Empowerment (character, motivation, and regulatory mode), positive affect, and resilience

Güçlendirme (karakter, motivasyon ve düzenleme biçimi), pozitif duygu ve psikolojik sağlamlık

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Abstract

Positive affectivity plays an important role in the endowment of resilience, which in turn is an important factor for individuals' adaptation to adversities in the changing environment. Based on hope theory and the Science of Well-Being we investigate a ternary model (character, motivation, and regulatory mode) for individual empowerment that promotes positive affectivity. A total of 1,876 participants, four separate samples, responded to the Positive Affect and Negative Affect Schedule (Study I-IV), the Temperament and Character Inventory (Study I), the modified Situational Motivation Scale (Study II), the Regulatory Mode Questionnaire (Study III), and the modified Connor-Davidson Resilience Scale (Study IV). We investigated, separately, each empowerment component's relationship to positive affect (Study I-III) and the positive affect-resilience relationship (Study IV). Four regression analyses showed that character (β = .28; Study I), intrinsic motivation (β = .35; Study II) and locomotion (β = .53; Study III) predicted positive affect, which in turn, predicted resilience (β = .53; Study IV). The ternary structure of empowerment (character, intrinsic motivation, and locomotion) does indeed predict positive affect thereby endowering individuals with a strength that emerges as resilience. However, the Ternary Empowerment Model suggested here needs to be further developed and studied in order to ensure that it actually is ternary in nature.

Keywords: Cooperativeness, empowerment, intrinsic motivation, locomotion, positive affect, regulatory mode, resilience, self-directedness

Özet

Olumlu duygulanım psikolojik sağlamlığın gelişiminde önemli bir rol oynar, psikolojik sağlamlık da bireylerin değişen dönemlerinde zorluklara uyumunu etkileyen önemli bir faktördür. Bu çalışmada umut kuramına ve iyi oluş bilimine dayanarak üçlü bir modele göre (karakter, motivasyon ve düzenleme biçimi) olumlu duygulanımı etkileyen etkenler ve buna bağlı olarak bireyin güçlenmesi incelenmiştir. Dört ayrı örneklem grubundan oluşan toplam 1876 katılımcıya Pozitif-Negatif Duygu Ölçeği (Çalışma I-IV), Mizaç ve Karakter Enventari (Çalışma I), Durumsal Motivasyon Ölçeği (R) (Çalışma II), Düzenleme Biçimi Ölçeği (Çalışma III), ve Connor-Davidson Psikolojik Sağlamlık Ölçeğini (Çalışma IV) uygulanmıştır. Her güçlendirme bileşeninin positive duygulanım (Çalışma I-III), ve positive duygulanım-psikolojik sağlamlık ilişkisi (Çalışma IV) ile olan ilişkisi ayrı ayrı incelenmiştir. Regresyon analizi sonuçları karakter (β = .28; Çalışma I), içsel motivasyon (β = .35; Çalışma II), ve hareketin (β = .53; Çalışma III) olumlu duygulanımı ve bunun da psikolojik sağlamlığı (β = .53; ÇalışmaIV) etkilediğini göstermiştir. Güçlendirmenin üçlü yapısı (karakter, içsel motivasyon, ve hareket) pozitif duygulanımı etkilemekte ve bunun sonucunda bireyleri psikolojik sağlamlık açısından güçlendirmektedir. Ancak, burada bahsedilen üçlü güçlendirme modelinin gerçekten üçlü bir yapıya sahip olup olmadığının anlaşılması için yeni çalışmalara ihtiyaç vardır.

Anahtar Kelimeler: İşbirliği, güçlendirme, içsel motivasyon, hareket, olumlu duygulanım, düzenleme biçimi, psikolojik sağlamlik, kendini yönlendirme

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"If you can keep your head when all about you Are losing theirs and blaming it on you, If you can trust yourself when all men doubt you, But make allowance for their doubting too; If you can wait and not be tired by waiting, Or being lied about, don't deal in lies, Or being hated, don't give way to hating, And yet don't look too good, nor talk too wise:

If you can dream—and not make dreams your master; If you can think—and not make thoughts your aim; If you can meet with Triumph and Disaster And treat those two impostors just the same; If you can bear to hear the truth you've spoken Twisted by knaves to make a trap for fools, Or watch the things you gave your life to, broken, And stoop and build 'em up with worn-out tools."

