Capitalising on Risk Disposition

How to target Psychological Capital Interventions using the Risk Type Compass

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The turn of the millennium brought Seligman and Csikszentmihalyi's (2000) famous call for action in shifting the focus of psychology. Noting the sizable achievements made by psychology, they nevertheless challenged the discipline's primary focus on pathology. In contrast, Seligman and Csikszentmihalyi's (2000) argued that psychology should also develop our empirical understanding of the factors needed for humans to thrive. The authors concluded this call with the following:

> *As a side effect of studying positive human traits, science will learn how to buffer against and better prevent mental, as well as some physical, illnesses. As a main effect, psychologists will learn how to build the qualities that help individuals and communities, not just to endure and survive, but also to flourish.*

The emergence of 'Psychological Capital', often shortened to 'PsyCap', represents one significant outcome of this call to action.

What is Psychological Capital?

PsyCap is an umbrella term that serves to group several notable constructs identified by researchers over recent decades. Luthans et al. (2015, p. 2) define PsyCap as "an individual's positive psychological state of development that is characterized by:

Efficacy – having confidence to take on and put in the necessary effort to succeed at challenging tasks

Optimism – making a positive attribution about succeeding now and in the future

Hope – persevering toward goals and when necessary, redirecting paths to goals in order to succeed

Resilience – when beset by problems and adversity, sustaining and bouncing back and even beyond to attain success."

Each of these constructs contributes to individuals' positive psychological state in different and nuanced ways but do share commonalities. The most notable of these is the shared sense of control, intentionality, and agentic goal pursuit (Luthans & Youssef-Morgan, 2017). They also share the common theme of "positive appraisal of circumstances and probability for success based on motivated effort and perseverance" (Luthans et al., 2007, p. 550).

PsyCap is an important concept in positive psychology and has witnessed an explosion of research in recent years. This has been driven by a growing list of benefits associated with high levels of PsyCap.

Importantly, these benefits are not limited to the individual.

Why is Psychological Capital Important?

A large and growing body of evidence has attributed a range of positive benefits to higher levels of PsyCap in an organisation's workforce. Conversely, numerous negative and potentially damaging consequences have also been associated with lower levels of PsyCap. This field of research has unsurprisingly attracted interest from a growing number of industries.

A meta-analysis on 51 independent samples conducted by Avey et al. (2011) delved into data from over twelve thousand employees. Greater PsyCap was found to predict increases in various desirable outcomes, including 'job satisfaction', 'organisational commitment', 'well-being', and 'organisational citizenship behaviours'. Conversely, reduced PsyCap predicted undesirable attitudes in the form of 'cynicism for change', 'stress', 'anxiety', and 'turnover intentions'.

Perhaps most interesting of all was PsyCap's positive relationship with employee performance. This finding emerged consistently in the meta-analysis across several forms of evaluation, including self-rated performance, supervisor evaluations, and measures of objective performance (e.g. sales, product rejects, engineering designs, etc.)

This led the authors to conclude that employees' greater PsyCap relates to their attitudes in the strength and direction generally considered desirable for meeting the goals of effective human resource functioning.

The mounting evidence is clear: high levels of PsyCap will benefit the workforce in numerous ways. Improving PsyCap should therefore be an important organisational goal. But can an individual's level of PsyCap be changed? If so, by how much?

In order to answer these questions, researchers have conceptualised PsyCap's relative malleability using the following model.

State-Trait Continuum

An important characteristic of psychological constructs is their relative stability over time. To better understand PsyCap's stability, Luthans and Youssef (2007) created a 'State-Trait' continuum that illustrates how much constructs may change (see Fig. 1 below).

