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Broadening and building solution-focused coaching: feeling good is not enough

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ABSTRACT

Past research has found that solution-focused (SF) coaching questions led to more positive outcomes than problem-focused (PF) coaching questions. Another body of research (Broaden and Build Theory; Fredrickson, B. L. (1998). What good are positive emotions*? Revie*w of General Psychology, 2(3), 300–319) posits that positive emotions promote AQ2the discovery of novel ideas and actions including goal attainment and positive change. These theoretical frameworks have influenced coaching practitioner literature, but no research has explored their conjoint effects. We explore these by randomly allocating 512 participants in comparing (1) PF coaching questions with (2) SF coaching questions with (3) positive affect (PA) induction with (4) a SF plus PA condition (SF + PA). The broad findings of this study were that PF questions performed the worst on all measures, and that PA induction and SF coaching questions were equally effective at enhancing positive affect, increasing self-efficacy, enhancing goal approach and developing action steps. These results show, that while positive affect makes a valuable contribution to coaching outcomes, combining PA induction with SF questions produces superior outcomes than PA or SF questions alone in terms of self-efficacy, goal approach and action steps. While this research supports the central tenets of Broaden and Build Theory in terms of coaching outcomes, just making people feel good is not enough for truly effective coaching practice.

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Broaden and build theory; solution-focused; coaching; positive affect; evidence-based coaching

Practice points

- This study has direct relevance for coaching practitioners across all fields of practice, and will be particularly useful for those who are interested in the differences between solution-focused and problem-focused approaches, and those who are interested in the effective use of positive emotions in coaching.
- This study helps further develop the evidence-base associated with Broaden and Build Theory and coaching practice. The study shows that whilst positive affect induction alone can be as effective as solution-focused coaching questions, the adroit use of positive affect within a solution-focused coaching session can significantly enhance goal

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attainment and action planning compared to problem-focused questions or positive affect induction.
- This study reaffirms that solution-focused coaching questions are more effective than problem-focused coaching questions, and that coaches can be confident that explicitly incorporating positive affect into their coaching session will increase goal attainment and action planning.

Introduction

Coaching, by definition, is about helping people identify preferred outcomes and disengage from problem-saturated thinking so that they can spend more time thinking about possible solutions and pathways to success, rather than ruminating on the causes of the problem. Coaching is generally regarded to be more about asking questions that help the coachee think through their problems from different perspectives, than it is about the coach providing expert advice or solving problems for the coachee (Cox, 2013; Palmer & Whybrow, 2007). The question then arises as to what kinds of coaching questions are most effective: problem-focused questions that invite causal analysis, or solution-focused questions that invite goal-identification and the development of action pathways?

Problem-focused questions have a long tradition in the helping professions and can be effective in creating change (Freud, 1920; Lee, 2009). On the other hand, past research has indicated that solution-focused coaching questions produce greater increases in positive affect, self-efficacy and goal attainment than problem-focused questions. The role of positive affect is important here as there is also another body of research – 'Broaden and Build Theory' – which suggests that that the induction of positive affect broadens one's thought-action repertoire and stimulates creativity and goal striving.

The literature on 'Broaden and Build Theory' (Fredrickson, 1998) is now quite extensive. A search of the PsycINFO database in October 2017 using the keyword 'Broaden and Build' found a total of 397 citations. These cover a wide range of applications including its use in the areas of resilience (Goubert & Trompetter, 2017); work productivity, organisational citizenship behaviour (Lavy & Littman-Ovadia, 2017); transfer of training (Paulsen & Kauffeld, 2017) and self-improvement and positive change (Armenta, Fritz, & Lyubomirsky, 2017). In short, Broaden and Build Theory (Fredrickson, 1998) posits that positive emotions promote the discovery of novel actions, ideas and social bonds. These, in turn, are deemed to build an individual's personal resources (including physical, intellectual, social and psychological resources) and these resources help improve the odds of successful coping and goal striving (Fredrickson, 2004). Based on such reasoning it may be that inductions of positive affect are sufficient to enhance goal attainment. Indeed, many coaching practitioners incorporate aspects of Broaden and Build Theory into their coaching practices (Biswas-Diener, 2010; Kauffman, 2006).

However, there has been little empirical research into the links between positive emotions and solution-focused approaches (Kim & Franklin, 2015), and the relationship between positive affect and solution-focused coaching has not been definitively explored (Theeboom, Beersma, & Van Vianen, 2016). Given that solution-focused coaching typically makes people feel better, induces positive affect and fosters goal progression (Grant,

2012), it is possible that it is the induction of the positive affect that creates the increases in self-efficacy and goal progression rather than the solution-focused questions themselves. Such research can shine light on how coaching can be more effective and extend the existing evidence-base.

This paper reviews the extant literature on solution-focused and solution-focused coaching questions, and presents an experimental study that explores the role of positive affect in coaching by comparing (1) problem-focused coaching questions; (2) solution-focused coaching questions; (3) a positive affect-induction process and finally (4) solution-focused coaching questions combined with a positive affect-induction process. The aim of the study is to throw light on the conjoint roles that positive affect and SF coaching questions have in the coaching process. This empirical study is the first to explicitly link SF coaching to the body of knowledge associated with Broaden and Build Theory (Fredrickson, 1998).

Problems or solutions?

Given contemporary understandings of coaching, it might seem obvious to some people that solution-focused questions should be more effective than problem-focused coaching questions that invite problem analysis. However, problem-focused approaches have a long and well-respected history in a range of helping modalities such as counselling, consulting and coaching (Freud, 1920; Lee, 2009). The underpinning assumption in a problem-focused approach is that the client needs to explore the aetiology and development of the problem in order to gain the understanding deemed necessary for goal attainment. Thus problem-focused approaches tend to involve a complex analysis of the cause of problems, prior to working towards solutions. As such, it may be the case that identifying and addressing the underlying cause of a problem will lead to the development of a truly comprehensive solution.

