

# Relationship between cognitive flexibility, family resilience and parents' transformative learning experiences

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**Abstract:** This paper focuses on pinpointing the existence of a relationship between the variables family resilience, cognitive flexibility and parents' transformative learning experiences. Findings (after applying the questionnaire to 100 parents) show a significant correlation between perceived transformative learning and family resilience, but cognitive flexibility does not associate with family resilience (though it does correlate with resilience in general) or with parents' transformative learning in their relationship with the child. Giving a meaning to the problematic experience is a common point between the variables that correlate positively.

**Keywords:** family resilience, cognitive flexibility, meaning-making, transformative learning, Pearson's correlation.

## Introduction

Throughout their lifetime, most people go through stressful situations or through situations that are viewed like as threat. Some of them experience major pain as response to these events that they cannot get over or from which they recover with much difficulty, while others suffer less and they manage to adapt when facing adversity.

The three variables within this paper – family resilience, cognitive flexibility and transformative learning – are analyzed in relation to their importance as mental health predictors. When facing potentially stressful situations, resilient individuals that show high cognitive flexibility can reframe the way they approach the problem, they can find multiple ways of responding to adversity or they do not see the situations as stressful. Resilient individuals are those people who can successfully maintain good mental health when facing challenges and adversities such as economic struggles (Werner & Smith, 1992), terrorist attacks (Fredrickson, Tugade, Waugh & Larkin, 2003, p. 366) and daily life stressors (Ong, Bergeman, Bisconti & Wallana, 2006, p. 731; Bonanno, 2004). However, only few studies investigated the way in which cognitive flexibility is related to the capacity of being resilient. Kashdan and Rottenberg (2010, pp. 866-868) reviewed the studies showing that good mental health and resilience are characterized by psychological flexibility and vice versa, poor mental health is characterized by psychological rigidity.

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### **Parents' transformative learning**

Transformation refers to changing the way in which we perceive experiences and ourselves, to the way in which we prepare for doing things differently, for trying something new, and it represents an opportunity for learning. In other words, transformation refers to “a change in the meaning of the experience” (Novak and Gowin, 1984).

According to transformative learning theory (Mezirow, 1978), change is not imposed from the outside; it needs to be initiated by the individual, it may be mediated by other persons, and its purpose is the individual's growth and development. The power of transformation encompasses a process of reflecting, learning and being involved in actions that bring change. Reconsiderations of transformative learning (Mezirow, 2000, 2004, 2009) brought into discussion the importance of emotional, social, spiritual, physical and cognitive aspects involved in learning, thus exceeding the initial ideas posited by the author of this theory, (Mezirow) who emphasized on the primordial importance of cognition within the learning process. Mezirow himself (1985, p. 23) defined learning as “a process of adjusting and acclimatizing to the world (the means by which people come to perceive, interpret, criticize and transform the world in which they live)”.

Transformative does not mean just adjusting, but it also requires the individual's ability of coping with the stressful situation, of changing something and of leaving behind outdated thought and action patterns. Pelling (2011, p. 77) conceptualized adjustment by using three pathways, leading to resilience, transition and transformation, and suggested that sometimes social learning is important for all three pathways.

Concerning the context, an individual's change is facilitated by support from the group (e.g. the support group for parents with teenage children, support group for unemployed people, etc). The group acts as a catalyser for learning, but also as a source of learning, while the feedback of the others is very important. The group brings along different standpoints, perspectives and experiences that enrich learning (Bonanno, 2013, p. 155). By interacting and by sharing their experiences, group members are supported and encouraged to take risks and to make changes.

### **Cognitive/psychological flexibility**

Psychological flexibility refers to the ability to be open, present-focused, and to change or persist in behaviour according to changing internal and external circumstances (Ben-Itzhak, Bluvstein, Maor, 2014, p. 2). It is interpersonal and intrapersonal at the same time and it concerns the ability of adjusting to events that bring changes; research has shown that psychological flexibility associated positively with mental health, well-being and resilience (Galatzer-Levy, Burton, Bonanno, 2012). In other words, individuals perceive change as a positive experience.

