

# Why Childhood Toxic Experiences and Early Maladaptive Schemas Affect Negatively One's Psychological Capital?

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## ABSTRACT

Positive psychological capital, as a worthwhile resource for individuals as well as organizations, has drawn the attention of researchers in both psychology and management fields. This neglected construct recently named as one of the significant competitive advantages of organizations. It also plays an important role in individual success. Scholars reveal that early toxic experiences and relevant maladaptive schemas would influence negatively on an individual's psychological capital. Although quantitative research reported that psychological capital can be affected by childhood experiences, there appears no research on the mechanism of this relationship. Hence, this article aims to answer the question of why early adverse experiences can deplete one's psychological capital. Two theories, including Information Process Theory and Brain Development, were employed to justify the relationship this article aimed to find.

**Keywords:** Early Maladaptive Schema (EMS); Positive psychological capital; Adverse and toxic experiences; Hope; Self-efficacy; Resilience; Optimism

## INTRODUCTION

The today turbulent world has changed most of the competition rules for people and organizations. For surviving successfully, they should have sustainable, developable and renewable competitive advantages [1]. One of the influential competitive advantages which can be characterized in both individual and organizational level is positive psychological capital [2]. Regarding the traditional views about organizational capital (PsyCap) which includes physical, human and financial capital, the importance of positive psychological aspects of individuals and organizations, as a crucial capital, had been neglected entirely until last two decades [3,4]. However, in the light of resource theory, recently psychological capital (PsyCap) has been drawn academics and managers' attention as a valuable "resource" needs to be managed for creating such a sustainable competitive advantage. The theory asserts that a resource is something that is valuable by itself or can be deployed for creating value [5]. Considering that PsyCap is worthwhile by its nature (e.g., self-efficacy), and creates value (e.g., creating social support, money, and supportive relationships), it must be

considered as a "resource", both in the individual and organizational context. Therefore, according to resource theory, it is necessary that the same as other valuable resources, people and organizations try to acquire PsyCap, develop it and retain it productively [6].

The implications of PsyCap can be reviewed in two categories, individual level, and organizational level. According to the prior one, studies claim that individuals with a higher level of PsyCap, show better performance in achieving their goals due to possessing a higher level of psychological resource [7]. A supportive study asserted that there is a positive relationship between PsyCap and job-related performance [8]. Likewise, Avey, Nimnicht and Pigeon declared that PsyCap positively influences an individual's financial performance [9]. The relationship between PsyCap and individual performance were acknowledged in other cultures such as eastern Chinese culture, Portuguese and Vietnam [10-13]. Moreover, some other studies acknowledged the relationship between PsyCap and well-being and welfare [14-16]. Furthermore, there are some other scholars investigated the consequences of PsyCap on other constructs

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including knowledge sharing tendency [17], Creativity and creative performance [12], and problem-solving and innovation [18].

In addition to individual-level advantages, PsyCap has several implications in organizational level. Accordingly, the positive relationship between PsyCap and some desirable attitudes of employees, such as organizational commitment, career commitment and job satisfaction, were proved by some studies [19-22]. Respecting these findings, ones with a higher level of PsyCap have a more positive attitude and expectations toward future and correspondingly have more self-efficacy to encounter with a variety of job-related challenges [23]. This motivates people to do all their best to achieve their tasks, which in turn, improve their job satisfaction [24]. Other study reported that by paying attention to the PsyCap of leaders, organizations can improve employees' engagement [25]. Similar research declared that high level of PsyCap increases the organizational belonging [26]. All these findings reveal that PsyCap is a crucial resource affecting organizational constructs significantly.

Summarizing the findings of the reviewed literature declared the importance of the further study on PsyCap construct. According to a meta-analysis conducted by Newman and his colleagues [23], three categories of antecedents including individual level, team level, and organizational level affect PsyCap. In individual-level antecedents there is an item which was just noted and not explained fairly clear, entitled "negative work and life experiences". Despite other antecedents, this item is the only one that exposes the influence of one's past experiences of her/his PsyCap capacities. On the other hand, cognitive research emphasizes on the importance of thoughts in studying psychological constructs [27]. Thus, investigating a psychological construct without paying enough attention to its cognitive aspects decreases its validity. PsyCap as a psychological construct is not an exception of this rule, and hence, its cognitive antecedents should be considered comprehensively when it is studied. Therefore, this research aims to investigate the effects of "cognitive" aspects of "negative life experiences" on PsyCap profoundly.