From the poem "If—" by Rudyard Kipling

Introduction

Empowerment implies the capacity for self-awareness and knowledge (i.e., character) together with the power and strength (i.e., motivation) to take responsibility and make the right decisions and actions (i.e., regulatory mode) regarding one's and others' well-being (cf. Garcia, Lindskär & Archer, 2014, 2015). In this context, well-being is to be understood as feeling good (i.e., happiness), doing well (i.e., mature and actively virtuous living), physical health (i.e., absence of disease or infirmity), and prosperity (i.e., success, good fortune, and flourishing) (Cloninger 2004; Cloninger 2013a). That is, empowerment has a clear connection to well-being—an empowered individual is able to make selfdirected choices to improve her and others' well-being. Studies on the influences of affectivity, positive affect and negative affect, have formed the basis of much prevailing notions regarding health and well-being over different ethnical populations, gender, and both clinical and healthy volunteer populations (e.g., Adrianson et al., 2013; Archer et al., 2007, 2008; Garcia, 2011ab, 2012ab; Garcia and Archer, 2012; Garcia et al., 2010, 2012abc, 2015; Garcia and Erlandsson, 2011; Garcia and Moradi, 2012, 2013; Garcia and Siddiqui, 2009ab; Karlsson and Archer, 2007; Lindahl and Archer, 2013; Nima et al. 2013ab; Nima and Garcia, 2015; Palomo et al., 2007, 2008ab; Schütz et al., 2013ab). Consistently, these studies have described results showing that feeling enthusiastic, active, strong, or proud (i.e., positive affect) is a good measure for well-being and positively related to both agentic (e.g., self-directedness, responsibility, self-acceptance, goal-orientation) and communal (e.g., cooperativeness, tolerance towards others, empathy) behavior. In contrast feelings such as anger, guilt, shame contempt, and distress (i.e., negative affect), but also the lack of positive affect, are good measures of ill-being and positively related to anxiety, depressiveness, rumination, inaction (e.g., low exercise frequency and passive leisure activities such as watching TV) and health problems (see also Watson and Tellegen, 1985; Watson et al., 1986; Watson, Carey and Carey, 1988; Garcia, 2011).

Next, we briefly review the important association between positive affect and resilience, that is, the capacity to remain healthy in the face of adversity with flexible coping styles for life situations (Bonanno, 2004; McMahon, 2007). Resilience is an important concern for all human beings, especially in the context of the adversities in a changing world (Cloninger, 2013a). Then, based on hope theory (Snyder, 2002) and the Science of Well-Being (Cloninger, 2004), we present a ternary model of empowerment to promote positive affect: (I) hope and love, the outlook of unity and self-awareness, as a represented by optimism, self-acceptance, resourcefulness, but also trust in others, helpfulness, and empathy; (II) power and strength, the individual's innate motivational influence, and (III) regulatory

mode, the active movement for goal attainment that regulates individuals' behavior. These components are in the present study defined as (I) character, (II) intrinsic motivation, and (III) locomotion. Finally, we present and discuss the results of a set of four studies in which we investigated the association between each one of these three empowerment components, separately, and positive affect (Study I-III) and also the association between positive affect and resilience (Study IV).