Within organisational consulting contexts, problem-focused approaches are frequently used to solve a range of workplace problems. For instance, Root Cause Analysis techniques, such as the widely used 5 Whys (Six Sigma, 2015), are based on the assumption that a root cause forms the basis of a problem and in order to solve the problem it is vital to identify and address causal factors (Doggett, 2005). There are also a number of problem-focused approaches to coaching; for example, Kilburg's (2000) application of psychodynamic theory to executive coaching.

The psychodynamic approach to coaching has been shown to be effective for creating positive organisational change. Motsoaledi and Cilliers (2012) reported that participation in a long-term psychodynamic coaching programme significantly enhanced executives' awareness of workplace diversity. Furthermore, psychodynamic approaches to leadership development have been shown to be effective using both group coaching (Ward, van de Loo, & ten Have, 2014) and individual coaching methodologies (de Vries, Korotov, Florent-Treacy, & Rook, 2015).

Despite long-standing reports that problem-focused approaches can be effective, solution-focused approaches have been highly influential in shaping much contemporary coaching practice. Brief Solution-focused Therapy (BSFT), from which solution-focused coaching approaches have developed, originated in the work of Steve de Shazer, Insoo Kim Berg and the Brief Family Therapy Centre at Milwaukee, Wisconsin. These practitioners

felt great frustration with the problem-focus central to the diagnostic medical model (O'Hanlon & Beadle, 1996), and they found it far more effective to ask questions that focused clients' attention on building solutions and identifying personal resources rather than trying to uncover root causes, analyse complex problems or develop pathology-based diagnoses (de Shazer et al., 1986). There is now a considerable body of coaching literature supporting the use of solution-focused coaching techniques (Grant, 2016; Theeboom, et al., 2016).

Overview of the literature on problem and solution-focused coaching questions

Despite much research showing that BSFT can indeed be an effective therapeutic modality (Gingerich & Peterson, 2013), as mentioned, there has been little research that has directly compared solution-focused questions with problem-focused questions. An overview of the literature, such as it is, now follows.

Wehr (2010)

In an exploration of BSFT techniques Wehr (2010) used a total of 232 first semester psychology students in two experiments comparing a solution-focused technique with a problem-focused intervention. In the solution-focused condition students wrote about times when they did not have problems 'socializing with fellow students' (i.e., a solution-focused exception question), whereas in the problem-focused condition they described times that they had problems 'socializing with fellow students'. Compared to the problem-focused condition, the solution-focused intervention increased self-confidence and established a positive mood. In brief, thinking about the problem intensified current discomfort, whereas solution-focused thinking about exceptions enhanced a positive mood. In addition, students who had thought about the topic 'socializing with fellow students' felt more competent in socialising if they were in the group instructed to think about exception times.

Grant and O'Connor (2010)

In a pilot study designed to gain insight into coaching methodologies, Grant and O'Connor (2010) used a total of 74 mature-age students to explore the differential effects of solution-focused and problem-focused coaching questions. Participants wrote about a real-life problem that they faced, and then completed a range of measures assessing their positive and negative affect, their understanding of the problem, their confidence in being able to solve the problem and how close they felt to their goal of solving the problem. One group of participants then responded to PF questions. In the solution-focused condition, another group of participants responded to a set of solution-focused coaching questions. They then completed a second set of measures.

Both the problem-focused and the solution-focused conditions were effective at enhancing goal approach. However, the solution-focused group experienced significantly greater increases in goal approach compared with the problem-focused group. Problem-focused questions reduced negative affect and increased self-efficacy but did not increase

understanding of the nature of the problem or enhance positive affect. The solution-focused approach increased positive affect, decreased negative affect, increased self-efficacy as well as increasing participants' insight and understanding of the nature of the problem. The problem-focused and solution-focused coaching questions methodology was also used by Neipp-López, Núñez-Núñez, Carmen, and Martínez-González (2016) who replicated Grant and O'Connor's (2010) findings using 107 Spanish nursing students.

Grant (2012) and Theeboom, Beersma, and van Vianen (2013)

Grant (2012) extended Grant and O'Connor's (2010) work, this time using a total of 225 participants who were randomly assigned to either a problem-focused or solution-focused coaching condition using the same coaching question methodology originally developed by Grant and O'Connor (2010). Grant (2012) found that both the problem-focused and the solution-focused coaching conditions were effective at enhancing goal approach. Again, the solution-focused group had significantly greater increases in goal approach compared to the problem-focused group. Problem-focused questions did not impact on positive or negative affect or self-efficacy. In contrast, the solution-focused approach significantly increased positive affect, decreased negative affect and increased self-efficacy. In addition, the solution-focused group generated significantly more actions steps to help them reach their goal.

Using Grant's (2012) randomised approach to the use of solution-focused and problem-focused coaching questions Theeboom et al. (2013) examined the differential effects of solution-focused and PF coaching questions on the affect, attentional control and cognitive flexibility of 136 undergraduate students experiencing study-related stress. Echoing the findings of Grant and O'Connor's (2010) and Grant (2012) work, Theeboom et al. (2013) found that solution-focused questioning (as compared to problem-focused questioning) lead to higher positive affect and lower negative affect. Extending past findings, and exploring the notion that the effectiveness of SF approaches might not so much depend on the affective route towards cognitive flexibility/creativity but rather a more cognitive route such as lateral thinking, Theeboom et al. (2013) also reported that the solution-focused coaching questions (as compared to problem-focused) resulted in greater cognitive flexibility, but not attentional control. In an indirect test of the role of positive emotions in coaching, Theeboom et al. (2013) tested to see if positive affect mediated the relationship between type of questioning (solution-focused vs. problem-focused) and cognitive flexibility but no such relationship was found.

Key findings and current research question

The key findings of this nascent body of research indicate that solution-focused coaching questions are generally more effective than problem-focused questions in terms of enhancing positive affect, reducing negative affect, building self-efficacy, helping people develop action plans and fostering goal attainment.