Nevertheless, the influence of people past experiences declared in literature, there is no research in the time of conducting this research to explain why past experiences play a significant role in people's PsyCap. Therefore, this research explained how negative life experiences including significant childhood toxic/adverse experiences that form negative cognitions can influence on people's positive psychological capital.

This research contributes to PsyCap literature in four ways. First, there is no research to investigate the mechanism, by which, PsyCap is influenced by people past experiences. Second, the link between PsyCap and individual's past experiences declared by two prominent psychological theories. Next, some quantitative studies are investigating the relationship between early maladaptive schemas, which are shaped based on childhood toxic experiences, and PsyCap but they were not included a robust justification why these construct may have a relationship. Finally, the results provided a robust theoretical framework for conducting future quantitative research. In the following sections, the literature on PsyCap reviewed. Then, it is

followed by presenting and discussing the related theories. Finally, both the implications and limitations of this research are explained and discussed.

## THEORETICAL BACKGROUND AND LITERATURE REVIEW

### Positive psychological capital

Before World War II psychologists had three main missions, including

- Treating mental disorders,
- Helping normal people to live better, and
- Developing and fulfilling people potentials [28].

But during the war, these main missions embedded and focused merely on the first mission which was treating the war survivors, which in turn, most of the resources were spent on disorder treatments and improving weaknesses. The cost of this disease-oriented paradigm was neglecting from other missions [29]. However, developing the positive psychology approach drew the attention of psychologists into the forgotten missions. This development even made changes in organizational psychology realm and drive a new concept, entitled "organizational positive psychology", which is an origin of "positive psychological capital" [6].

Positive psychological capital (PsyCap) is a high-level core construct comprising four sub-constructs: self-efficacy, hope, optimism, and resiliency. These sub-constructs are related internally. Dedicating resources for improving each of these sub-constructs may lead to amelioration of others. For instance, improvement in the one's capacity of self-efficacy may cause the development in hope, optimism and even resiliency. These four main components of PsyCap described as follow:

**Self-efficacy:** The concept of self-efficacy, as a PsyCap sub-construct, is drawn from the studies conducted by Albert Bandura on the social cognitive theory. Self-efficacy is characterized as "one's conviction (or confidence) about his or her abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific task within a given context" [30,31].

**Hope:** The second PsyCap sub-construct is hope. Drawing from Snyder's work, hope can be described as "a positive motivational state that is based on an interactively derived sense of successful agency (goal-directed energy) and pathways (planning to meet goals)" [32].

**Optimism:** The third sub-construct of PsyCap is optimism which means "an explanatory style that attributes positive events to personal, permanent, and pervasive causes and interprets negative events in terms of external, temporary, and situation-specific factors" [31].

**Resiliency:** The last sub-construct of PsyCap is resiliency. This construct is defined as "the capacity to rebound or bounce back from adversity, conflict, failure, or even positive events, progress, and increased responsibility" [6].

### Developing research questions

During the past two decades, studies have paid eminent attentions to how adulthood behaviors are affected by early life experiences. The emerging psychological literature on behavior acknowledges the impact of childhood toxic experiences on adulthood behaviors [33]. For instance, toxic childhood experiences likely result in attention and language deficits, difficulties with problem-solving and consequential reasoning, problems with acquiring new skills, and problems in self-efficacy [34].

Additionally, Munoz et al. conducted cross-sectional research on 180 homeless individuals in the south-central US and found that childhood traumas would affect negatively on hope [35]. Indeed, toxic/adverse childhood experiences, also known as trauma, are recognized as the reason for people lower hope. Accordingly, Baxter et al. claimed that people who had an adverse childhood experience gain lower hope score, compared with those who had not specific destructive childhood experiences [36]. Likewise, early life experiences are recognized as an origin for resiliency [20].

In sum, it is expected that toxic childhood experiences harm people's psychological capital. Knowing that the emergence of these adverse experiences in the cognitive framework is called "schema" [37], it can be deduced that there is a relationship between EMS and PsyCap.

