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The Broaden-and-Build Theory of Positive Emotions in Second Language Learning

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Abstract

Positive emotions can build cognitive and emotional resources. From this perspective, the consensus of opinion is that positive emotions contribute to "approach behavior" or "continued action". That is to say, individuals experiencing positive emotions actively engage with their environment and participate in activities. This paper aims to address whether the Broaden-and-Build theory of positive emotions developed by Fredrickson may facilitate second language learning. In the light of this theory, it is argued that positive emotions can widen students' scope of attention, cognition and action, and further produce a tendency toward activity engagement. In contrast, negative emotions reinforce the opposite tendency, restricting the amount of potential language input and accordingly narrowing the students' capacity for learning. The paper concludes that positive emotions are closely associated with higher levels of students' engagement and negative emotions with lower levels of engagement. In general, therefore, it seems that second language teachers should go beyond a focus on the reduction of negative emotions towards a focus on the enhancement of positive emotions.

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1. Introduction

Along with studies investigating cognitive processes involved in the second language acquisition, other lines of enquiries in the realm of second language acquisition have been focused on the factors influencing learning outcome

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in this process. Thus far, *affect* has been considered as a core component of individual differences having a close bearing on second language learning (Ellis, 1994). Correspondingly, Schumann (1997) claimed that *affect* is associated with the degree of motivation and values learners are exhibiting during language learning process. One of the variables covered by the term of *affect* is emotion. Working definitions proposed for emotion vary greatly from both commonsense and scholarly perspective. However, the consensus of opinion is that emotions, either positive or negative, are multi-component response tendencies that are short-lived and have a definite cause (Forgas, 1992; Fredrickson, 2004). That is to say, emotions begin with an individual's situational appraisal of an antecedent event thereby a cascade of response tendencies are triggered in the form of expressive or display behaviors (Fredrickson, 2004; Parkinson, 1995). Thus, the core component of emotions is appraisal or assessment and, as pointed out by Solomon and Stone (2002), this appraisal process is affected by a combination of factors including physical factors, environmental circumstances, experience etc. This shows that emotions implying appraisal and judgments are intentional and, as Fredrickson (2004, p.1368) states, "[they] are about some personally meaningful circumstance (i.e., they have an object)". Fredrickson (2004:1367) states that "certainly, moments in people's lives characterized by experiences of positive emotions – such as joy, interest, contentment, love, etc. – are moments in which they are not plagued by negative emotions, such as anxiety, sadness, anger and the like". Relative to negative emotions, positive emotions have received far too little attention, and emotion researchers' studies are, for the most part, directed to the negative emotions, such as fear, anger, anxiety and sadness (Fredrickson, 1998; Seligman & Csikszentmihalyi, 2000). The same can be said for English language teaching where no considerable attention has been paid to the investigation of emotions in general (Garret & Young, 2009), and to the powerful effect of positive emotions on second language acquisition in particular (MacIntyre & Gregersen, 2012). Many scholars have acknowledged that foreign language learning is primarily an emotionally driven task (MacIntyre, 2002; Dörnyei, 2005; Garret & Young, 2009; Bown & White, 2010; Imai, 2010). According Schumann (1997), since emotions involve appraisals which in turn call forth some cognitive processing, they are said to trigger changes primarily in cognitive activity. Thus interplay of emotional experiences together with other external factors language learners are exposed to, to a great extent, can predict the degree of success in language learning. In Bolitho et al. (2003), it is argued that one of the main principles for the development of language awareness is that "most learners learn best whilst affectively engaged, and when they willingly invest energy and attention in the learning process"(p.252). In the same vein, MacIntyre (2002) maintain that the difference between the engaged and unengaged learners can be explained by the emotions they experienced during the process of language learning. In the context of language classroom, emotions can be triggered due to a number of factors including, inter alia, interaction with peers and teachers, learning materials and students' feeling (Sansone & Thoman, 2005; Scherer, 2005; Hascher, 2008). Scherer (2005) holds that emotions can initiate and guide particular motivational behaviours from students, enabling them to engage and solve a particular learning task, or, in the contrary, stopping them from learning due to a negative emotion. As a result, emotional experiences language learners are exposed to and the motivation energy they exhibit during learning activities go hand in hand (Mendez Lopez, 2011). That is to say, the more language learners cultivate positive emotions, the more motivation they will exhibit during language learning process. According to the author, language teachers should help "foreign language learners minimize the negative impact of emotional experiences on their learning process, and promote positive emotions conducive to learning and energizing learners' motivation"(Mendez Lopez, 2011, p. 1). As mentioned above, little attention has been given to the contribution positive emotions can make to second language learning, and researchers have largely focused on negative emotions, especially language anxiety, with the aim of probing their detrimental effects on language learning process (Ely, 1986; Horwitz, Horwitz & Cope, 1986; MacIntyre & Gregersen, 2012). The aim of this paper is, first, to report studies highlighting the beneficial effects of positive emotions followed by outlining the Broaden-and-Build theory. The theory by describing the form and function of positive emotions posits that positive emotions expand cognition and behavioral tendencies. Next, the role of this theory and its potential contribution to second language learning is discussed. the generalizability of recent studies is that positive emotions can contribute to "approach behavior" or "continued action", in the sense that experiencing positive emotions can prompt individuals' pleasurable engagement and involvement with their environment as well as motivate social relationships (e.g., Cacioppo, Priester, & Berntson, 1993; Carver & Scheier 1990; Clore 1994; Davidson 1993; Frijda 1994). In contrast to negative emotions that narrow individuals' thought-action repertoires, positive emotions are capable of widening thought-action repertoires (Fredrickson 1998, 2001; Fredrickson & Branigan, 2005) that accordingly can have the