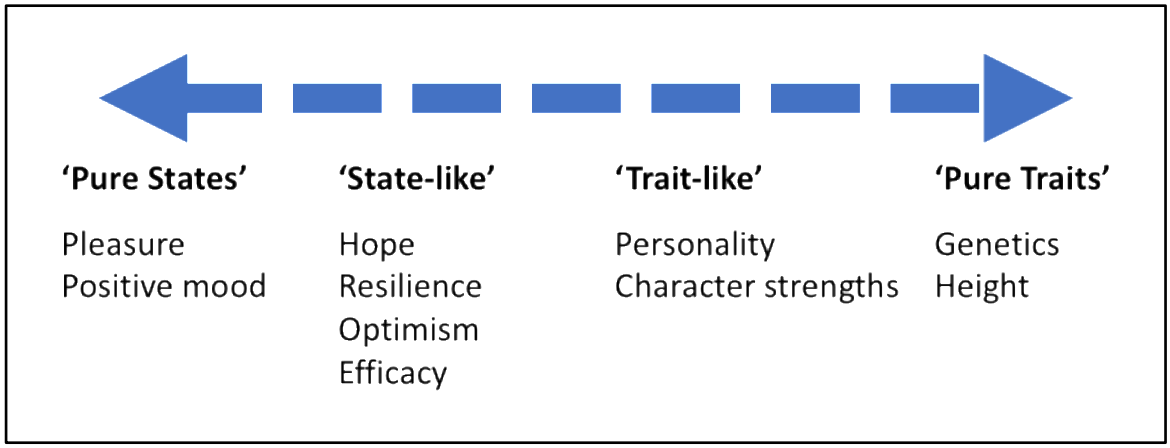


Figure 1. The State-Trait Continuum (adapted from Luthans & Youssef, 2007)

To the far left are relatively 'pure' states that are momentary, changeable, and unstable. Primary examples include moods and emotions. Moving to the right, 'state like' resources demonstrate greater stability yet are still somewhat malleable and open to development. Further along the continuum are 'trait-like' characteristics that are relatively fixed and not very malleable, at least in adults. The most relevant example here is personality. The far right of the spectrum reflects 'pure' traits that are largely immutable and fixed. Obvious examples include heritable physical characteristics.

So, given that PsyCap is considered 'state-like', does this indicate it can be developed?

Developing Psychological Capital

Broader evidence in the discipline of positive psychology estimates that when combined, nature (i.e. genetics) and nurture (e.g. how one was raised as a child) determines approximately half of the variance in one's level of positivity and happiness (Luthans & Youssef-Morgan, 2017). This increases by approximately 10% when *circumstances* are added to the equation (e.g. age, income, location, appearance).

This means that approximately 40% of positivity is under the control of the individual, making it open to intentional development and purposeful shaping (Lyubomirsky et al., 2005). Unlike positive *traits*, which are characterized by relative stability over time and applicable across situations, positive *state-like* capacities are more malleable and thus are open to change and development (Luthans et al., 2007). This finding has been supported by various longitudinal studies (Avey et al., 2010; Peterson et al., 2011).

Experimental studies indicate that not only can PsyCap be developed, but this development can occur through relatively short training interventions. A 'psychological capital intervention' (PCI) targets all four components of PsyCap through a mixture of construct-specific development and more integrative, writing, discussion, and reflective exercises.

Detailed in Luthans et al. (2010), PCI's have been found to make significant and lasting improvements to participants' PsyCap (Dello Russo & Stoykova, 2015; Demerouti et al., 2011; Sin & Lyubomirsky, 2009).

An important distinction to make is that, whilst PsyCap is 'state like', it does possess a 'trait baseline' (Luthans & Youssef-Morgan, 2017). This means that gauging information on the more 'trait-like' constructs that influence PsyCap would prove highly advantageous to developing and targeting a PCI.

This leads to the primary goal of this research – to determine the degree to which a trait-like measure, in the form of personality, can predict participants' levels of PsyCap.

The personality assessment we used to conduct this research was the Risk Type Compass.

The Risk Type Compass

The Risk Type Compass (RTC) is a trait-based personality assessment that views the 'Five Factor Model' of personality through the lens of risk. It is a Registered Test with the British Psychological Society's Psychological Testing Centre, having been audited against the technical criteria outlined by the European Federation of Psychologists' Associations.

Completing this 82-item assessment provides scores for 18 subthemes, which combine to create two scales: the 'Emotional:Calm' and 'Daring:Measured' scales. The combination of these two scale scores locates participants in one of over 200 positions of a 360° spectrum (see Figure 2 below). This is illustrated by a 'dot' on the compass. The dot's location also serves to assign participants to one of eight 'Risk Types' (or an 'Axial' group). The two underlying scales also combine to create the 'Risk Tolerance Index' (RTi), which provides a 1-100 score denoting individuals' overall risk tolerance.

