A longitudinal investigation of the relationship between unconditional positive self-regard and posttraumatic growth

Sarah Flanagan\textsuperscript{a}, Tom G. Patterson\textsuperscript{a}, Ian R. Hume\textsuperscript{a} and Stephen Joseph\textsuperscript{b,*}

\textsuperscript{a}Department of Psychology and Behavioural Sciences, Coventry University, Coventry, UK; \textsuperscript{b}School of Education, University of Nottingham, Nottingham, UK

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The present study investigated whether unconditional positive self-regard (UPSR) is associated with subsequent posttraumatic growth (PTG) following the experience of a traumatic life event. A total of 143 participants completed an online questionnaire to assess the experience of traumatic life events, posttraumatic stress, well-being and UPSR (Time 1). Three months later, 76 of the participants completed measures of well-being and perceived PTG (Time 2). Analyses were conducted to test for association between UPSR at Time 1 and perceptions of PTG at Time 2. Results showed that higher UPSR at T1 was associated with higher perceived PTG at Time 2. To measure actual growth, individual differences in well-being were computed between Time 1 and Time 2. Results showed that higher UPSR at T1 was associated with higher actual PTG. Implications of these findings are discussed and future directions for research in this area considered. Specifically, results are consistent with a person-centered understanding of therapeutic approaches to the facilitation of PTG.

Keywords: posttraumatic growth; unconditional positive self-regard; longitudinal

Eine Longitudinal-Studie zum Verhältnis von Bedingungsloser positiver Selbst-Beachtung und posttraumatischem Wachstum

Die vorliegende Studie untersucht, ob es einen Zusammenhang gibt zwischen Bedingungsloser positiver Selbst-Beachtung (UPSR) und posttraumatischem Wachstum (PTG), welches auf eine traumatische Lebenserfahrung folgt. 143 Teilnehmende füllten einen Online-Fragebogen aus, um die Erfahrung von traumatischen Lebensereignissen zu bewerten sowie posttraumatischen Stress, Gesundheit und UPSR (Zeit 1). Drei Monate später vervollständigten 76 der Teilnehmenden Messungen zu Gesundheit und wahrgenommener PTG (Zeit 2). Wir führten Analysen durch, um einen Zusammenhang zwischen UPSR Zeit 1 und Wahrnehmungen zu PTG bei Zeit 2 zu überprüfen. Die Resultate zeigten, dass ein höheres UPSR bei Zeit 1 in Verbindung stand mit höher wahrgenommenem PTG bei Zeit 2. Um tatsächliches Wachstum zu messen, wurden individuelle Differenzen zu Gesundheit zwischen Zeit 1 und Zeit 2 im Computer erfasst. Die Resultate zeigten, dass ein höheres UPSR bei Z1 tatsächlich mit höherem PTG verbunden war. Implikationen dieser Befunde werden diskutiert und Überlegungen dazu angestellt, in welche Richtung die weitere Forschung dazu gehen könnte. Insbesondere sind die Resultate mit einem personenzentrierten Verständnis des therapeutischen Zugangs zur Förderung von PTG konsistent.

*Corresponding author. Email: stephen.joseph@nottingham.ac.uk
Una investigación longitudinal de la relación entre la autoestima positiva incondicional y el crecimiento postraumático
El presente estudio investigó si la autoestima positiva incondicional está asociada con el posterior crecimiento postraumático de la vida. 143 participantes completaron un cuestionario online para evaluar la experiencia de eventos traumáticos de sus vidas, estrés postraumático, bienestar y la autoestima positiva incondicional en la primera vez (T1). Tres meses después, 76 de los participantes completaron las medidas de bienestar y de percepción de crecimiento postraumático por segunda vez (T2). Se realizaron análisis para probar la asociación entre la autoestima positiva incondicional en la primera vez (T1) y las percepciones de crecimiento postraumático en la segunda vez (T2). Los resultados mostraron que mayor autoestima positiva incondicional en T1 se asociaba con mayor crecimiento postraumático percibido en la segunda vez (T2). Para medir el crecimiento real se calcularon las diferencias individuales en el bienestar entre la primera vez (T1) y la segunda vez (T2). Los resultados mostraron que mayor autoestima positiva incondicional en T1 se asoció con mayor crecimiento postraumático real. Discutimos la implicaciones de estos hallazgos y consideramos futuras direcciones de investigación en esta área. Los resultados son específicamente consistentes con una comprensión centrada en la persona de los enfoques terapéuticos para facilitar el crecimiento postraumático.