effect of building an individual's personal resources, including physical resources, intellectual resources, and social resources. In the same vein, Diener, Sandvik, and Pavot (1991) hold that the amount of time people experience positive emotions and their happiness or subjective well-being go hand in hand, that is "interventions or events which lead to intense but relatively infrequent positive experiences are unlikely to enhance long-term happiness to a substantial degree"(p.137). This is further argued by Watson (2002) that positive affectivity can increase the individuals' level of happiness, enthusiasm, and confidence. According to Fredrickson (2001), positive emotions are an indicator of flourishing, and need cultivating in order to foster well-being and psychological growth over time. In doing so, the emphasis should be on joy, interest, contentment, and love rather than on anxiety, sadness, anger, and despair. In their studies, Isen and colleagues (as cited in Fredrickson, 2004) found that individuals experiencing positive emotions are more creative (Isen, Daubman & Nowicki, 1987), exhibiting flexibility (Isen & Daubman, 1984), and integrity (Isen, Rosenzweig & Young, 1991). They further found that those experiencing positive emotions are open to information and show increased preferences for a wider range of behavioural options or experiments (Kahn & Isen, 1993). On the whole, Isen maintained that positive emotions build a "broad, flexible cognitive organization and ability to integrate diverse material" (Isen 1990, p. 89). Based on these findings and her own empirical investigations Barbara Fredrickson has developed the Broaden-and-Build theory of positive emotions. The theory is firmly rooted in positive psychology. Positive psychology is relatively a young branch of psychology which sets itself the objective of studying human strengths and virtues, with the primary focus on wellbeing and happiness (Seligman & Csikszentmihalyi, 2000). In doing so, enhancing people's positive emotions appeared to be at the locus of attention, serving as a tool to foster human being's flourishing.

2. The Broaden-and-Build theory

In general, the theory is developed "to describe the form and function of a subset of positive emotions, including joy, interest, contentment, and love" (Fredrickson, 1998, p. 300). The theory posits that experiences of positive emotions can widen individuals' awareness and prompt novel and exploratory thoughts and actions, building up skills and personal resources over time (Fredrickson, 2001). Fredrickson, further, believes that positive emotions can contribute to human flourishing and wellbeing by widening thought-action repertoires that in turn can be "efficient antidotes for the lingering effects of negative emotions" (Fredrickson et al. 2000, p. 239). In this sense positive emotions predict optimal functioning not only momentarily but also in the long-run, and thus the important consideration is that people cultivate them not just as an end in itself but also "as a means to achieving psychological growth and improved psychological and physical well-being over time" (Fredrickson, 2004, p. 1367).