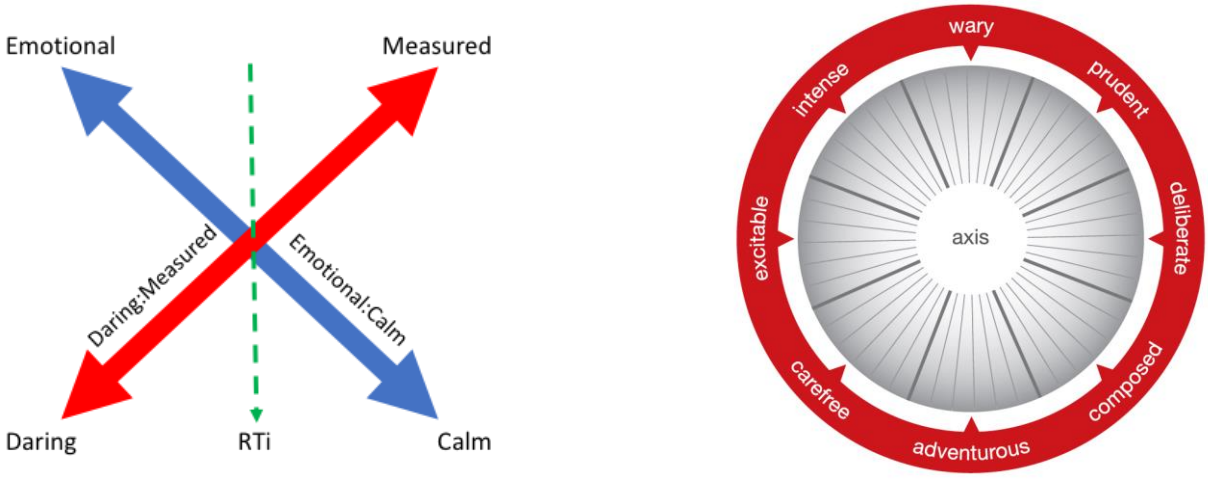


Figure 2. Structure of the Risk Type Compass' underlying scales (left) and resulting 'Compass' (right) that overlays these scales

The Emotional:Calm scale is concerned with the emotional elements of risk disposition. It plots an individual's tendency to be emotional, apprehensive and anxious at one end of the scale, or calm, confident and resilient at the other. In the context of the Five Factor Model, this scale strongly aligns with trait 'Neuroticism'. The scale consists of ten 4-item 'subthemes'.

The Daring:Measured scale is concerned with the cognitive elements of risk disposition. It reflects caution, preparedness and need for certainty at one end, and impulsiveness, flexibility and happiness to work with ambiguity and uncertainty at the other. In the context of the Five Factor Model, it draws primarily from the factors of 'Extraversion', 'Conscientiousness' and 'Openness'. The scale consists of the remaining eight 4-item 'subthemes'.

The Emotional:Calm, Daring:Measured, and RTi scales possess test retest reliability coefficients of '.92', '.91' and '.96' respectively, supporting Trickey's (2017) assertion that the Risk Type Compass assesses stable and deeply-rooted personality traits. This would place the RTC on the righthand side of the state-trait continuum (see Fig. 1).

The two underlying scales in the model used by the Risk Type Compass represent two broad influences on risk tolerance and decision making. Scores on these two scales place each participant at a point on the Compass. A gender-balanced norm group of 10,000 people determine positions on these scales. The Compass has over 200 potential positions, and placement denotes participants' Risk Type. Analysis of over 13,500 individuals indicates that Risk Types are evenly distributed across the general population.

Method

Samples from two separate studies completed the Risk Type Compass (Trickey, 2017) and a measure of Psychological Capital (Luthans et al., 2007). This enabled the research to assess the relationship between these two variables, and whether subsequent findings were replicated across two separate samples. Study one's sample consisted of 83 UK-based Police Officers. Study two's sample included 124 participants from various industries including retail, financial services, and healthcare. Each sample contained 27.7% and 64.7% females respectively.

Findings

Combining the variables of PsyCap and the RTC creates many options for analysis. PsyCap collects scores on each of the four PsyCap factors (Hope, Resilience, Efficacy and Optimism), before combining them to create an overall 'PsyCap' score. Items are scored using a 1-6 response format and averaged for each factor and total. The RTC provides data at Risk Type, scale, and subtheme levels. The analysis incorporated samples from two separate studies (s1 and s2). This enabled potential replicability, which gives greater strength to findings.

The outcome of the analysis is presented in Table 1. below. The eight Risk Types (and Axial group) are broadly ordered by RTi starting with 'Wary', which has the lowest RTi. Each study's lowest and highest PsyCap score is highlighted in red and green respectively.