Etude longitudinale de la relation entre le regard positif inconditionnel de soi et la croissance post-traumatique
Cette recherche tend à savoir si, suite à un événement de vie vécu de façon traumatique, le regard positif inconditionnel de soi (RPIS) est associé avec la croissance post-traumatique (CPT). 143 participants ont complété un questionnaire en ligne visant à évaluer l’expérience d’événements de vie traumatiques, le stress post-traumatique, le bien-être et le RPIS (Temps 1). Trois mois plus tard, 76 de ces participants ont complété des mesures de bien-être et de indiquaient s’ils percevaient une CPT (Temps 2). Des analyses ont testé l’association entre le RPIS au temps 1 et la perception de la CPT au temps 2. Les résultats montrent qu’un plus haut degré de RPIS au temps 1 était associé avec une plus grande CPT au temps 2. Pour mesurer la croissance actuelle, les différences individuelles de bien-être ont été codées au temps 1 et 2. Les résultats montrent qu’un plus grand RPIS au temps 1 était associé avec une plus grande CPT actuelle. Les implications de ces résultats sont discutées et des orientations futures pour la recherche sont prises en considération. De façon spécifique, les résultats sont compatibles avec la compréhension qu’à l’Approche centrée sur la personne des approches qui permettent de faciliter la CPT.

Investigación longitudinal sobre a relación entre auto-conceito incondicional positivo e desenvolvimento pós-traumático
O presente estudo investigou a hipótese de o auto-conceito incondicional positivo (ACIP) estar associado ao desenvolvimento subsequente a um acontecimento de vida traumático. 143 participantes preencheram um questionário online destinado a avaliar a vivência de acontecimentos de vida traumáticos, stress pós-traumático, bem-estar e o ACIP (Momento 1). Três meses mais tarde, 76 desses mesmos participantes preencheram escalas de bem-estar e desenvolvimento pós-traumático percebido (Momento 2). Foram levadas a cabo análises com vista a testar a existência de uma relação entre o ACIP do Momento 1 e as perceções de desenvolvimento pós-traumático do Momento 2. Os resultados demonstraram que um maior ACIP no Tempo 1 encontrava-se associado a um maior desenvolvimento pós-traumático percebido no Momento 2. Por forma a medir o desenvolvimento efetivo, foram analisadas as diferenças
individuais nas medidas de bem-estar entre o Momento 1 e o Momento 2. Os resultados demonstraram que um maior índice de ACIP no Momento 1 estava associado a um desenvolvimento pós-traumático efetivo mais elevado. São discutidas as implicações destes achados e são debatidas as direções para futuras investigações nesta área. Especificamente, os resultados são consistentes com uma compreensão centrada na pessoa das abordagens terapêuticas facilitadoras do desenvolvimento pós-traumático.

Introduction

The lifetime prevalence of exposure to a traumatic life event in the general population is extremely high, with some estimates suggesting that more than 80% of individuals experience at least one traumatic event in their lifetime (Frans, Aberg, Rimmo & Fredrikson, 2005). The experience of a traumatic or adverse life event can, for some individuals, result in posttraumatic stress (American Psychiatric Association [APA], 2013). Posttraumatic stress can lead to problems in social and occupational functioning (Regel & Joseph, 2010), but it can also give rise to posttraumatic growth (PTG).