Positive Affect and Resilience

Individuals that show resilience are characterized by optimism, energy, positive coping, situationalefficacy and hardiness (Cohrs et al., 2013; Connor and Davidson, 2003; Sindik and Adzija, 2013). In short, resilient individuals are individuals who experience high levels of well-being, especially, positive affectivity (e.g., Franko et al., 2004; Crum-Ciaflone and Jacobson, 2014; Margaret et al., 2003; Deroma et al., 2009; Marchand et al., 2014; Santos et al., 2013; Peng et al., 2012; Lee et al., 2013; Moore et al., 2013; Haggerty et al., 2005; Luthar and Cicchetti, 2000; Kukihara et al., 2014; Youssef et al., 2013). Indeed, the "broaden-and-build" theory (Cohn et al., 2009; Fredrickson, 2001) posits that positive affect allows individuals to construct personal, intellectual, cognitive-emotional, physical, and social resources that provide support systems for well-being. Positive affect serves as an essential ingredient for resilience since individuals who experience high levels of positive affect enjoy, for example, more effectively-functioning neuroimmune systems, higher incomes, happier marriages, and better mental health (e.g., Lyubomirksy et al., 2005ab; Shneyderman and Schwartz, 2013; Fergus and Zimmerman, 2005; Zimmerman and Brenner, 2010; Masten et al., 2007; Zimmerman, 2013; Steele et al., 2013; Ostaszewski and Zimmerman, 2006; Ramirez et al., 2013; McAllister et al., 2013; Black and Dorstyn, 2013; Xing and Sun, 2013; Batink et al., 2013; Geschwind et al., 2010, 2011). In summary, the associations between resilience and positive affect are well-founded, resilient individuals experience greater empowerment against mishaps thanks to positive affect.

A Ternary Model of Empowerment: Character, Motivation, and Regulatory Mode

Character is the expression of how individuals develop themselves, their personal goals, values and defense mechanisms (Cloninger, 2004). Character modifies the significance or meaning in the experiences of each individual's emotional reactions and habits (Cloninger, 2004; see also Garcia, 2011; Haidt, 2006). For instance, individuals who experience high levels of positive affect show higher levels of self-directedness and cooperativeness, and greater internal locus of control (Garcia et al., 2012b). In this context, the notion of hope may provide an estimation of empowerment defined as the perceived capability to derive pathways to desired goals, and motivate oneself via agentic thinking to use those pathways (Snyder, 2002). Against this background, Gana and colleagues (2013) observed that hope was associated with positive affect and optimism whereas lack of hope was linked to negative affect and to both anxiety and depression (see also Guse and Hudson, 2013; Kristiansen et al., 2014; Berthold and Ruch, 2014; Weber and Ruch, 2012; Wagner and Ruch, 2015; Moreira et al., 2015; Cloninger et al., 2012; Lewis et al., 2013; Lee et al., 2012; Kim et al., 2014; Park, 2014). In sum, character traits, such as, self-directedness and cooperativeness represent optimism, tolerance towards others, and empathy (Cloninger, 2004). These traits help the individual to believe in her/his own capacity (e.g., internal locus of control, hope in one's own ability to persevere) and see others with love (e.g., showing tolerance, being helpful and empathic). Hence, character (i.e., self-directedness and cooperativeness) is here suggested as the component of empowerment that represents the individual's capacity for self-awareness and knowledge.

Motivation is also linked to individuals' well-being (Harmon-Jones and Gable, 2008; Deci and Ryan, 1985; Sebire et al., 2009; Archer et al., 2008). Specifically, behaviors and/or activities that lead to well-being, such as physical exercise, are driven by high levels of intrinsic motivation (Brunet and Sabiston, 2011; Wilson et al., 2006; Maltby and Day, 2001; Rahman et al., 2011; Thögersen-Ntoumani and Fox, 2007; Brunet et al., 2013; Gaz and Smith, 2012). Intrinsic motivation is often defined as

performing an action or behavior because the person wants to do it and she enjoys the activity itself. In the present study, we suggest that intrinsic motivation is the agency component of empowerment. In other words, while character makes the individual aware of her capacity (i.e., hope) and her relation towards others (i.e., love), intrinsic motivation gives her the power and strength to take responsibility for moving towards well-being. That being said, having the character and motivation to be empowered might not be enough. The person needs to, step-by-step, regulate her behavior towards greater well-being.