On the other hand, the footprint of the cognitive aspect lies under people's psychological capital. Luthans postulated that resiliency is built on one's inventory of psychological, cognitive, affective and social assets [6]. Besides, the conducted studies by Stajkovic and Luthans revealed that cognitive resources play an influential role in self-efficacy [31].

Considering the origin of PsyCap self-efficacy which is rooted in social cognitive theory [8], this concept relies on five cognitive processes [30,38]. Hence, regarding the nature of self-efficacy, it strongly relates to the one's cognitive capacities of symbolizing, forethought, observation, self-regulation, and self-reflection. Further, Luthans et al. claimed that an individual's perceptions and interpretations of events may enhance or even hinder self-efficacy [8].

### Cognitive schemas and early experiences

The word "schema" is a cognitive psychological concept which is broadly used in different realms of study. Schemas are structure,

framework or outline. A schema is "a pattern imposed on reality or experience to help individuals explain it, to mediate perception, and to guide their responses" [37]. Scholars claimed that even individuals' thoughts and responses are directed by their schemas [39]. Schemas can be either positive or negative. It is expected that "negative life experiences" lead to "negative schemas". These negative schemas which are originated by childhood adverse and toxic experiences are called by Young as "Early Maladaptive Schemas (EMS)" [40].

Distinguishing "Early Maladaptive Schema", it is characterized as follows:

- Notably dysfunctional,
- Broad and pervasive patterns,
- Relate to the perception of one regarding oneself and others,
- Consist of memories, cognitions, and sensations,
- Developed during childhood or pre-adulthood, and
- Elaborated throughout one's life

Concisely, EMS is defined as "self-defeating emotional and cognitive patterns that begin early in our development and repeat throughout life". EMSs are the product of toxic/adverse childhood experiences [37].

According to Young's studies, there are five distinct and universal core emotional needs that would shape EMS if remain unmet. These needs are:

- Secure attachment to others,
- Autonomy, competence and sense of identity,
- Freedom to express valid needs and emotions,
- Spontaneity and play, and
- Realistic limits and self-control

Healthy people have fulfilled these needs adequately in their childhood. It is expected that EMS rise from these unmet needs.

Regarding these core emotional needs, Young and his colleagues introduced five schema domains [37], detailed in Table 1, including:

- Disconnection and rejection,
- Impaired autonomy and performance,
- Impaired limits,
- Other-directedness, and
- Over-vigilance and inhibition

Each domain includes several EMS detailed in Table 1.

**Table 1:** Core emotional needs, schema domains and EMSs.

Core emotional need	Schema domain	EMS
Secure attachment to others	Disconnection and rejection	Abandonment/Instability
		Mistrust/Abuse
		Emotional Deprivation

		Defectiveness/Shame
		Social Isolation/Alienation
Autonomy, competence and sense of identity	Impaired autonomy and performance	Dependence/ Incompetence
		Harm or Illness
		Enmeshment/Undeveloped
		Failure
Freedom to express valid needs and emotions	Impaired limits	Entitlement/Grandiosity
		Self-control/Self-Discipline
Spontaneity and play	Other-directedness	Subjugation
		Self-sacrifice
		Approval-seeking/
		Recognition-seeking
Realistic limits and self-control	Over-vigilance and inhibition	Negativity/Pessimism
		Emotional inhibition
		Unrelenting standards/Hyper-criticalness
		Punitiveness

The first schema domain, disconnection, and rejection refer to the schemas by which people are unable to form a secure, satisfying attachment to others. They assume that their needs for stability, safety, belonging, love, and nurturance will remain unmet. Second domain, impaired autonomy, and performance, links to schemas, in which, people have expectations about themselves and the world that interfere with their ability to differentiate themselves from parent figures and function independently. The third domain, impaired limits, attributes schemas, in which people experience difficulty in developing internal limits in corresponding self-discipline or reciprocity. They may experience hardship in cooperating, respecting to others' right, keeping their commitments and following long-term goals. The next schema domain is "other-directedness" presenting schemas in which one may strive to gain others' approval and emotional connection through putting attention on meeting others' need but ignoring her/his needs. Finally, the last domain is over-vigilance and inhibition which leads to the schemas by which one may try to meet rigid internalized rules at the cost of sacrificing her/his happiness, health or even close relationships. Table 1 reveals core emotional needs and related EMSs and schema domains.