Risk Type	N		PsyCap Component								PsyCap Total	
			Efficacy		Hope		Resiliency		Optimism			
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
Wary	17	33	4.75	4.34	4.82	4.15	4.91	4.48	3.89	4.40	4.60	4.35
Intense	14	24	5.37	4.00	5.24	3.76	5.60	4.19	3.92	4.11	5.03	4.02
Prudent	10	10	5.63	4.13	5.73	4.37	5.52	4.67	4.93	4.57	5.45	4.43
Excitable	14	19	5.02	4.70	5.08	4.49	5.65	4.81	3.27	4.46	4.76	4.61
Axial	8	9	5.63	4.96	5.52	4.89	5.67	5.15	4.79	5.00	5.40	5.00
Deliberate	4	7	6.04	5.14	5.21	4.95	5.04	5.38	4.83	5.19	5.28	5.17
Carefree	6	9	5.19	4.67	5.44	4.74	5.89	5.07	4.92	4.81	5.36	4.82
Composed	6	9	6.17	5.56	6.08	5.07	6.25	5.26	5.22	5.11	5.93	5.25
Adventurous	4	4	5.21	5.33	5.25	5.17	6.08	5.42	4.58	5.17	5.28	5.27

Table 1. PsyCap average component and total scores by Risk Type (s1 = Police; s2 = Mixed)

Several findings emerge from the initial analysis. The first is that the sample of police officers (s1) possessed higher average levels of PsyCap than the mixed sample (s2) with average total scores of 5.10 and 4.55 respectively. This could reflect the potentially greater levels of job-specific stress affecting police officers, as individuals possessing higher PsyCap would be more likely to remain in their position.

A second point to note is the degree of replication between the two studies. The lowest scores were typically attributed to Risk Types towards the top left of the compass, whilst the highest PsyCap scores were more prevalent towards the bottom right of the compass.

This pattern leads to the third and most important finding, which is the indication that PsyCap scores are heavily influenced by participants' position on the Emotional:Calm scale (see Fig. 2). This is because Risk Types located on the 'emotional' end of the spectrum (i.e. Wary, Intense and Excitable) often possessed lower PsyCap scores than Risk Types placed at the 'calm' end of the spectrum (i.e. Deliberate, Composed and Adventurous).

To explore this finding in more detail, a correlational analysis was conducted on PsyCap and the RTC scales. Table 2. below presents findings from the analysis. Significant correlations are highlighted, ranging in significance from 'p<0.05' (pale yellow) to 'p<0.01' (strong yellow).

RTC Scale	PsyCap Component								PsyCap Total	
	Efficacy		Hope		Resiliency		Optimism			
	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
Emotional:Calm	.361**	.329**	.369**	.456**	.356**	.492**	.597**	.423**	.531**	.510**
Daring:Measured	0.04	-.228*	-0.02	-0.153	-.337**	-0.158	0.209	-0.055	-0.005	-.181*
Risk Tolerance Index	.277*	.389**	.363**	.444**	.505**	.542**	.332**	.426**	.446**	.540**

Table 2. Correlations between PsyCap and Risk Type Compass (s1 = Police; s2 = Mixed)

The findings from the correlational analysis confirm the strength of interaction between PsyCap and the Emotional:Calm scale. The Risk Tolerance Index provides similar findings, although this will be primarily driven by the Emotional:Calm scale, which forms 50% of the RTi scale. The Daring Measured scale provided some additional insight in some cases but was not as influential.

A final regression analysis was conducted to determine the amount of variance the Emotional:Calm scale accounted for in the PsyCap variable. Findings indicated that the scale accounted for 27.3% and 25.4% of PsyCap's variance in study one and two respectively. These proportions increased significantly when additional data from the RTC subthemes and scales were added to the regression. These findings are in line with Lyubomirsky et al.'s (2005) claim that traits account for approximately 50% of the variance in our levels of positivity.

The primary outcome of the analyses is the conclusion that the Emotional:Calm scale is a powerful predictor of PsyCap, and this finding was replicated across two separate studies.