There are two modes in which people regulate their behavior: assessment and locomotion. Assessment comprises cognitive appraisals and comparisons concerning the potential outcomes of the putative actions to achieve the goal. Locomotion, on the other hand, is the individual's capability to advance step-by-step until the goal is achieved (Higgins et al., 2003). Individuals showing high levels of assessment approach choice situations deliberately, cautiously and with reticence, therewith reflecting upon their options and goals with hesitation and even excessive circumspection. They tend to indulge in a chronic self-evaluation of themselves, their tactics and strategies, and their goals, which are meticulously defined. Individuals showing high levels of locomotion, on the other hand, approach choice situations with optimism, energy, enthusiasm, challenge, and self-confidence (Kruglanski et al., 2012; Kruglanski et al., 2000; Pierro et al., 2013; Pierro et al., 2011; Giancomantonio, Mannetti and Pierro, 2013; Garcia et al., 2015; Jimmefors et al., 2014; Higgins et al., 1997; Mauro et al., 2009). In the present study, we suggest locomotion as the empowerment component responsible for the active movement for attaining well-being. Attaining this goal involves the identification of a wide range of alternatives and options (e.g., exercise, help others) that might have personal and/or strategic constraints (e.g., lack of time to train, lack of tolerance towards others). Whatever the case, in order to achieve well-being, the individual must eventually select a course of action, that is, regulate her behavior and as the Nike commercial "just do it!".

The Present Set of Studies

Here we suggest a ternary model of empowerment: (I) hope and love, the outlook of unity and self-awareness, as a represented by optimism, self-acceptance, resourcefulness, but also trust in others, helpfulness, and empathy; (II) power and strength, the individual's innate motivational influence; and (III) regulatory mode, the active movement for goal attainment that regulates individuals' behavior. These components are in the present study defined as (I) character, (II) intrinsic motivation, and (III) locomotion, and are expected to be positively associated to positive affect (Study I-III), which in turns is positively associated to resilience (Study IV).

Method

Participants and Procedure

Study I: Character and positive affect. This data is from a previous published study (Schütz, Archer and Garcia, 2013a) and comprises 425 adolescents (211 boys, 212 girls, and 2 of unknown gender) with an age mean of 17.05 years (sd. = 2.68). The data was collected among 508 high school pupils from two different schools in the west and south of Sweden.

Study II: Intrinsic motivation and positive affect. This data comprises 617 individuals (255 males, 362 females) with and age mean of 28.92 years (*sd.* = 13.10). The data was collected from different work settings around the west and north of Sweden.

Study III: Locomotion and positive affect. This data comprises 554 adolescents and young adults (353 males, 197 females, and 4 of unknown gender) with an age mean of 21.98 years (sd. = 6.47). The data was collected in two different high schools and at a university in the west of Sweden.

Study IV: Positive affect and Resilience. Part of this data was published in another study (Garcia and Archer, 2014). It comprises 280 participants (144 males and 136 females). This sample included high

school pupils, university students, and also white-collar workers from the private and public sector (age mean = 25.60 sd = 12.81). All participants were residents of Gothenburg, Sweden.

Measures

Positive Affect (Study I-IV). The Positive Affect and Negative Affect Schedule (Watson, Clark and Tellegen,1988) allows participants to respond on a 5-point Likert scale to what extent (1 = very slightly, 5 = extremely) they experienced generally the 20 adjectives encompassing 10 positive affect and 10 negative affect within the last few weeks. The positive affect subscale, the only one used in the analysis presented here, consists of adjectives such as "strong", "proud", and "interested". The Swedish version of the Positive Affect and Negative Affect Schedule has been applied in a wide range of studies over the last decade (e.g. Garcia and Erlandsson, 2011; Nima et al., 2013ab; Schütz et al., 2013; Garcia et al., 2016, 2017; Garcia, Nima and Lindskär, 2016). It demonstrated acceptable reliability in the present set of studies (positive affect *Cronbach's α* was between .83 and .86 across all three samples).

Character (Study I). The Swedish version (e.g., Lester et al., 2016) of the Temperament and Character Inventory (Cloninger et al., 1993) consist of 238-items with forced binary answer: *yes* or *no* (Cloninger et al., 1993) that measure the four temperament and three character dimensions of Cloninger's biopsychosocial model of personality. In the present study we only used two of the character dimensions: self-directedness (e.g., "In most situations my natural responses are based on good habits that I have developed") and cooperativeness ("I often consider another person's feelings as much as my own"). In contrast to the original study in which this data was used (Schütz et al., 2013), both scales were added together to form the Self-directedness+Cooperativeness composite. The *Cronbach's* α for the Self-directedness+Cooperativeness composite was .86.