**Early maladaptive schemas and positive psychological capital**

PsyCap constructs are cognitive, and hence they are expected to be affected by early maladaptive schemas, driven by childhood toxic experiences. Some research examined this relationship. Yavari and his colleagues studied the relationship between EMS and hope within mothers of intellectual disable children and found that some EMS domains, including self-directedness, impaired autonomy and performance, and Disconnection and rejection impact on hope [41]. There were not reported any further relationship between other EMS domains and hope.

In other research conducted on 150 murderers, drug traffickers and criminals of fornications, the relationship between EMS and psychological resiliency were studied [42]. The results reported that defectiveness/shame subjugation and social/alienation schemas, as well as insufficient self-control, are negatively correlated with resiliency in murderer group. Besides, unrelenting standards and entitlement/grandiosity schemas were reported negatively correlated with resiliency in drug traffickers group. Moreover, in the rape group, the research found the relationship between resiliency and seven schemas, including defectiveness/shame, failure/alienation, subjugation, insufficient self-control, social isolation/alienation, and emotional inhibition. Similar research, investigating the relationship between EMS and resiliency in 250 boy students in a high school, claimed that Disconnection and rejection,

impaired autonomy and performance, Other-directedness, and Impaired Limits Schemas have a significant negative correlation with resiliency [43]. Moreover, Friedmann postulated that negative schemas can predict resiliency, while there was no significant relationship between positive schemas and resiliency [44]. Conversely, the findings of another research reveal the opposite result, which means that there was a significant relationship between positive schemas with resiliency, and there was no relationship between negative schemas and the PsyCap sub-construct [45].

The relationship between EMS and the other PsyCap sub-construct, Self-efficacy, is investigated significant antecedent for Self-efficacy. Besides, 317 students were studied to find if there is a link between EMS and Self-efficacy. The results reveal the relationship between abandonment/Instability, Mistrust/Abuse, Social Isolation/Alienation Unrelenting standards, and Subjugation with Self-efficacy [46]. Furthermore, 322 employees were studied in Maskan Bank, Tehran, which has resulted in the approval of the relationship between EMS and Occupational EMS [47]. Similar findings reported by Sarkhosh and Javidi [48].

Finally, the influence of EMS on the last PsyCap sub-construct, optimism, studied in 35 clients within cognitive therapy sessions. The result postulated that schema therapy treatments improve optimism in clients with personality disorders [49].

Taking into account that "schema" is a cognitive framework by which people interpret themselves and others, which in turn, direct their behavior and responses; it is not irrational if it is hypothesized that there may be a relationship between early maladaptive schemas and psychological capital. The above-reviewed literature investigated the relationship between the sub-constructs of PsyCap, however, there is apparently no specific study investigates the relationship between EMS and PsyCap in an integrated research model.

Furthermore, the conducted quantitative research, mentioned above, have no robust justification to explain why EMS may have a relationship with PsyCap sub-constructs. It should be taken into account that quantitative analysis just can prove the statistical relationship between A and B, however, before any quantitative research it needs to be justified that A and B are logically related to each other. Therefore, this question would rise:

Why childhood toxic experiences and their related early maladaptive schemas would be correlated with people's psychological capital?

For addressing this question two main theories, including information processing theory and brain development theory, were reviewed. These theories justify how early maladaptive schemas derived from childhood toxic and adverse experiences affect people's psychological capital.

## Adjusting the relationship between EMS and PsyCap

### Theory 1 - Information Processing Theory (IPT)

Attention control is one of the important psychological constructs which has been considered from the early days of

psychology. James claimed that not only real objects, but also represented objects such as memories gain attentions [50]. According to James, attentions are the root of judgments, and hence, controlling the attention is vital. Attention controlling is described under the umbrella of Information Processing Theory (IPT). This theory explains that all internal psychological responses are triggered by an outside input (e.g., a visual stimulus, even a memory of an event) that involves at least one of our senses [51]. Once the stimulus received, the information is registered in working memory (WM), and then, one decides to hold it for further analysis or move it to long-term memory [52]. Meanings are assigned to the transferred information to long-term which in turn updates or shapes cognitive schemas, by which we interpret ourselves, others and the world [53]. Likewise, this is the process by which early maladaptive schemas were shaped.