To form and establish her theory, Fredrickson (2004) identified the five core propositions. The propositions are comprised of (a) positive emotions broaden thought-action repertoires, (b) positive emotions undo lingering negative emotions, (c) positive emotions fuel psychological resiliency, (d) positive emotions build personal resources, and (e) positive emotions fuel psychological and physical well-being. In the following, the five foundations of the theory are explained in more detail.

The first central proposition of the broaden-and-build theory is that "certain discrete positive emotions – including joy, interest, contentment, pride and love – although phenomenologically distinct, all share the ability to broaden people's momentary thought-action repertoires" (Fredrickson, 2001, p. 219). As empirically demonstrated (Fredrickson & Branigan, 2005), the experiences of positive emotions expand the array of thoughts and actions that spring to mind: when people experience joy, they like to play and create; when they experience interest, they like to explore; when they experience contentment, they like to integrate and savor; when they experience love, they like to create, explore, integrate, and savor. These broadened thought–action repertoires accompanying positive emotions in turn build, within individuals, enduring intellectual, physical, social and psychological resources for their future that accordingly can predict reproductive success and survival (Fredrickson, 1998, 2003).

The second proposition of the theory is that apart from the fact that positive emotions make people feel good and broaden their thinking (Fredrickson & Branigan, 2005), they also have contributing roles in coping with negative emotions. Fredrickson et al. (2000) argues that should positive emotions widen people's mindsets, "they should also

serve as particularly efficient antidotes for the lingering effects of negative emotions, which narrow individuals' thought–action repertoires" (p. 239). The theory posits that broadening taking place at the attention and cognitive level has the ability to undo lingering negative emotional arousals. That is, people might harness the effect of positive emotions so as to regulate the emerging negative emotions. In their empirical studies Fredrickson and colleagues found that people by cultivating positive emotions can cope with negative emotions, and further enhance their psychological well-being (Fredrickson & Levenson, 1998; Fredrickson et al., 2000).

The third proposition is that positive emotions fuel psychological resilience. According to Tugade and Fredrickson (2004, p. 320) "psychological resilience refers to effective coping and adaptation although faced with loss, hardship, or adversity". This construct is metaphorically analogous to elasticity in metals (Lazarus, 1993). For instance, whereas cast iron is hard and easily breakable, i.e. not resilient, wrought iron is flexible, and bends without breaking, i.e. resilient. It is argued that the experiences of positive emotions during times of stress and anxiety encourage individuals to seek novel and creative thoughts and actions, facilitating coping with adversity (Fredrickson, 1998, 2001). In other words, to the extent that positive emotions widen the scope of attention and cognition, they should also increase individuals' coping strategies (Isen, 1990; Fredrickson & Joiner, 2002). By investigating psychological resilience from subjective, cognitive, and physiological perspective, Tugade and Fredrickson (2004) assert that "resilient individuals are able to effectively cope with stressful experiences, whereas others facing similar conditions do not fare as well" (p. 331). The same line of support was provided by findings demonstrate that in contrast to low resilient individuals who fail to cope with negative experiences (e.g., Klohnen, 1996; Rutter, 1987), highly resilient individuals can bring back self-esteem after failure (Wolin & Wolin, 1993), show more problem solving strategies (Demos, 1989; Cohler, 1987), and are successful at handling anxiety and tolerating frustration (Carver, 1998; Saarni, 1999). Further, resilient individuals, characterized by high positive emotionality, choose the optimistic approach to life and are energetically and zestfully open to new experiences (Block & Kremen, 1996; Klohnen, 1996). Thus, based on these findings, as Fredrickson (2000) hypothesizes, positive emotion, when tapped effectively, can optimize health, subjective well-being, and psychological resilience".

The fourth proposition supporting the theory is that the broadened momentary thought-action repertoires triggered by the experiences of positive emotions can build and maintain enduring personal resources, including physical, intellectual, and social resources. Fredrickson (1998, p. 312) states that

In broadening an individual's momentary thought-action repertoires, whether through play, exploration, or savoring and integrating, positive emotions promote discovery of novel and creative ideas and actions, which in turn expand the individual's personal resources, whether they be physical resources (e.g., the ability to outmaneuver a predator), intellectual resources (e.g., a detailed cognitive map for way finding), or social resources (e.g., someone to turn to for help or compassion).