The research question under consideration here is whether the positive changes (such as increased goal striving and higher self-efficacy) found in response to solution-focused coaching questions are due to the solution-focused questions themselves or to the

positive feelings that solution-focused create. From the above research, it would appear that solution-focused questions reliably induce positive affect. However, it is also known that the mere induction of positive affect is sufficient to produce similar effects as a solution-focused coaching session: Research grounded in Broaden and Build Theory (Fredrickson, 1998) demonstrates that making people feel good produces a range of change-orientated behaviours (Lin, Kao, Chen, & Lu, 2016) including creative thinking, action planning, cognitive flexibility and goal striving and team performance (Meneghel, Salanova, & Martínez, 2016). In short, are the effects of coaching simply a result of making people feel good?

The aims of the current study

The aim of this study was to compare the relative impact of problem-focused coaching questions with solution-focused coaching questions and with positive affect induction, on a range of variables related to the creation of purposeful positive change; namely positive and negative affect, self-efficacy, goal approach and action planning. This study had four conditions: (1) problem-focused coaching questions (PF); (2) solution-focused coaching questions (SF); (3) a positive affect induction (PA) and (4) solution-focused coaching questions plus a positive affect induction (SF + PA). That is, a whole coaching session was not conducted; rather participants were asked a series of problem-focused or solution-focused coaching questions or positive affect-inducing questions which were designed to emulate part of a coaching session.

Method

Participants

Participants were 512 undergraduate psychology students at an Australian university (males = 149; females = 363; Mean age = 19.77 years; *SD* = 4.51 years) who were studying a general undergraduate programme in psychology. They were not receiving education or training in coaching psychology or solution-focused coaching. Participants volunteered to take part and received a small amount of course credit for participating (1.5% of course credit). The study and data collection were conducted entirely online.

Measures

Positive and Negative Affect were measured using a 12-item version of the Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988) using a six-point response scale (1 = very slightly or not at all; 6 = extremely). Positive affect descriptors were 'happy', 'inspired', 'cheerful', 'positive', 'enthusiastic' and 'optimistic'. Cronbach's alpha was .91. Negative affect descriptors were 'angry', 'downhearted', 'anxious', 'frustrated', 'annoyed' and 'dissatisfied with self'. Participants indicated the degree 'that best reflects the way you feel right now'. Cronbach's alpha was .82.

Self-efficacy was assessed with a single item question: 'I feel very confident that I can solve this problem.'

Goal approach was assessed by asking the participants to 'please rate how close you feel right now to your goal of actually solving this problem'. Participants responded on a 0% to 100% scale where 0% represented 'not solved at all' and 100% represented 'completely solved'.

Action Steps: At the end of the experiment participants were asked to list up to 20 action steps that they could take to help reach their goal of solving the problem. They were told that they did not have to list any steps at all if they could not think of any.

Procedure

Participants were asked to identify a personal problem that they would like to solve, and were randomly assigned to either the problem-focused ($n = 126$), the solution-focused ($n = 129$) the positive affect induction ($n = 125$), or the combined solution-focused plus positive affect-induction condition ($n = 132$).

Describing the problem: After entering demographic information, participants were asked to respond to the following request:

> Please take between 10 to 12 minutes to write about a problem that you have that you would like to solve. It should be one that is frustrating for you and one that you have not, as yet, been able to solve. This problem should be real and personal, but something you feel comfortable sharing about. It might be a dilemma, that is a situation in which you feel caught between two or more possible courses of action, or a situation that you don't feel like you have a good deal of insight into.

Overview of the problem-focused condition: In the problem-focused condition participants described a real-life problem (as above) and completed a number of measures on-line including rating how close they were to reaching their goal (Time 1). They then responded to a series of problem-focused questions designed to elicit problem-focused thinking. These questions were; 'What are your thoughts about this problem?'; 'How do you react when you have those thoughts?'; 'What impact is thinking about this problem having on you?' Participants then completed a second set of post-session measures identical to the first set (Time 2). Following this, they listed any action steps which they could take to help to solve the problem.

Overview of the solution-focused condition: The solution-focused condition was designed to be a mirror image of the problem-focused condition. As in the problem-focused condition, participants described a real-life problem, and then completed the first set of measures. They then responded to a series of solution-focused coaching questions, designed to elicit solution-focused thinking. Following this, they completed a second set of measures which were the same as the first set. They then listed any action steps they could take to help to solve the problem.

Describing the solution: Participants were asked to respond to the following request: 'Think about a possible solution to the problem you have just described. Now, imagine the solution had somehow "magically" come about. Describe the solution'; 'Describe some ways you could start to move towards creating this solution'; 'What are your thoughts about this solution?'; 'How do you react when you have these thoughts?'; and 'What impact is thinking about this solution having on you?'

These questions were used in the solution-focused condition because they capture the central themes of the solution-focused approach as articulated by de Shazer (1988),

O'Connell (1998), Berg and Szabo (2005) and Furman and Ahola (1992) among others. Although these questions do not exactly replicate the intimate, nuanced and human aspect of a real coaching conversation these questions are designed to focus the respondent's attention on possible solutions and encourage the formation of positive intentions and pathways thinking (Snyder, 2002), rather than fostering a problem-focused self-reflective process. As described previously, participants then completed the second set of measures. Participants did not have access to their previous responses.

Overview of the positive affect condition: The positive affect condition followed the same format as the problem-focused and solution-focused conditions but aimed solely to induce positive affect rather than to focus participants' thoughts on the problem or on solutions to that problem. As in the problem-focused solution-focused conditions, participants described a real-life problem, and then completed the first set of measures. They then responded to a series of questions designed to induce positive affect. Following this, they completed a second set of measures which were the same as the first set. They then listed any action steps they could take to help to solve the problem.

Positive affect induction: Participants were asked to respond to the following request:

> We would now like you to think about a pleasant event that you have experienced. It could be a recent event or one from the past. It should be an event that you would enjoy writing about and sharing. Please describe the pleasant event in detail below: Take at least 5 minutes to answer. Spend a few minutes making some notes on a piece of paper and thinking about your responses and then type in your responses.

