that influence happiness, as well as what we can do to cultivate them more, before considering specific tried-and-tested happiness interventions that readily lend themselves to the coaching psychology engagement. Chapters 5, 6 and 7 examine the application and use of strengths within coaching, dividing the focus between social strengths (fairness, social intelligence) and personal strengths (curiosity, optimism, creativity). The closing two chapters dive down into focusing on how coaches can help clients craft a perfect job before taking a

bird's eye view of what the future of positive psychology coaching might hold.

Throughout, the book is replete with gems and insights that any coaching psychologist could use on any day of the week in any coaching psychology assignment. One of my favourites is reframing the family/work/exercise trade-off (i.e. I find it difficult to exercise because it takes time out of being with family or being at work) to a family/work/health trade-off (i.e. exercise enhances health, and health means we are better with our families and at work), making them complementary rather than competitive. On a personal level, that one really worked for me!

Positive Psychology Coaching is also seeded with the experiences and perspectives of positive psychology authorities from around the world, with the authors selecting key quotes from interviews conducted with these people to enhance the reader's understanding of what positive psychology coaching is all about and why it works. And periodically throughout, we are offered boxed review points for easy reference, and top tips for applications in our coaching work. This makes the book a valuable quick reference resource while preparing for a coaching session, as much as a volume to be read through. The Appendix sets out a variety of ideas and offerings that can be tailored to individual coaching psychologists' needs and preferences for designing and delivering positive psychology coaching sessions, including strengths-based conversations, appreciative questioning, and the use of positive psychology assessments.

While 10 positive psychologists would likely provide 10 different answers as to what should be included in a consideration of positive psychology and coaching psychology, it would be churlish to criticise the book on these grounds. It doesn't include a section on flow, but it does address time orientation. It doesn't examine wisdom, but it does explore savouring. What is most important though, is how Biswas-Diener and Dean weave such a smooth narrative from the first page to the last. When starting reading, one is left feeling as if you are joining Robert on one of his famous journeys, and by the conclusion we not only arrive where we set out to be, but we have seen some fantastic things – and learned some important lessons – along the way. *Positive Psychology Coaching* is simply the best resource for coaching psychologists who want to introduce more of the positive into their practice.

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A positive psychology primer: Short, sweet but packs a punch!

Positive Psychology in a Nutshell:
A Balanced Introduction to the Science of Optimal Functioning.
Ilona Boniwell
London: PWBC.
111 pages. £7.99.

Reviewed by Carol Kauffman

Do not judge this paperback book by its cover, or maybe just a little. At first glance one sees a playful shining sunny-faced figure stretching out its little stick arms, having just popped open the nutshell that previously encased it. Weighing in at a mere 111 pages of text (the book is seven millimetres thick) it is a fraction of the size and cost of most positive psychology primers. Crack open this book, however, and one finds a surprisingly powerful addition to the positive psychology library.

Positive Psychology in a Nutshell: A Balanced Introduction to the Science of Optimal Functioning, is a comprehensive, user friendly, thoughtful introduction and critique of the field. Simply put, it is the best overview out there that can be read in a couple of sittings. Those with no psychology background find it fascinating and informative, those with serious credentials find it to be a credible overview and critique of the field. With 232 footnotes tucked out of sight in the back of the book, it is chock full of empirical studies that the more serious reader can use as a guide to find original data.

The areas covered in the tiny text are covered in 14 short chapters. Each includes an introduction, walk through the related research, tables, diagrams and lots of 'tips and tools' boxes with pithy application comments. What can easily escape the casual reader is that each of these chapters is, in fact, a somewhat frothy-appearing version of a very serious literature review and incisive critique of the field.

Positive Psychology in a Nutshell begins with an orientation on the definition of positive psychology and an introduction to the theories behind the benefits of positive affect. Following this, Boniwell explores the more cognitive theories and sums up the latest research on optimism and hope, provides tips and tools as well as quizzes (a.k.a. research instruments). The next chapter provides a quick trip through 20 years of research on flow states, including the nine conditions that foster optimal performance, tips and critique of the theory.

In chapters 5 and 6, the book steps back and examines the components of subjective well-being, and takes a more serious look at the pros and cons of feeling good and some of the problems the field faces along with a comparison of emotional happiness and the contrasting perspective of eudaimonic well being. This is an application of Aristotle's concept of living in congruence with one's potentialities (daimon = true nature), and leads to a slightly different concept, psychological well-being. From here on the book includes more of a focus on applications of these ideas including examining issues such as self determination theory, intrinsic motivation and values. From this flows a discussion of goal setting and a theoretically based look at how we use time. Then focus shifts to how to harness the tenets of positive psychology to grapple with complexities of life, making choices with work and in relationships as well as identifying our character strengths and an initial foray into coaching and organisational psychology.