The last proposition of the theory is that positive emotions by widening the scopes of attention and cognition have the ability to initiate upward spirals toward greater well-being in the future. The theory posits that "positive emotions and the broadened thinking they engender also influence one another reciprocally, leading to appreciable increases in emotional well-being over time" (Fredrickson, 2004, p. 1373). In their empirical studies, Fredrickson and Joiner (2002) showed that positive emotions can trigger upward spirals toward enhanced emotional well-being. The authors believe that the broaden scope of attention and cognition prompted by the experiences of positive emotion should promote coping strategies with adversity, and this improved coping consequently can predict experiences of positive emotions in the future, the vicious cycle in reverse. As this cycle continues, individuals can build up their psychological resilience and emotional well-being (Fredrickson & Joiner, 2002).

3. The Broaden-and-Build theory in second language learning

The key proposition of the theory is that positive emotions serve to broaden individuals' thought-action repertoires: joy calls forth the urge to play, interest calls forth exploration, contentment calls forth savor and integration, and love is a recurring cycle of each of these urges. These broadened repertoires prompted by the

experiences of positive emotions are contrasted with the narrowed thought-action repertoires by calling forth specific action tendencies, e.g. attack of flee, sparked by negative emotions (Fredrickson, 2004). To bring these propositions to the realm of second language learning, teachers by establishing the classroom structure and instruction should encourage students to pursue a wider range of thoughts and actions, such as playing, exploring, and enjoying, aimed at providing the learning environment for optimal motivation, engagement, and learning. Pekrun (2009, p. 577) argued that "enjoyment of learning can positively influence students' motivation to engage with learning material in creative, exploratory ways". In the support of the beneficial effects of positive emotions, Pekrun et al. (2002a/b) found that the positive emotions including enjoyment of learning, hope, and pride that students experienced are positively correlated with their interest, effort, elaboration of learning material, self-regulation of learning, and academic achievement.

Positive emotions can also alter individuals' thinking and actions in a way that help them counteract or regulate their negative emotions (Fredrickson, 2004). Since negative emotions, such as anxiety, are associated, for the most part, with the feeling of tension, worry, and nervousness in language learners (MacIntyre & Gregersen, 2012), it becomes critical for language teachers to foster positive emotions to buffer the effects of such a negative emotion. Further, the experiences of positive emotions fuel psychological resilience, facilitating recovery from stressful situations (Fredrickson, 2004). Bandura (1997) appropriately held that our pathways to goals are not smooth but are likely to be fraught with obstacles. The author argued that having an optimistic view of one's efficacy is essential to handle these obstacles. In the same vein, Lazarus (1993) metaphorically argued that like resilient metals that bend rather than break, resilient individuals are capable of bouncing back stressful situation quickly and successfully. Fredrickson believes that "through experiences of positive emotions, then, people transform themselves, becoming more creative, knowledgeable, resilient, socially integrated and healthy individuals" (Fredrickson, 2004, p. 1369). Thus, the primary responsibility of language teachers is to create learning environments in which these strengths are reinforced and thereby they try to stimulate the development of resiliency in language learners, in the face of setbacks, through careful designing and selection of activities. In order for teachers to develop resiliency in language learners, MacIntyre and Gregersen (2012, p. 210) stated that "by modeling in their own discourse and attitudes and in encouraging learners to use the same, teachers can create flourishing groups by using language that is overtly supportive, encouraging and appreciative, and avoids negativity, disapproval, sarcasm and cynicism".

Taken together, drawing on the tenets of Broaden-and-Build theory, one of the primary focuses in the field of English language teaching is on interventions, either at the level of material development or teaching strategies and learning tasks, aimed at not only fostering positive emotions in language learners and but also preventing or minimizing negative emotions. By utilizing appropriate materials and learning tasks as well as adopting helpful teaching strategies, language teachers should pave the way for learners to cultivate positive emotions.

4. Conclusion

The available evidence suggests that the experiences of positive emotions have the ability to produce profound effects on language learners' motivation, learning, and achievement. The Broaden-and-Build theory highlights the contributing role of positive emotions, giving new directions for working toward generating positive emotions within students. Hence, second language teachers should go beyond a focus on the reduction of negative emotions, such as language anxiety, towards a focus on the enhancement of positive emotions within language learners.