Intrinsic motivation (Study II). The Swedish and modified version (see Andersson Arntén et al., 2016) of the Situational Motivation Scale (Guay et al., 2000) measures four motivation dimensions. Each item is answered using a 7-point Likert scale (1 = extremely disagree, 7 = extremely agree). Here we only used the modified version's Intrinsic Motivation dimension (e.g., "Because I think my work is interesting"). The *Cronbach's* α in the present study was .89

Regulatory Mode (Study III). The Swedish version (see Jimmefors et al., 2014; Garcia et al., 2015; Garcia and Lindskär, 2016) of the Regulatory Mode Questionnaire (Kruglanski et al., 2000) consists of 30 items and a 6-point Likert scale (from 1 = strongly disagree to 6 = strongly agree). Here we only conducted analysis using the locomotion dimension ("I am a doer", "When I get started on something, I usually persevere until I finish it"). In the present study, *Cronbach's* α were .76 for locomotion.

Resilience (Study IV). The Swedish version (see Fahlgren et al., 2015) of the Connor-Davidson Resilience Scale modified version (Dong et al., 2013) consist of 25-items (e.g., "I am able to adapt to change") and a five-point Likert scale ($0 = totally\ disagree$, $4 = totally\ agree$). It measures a person's ability to overcome adversity and to return to her/his previously established functional baseline. In the present study *Cronbach's* α was .88.

Results and Discussion

The first three separate regression analyses (Study I-III) were conducted using each sample's positive affect score as the dependent variable and each one of the samples' empowerment measure as the independent variable (i.e., Study I: Self-directedness+Cooperativeness, Study II: intrinsic motivation, Study III: locomotion). A significant model emerged in each single study. For character in Study I: F(1,423) = 34.92, p < .001; for intrinsic motivation in Study II: F(1,617) = 88.62, p < .001; and for locomotion in Study III: F(1,563) = 220.05, p < .001. Table 1 provides information about regression coefficients for the predictor variables entered into each of the three models predicting positive affect.

Table 1. The unstandardized and standardized regression coefficients for the variables entered into the three separate models for the prediction of positive affect.

Empowerment Component	В	SE	β	t	p
STUDY I: Self-directedness+Cooperativeness	.02	.01	.28	5.91	< .001
STUDY II: Intrinsic Motivation	.14	.02	.35	9.41	< .001
STUDY III: Locomotion	.53	.04	.53	14.83	< .001

A fourth and last regression analysis was conducted for Study IV using resilience as the dependent variable and positive affect as the independent variable. This last model was also significant (F(1,249) = 54.89, p < .001) showing that positive affect was related to resilience as expected $(B = .36, SE = .05, \beta = .43, t = 7.41, p < .001)$.

In the present study, based on hope theory (Snyder, 2002) and mainly on the Science of Well-Being (Cloninger, 2004), we introduced three important reciprocally determinant empowerment components (i.e., the Ternary Empowerment Model) that promote positive affect: (I) character, (II) intrinsic motivation, and (III) locomotion. This ternary model stands for the definition of empowerment as the individual's capacity for self-awareness and knowledge (i.e., character) together with the power and strength (i.e., motivation) to take responsibility and make the right decisions and actions and (i.e., regulatory mode) regarding one's and others' well-being (cf. Garcia, Lindskär & Archer, 2014, 2015). The findings indicated that there were remarkable and strong associations between positive affect and the three components of empowerment: self-directedness and cooperativeness ($\beta = .28$), intrinsic motivation ($\beta = .35$), and locomotion ($\beta = .53$). In addition we also found a strong association between positive affect and resilience ($\beta = .43$). The associations between resilience and positive affect were shown to be robust and health promoting, not the least in view of the association between positive affect and the empowerment components (i.e., character, motivation, and regulatory mode). At a general level, our results are not surprising. Empowerment has, for instance, been associated to lower levels of diastolic blood pressure and physical stress in randomized trials (Tucker et al., 2014), to improvements in dietary behaviors (Mataji Amirrood et al., 2014), higher levels of self-efficacy, self-esteem, perceived threat, and even quality of life among groups of the elderly (e.g., Rabiei et al., 2013). In addition, the character traits measured here are good measures of mental health (Lester et al., 2016).