As in the previous conditions, participants were then asked a series of questions designed to further focus their thinking. They were asked: 'What are your thoughts about this pleasant event?'; 'How do you react when you have those thoughts?' and 'What impact is thinking about this pleasant event having on you?' This approach was used as a number of previous studies have found that writing about self-generated positive or pleasant events is an effective means of inducing positive affect (e.g. Horner et al., 2014; Larsen & Ketelaar, 1989; Peterson et al., 2012).

Overview of the solution-focused plus positive affect condition: The solution-focused plus positive affect condition incorporated both the positive affect induction and the solution-focused coaching questions. As in the previous conditions, participants described a real-life problem, and then completed the first set of measures. They then completed the positive affect induction and immediately afterwards also completed the solution-focused condition as described above. Following this, they completed a second set of measures which were the same as the first set. They then listed any action steps they could take to help to solve the problem. Participants did not have access to their previous responses.

Results

Data were initially analysed using a two-way repeated measures analysis of variance (ANOVA) consisting of one between-subjects factor (groups) and one within-subjects factor (time) to analyse the data for Time 1 and Time 2 for positive and negative affect, self-efficacy, and goal approach. Because the primary focus of the study was the differences between all four groups for pre–post scores for each variable, difference scores for each repeated measure were then calculated and these were used for planned contrast

analyses using Fisher's Least Significant Difference (LSD) test. The type 1 error rate was not controlled for and this should be taken into account when interpreting these results.

Alpha was set at .05. All *p*-values are two-tailed. There were no significant differences between groups on any measure at Time 1. A total of 512 participants completed the questionaries on-line. There were 126 participants in the problem-focused condition (PF), 129 in the solution-focused condition (SF), 125 in the positive affect induction (PA) and 132 in the combined solution-focused plus positive affect-induction condition (SF + PA). Means, standard deviations and difference scores are presented in Table 1.

Positive affect: A one-way ANOVA showed that there were no significant differences between groups at T1, $F(3, 503) = .009$, $p = .96$. A two-way repeated measures ANOVA for positive affect showed a significant main effect, $F(3, 493) = 205.21$, $p < .001$ and a significant time (Time 1, Time 2) by groups (PF, SF, PA and SF + PA) interaction effect, $F(3, 493) = 33.03$, $p < .001$; indicating that there were significant differences between the four groups at T2.

As shown in Table 1, *t*-tests using pre–post scores revealed that the SF, PA and SF + PA conditions significantly increased positive affect, but the PF condition did not. As regards the relative efficacy of the four conditions (see Figure 1), Fisher's LSD test revealed that PA was significantly more effective at increasing positive affect than SF + PA ($p < .001$). There was no statistically significant difference between SF + PA and SF ($p = .08$). PF was significantly less effective than the other three conditions (see Table 2).

Negative affect: A one-way ANOVA showed that there were no significant differences between groups at T1, $F(3, 503) = 1.212$, $p = .31$. A two-way repeated measures ANOVA for negative affect showed a significant main effect, $F(3, 493) = 238.11$, $p < .001$ and a

Table 1 . Means, difference scores and effect sizes.

	Time 1		Time 2		Difference score (T1 – T2)				
	M	*SD*	M	*SD*	M	*SD*	*t*	*p*	*d*
Positive affect PF	17.48	*6.04*	17.38	*6.53*	−0.09	*4.99*	*t(125) = .21*	*ns*	*−0.02*
Positive affect SF	17.09	*6.28*	20.63	*6.89*	3.5635	*6.02*	*t(125) = 6.63*	*<.001*	*0.59*
Positive affect PA	17.19	*6.84*	24.86	*7.19*	7.6393	*7.31*	*t(121) = 11.52*	*<.001*	*1.05*
Positive affect SF + PA	17.11	*6.43*	22.15	*6.90*	4.9350	*6.43*	*t(122) = 8.50*	*<.001*	*0.77*
Negative affect PF	19.11	*6.29*	18.04	*6.46*	−1.06	*5.14*	*t(125) = 2.32*	*.02*	*−0.21*
Negative affect SF	19.96	*6.58*	16.26	*6.97*	−3.77	*6.69*	*t(125) = 6.33*	*<.001*	*−0.56*
Negative affect PA	20.21	*6.26*	12.86	*6.07*	−7.39	*6.30*	*t(121) = 12.95*	*<.001*	*−1.17*
Negative affect SF + PA	18.89	*6.84*	14.69	*5.81*	−4.32	*5.66*	*t(122) = 8.46*	*<.001*	*−0.76*
Goal approach PF	5.10	*2.32*	5.76	*2.42*	0.66	*1.50*	*t(125) = 4.95*	*<.001*	*0.44*
Goal approach SF	4.87	*2.47*	6.02	*2.59*	1.11	*1.62*	*t(125) = 7.71*	*<.001*	*0.69*
Goal approach PA	4.83	*2.35*	5.75	*2.60*	0.91	*1.47*	*t(121) = 6.87*	*<.001*	*0.62*
Goal approach SF + PA	4.79	*2.45*	6.30	*2.43*	1.51	*1.68*	*t(122) = 9.97*	*<.001*	*0.90*
Self-efficacy PF	3.41	*1.23*	3.47	*1.34*	0.06	*0.94*	*t(125) = .75*	*ns*	*0.06*
Self-efficacy SF	3.34	*1.33*	3.91	*1.48*	0.55	*1.14*	*t(125) = 5.42*	*<.001*	*0.48*
Self-efficacy PA	3.42	*1.42*	3.78	*1.38*	0.36	*1.05*	*t(121) = 3.78*	*<.001*	*0.34*
Self-efficacy SF + PA	3.47	*1.37*	4.08	*1.38*	0.60	*1.23*	*t(122) = 5.41*	*<.001*	*0.49*
Action steps PF	–	–	3.98	*2.01*	–	–	–	–	–
Action steps SF	–	–	4.85	*2.57*	–	–	–	–	–
Action steps PA	–	–	4.72	*2.28*	–	–	–	–	–
Action steps SF + PA	–	–	5.79	*3.34*	–	–	–	–	–

Note: PF = Problem-focused coaching questions; SF = Solution-focused coaching questions; PA = Positive affect induction; SF + PA = Combined Solution-focused coaching questions and Positive affect.