Reference

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Block, J., & Kremen, A. M. (1996). IQ and ego-resilience: Conceptual and empirical connections and separateness. *Journal of Personality and Social Psychology*, 70, 349-361.
- Bolitho, R., Carter, R., Hughes, R., Ivanic, R., Masuhara, H., & Tomlinson, B. (2003). Ten questions about language awareness. *ELT Journal*, 57(3), 251-259.
- Bown, J., & White, C. J. (2010). Affect in a self-regulatory framework for language learning. *System*, 38(3), 432-443.
- Cacioppo, J. T., Priester, J. R., & Berntson, G. G. (1993). Rudimentary determinants of attitudes. II. Arm flexion and extension have differential effects on attitudes. *Journal of Personality Social Psychology*, 65, 5-17.

- Carver, C. S. (1998). Resilience and thriving: issues, models, and linkages. *Journal of Social Issues*, 54, 245-266.
- Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, 97, 19-35.
- Clore, G. L. (1994). Why emotions are felt. In P. Ekman & R. Davidson (Eds.), *The nature of emotion: Fundamental questions* (pp. 103-111). New York: Oxford University Press.
- Cohler, B. J. (1987). Adversity, resilience, and the study of lives. In A. E. James & B. J. Cohler (Eds.), *The invulnerable child* (pp.363-424). New York: Guilford.
- Davidson, R. J. (1993). The neuropsychology of emotion and affective style. In M. Lewis & J.M. Haviland (Eds.), *Handbook of emotion* (pp. 143-154). New York: Guilford
- Demos, E. V. (1989). Resiliency in infancy. In T. F. Dugan & R. Cole (Eds.), *The child of our times: Studies in the development of resiliency* (pp. 3-22). Philadelphia, PA: Brunner/Mazel.
- Diener, E., Sandvik, E., & Pavot, W. (1991). Happiness is the frequency, not the intensity, of positive versus negative affect. In F. Strack (Ed.), *Subjective well-being: an interdisciplinary perspective* (pp. 119-139). Oxford: Pergamon Press
- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. New Jersey: Lawrence Erlbaum.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford, Oxford University Press.
- Ely, C. M. (1986). An analysis of discomfort, risk-taking, sociability, and motivation in the L2 classroom. *Language Learning*, 36(1), 1-25.
- Forgas, J. P. (1992). Affect in social judgments and decisions: A multi-process model. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 227-275). San Diego, CA: Academic Press.
- Fredrickson, B. L. (1998). *What good are positive emotions?*. *Review of General Psychology*, 2, 300-319.
- Fredrickson, B. L. (2000). Cultivating positive emotions to optimize health and well-being. *Prevention and Treatment* 3. Retrieved from www.rickhanson.net/wp-content/files/papers/CultPosEmot.pdf
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotion. *American Psychologist*, 56, 218-226.
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society of London Series B: Biological Sciences*, 359, 1367-1377.
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion*, 19(3), 313-332.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13, 172-175.
- Fredrickson, B. L., & Levenson, R.W. (1998). Positive emotions speed recovery from the cardiovascular sequelae of negative emotions. *Cognition and Emotion*, 12, 191-220.
- Fredrickson, B. L., Mancuso, R. A., Branigan, C., & Tugade, M. M. (2000). The Undoing Effect of Positive Emotions. *Motivation and Emotion*, 24(4), 237-258.
- Frijda, N. H. (1994). Emotions are functional, most of the time. In P. Ekman & R. Davidson (Eds.), *The nature of emotion: Fundamental questions* (pp. 112-122). New York: Oxford University Press.
- Garret, P., & Young, R. F. (2009). Theorizing affect in foreign language learning: An analysis of one learner's responses to a communicative Portuguese course. *The Modern Language Journal*, 93(2), 209-226.
- Hascher, T. (2008). Quantitative and qualitative research approaches to assess student well-being. *International Journal of Educational Research*, 47(2), 84-96.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *Modern Language Journal*, 70(2), 125-132.
- Imai, Y. (2010). Emotions in SLA: New insights from collaborative learning for an EFL Classroom. *The Modern Language Journal*, 94 (2), 278-292.
- Isen, A. M. (1990). The influence of positive and negative affect on cognitive organization: Some implications for development. In N. Stein, B. Leventhal & T. Trabasso (Eds.) *Psychological and biological approaches to emotion* (pp. 75-94). Hillsdale, NJ: Erlbaum.
- Isen, A. M., & Daubman, K. A. (1984). The influence of affect on categorization. *Journal of Personality and Social Psychology*, 47, 1206-1217.
- Isen, A. M., Daubman, K. A., & Nowicki, G. P. (1987). Positive affect facilitates creative problem solving. *Journal of Personality and Social Psychology*, 52, 1122-1131.
- Isen, A. M., Rosenzweig, A. S., & Young, M. J. (1991). The influence of positive affect on clinical problem solving. *Medical Decision Making*, 11, 221-227.
- Kahn, B. E., & Isen, A. M. (1993). The influence of positive affect on variety seeking among safe, enjoyable products. *Journal of Consumer Research*, 20, 257-270.
- Klohn, E. C. (1996). Conceptual analysis and measurement of the construct of ego-resiliency. *Journal of Personality and Social Psychology*, 70, 1067-1079.
- Lazarus, R. S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annu. Rev. Psychol.* 44, 1-22.
- MacIntyre, P. (2002). Motivation, anxiety and emotion in second language acquisition. In P. Robinson (Ed.), *Individual differences and instructed language learning* (pp. 45-68). Amsterdam: John Benjamins.
- MacIntyre, P., & Gregersen, T. (2012). Emotions that facilitate language learning: The positive-broadening power of the imagination. *Studies in Second Language Learning and Teaching*, 2(2), 193-213.
- Mendez Lopez, M. G. (2011). *Emotion and language learning: An exploration of experience and motivation in a Mexican University context* (Doctoral dissertation). Retrieved from etheses.nottingham.ac.uk/3175/1/555352.pdf