Most of the chapters flow fairly well into one another. The organisation is concept driven rather than divided by how people might put it into practice. At times the topic changes seem a bit choppy, but making them smooth would have doubled the size of the book. In addition, the balance of its small size and large scope does not allow this book to be an in-depth study. The chapters often make you want more than they can offer. The latter is also the strength of the book. One can read it as a first foray into the field

to see if one would like to explore the classic tomes of *Positive Psychology in Practice* (Linley & Joseph, 2004) or Snyder and Lopez's *Handbook of Positive Psychology* (2002), or their newest text on *Positive Psychology* (2006). These weigh in at about a stone.

As the reviewer I should acknowledge that I have given a half-dozen copies of this book to clients and potential donors to the non-profit Coaching Psychology Institute at Harvard Medical School. These individuals were able to absorb the information with little background in psychology and found it quite useful.

And because as reviewer I get the last word, I have to end where we began, at the cover. Dr. Boniwell, can you have your publisher put out a second edition of the *Nutshell*, with a bit more sober accoutrements? You know – with no smiley face, more serious illustrations? Then I can give this book to my executive coaching clients without a five-minute explanation how it really is a very serious book.

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Partitioning Positive Psychology

Positive Psychology:
The Science of Happiness and
Human Strengths.
Alan Carr
Brunner-Routledge.
388 pages. $29.00.

An Introduction to Positive Psychology.
William Compton
Thomson-Wadsworth.
276 pages. $23.00.

Reviewed by Kennon M. Sheldon

Although positive psychology has made large strides in the few years since its inception, it is still in the process of defining itself. Is it really a new area of scientific inquiry, or is it just 'old wine in new bottles?' Does it offer a genuinely novel definition and conception of human nature, or is it mainly a marketing tool, a label which ultimately adds little to what we were already doing before it came along? Can any researcher become a positive psychologist, simply by declaring him/herself to be one, or simply by labelling his/her explanatory constructs in positive (rather than negative) terms? If so, perhaps positive psychology is just a fad, or a biased set of naming conventions. Furthermore, what, exactly, should count as a 'positive' phenomenon? Although the remediation of depression and the alleviation of trauma are certainly positive outcomes, these topics would not typically come under the positive psychology umbrella – why not? Because of lingering questions such as these, some researchers are still on the fence about the significance, value, and staying power of positive psychology (see Lazarus, 2003; Ryff, 2003; Tennen & Affleck, 2003).

This explains why the recent appearance of two positive psychology textbooks is of such potential importance. In any field, but

perhaps especially in new and emerging fields, introductory textbooks can play a crucial role. First, textbooks define the basic assumptions and approaches of the field. What is the field about, and what is it trying to do? Second, by their organisation, textbooks help crystallise a set of discrete sub-disciplines within that field. What are the basic topics and phenomena of the field? Third, textbooks produce a short-list of the leading theories in the field, focusing at the writer's discretion upon just a few of the theoretical perspectives available (although considerable omission is of course necessary). Such decisions help to crystallise the field, for both established researchers and for the emerging new generation of researchers.

To illustrate the conundrums faced by initial textbook writers within a new field, consider chapter titles and topics. How should they be partitioned and organised? In a positive psychology textbook, should there be chapters on emotions, cognitions, traits, selves, and cultures? Beliefs, attitudes, motives, and goals? Intelligences, skills, strengths, and competencies? Micro-system, meso-system, and macro-system? Should chapters focus on major theories of personality and social psychology (i.e. Big 5 theory, terror-management theory, self-determination theory), or upon nested functional systems (as addressed by Carver and Scheier's control theory, Bronfenbrenner's ecological systems theory, Ford's developmental systems theory), or upon distinct domains and roles within life (i.e. child, parent, friend, life-partner, and worker)? Should chapters focus on distinct positive outcomes to be understood (i.e. happiness, creativity, longevity, relationship quality), or upon the positive processes thought to lead to these outcomes (i.e. genius, well-being interventions, positive coping)? Should 'negative' topics (i.e. depression, self-handicapping, personal conflict) be entirely excluded from the book, or should such topics be incorporated after all, to lend a necessary balance to the discussion? Again, the textbook writer decides all this.

Interestingly, both Carr's *Positive Psychology: The Science of Happiness and Human Strengths* (2004) and Compton's *An Introduction to Positive Psychology* (2005) take a similar approach to organising the field. To illustrate: Carr's book has nine chapters, which in order concern happiness; flow; hope and optimism; emotional intelligence; giftedness, creativity and wisdom; positive traits and motives; positive self; positive relationships; and positive change. Compton's 12-chapter book has an introductory chapter, followed by chapters on emotions and motivation; subjective well-being; leisure, optimal experience, and peak performance; love and well-being; wellness, health psychology, and positive coping; excellence, aesthetics, creativity, and genius; thriving and flourishing; well-being interventions; religion, spirituality, and well-being; work, community, culture, and well-being; and a look towards the future.