Cohen's *d* shows the effect size. A *d* value between 0 to 0.3 is considered a small effect size; between 0.3 and 0, it is considered a moderate effect size, and an effect size bigger than 0.6 is a large effect size. For further details, see Cohen (1992).

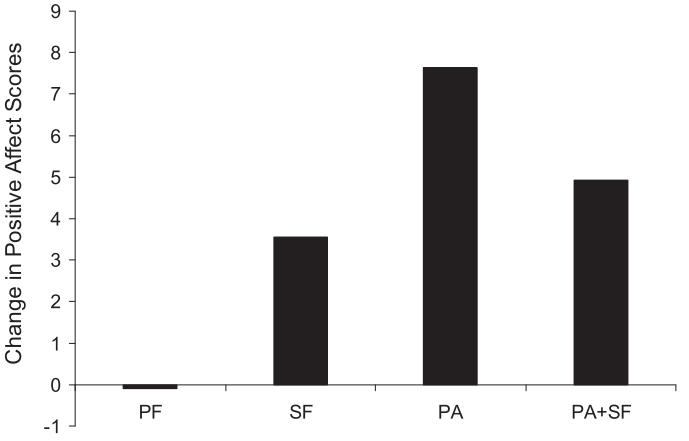

Figure 1. Mean pre–post changes in positive affect scores showing relative efficacy of each condition.

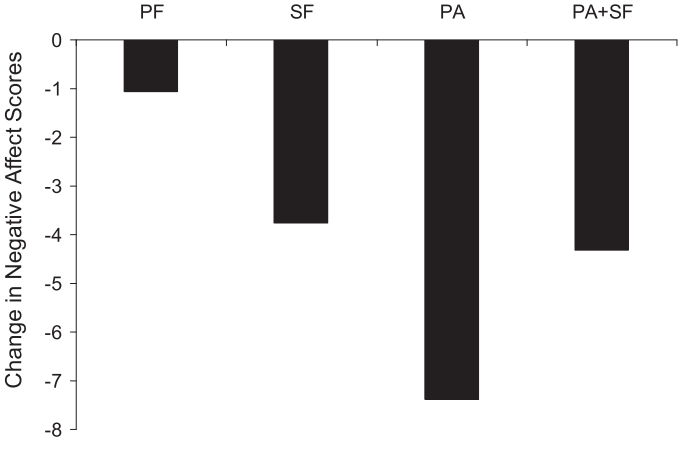

Figure 2. Mean pre–post changes in negative affect scores showing relative efficacy of each condition.

significant time (Time 1, Time 2) by groups (PF, SF, PA and SF + PA) interaction effect, $F(3, 493) = 23.33$, $p < .001$; indicating that there were significant differences between the four groups at T2.

As shown in Table 1, *t*-tests using pre–post scores revealed that all four conditions significantly decreased negative affect. As regards the relative efficacy of the four conditions (see Figure 2), Fisher's LSD test revealed that PA was significantly more effective at decreasing negative affect than SF + PA and SF ($p < .001$). There was no statistically significant difference between SF + PA and SF. PF was significantly less effective at reducing negative affect than the other three conditions ($p < .001$; see Table 2).

Self-efficacy: A one-way ANOVA showed that there were no significant differences between groups at T1, $F(3, 503) = .198$, $p = .89$. A two-way repeated measures ANOVA for self-efficacy showed a significant main effect, $F(3, 493) = 64.21$, $p < .001$ and a significant time (Time 1, Time 2) by groups (PF, SF, PA and SF + PA) interaction effect, $F(3, 493)$

Table 2 . Fischer (LSD) post hoc multiple comparisons using T1 – T2 difference scores.

Dependent variable	Group A	Group B	Difference A – B	Std. error	*p*
Positive affect	PF	SF	−3.65	0.78	.000
		PA	−7.73	0.79	.000
		SF + PA	−5.03	0.79	.000
	SF	PF	3.65	0.78	.000
		PA	−4.07	0.79	.000
		SF + PA	−1.37	0.79	.084
	PA	PF	7.73	0.79	.000
		SF	4.07	0.79	.000
		SF + PA	2.70	0.79	.001
	SF + PA	PF	5.03	0.79	.000
		SF	1.37	0.79	.084
		PA	−2.70	0.79	.001
Negative affect	PF	SF	2.71	0.75	.000
		PA	6.32	0.75	.000
		SF + PA	3.26	0.75	.000
	SF	PF	−2.71	0.75	.000
		PA	3.61	0.75	.000
		SF + PA	.054	0.75	.471
	PA	PF	−6.32	0.75	.000
		SF	−3.61	0.75	.000
		SF + PA	−3.06	0.76	.000
	SF + PA	PF	−3.26	0.75	.000
		SF	−.54	0.75	.471
		PA	3.06	0.76	.000
Goal attainment	PF	SF	−0.45	0.19	.023
		PA	−0.25	0.20	.210
		SF + PA	−0.84	0.19	.000
	SF	PF	0.45	0.19	.023
		PA	0.20	0.20	.316
		SF + PA	−0.39	0.19	.049
	PA	PF	0.25	0.20	.210
		SF	−0.20	0.20	.316
		SF + PA	−0.59	0.20	.003
	SF + PA	PF	0.84	0.19	.000
		SF	0.39	0.19	.049
		PA	0.59	0.20	.003
Self-efficacy	PF	SF	−0.49	0.13	.000
		PA	−0.29	0.13	.034
		SF + PA	−0.53	0.13	.000
	SF	PF	0.49	0.13	.000
		PA	0.19	0.13	.164
		SF + PA	−0.04	0.13	.741
	PA	PF	0.29	0.13	.034
		SF	−0.19	0.13	.164
		SF + PA	−0.24	0.14	.087
	SF + PA	PF	0.53	0.13	.000
		SF	0.04	0.13	.741
		PA	0.24	0.14	.087
Action steps[a]	PF	SF	−0.87	0.33	.009
		PA	−0.74	0.33	.024
		SF + PA	−1.81	0.32	.000
	SF	PF	0.87	0.33	.009
		PA	0.12	0.33	.703
		SF + PA	−0.93	0.33	.005
	PA	PF	0.74	0.33	.024
		SF	−0.12	0.33	.703
		SF + PA	−1.06	0.33	.001
	SF + PA	PF	1.81	0.32	.000
		SF	0.93	0.33	.005
		PA	1.06	0.33	.001