PTG describes how the survivors of trauma may develop new perspectives on the self and the world that move them beyond their previous levels of functioning (Joseph, 2011). For example, survivors may become aware of newly discovered strengths within themselves, go on to build more intimate and meaningful relationships, and reorder their priorities in life (Calhoun & Tedeschi, 2006; Tedeschi & Calhoun, 2004). As such, PTG refers to an increase in psychological functioning as it relates to eudaimonic well-being (i.e. purpose in life) rather than hedonic well-being (i.e. pleasure in life) (Joseph & Linley, 2008). PTG has been reported following a wide range of traumatic life-events; it is estimated that 30–70% of people who experience trauma commonly report some form of positive change (Linley & Joseph, 2004).

Traditionally, research in the field of PTG has proceeded by asking people to report on their self-perceptions of how much they have changed as a result of an event. Two typical measures are the Changes in Outlook Questionnaire (Joseph, Williams, & Yule, 1993) and the Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996). However, it is recognized that the assessment of PTG using such retrospective assessment tools is limited because people may not be able to recall accurately how they have changed and their reports may be subject to distortion. For example, people who are more distressed are likely to report greater PTG (Gunty et al., 2011). For this reason, it has been suggested that whenever possible researchers should attempt to measure actual change as calculated using before and after scores on measures of well-being (Joseph & Linley, 2008). A novel element of the present study is that we used both forms of PTG assessment.

The topic of PTG is of interest to practitioners in the person-centered approach (PCA) because it has been suggested that one of the factors that facilitates PTG is unconditional positive self-regard (UPSR).

UPSR is a core construct of the PCA (Rogers, 1959), which has been characterized as a healthy form of self-relating that concerns itself with the individual’s ability to be less contingently self-accepting (Patterson & Joseph, 2006, 2013). Rogers’ original theoretical definition of UPSR describes it as follows:

When the individual perceives himself in such a way that no self-experience can be discriminated as more or less worthy of positive regard than any other, then he is experiencing unconditional positive self-regard. (Rogers, 1959, p. 209)
Drawing upon this operational definition, Patterson and Joseph (2006) developed the Unconditional Positive Self-Regard Scale (UPRS), which distinguishes two facets of unconditional positive self-regard. The first component, self-regard, reflects the expression or withholding of positive regard towards oneself. The second, unconditionality, reflects whether or not that positive self-regard is experienced without reference to either the perceived attitudes of others or to rules or values that have been internalized from the social environment. UPSR involves relating to all of one’s experiences, whether positive or negative, with warmth and a non-judgmental understanding. People differ in the extent to which they unconditionally regard themselves. Having complete unconditional positive self-regard might be regarded as an ideal and person-centered theory anticipates that most people will have at least some degree of conditional regard for themselves.

**UPSR and PTG**

The Organismic Valuing Process (OVP) theory of growth following adversity (Joseph & Linley, 2005) is based on person-centered personality theory (Joseph, 2004; Rogers, 1959). In brief, when people’s assumptive worlds are shattered they experience intrusive thoughts and images indicating a need to resolve the dissonance between the trauma-related experiences and the pre-existing assumptive world. OVP theory proposes that people are intrinsically motivated to resolve the challenged assumptive world in new and personally growthful ways. PTG therefore involves the resolution of discrepancies between the new trauma-related information and pre-existing assumptive world, and leads to the rebuilding of the assumptive world in new ways that allow the person to be more fully functioning.

According to OVP theory (Joseph & Linley, 2005), although individuals may be intrinsically motivated towards resolution of the dissonance between the trauma-related experiences and the pre-existing assumptive world, rebuilding of the assumptive world in new ways can be threatening to the person’s self-structure. Those who are most threatened would be expected to be those low on UPSR. As a result of feeling threatened such individuals are cognitively conservative and attempt to assimilate rather than accommodate their experience (Joseph, 2011).

On the other hand, individuals who are more open to and accepting of internal experience (i.e. those who have high UPSR) would be expected to be more likely to engage in successful affective-cognitive processing of traumatic material following a traumatic event than those people for whom positive self-regard is more contingent upon complying with introjected conditions of worth (i.e. those with low UPSR).