The lack of cognitive flexibility is associated with depression, anxiety, concern and the individual's incapacity of setting long-term goals (Kashdan & Rottenberg, 2010, p. 869; Nolen-Hoeksema, Wisco & Lyubomirsky, 2008, p. 400).

Cognitive flexibility is a key element of executive control, which involves the use of internal representations within the elaboration of an individual plan that guides the behaviour and the ability of being in control in case something

unexpected should occur. The ability of thinking positively, of developing alternative explanations, of reframing positively the negative situations and of accepting challenging or stressful events are vital elements for the identification of psychological resilience (Haglund, Nestadt, Cooper, Southwick & Charney, 2007). In addition, Giddens (2009) suggests that “flexibility in most cases is the key to resilience” (p. 167). A family with a set of rules, roles and boundaries, but which also has flexibility is likely to adjust much easier to change (Walsh, 2003, p. 6). The degree of family flexibility must be limited, in the sense that too much flexibility leads to chaos and dysfunction, while too much rigidity leads to dysfunction and an inability to change (Olson & Gorall, 2003, p. 519). Hence, it is necessary to find a balance between rigidity and flexibility inside the family.

### **Resilience, flexibility and meaning making**

Luthar and Cicchetti (2000) showed that resilience is a two-dimensional construct that involves exposure to adversity and the manifestation of positive adjustment outcomes. Giddens's vision (2009, p. 163) on resilience refers to “ability to make the best of adverse circumstances”, “to be able to modify” and to “a transform”, while Pelling (2011, p. 137) refers mainly to resilience as adaptation for the status quo. Resilient individuals may however experience brief functioning difficulties such as loss of sleep but “generally exhibit a stable trajectory of healthy functioning across time as well as the capacity for generative experiences and positive emotions” (Bonanno, Papa & O’Neil, 2001).

Bonanno (2004, p. 20) made a conceptual distinction between resilience and recovery. Resilience indicates the individual’s ability to maintain a stable equilibrium of functioning across time, while recovery suggests a gradual return to functioning at the same level as before the events occurred. Furthermore, he analyzed the ways in which individuals may experience resilience. The first is robustness and it contains three dimensions: determination to find a significant purpose in life, the belief that the individual can influence the things surrounding him and the belief that the individual can learn and grow through both positive and negative events. Positive emotions and laughter represent another way of coping with adversity. Positive emotions may reduce the level of pain after an adverse event both through silence and by destroying negative emotion (Fredrickson & Levenson, 1998, p. 192).

Family resilience expresses the way in which families manage to function normally though they have experienced adversity situations. Walsh (2002, p. 130) extended this conceptualization of family resilience to the ability of managing stressful conditions; “this approach recognizes the potential for personal and relational transformation and growth that can be forged out of adversity”. Hawley and DeHann (1996, p. 293) posit that resilient families “positively respond to these conditions in unique ways depending on the context, developmental level, the interactive combination of risk and protective factors and the family’s shared outlook”.

The model developed by Walsh identifies and synthesizes key processes that foster resilience within three domains of family functioning: family belief systems, organization patterns and communication processes (Walsh, 1998). Among organisation patterns, the author also mentions flexibility, characterized by openness to change (reorganise, rebound), counterbalanced by stability, flexibly authoritative leadership (protect, nurture) and cooperative parenting.

Walsh's view on flexibility (2002) does not involve only the capacity of coming back to normal after a stressful event, but also "navigating new terrain" such as parental disability, divorce or remarriage, cases in which families must construct a new sense of normality (such as changing parental roles) (Walsh, 2003, p. 10).

A common element of all types of resilience and transformative learning is the construction of experience meaning. Research has shown that some people do not always look for a meaning or do not find a meaning for their experience (Park, 2010, p. 288). Most people who face adverse life events successfully cope with them (Bonanno, Westphal & Mancini, 2011), but they are not eager to go further and give meaning to these experiences (Westphal & Bonanno, 2007, p. 418).