- Parkinson, B. (1995). *Ideas and realities of emotion*. London: Routledge
- Pekrun, R. (2009). Emotions at school. In R. W. Kathryn & A. Wigi (Eds.), *Handbook of motivation at school* (pp. 575-604). New York: Routledge.
- Pekrun, R., Goetz, T., Titz, W., & Perry, R. P. (2002a). Positive emotions in education. In E. Frydenberg (Ed.), *Beyond coping: Meeting goals, visions, and challenges* (pp. 149-174). Oxford, England: Elsevier.
- Pekrun, R., Goetz, T., Titz, W., & Perry, R. P. (2002b). Academic emotions in students' self-regulated learning and achievement: A program of quantitative and qualitative research. *Educational Psychologist*, 37, 91-106.
- Peterson, C. (2006). *A primer in positive psychology*. New York: Oxford University Press.
- Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry*, 57(3), 316-331.
- Saarni, C. (1999). *The development of emotional competence*. New York: Guilford.
- Sansone, C., & Thoman, D. B. (2005). Does what we feel affect what we learn? Some answers and new questions. *Language and Instruction*, 15(5), 507-515.
- Scherer, K. R. (2005). What are emotions? and how can they be measured?. *Social Science Information*, 44(4), 695-729.
- Schumman, J. (1997). *The neurobiological Affect in Language*. Boston: Blackwell.
- Schumman, J. (1997). *The neurobiological Affect in Language*. Boston: Blackwell.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). *Positive psychology: An introduction*. *American Psychologist*, 55, 5-14.
- Solomon, R. C., & Stone, L. (2002). On "Positive" and "Negative" emotions. *Journal for the Theory of Social Behavior*, 32(4), 417-435.
- Tugade, M. M., & Fredrickson, B. L. (2004). Resilient individuals use positive emotions to bounce back from negative emotional experiences. *Journal of Personality and Social Psychology*, 86, 320-333.
- Watson, D. (2002). Positive Affectivity: The disposition to experience pleasurable emotional states. In C. R. Snyder & Sh. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 106-119). New York: Oxford University Press.
- Wolin, S. J., & Wolin, S. (1993). *Bound and determined: Growing up resilient in a troubled family*. New York: Villard.