Note: PF = Problem-focused coaching questions; SF = Solution-focused coaching questions; PA = Positive affect induction; SF + PA = Combined Solution-focused coaching questions and positive affect.

[a]Because the action steps data were collected once only at T2, the action steps data are actual scores not difference scores.

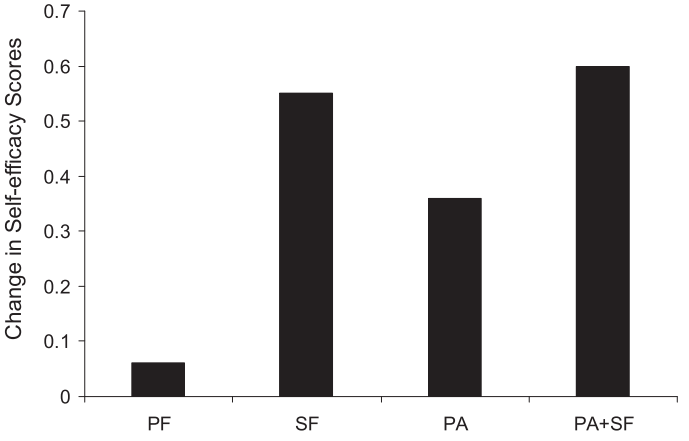

Figure 3. Mean pre–post changes in self-efficacy scores showing relative efficacy of each condition.

= 6.19, $p < .001$; indicating that there were significant differences between the four groups at T2.

As shown in Table 1, *t*-tests using pre–post scores revealed that the SF + PA, SF and PA conditions significantly increased self-efficacy, but the PF condition did not. As regards the relative efficacy of the four conditions (see Figure 3), Fisher's LSD test revealed that SF + PA, SF and PA were equally effective at increasing self-efficacy; that is there were no statistically significant differences between these three conditions. PF was significantly less effective at increasing self-efficacy than the other three conditions ($p < .001$; see Table 2).

Goal approach: A one-way ANOVA showed that there were no significant differences between groups at T1, $F(3, 503) = .412$, $p = .74$. A two-way repeated measures ANOVA for goal approach showed a significant main effect, $F(3, 493) = 222.49$, $p < .001$ and a significant time (Time 1, Time 2) by groups (PF, SF, PA and SF + PA) interaction effect, $F(3, 493) = 6.384$, $p < .01$; indicating that there were significant differences between the four groups at T2.

As shown in Table 1, *t*-tests using pre–post scores revealed that all four conditions significantly increased goal approach. As regards the relative efficacy of the four conditions

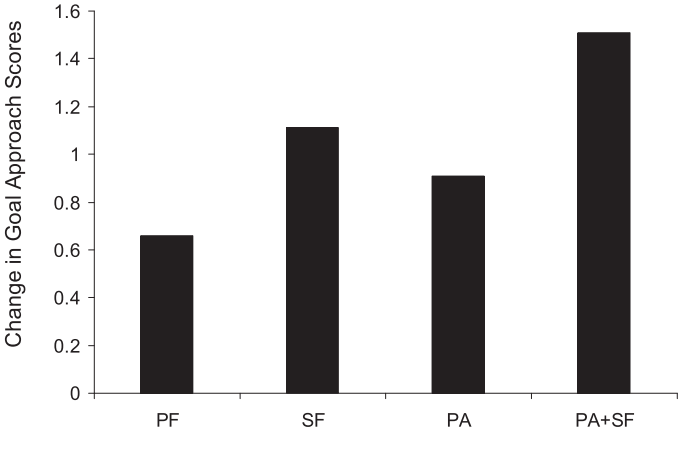

Figure 4. Mean pre–post changes in goal approach scores showing relative efficacy of each condition.

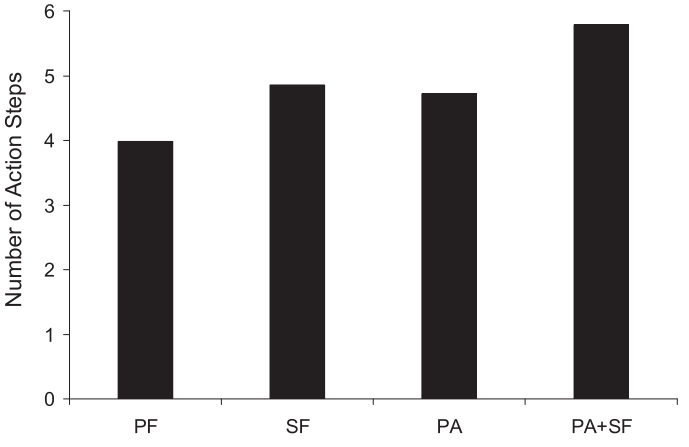

Figure 5. Mean number of action steps for each condition.

(see Figure 4), Fisher's LSD test revealed that SF + PA was significantly more effective at increasing goal approach than SF ($p < .05$) which in turn was significantly more effective than PF ($p < .05$). There was no statistically significant difference between PA and PF or between PA and SF (see Table 2).