Park (2010, p. 258) made a distinction between global meaning (beliefs about the self and worldviews) and the meaning-making process, which concerns meaning "in the context of a particular environmental encounter". According to his model, a discrepancy between appraised situation meaning and global meaning will create distress and result in an intense motivation to reduce this discrepancy through meaning-making. If stressful situations do not concern global meaning and beliefs, then the meaning-making process does not occur. It seems that there are situations that simply provide few opportunities for the individual to get involved in meaning-making for experiences; in this sense, Hobfoll et al. (2007, p. 360) suggest that sometimes meaning is not pinpointed in thoughts, but mainly in behaviours that are significant for the individual.

### **The purpose of the study**

The purpose of the present study is to identify a correlation between the three variables: cognitive flexibility, family resilience and parents' transformative learning experiences.

### **Method**

#### **Participants**

The study sample comprised parents of at least one child, who filled in the questionnaires voluntarily (N= 100), either during meetings or via Internet (in Google docs). From among them 75 were female and 25 male. Parents were organized on four age categories: 20-30 (35 persons), 31-40 (35 persons), 41-50 (17) and over 50 (13).

#### **Instruments**

The *Cognitive Flexibility Inventory* (Dennis & Vander Wal, 2009, p. 252) measures three aspects of cognitive flexibility: the tendency to perceive difficult situations as controllable (7 items), the ability to perceive multiple alternative explanations for life occurrences and human behaviour (13 items on the two subscales). The answers were assessed on a seven-point Likert scale, where 1= "strongly disagree" and 7= "strongly agree". The minimum score is 20 and the maximum is 140. High scores (> than the 70 median) indicate high cognitive flexibility, while low

scores (< than the 70 median) indicate cognitive rigidity. Cronbach's alpha was 0.72, measured after removing the items 2, 7, 9 and 17.

Family resilience was measured using *Family Resilience Survey* developed by Sixbey – short version (2005 in Lum, 2008). It comprises 28 items organized on the following dimensions: family communication (from 1 to 12), social resources (from 13 to 16), system of beliefs/ positive outlook (from 17 to 20), family connectedness (from 21 to 25) and make meaning of adversity (26, 27, 28). Items 21 and 22 are inversely coded. This is a seven-point scale, where 1= “strongly agree” and 7= “strongly disagree”. Low scores indicate high family resilience, while low scores suggest low family resilience. Cronbach's alpha was 0.89, measured after removing the items 7, 10 and 20.

Transformative learning of the parents was measured using a personal questionnaire, comprising 22 items, targeting the following aspects: disorienting dilemma (1, 20), experiencing new roles (3, 14, 15), assuming change (4, 10, 11, 18), reassigning one's beliefs (6, 7, 22), divinity (8, 9), social support (16, 17) and others (2, 12, 13 and 21). After calculating the median, low scores indicate the perceived presence of transformative learning, while high score suggest the absence of parents' involvement in transformative learning. Cronbach's alpha was 0.83.

### Findings and discussions

In order to study the relationships between variables, I calculated Pearson's correlation. The table below – *Correlations* – shows a significant positive correlation between perceived parents' transformative learning and family resilience,  $r(98) = 0,643$ ,  $p < 0,001$ . According to Cohen (1988), by analyzing the R coefficient, we are able to determine whether the relationship between variables is strong. A positive correlation between variables means that the parents who obtain high scores in experiencing transformative learning are likely to score high in the family resilience survey and vice versa. R-squared = 0.41, which means that 41% of the variance of transformative learning variable is explained by the family resilience variable.

**Table 6**

		Correlations		
		Transformative learning	Family resilience	Cognitive flexibility
Transformative learning	Pearson correlation	1	.643(**)	.013
	Sig. (2 tailed)		.000	.897
	N	100	100	100
Family resilience	Pearson correlation	.643(**)	1	-.030
	Sig. (2 tailed)	.000		.770
	N	100	100	100
Cognitive flexibility	Pearson correlation	.013	-.030	1
	Sig. (2 tailed)	.897	.770	
	N	100	100	100

\*\* Correlation is significant at the 0.01 level (2-tailed).

The three variables of the study do not correlate significantly with the number of children or with their age. Statistical results indicate that the family resilience variable and the experience of transformative learning by parents are complementary (by associating high scores for the first variable with high scores for the second variable). Both variables analyze the way in which parents manage to overcome stressful (dilemmatic) situations in their relationship with the child by adopting adaptive coping strategies and by assuming change.