**The present study**

**Aim**

The aim of the present study was to test the following predictions in a longitudinal investigation in which measures were administered at two points in time separated by three months: (1). higher scores on UPSR at Time 1 will be associated with higher scores on perceived PTG at Time 2; (2). Higher scores on UPSR at Time 1 will be associated with higher scores on actual PTG, as calculated by subtracting Time 1 well-being scores from Time 2 well-being scores.
Method

Participants
Participants were recruited online. A link to the online study was made available on a regulated online psychological research website and a relevant, moderated psychology forum website. Both of these domains required evidence of ethical approval and the research web link was approved by website moderators, before being placed online. Participants over 18 years of age were included in the study. A total of 143 participants completed the survey measures at Time 1, while 76 participants completed the measures for a second time at Time 2 (3 months later). This time frame was chosen because it was thought to be of sufficient duration that PTG might be expected and realistic within the constraints of the study which was carried out as part of the first author’s doctoral dissertation in clinical psychology.

Procedure
Ethical approval for the present study was granted by the Coventry University Ethics Committee. Prior to being able to proceed with the study, potential participants were required to read an information sheet containing details of the study and were also required to provide consent to participating. The measures described below were administered using an online survey, which was created and stored via Bristol Online Surveys, which provides a secure server from which to develop and store quantitative surveys and their completed data.

Design
Adopting a longitudinal design, data collection occurred over two time points, with Time 2 (T2) data collected 3 months after Time 1 (T1) data.

Measures
At Time 1 respondents completed the following measures:

Checklist of life events (Blake et al., 1995)
The CLE provides a checklist of 17 difficult or stressful events, including natural disaster, transportation accident, and physical assault. The events on the checklist are consistent with the types of experiences outlined in the DSM-IV as critical event criteria that may precipitate posttraumatic stress disorder. The measure was developed for use with student and general population samples. Respondents were asked to nominate an event which was most stressful for them.

Impact of Event Scale-Revised (IES-R) (Weiss & Marmar, 1997)
Responses to the IES-R were anchored to participants’ nominated traumatic event. The IES-R is a 22-item scale that measures intrusion (e.g. “Any reminder brought back feelings about it”), avoidance (“I avoided letting myself get upset when I thought about it or was reminded of it”) and hyper-arousal (“I was jumpy and easily startled”). The IES-R has been validated for use on student and general population samples and has good internal consistency reliability, with alpha co-efficients for the subscales ranging between
.87 and .92 for intrusion, .84 and .85 for avoidance, and .79 and .90 for hyper-arousal 
(Weiss & Marmar, 1997) and it is one of the most frequently used assessment tools in 
trauma research (Elhai, Gray, Kashdan, & Franklin, 2005).

Unconditional Positive Self Regard Scale (UPRS, Patterson & Joseph, 2006)
The UPSRS is 12-item measure of the person-centred construct of unconditional positive 
self-regard. Six items assess self-regard (e.g. “I feel that I appreciate myself as a person”) 
and six unconditionality (“Whether other people criticise me or praise me makes no real 
difference to the way I feel about myself”). Individual scale items are summated, with 
higher scores indicating greater unconditional positive self-regard. Satisfactory internal 
reliability of the scale was found in a study by Patterson and Joseph (2006), with 
Cronbach’s alpha = .88 for the self-regard subscale and .79 for the conditionality subscale. 
In a separate study, internal consistency reliability was found to be .81 for full-scale 
UPSR, .89 for the self-regard subscale, and .66 for the conditionality subscale (Griffiths & 
Griffiths, 2013). The UPSRS has been shown to have strong positive correlations with a 
measure of self-compassion and moderate inverse correlations with measures of depres-
sion and anxiety (Griffiths & Griffiths, 2013).