Implications

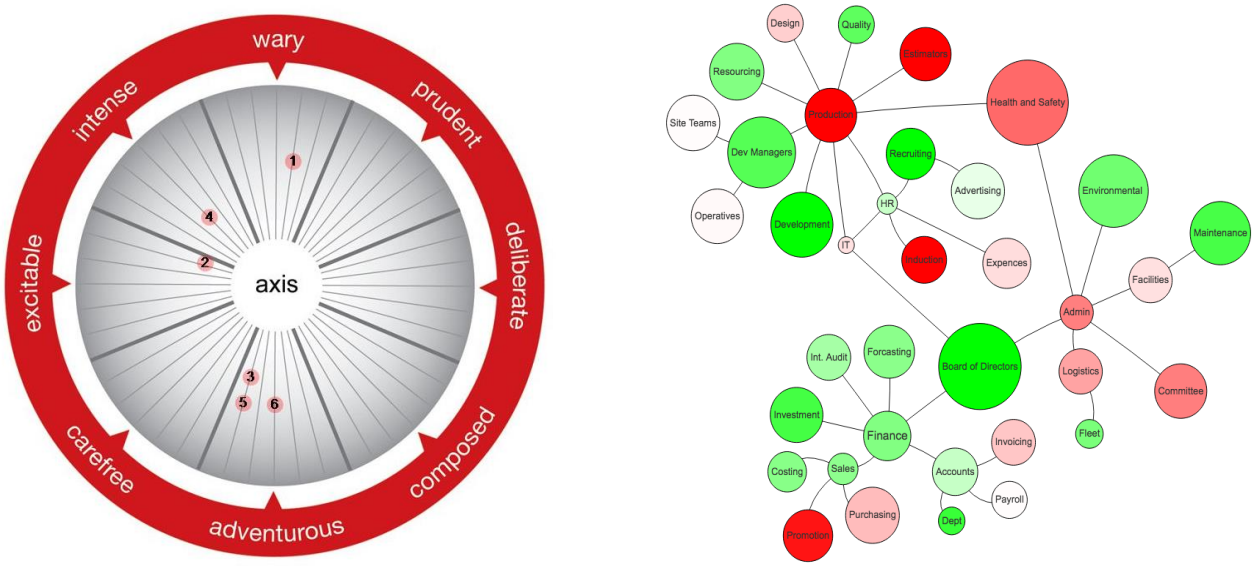
Given there is abundant evidence that PsyCap (1) can be developed, and (2) carries numerous benefits for organisations, there is little surprise that organisations are keen to harness the power of PsyCap interventions.

Yet like any good teacher, PCI practitioners must gauge the requirements of their clients and adapt their service accordingly. Failing to do this unavoidably results in a 'one-size-fits-all' approach that can drastically reduce the effectiveness of the subsequent intervention.

The current study provides clear and replicated evidence of the interaction between 'trait-like' personality and 'state-like' PsyCap. The RTC provides users with valuable insight into the temperamental dispositions of individuals and, in line with previous research, greater understanding of the PsyCap proportion an intervention could affect.

The result is a non-clinical diagnostic tool that can make a valuable contribution to organisational strategy. In addition to individual-level personal reports, the RTC can provide both group- and organisational-level outputs (see Fig 3. below).

Fig. 3. The RTC can assess groups (left) and the organisation (right)



The above figure illustrates how the RTC can offer users insight into every level of the organisation, enabling identification of those most at risk of reduced PsyCap, and targeting interventions as a result.

The RTC's ability to generate an organisational overview can act as a 'heat map' that provides management with the insight needed to support departments and groups most in need. The result is evidence-based organisational strategy informed by the needs of individuals.

At the group level, the RTC can provide skilled PCI practitioners with the tools to run team workshops. Conducted after individual-level feedback, these workshops can serve to facilitate greater understanding between team members, promoting open dialogue and constructive discussion.

These reports also encompass the myriad of other benefits resulting from the multi-faceted insight the RTC incorporates.

Conclusion

PsyCap represents an empirical way of structuring, assessing and ultimately, operationalising a positive mindset. These positive psychological capacities are open to investment and development, and whilst this carries intrinsic rewards for individuals, the benefits don't end there.

Developing PsyCap will provide organisations with an unprecedented potential source of improved performance and competitive advantage through their people. Maximising this opportunity should therefore represent a significant strategic organisational goal.

About the Authors

Dr Simon Toms is a Chartered Psychologist and Associate Fellow of the British Psychological Society. In 2019, he was elected to Full Membership of the Division of Occupational Psychology. He is also a Chartered Scientist with the Science Council, Principal Practitioner with the Association for Business Psychology, published author, and PhD graduate. He currently works for Psychological Consultancy Ltd in the role of Principal Research Psychologist.

Katerina Hadjipetrou graduated from Newcastle University with a first class honours BSc in Psychology at Newcastle University, before subsequently completing an MSc is Occupational and Organisational Psychology at Northumbria University. Katerina has conducted extensive work with the UK Police Service and is dedicated to helping people achieve their best potential while improving well-being and engagement. Katerina has presented her research at the Division of Occupational Psychology's 2020 Annual Conference.

Warda Ahmad graduated from City, University of London with first-class honours in BSc Psychology (2018) and a distinction in MSc Organisational Psychology (2019). Currently, Warda works in the assessment and selection of Police and Detective Constables at the Metropolitan Police Service. Her particular interest lies in employee wellbeing, organisational change and organisational development. In addition to her professional interests, Warda is passionate about empowering and mentoring young people and is a panel member for the Wandsworth Young Person of the Year Award. She has also travelled abroad (e.g. Vietnam) to devise and implement programmes to improve access to education, in collaboration with institutions.

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