The attempt of approaching the problems differently and the need to adapt to new situations are reflected in the answers provided for items 7, 12, 18 (that measure family resilience) and 10, 11, 14 and 18 (that measure parents' transformative learning). Over 75% of parents report that they agree with the need of working as a family for overcoming difficulties (70%), with the need of approaching problems differently (82%), with the need to adapt parenting behaviours continuously (88%). Furthermore, 82% of the respondents posit that they are flexible when it comes to approaching issues within their relationship with the child. In addition, most of the parents (76%) admitted the contribution of the influence of social context in determining their own parenting behaviours.

Over 77% of the participants believe that becoming a parent was a major change in their life, which involved mixed feelings: from fear and anxiety to extreme joy. Over 70% of the parents report that they assumed the change and its consequences without complaining. This also results from the assessment of item 18 ("I believe that it is not me who has to change in the relationship with my child, but the child"), where disagreements exceed 77% of all answers.

Concerning the re-evaluation of old beliefs, 60% of the participants re-evaluated their own beliefs after experiencing tough moments in their relationship with the child, and that their views on life become more flexible and open after the birth of a child (83%). Approximately 72% of the respondents indicated that they reflected on their actions as parents; they believed that, in some moments of their lives, they could have acted in a more constructive manner for the child, but also for the parent-child relationship.

In the case of both transformative learning and family resilience, parents scored low in the role of the divinity or spirituality in assuming the parental role or in solving major life problems (approximately 30% of them gave affirmative answers).

The assessment of social support perceived by parents differs by the persons concerned. 84% of them feel supported by friends (item 16, family resilience) and 53% by relatives and friends (item 17, transformative learning), but the support of the community and of neighbours was reported as low (items 13, 14, 15, family resilience): approximately 20% agreed, around 25% were undecided and 30% disagreed, meaning they perceived no such support.

In terms of research limits, we pinpoint the child's age. In time, the parents may have adjusted their parenting behaviour depending on the situations they overcame; in families with toddlers (where crises may not have arrived yet), parents answered to the questions by taking into account social desirability.

I conclude that there is a complementary relationship between transformative learning model and family resilience, but it is still to determine the factors involved in this relationship. Future studies in the field should investigate both the factors involved and other variables that intervene within this relationship.

## **Conclusions**

The results obtained after applying the three questionnaires show a complementary relation between perceived transformative learning and family resilience, based on the identification of a significant correlation at  $p < 0.001$ . By interpreting the results, we conclude that parents overcome adverse events and make a new meaning for their experiences, by reconsidering their own beliefs and by experiencing new roles and actions favoured by the communication process and by support from the others.

Parents' cognitive flexibility does not correlate with the two variables on a statistically significant level, though scientific literature may indicate the existence of a correlation with resilience in general. Families can be resilient; they can become involved in the process of reinterpreting one's own experiences and they can act in agreement with new interpretations whose purpose is emotional regulation, but they are not characterized by cognitive flexibility.

Whereas parents who participated in the study may perceive difficult situations as controllable, they are not able to provide multiple alternative solutions for certain life events or to generate multiple alternative solutions for difficult situations. However, they have the ability of overcoming major life problems, by identifying for instance a solution that best suits in their relationship with the child. Questioning certain beliefs or behaviours no longer useful in their relationship with the child determines them to accept changing them in order to improve the relationship with their own child.

As for the strong points and opportunities of this research, I enumerate as follows: number of research participants, identification of the complementariness between transformative learning and family resilience, the possibility of elaborated and validating a measuring instrument for parents' transformative learning, also taking into account family resilience; the use of these scales as investigative approach to determine how parents manage to overcome the problematic events in their relationship with the child, in order to develop a parental education course.

As weak points/ limits of the research, I mention: the lack of a reliable instrument to measure transformative learning, the non-specification of a problematic life event for parents based on which they must fill out the 3 scales, the influence of other (uncontrolled) variables in the transformative learning/ family resilience relationship, the age of the family's child, answers in agreement with social desirability.

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