Warwick Edinburgh Mental Well-being Scale (WEMWBS) (Tennant et al., 2007)
Well-being was also measured using the WEMWBS which is a 14-item (e.g. “I’ve been 
feeling good about myself”) measure of mental well-being, that includes both hedonic and 
eudaimonic aspects. Internal consistency reliability was reported to range from Cronbach’s 
alpha = .89.91 (Tennant et al., 2007). In addition, the WEMWBS was found to be highly 
correlated with other mental and well-being and health measures (Tennant et al., 2007). 

At time 2 respondents again completed the WEMWBS, and two measures to assess 
PTG, the Changes in Outlook Questionnaire and the Posttraumatic Growth Inventory.

Changes in Outlook Questionnaire (CiOQ; Joseph et al., 1993)
The CiOQ is a 26-item self-report measure of positive and negative psychological 
changes. The CiOQ has two sub-scales: positive psychological changes (CiOP: 11 
items, e.g. “I value my relationships much more now”; “I don’t take life for granted 
anymore”), and negative psychological changes (CiON: 15 items, e.g. “I have very little 
trust in other people now”; “I feel very much as if I’m in limbo”). The positive change 
subscale has a range of 11–66, and the negative change subscale a range of 15–90, with 
higher scores indicating greater reports of positive and negative psychological changes 
respectively. Research shows support for the factor structure, internal reliability, and 
validity of the measure (Joseph et al., 2005). It is widely used in clinical and research 
settings to assess growth in the aftermath of adversity. Alpha = .86–.88 for positive 
changes and .80–.87 for negative changes. In the present study we only used the CiOP 
as the focus of the study was only on posttraumatic growth.

Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996)
This is a 21-item (e.g. “I have a greater appreciation for the value of my own life”) 
measure of PTG. It has been shown to have satisfactory internal consistency reliability 
with Cronbach’s alpha = .67–.85 (Tedeschi & Calhoun, 1996).
Results
The number of reported life events ranged from 1–9. All participants had experienced a significant life event. The most common was “transportation accident” (49%) closely followed by “sudden unexpected death of someone close” (46%).

A cut-off score on the IES-R of 22–24 has been suggested as a threshold for PTSD (Rash, Coffey, Baschnagel, Drobes, & Saladin, 2008), suggesting that participants in the present study were experiencing low to moderate levels of posttraumatic stress (see Table 1).

Association between perceptions of growth and actual growth
In order to calculate actual PTG we computed a new score for each individual by subtracting scores on the WEMWBS at Time 1 from those at Time 2. Higher scores on the WEMWBS difference would therefore indicate actual growth.

We found a statistically significant correlation between the WEMWBS difference score and scores on the CiOP at Time 2 (\(r = .263, p < .05\)) and a trend towards a statistically significant association with the PTGI at Time 2 (\(r = .185, p < .06\)). As expected, these associations show that perceptions of growth and actual growth may be associated but they are not synonymous.

Associations between UPSR and PTG
First, we were interested in whether Time 1 scores on UPSR were associated with Time 2 scores on perceptions of PTG. Higher scores on the UPSR at Time 1 were associated with higher scores at Time 2 on both the CiOP (\(r = .363, p < 0.01\)) and the PTGI (\(r = .305, p < .01\)).

Second, we were interested in whether Time 1 scores on UPSR were associated with actual PTG as measured using the WEMWBS difference score. Higher scores on the UPSR at time 1 were associated with higher scores on the WEMWBS difference score (\(r = .216, p < .05\)).

These results show that UPSR is associated with subsequent PTG as measured using both retrospective scales and differences scores in well-being.