Action steps: A Fisher's LSD test revealed that SF + PA was more effective in terms of the number of actions steps than PA ($p < .001$) and SF ($p < .005$), which in turn were significantly more effective than PF. There was no statistically significant difference between PA and SF (see Table 2 and Figure 5).

Discussion

The primary aim of this study was to see if the changes commonly found in coaching are simply the result of people feeling good, or whether SF coaching questions do in fact facilitate positive change. A secondary aim of this study was to replicate previous research into the differential impact of PF and SF coaching questions in order to see if the PF and SF coaching questions methodology could be a robust methodology for conducting future coaching-related research.

The broad findings of this study were that PA induction and SF coaching questions were equally effective at enhancing positive affect, increasing self-efficacy, enhancing goal approach and developing action steps. These results also show, that while positive affect makes a valuable contribution to coaching outcomes, combining PA induction with SF questions produces superior outcomes than PA or SF questions alone in terms of self-efficacy, goal approach and action steps: it would seem that making people feel good is not enough for truly effective coaching practice.

Positive affect and negative affect

The differential impact from the four conditions on positive and negative affect was as could be expected from prior research. The PF questions did not impact on either positive or negative affect. In contrast, the SF questions resulted in higher positive affect and

lower negative affect than the PF questions. This replicates Grant's (2012), Theeboom et al. (2016) and Neipp-López et al's (2016) findings indicating that the PF and SF coaching questions appear to be a reliable approach for conducting coaching-related research.

A new, although somewhat predictable finding, was that PA was significantly better at enhancing positive affect and reducing negative affect than all the other conditions. Interestingly, the combined SF + PA condition was as effective as the SF questions alone in enhancing positive affect and reducing negative affect. The implications of this finding for coaching practice is that coaches can be reassured that explicitly including some kind of positive affect induction process into their coaching sessions will not negatively impact on the coachee's goal striving compared to just using SF questions alone.

This is an important point for those coaches who use a strong solution-focus or goal-focused orientation in their coaching practice. Such coaches may be reluctant to allow the coaching conversation to steer away from a tight focus on solution-construction or goal-identification. This may be particularly the case for novice coaches who tend to somewhat rigidly follow goal-focused models such as GROW[1] (Clutterbuck, 2008; Grant, 2011).

Self-efficacy

Self-efficacy is a confidence rating about one's ability to perform a specific task (Bandura, 1977). Not surprisingly, one's confidence or belief in one's ability to succeed in specific tasks plays a major role in how one approaches goals and challenges, and considerable research shows that self-efficacy is a significant predictor of goal attainment (Sitzmann & Ely, 2011; Zimmerman, Bandura, & Martinez-Pons, 1992). Clearly, self-efficacy is of considerable importance in coaching and this has practical significance for coaches wishing to ground their practice in evidence-based approaches.

The findings from this study clearly demonstrate that the PF questions did not impact on self-efficacy at all, whilst the SF, PA and SF + PA conditions all significantly increased self-efficacy and there were no significant differences between SF, PA and SF + PA conditions. This finding has relevance for practical applications of Broaden and Build Theory and for coaches who use aspects of positive psychology in their coaching practice. Essentially this finding shows that simply inducing positive affect increases people's self-efficacy – in line with predictions from Broaden and Build Theory – that is, making people feel good makes them feel more confident about attaining their goals, even when the goals themselves have not been brought into the conversation. In fact, it appears that just making people feel good is as effective in terms of boosting self-efficacy as having a solution-focused coaching conversation. Does this mean that all coaches need to do is to make their clients feel good? The research presented here indicates that feeling good is not enough: more is required for truly effective coaching practice.

Goal approach and action steps

It is important to recall that goal attainment is the core business of coaching. Whilst it is important to consider factors such as self-efficacy, well-being and other psychological

aspects such as self-insight (Grant, 2008), clients come to coaching with the aim of attaining a goal of some kind (Whitmore, 2009). Thus the client's progression towards a goal is, in many ways, the essential measure of coaching 'success'. Consequently, this study's measures of goal approach (i.e., the extent to which participants felt they had attained their goal) and action steps are particularly important markers of the efficacy of the four conditions being examined.

All four conditions significantly enhanced goal approach. The finding that even the PF condition enhanced goal approach is in line with past research (Grant, 2012; Grant & O'Connor, 2010) and indicates that merely thinking about the problem, and thinking about the associated thought processes helps people feel that they have moved closer to their goal. Indeed, this kind of cathartic activity is frequently associated with some measure of goal progression (Bushman, Baumeister, & Phillips, 2001).

The SF and PA conditions were equally effective in enhancing goal approach. As in relation to previously discussed self-efficacy results, this finding is in line with predictions from Broaden and Build Theory. This is an original finding and, when taken with the previously discussed results, lends support to the central tenets of Broaden and Build Theory. This notion is further strengthened by the finding that the combined SF + PA condition was superior to all other conditions for goal approach and for action step generation. The notion that the specific inclusion of positive affect generation into SF coaching practice can improve outcomes for coaching clients has important implications for coaching practice.

Implications for coaching practice

These findings have some useful implications for SF coaching practice. SF approaches tend to ask questions that place primary importance on specific behaviours and ask clients questions that require them to describe concrete and observable behavioural states (Kim & Franklin, 2015). For example, a SF coach might ask a client, 'So, when you have less conflict with your peers, what will be happening with you? What are some of the things that you would see?'

Within SF approaches, the idea is to help the client describe new, more positive behaviours and orientate their attention towards factors that may signal the beginning of positive changes. Emotional states are addressed within the SF paradigm, but the tendency is to ask SF questions that help clients name and delineate helpful future emotion states, rather than the SF coach purposefully using some type of discrete positive emotion induction process. That is, the SF coach tends to elicit emotions that support change, rather than using emotions as an additional coaching 'tool'. For example, when eliciting future emotional states in response to a client statement that 'I feel so angry. I want to stop losing my temper with my employees' a SF coach might ask 'How will you feel when you are not losing your temper at work so much?' Whilst the eliciting of energising future emotional states is a well-validated means of facilitating positive change on its own (Oettingen et al., 2009), the present research suggests that the use of both positive affect-induction techniques and coaching questions can further boost the effectiveness of SF coaching approaches.