Obviously, Compton's chapter titles are wordier than Carr's (as is true of the entire book; more on this below). Still, both authors decided to focus their chapters on various positive phenomena, grouped primarily by semantic similarity (i.e. creativity, aesthetics, and genius are grouped together; hope and optimism are grouped together) rather than by conceptual scheme. Although this approach is some ways a reasonable one, it may also reinforce an image of positive psychology as a mere smorgasbord of unconnected topics, most of which were already being investigated before it came along. Furthermore, this approach tends to segregate topics that might better be considered together (i.e. subjective well-being, thriving/flourishing, and wellness/positive coping are considered separately in three different chapters of Compton's book, despite their apparent conceptual overlap). Finally, by ignoring 'the negative' (i.e, by not making at least some connections to psychopathology and clinical psychology), both books may ignore important aspects of life without which 'the positive could not exist' (Tennen & Affleck, 2003).

Overall, Carr's text is more open to the smorgasbord critique than Compton's, as it may be guilty of considerable oversimplification (as Carr himself suggests in his foreword). No introductory chapter is provided, and there is no real attempt to characterise positive psychology as a movement within a historical context. A typical chapter visits many different concepts and terms, devoting only a single brief paragraph or two to many of them (although many sections are considerably longer). New concepts are often introduced in isolation, without being discussed in terms of the concepts immediately preceding. Thus, many possible connections are left out or ignored.

Still, Carr's book does a good job in its short descriptions – they are clear and accurate depictions of the theories being discussed. Also, the chapter summaries do a good job of beginning to tie things together. The 'controversies' section at the end of each chapter aptly (if sometimes telegraphically) describes major debates within that topic area, such as those concerning skill-vs.-trait models of emotional intelligence, the effects of rewards upon intrinsic motivation, and the proper definition of well-being. Thus, armed with this book and a teacher receptive to questions, a curious young student could learn a large amount about psychology. Students not ready or able to question so deeply could still take away many potentially useful chunks of information, because of the book's easily digestible format. Together, these features suggest that Carr's book may be the better choice for high school or lower-division classes. Notably, however, it could also serve as a useful glossary of terms and concepts for upper-level students and researchers.

In contrast, Compton's book is written at a considerably higher level. There is an introductory chapter that nicely introduces positive psychology, locating it within a historical context and showing 'why it is necessary' (Sheldon & King, 2001). Throughout the book, thoughtful connections are drawn to past movements and zeitgeists within psychology, and the words of many past thinkers are shown to have contemporary relevance (i.e. Allport, Dewey, James, Mead). Compton also provides numerous stories and anecdotes that help to bring the topics to life. Thus, for the most part, the book is more fun to read. Furthermore, Compton is more serious about comparing and integrating the various theories and topics discussed. As new concepts are introduced they are discussed in terms of the previous concepts, enabling the reader to weave the ideas together. In addition, many more complex questions and issues are entertained. For example, in his chapter 12, Compton provides a discussion of system perspectives upon positive functioning, showing why the many superficially different topics that characterise positive psychology may have to be considered together for an adequate accounting. This kind of systems thinking can help combat the 'topic-ism' or smorgasbord approach that seemingly pervades the new field (Sheldon, 2004).

Of course there is also a risk to including much history, subtlety, and complexity within an introductory textbook – simply, that it may be too much too soon for beginning students. Indeed, Compton's book is quite wordy throughout, and in some places teeters on pedantry. Furthermore, it is not always easy to follow the thread that is being developed. Overall, however, the book does a fine job of introducing positive psychology in a thoughtful and integrative way. Together, these features suggest that Compton's book is probably better for upper-division or even graduate-level classes. However, it could also serve as a stimulating text in a lower-level course consisting of able and motivated students.

The suggestion that the Carr text is more suitable for young or beginning students, and that the Compton text is more suitable for older or more advanced students, is reinforced by some differences in pedagogical tools. Carr begins each chapter with an outline, and also a set of learning objectives; in contrast, Compton

introduces each chapter only with a quote. Thus, Carr may do a better job of preparing inexperienced students to learn. Still, the books are quite similar in their end-of-chapter resources; both provide chapter summaries, terms/glossaries, references for further reading, and exercises/questions for personal exploration. Compton also provides web resources at the end of each chapter, whereas Carr does not. However, a noteworthy feature of the Carr text is that it presents many contemporary scales and measures throughout the book, with complete items and instructions to the participant. Although too little guidance is provided to the beginning student about how to use, score, and interpret these scales, the measures themselves could be a valuable resource for more advanced students and beginning researchers.

In conclusion, both of these textbooks do a reasonably good job of introducing the field of positive psychology, to somewhat different audiences. Both may suffer from a 'smorgasbord' problem, in which the presentation is organised around unconnected topic-areas instead of being organised around connected theories, systems, hierarchies, or life-domains. However, in this aspect, the two texts are little different from the emerging field as a whole, in which researchers are still jostling to get their preferred phenomena positioned within the positive psychology pantheon. Compton's book does a better job of pointing to the kind of integrative new thinking that needs to be done in order to get beyond such topicism, whereas Carr's book does a better job of distilling the field into digestible chunks for the new student.

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For registration information and further details about these events see the 'News Page' of the SGCP website on: http://www.sgcp.org.uk. For booking information please contact: Tracy White, Email: tracy@virtuallyorganised.com

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