Table 1. Mean scores.

|                  | Time 1     | Time 2     |
|------------------|------------|------------|
|                  | Mean (SD)  | Mean (SD)  |
| Life-events      | 3.00 (1.65)| 13.67 (16.74)|
| Total IES        | 15.13 (17.86)| 5.35 (6.79) |
| Intrusion        | 7.19 (7.75)| 5.35 (6.79) |
| Avoidance        | 6.79 (7.82)| 5.35 (6.79) |
| Hypervigilance   | 3.16 (4.83)| 2.49 (4.29) |
| CiOQ positive    | 38.39 (12.08)| 27.89 (21.58)|
| PTGI             | 48.10 (9.51)| 46.53 (10.22)|

Note: IES = Impact of Event Scale; CiOQ = Changes in Outlook Questionnaire; PTGI = Posttraumatic Growth Inventory; WEMWBS = Warwick Edinburgh Mental Well-being Scale.
Discussion

The present study demonstrates that UPSR is associated with subsequent PTG in individuals reporting traumatic events. The finding is consistent with the PCA approach to PTG (Joseph, 2004; Joseph & Linley, 2005). These findings point to the importance of therapeutic approaches for trauma which seek to facilitate unconditional positive self-regard. It would seem therefore that person-centered therapy is likely to facilitate PTG insofar as it helps clients develop greater UPSR. We would encourage future research to investigate whether person-centered therapy facilitates PTG, ideally using randomized controlled designs. It was not the focus of the present study to determine whether person-centered therapy facilitates PTG but to investigate the processes that may determine its development.

Strengths, limitations and further research directions

A strength of the present study was the attempt to include both perceived and actual PTG. We found that the association between perceptions of growth and actual growth was weak emphasizing the need for research to include both types of assessment wherever possible. It may be that perceptions and actual growth reflect different processes and need to be studied separately as we have here.

Alternatively, it may be that our results relating to perceived and actual growth reflect the specific forms of measurement used here. For example, items on the WEMWBS do not map directly to those used on either the CiOP or the PTGI. Both the CiOP and PTGI focus on eudaimonic features of well-being. The WEMWBS, on the other hand, includes both hedonic and eudaimonic features of well-being. As such it may be that its use as a measure of actual growth lacks sufficient validity. Future studies should consider using measures of actual growth that more deliberately align with the content of the perceived measures.

A further complication is the time frame in which the WEMWBS was administered. Ideally, to assess actual growth the first measurement point should be prior to the traumatic event, so that the calculation of difference reflects the amount of change as a result of the event. In the present study, our measure of actual growth reflects change over the three months since the first time point but not change from a time prior to the event. As such, our measure of actual growth is not consistent with the time frame asked for by the measures of perceived growth.

Finally, there are some other ways in which future research could develop on the present study. There were only two time points at which data was collected and consequently we are unable to say whether the relationship between UPSR and PTG found in the present study would be maintained over longer periods of time. Future studies could usefully build on the findings of our study, measuring the relationship between UPSR and PTG at multiple time points following the experience of a traumatic event in order to investigate their reciprocal effects. We might expect that one of the consequences of PTG may be the development of a more unconditionally accepting relationship with oneself.

In conclusion, the study provides evidence that unconditional positive self-regard is associated with subsequent perceptions of PTG and actual PTG. There are several methodological limitations and further, more rigorous, research that can more robustly investigate the role of unconditional positive self-regard is encouraged.
Notes on contributors

Sarah Flanagan, B.Sc., D.Clin.Psych., recently graduated from the clinical psychology doctorate programme at The Universities of Coventry and Warwick. She currently works as a Clinical Psychologist for Coventry and Warwickshire Partnership Trust.

Tom Patterson is a Chartered Clinical Psychologist and a Senior Lecturer in Clinical Psychology. He is currently Academic Director of the Clinical Psychology Doctorate Training Programme at Coventry University and University of Warwick and has research interests in person-centred theory, mindfulness, dementia and the mental health of older people.

Ian Hume, PhD is a Senior Lecturer in Clinical Psychology at Coventry University specialising in quantitative research methods and an Associate Lecturer at Cardiff Metropolitan University.

Stephen Joseph, PhD., CPsychol., AFBPsS., is the convenor for the counselling and psychotherapy cluster in the School of Education at the University of Nottingham, UK. He is on the British Psychological Society’s Register of Psychologists Specializing in Psychotherapy. He is author of What Doesn’t Kill Us: The New Psychology of Posttraumatic Growth (Basic Books).

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