Limitations and Suggestions for the Future

One of the main limitations of the present study is that we only investigated one of the empowerment components at a time. Future studies should collect data from one sample and conduct mediation analyses in order to address the question of positive affect's influence on resilience through the three components of empowerment. Additionally, character or the self-awareness component of empowerment is positively associated to psychophysiological coherence, a state of calm alertness that occurs naturally with sustained positive emotions and can be induced by slow, deep breathing, relaxing, and sleeping; which in turn, increases efferent parasympathetic activity (Zohar et al., 2013). In other words, suggesting at least phenotypical (if not causal) relations among character (i.e., love and hope), heart rate variability, and health. Hence, future studies should investigate if induced psychophysiological coherence can also have a positive influence on the other two components of the Ternary Empowerment Model (i.e., intrinsic motivation and locomotion), positive affect, and resilience.

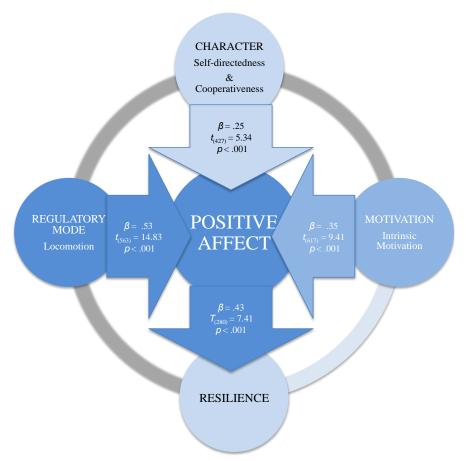


Figure 1. The Ternary Empowerment Model in which resilience is as a result of positive affect's relationship to the three components of empowerment: love and hope (Character: Cooperativeness and Self-directedness), agency (Motivation: Intrinsic motivation), and goal-pathways (Regulatory Mode: Locomotion).

Conclusion

The ternary structure of empowerment (character, intrinsic motivation, and locomotion) does indeed predict positive affect thereby endowering individuals with a strength that emerges as resilience (see Figure 1). However, the Ternary Empowerment Model suggested here needs to be further developed and studied in order to ensure that it actually is ternary in nature. In the science of well-being, Cloninger's model of character is certainly ternary, because it is composed of a physical, mental, and sociospiritual components (cf. Cloninger, 2013b, Wong and Cloninger, 2010). Our suggestion here is that seeing that locomotion is more about "just doing" and action, it might stand for the physical or body part of the empowerment model, while intrinsic motivation is the mental or thought part of the empowerment model because it is a cognitive notion of the individuals' innate power and strength. Finally, character is the sociospiritual or soul component, because it guides behavior from the individuals' awareness of the self and others. That is, an empowered individual is intrinsically motivated and moves step-by-step towards well-being, but without a soul or the awareness of who she/he is in relation to the self (self-directedness), others (cooperativeness), and the universe as a whole (self-transcendence), she/he might never be resilient enough to achieve her goal. Whether the model here is ternary or not, it is important to be aware of these structures. After all, human awareness is ternary in nature (Cloninger, 2004, 2012, 2013b; Garcia and Rosenberg, 2016).

"If you can make one heap of all your winnings And risk it on one turn of pitch-and-toss, And lose, and start again at your beginnings And never breathe a word about your loss; If you can force your heart and nerve and sinew To serve your turn long after they are gone, And so hold on when there is nothing in you Except the Will which says to them: "Hold on!"

If you can talk with crowds and keep your virtue, Or walk with Kings—nor lose the common touch, If neither foes nor loving friends can hurt you, If all men count with you, but none too much; If you can fill the unforgiving minute With sixty seconds' worth of distance run, Yours is the Earth and everything that's in it, And—which is more—you'll be a Man, my son."

From the poem "If—" by Rudyard Kipling

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