It is noteworthy that goal-focused coaching models such as GROW have also been criticised for being overly-focused on behaviours at the expense of emotions (Passmore, 2005). Indeed, Alexander Graham (one of the creators of the GROW model) describes

GROW as a 'behavioural-based approach to coaching' (Alexander, 2010, p. 83). Problems with a myopic focus on behavioural change may also be evident in workplace coaching. Anderson and Oliver (1987) discuss how behavioural workplace coaching tends to focus on encouraging monitoring of specific behaviours. For example, in sales coaching the coach may focus on salespeople's activities such as the number of calls made and the results obtained rather than one's emotional processes, and this somewhat myopic approach may produce less than optimal results. Thus this study's findings may have implications for a range of goal-focused coaching methodologies in addition to the SF coaching approaches that are the main focus of this article.

Using positive affect induction in coaching

Given that the current research indicates that positive affect can be a useful and significant enhancement to standard SF coaching methodologies, the question arises as to how best incorporate affect induction into SF coaching practice.

There are a number of established publications discussing the use of positive psychology and positive affect in coaching (e.g. Biswas-Diener, 2010; Kauffman, 2006; Passmore & Oades, 2015; Snyder, Lopez, & Pedrotti, 2011). Many of these focus on rote exercises that the coachee undertakes *between* coaching sessions rather than *within* the session itself. These include gratitude exercises, encouraging clients to use their signature strengths and 'three good things in life' – an exercise where people write down three things that went well each day and their causes every night for one week.

Whilst these kinds of rote set positive psychology exercises have been demonstrated to be effective (Seligman, Steen, Park, & Peterson, 2005) the current research being reported here suggests that boosting positive affect *within* the coaching session itself is key.

This can be achieved in a number of ways that are not overtly manipulative, nor have the prescribed feel associated with many rote set exercises. This can be done by engaging in naturalistic coaching conversations that stimulate positive affect, for example, by encouraging the coachee to talk about past successes, asking coaches to spend a few minutes savouring anticipated pleasant upcoming events or getting the coachee to reflect on their personal strengths.

The skill for the coach is to weave these into the coaching conversation in a naturalistic, organic fashion. For example, the coach might say something like 'before we move on, could we spend a few minutes reflecting on how you'd feel if this goes well for you? Let's take a moment to savour that. When you run that through your mind's eye – what's that like?' Of course, this specific language may not be congruent for all coaches, and so coaches should feel free to use language that does feel personally congruent.

It should be noted that positive affect induction is not a panacea. Indeed, individuals with very high levels of positive emotions have been reported to take higher risks (Isen & Geva, 1987), and an over-emphasis on making people experiencing 'positive' emotions can induce counter-productive feelings of guilt, shame and resentment (Held, 2004). Although it is unlikely that detrimentally high levels of positive affect would be induced in a coaching session, coaches should be aware of such potential risks. It is also important to note that the 'Third Wave' of cognitive–behavioural approaches place great emphasis on promoting behaviour that is consistent with personal values (Hayes, 2004). Indeed,

self-talk that is not congruent with an individual's core self-concept has been shown to have a detrimental effect on well-being (Wood, Perunovic, & Lee, 2009).

The principle here is for coaches to deliberately take the time to gently steer the coaching conversation towards topics or issues that induce positive affect and that are congruent with the coachee's personal values. In doing so, coaches can do so with the confidence that they are using evidence-based approaches to enhance both well-being and goal-striving ability of their coachees – and that surely is the aim of the coaching enterprise.

Limitations and future research

In a study such as this, there are unavoidable limitations and these should be taken into account in interpreting the findings. Firstly, the participants in this study were undergraduate psychology students who answered the questions online and so the findings may not generalise to other population groups. It would be useful to replicate this study using actual clients in a face-to-face context. Secondly, it must be noted that we used self-report measures and that objective measures of actual behaviour could not be utilised in this research context, nor was it possible to determine whether the additional action steps generated by the SF + PA group were significant or had additional particular meaning for those participants. Thirdly, as this was not a longitudinal study, there was no follow-up to examine the extent to which participants actually achieved their goals. It should be noted that there is virtually no research on the long-term effects of SF coaching (or any coaching methodology for that matter). It may be that, for some issues, by not addressing the root-cause the problem may be likely to reoccur at a later date. This is an important area for future research.

Future research should also conduct a follow-up evaluation to examine the extent to which the self-reported changes result in real-world goal attainment. Such a study would be complex to conduct, however it could significantly build on and extend the findings presented in this paper and past research into the comparisons between PF and SF coaching questions. Despite these limitations, this study has extended the existing evidence base for solution-focused practice and empirical support for the use of solution-focused questions and provided new and useful information for coaches.

Concluding remarks

The current study provides additional empirical support for the use of SF rather than PF coaching questions, further reinforcing the value of a solution-focused perspective in coaching practice. Moreover, this study provides support for the use of positive affect and Broaden and Build Theory in coaching practice. A noteworthy and original finding is that conjoint use of positive affect induction, in conjunction with the use of SF coaching questions can lead to superior coaching outcomes.

The current study provides a useful step in developing the empirical foundations for coaching psychology, and thus further develops the evidence-base for coaching practice. While this research supports the central tenets of Broaden and Build Theory, in terms of coaching outcomes, making people feel good is not enough: For truly

effective coaching practice as coaches, we need to focus on solutions as well. In this way, coaching can better deliver both enhanced well-being and improved goal attainment.

Note

1. The GROW (Whitmore, 1996) model is a simple way of structuring the coaching conversation by dividing the conversation into four sections – identifying the Goal, discussing the Reality of the situation, exploring Options and finally Wrapping-up the session by delineating specific action steps.

Disclosure statement

No potential conflict of interest was reported by the authors.

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