An essential concept in IPT, attention control refers to the ability to focus our attention on the objects of our choosing [35]. Logan argued that all aspects of cognition, compromising memory retrieval, object selection and categorization are governed by attention deployment [54]. Attention control even can play a significant role in shaping psychological capital. Based on Snyder studies conducted in "hope", a high level of hope requires high attention in identifying goals and finding alternatives toward the goals [55]. The same approach exists in other PsyCap sub-constructs. Snyder and his colleagues [56] described a term, entitled "attention robbers", by which people put lower energy and focus on their goals, which in turn decreases the level of their hope. In describing attention robbers, they noted:

*"If you are spending considerable time responding to surrounding people and events, you probably are not concentrating on your important goals. The next step in goal-setting, therefore, is to improve your ability to focus attention on the things you deem important"*

Therefore, a hopeful person is not easily distracted by attention robbers and instead, they put their attentions on their task completion [57]. Similarly, attention robbers can influence other PsyCap sub-constructs, such as self-efficacy, resilience, and optimism.

Attention control, as the main part of IPT, can justify why people's early exotic/adverse experience would affect their PsyCap. The attention robbing nature of intrusive memories of toxic events interferes with an individual's ability to attend to thoughts required for the PsyCap constructs [58]. People with early toxic experiences would no longer think with willpower for their goals, even no self-efficacy, optimism, and resilience. Moreover, the thoughts accompanying early adverse experience would raise emotional arousal, which is frequently associated with feelings of anxiety [59]. Anxiety, as an attention robber, can inhibit attentional focus [57]. Therefore, early adverse experiences can play a role as attention robbers, which rob the positive feelings and thoughts associating with self-efficacy, hope, resilience, and optimism. For instance, imaging a child that repeatedly loose in most activities he performs. Regarding cognitive dissonance theory, he picked a failure schema and defines himself as a loser [60]. Being loser would be an attention robber for this person in his adulthood. In a similar

situation with his childhood, all the intrusive memories come up and rob its attention and do not let him focus on the goal, and hence, this schema negatively affect his PsyCap constructs.

In sum, we can conclude that attention control, as the main part of information processing theory, explains how childhood negative experience can rob attentions from a goal and wasting his/her energy. Adverse experience can soak the energy of positive psychological capitals and deplete them. Attention robbers may attract the attention of a person from "I can" thought and focus it on the early toxic experiences of "I cannot", which in turn deplete PsyCap self-efficacy. Early maladaptive schemas deriving from toxic/adverse experiences play a role as cognitive attention robbers which negatively influence on PsyCaps. When the attention resources are involved by early maladaptive schemas, the early adverse experiences come from the past into the present and influence the person adulthood behavior, which in turn deplete the psychological capital. Similarly, Nolen-Hoeksema, Wisco, & Lyubomirsky theorized that attention focus on negative stimuli such as negative memories or negative thoughts derive from schemas decrease the psychological resources can be employed for problem-solving [61]. Thus, as a general conclusion, childhood toxic/adverse experiences shape people's schema which in turn negatively influence PsyCap to buy robbing attention from positive aspects into negative ones.

## Theory 2 - Brain development theory

Responding and adapting to different types of stimuli and stressors, the architecture of the brain and body's major stress systems developed from the earliest months of life [62]. Stress is a determining parameter in brain architecture and the stress systems [63]. There is a three-tiered model of stress [64] including positive stress, tolerable stress and toxic stress, described as follow:

- Positive stress which is a short-lived and moderate level of stress resulting in heart rate and stress hormone level increase. This stress is somehow natural and is taken into account as "part of life". The challenge of learning new knowledge or skill is a sample of positive stress.
- Tolerable stress which is stronger than Positive Stress with the risk of long-term negative consequences. The impact of being displaced from home, school, and friends because of natural disaster is an example of this stress.
- Toxic stress which is resulted from chronic, uncontrollable events or circumstances, causing frequent and prolonged activation of the stress management system. Such stress would suffer brain architecture development and affect the long-term ability of a person to respond to stimuli. For instance, a child who lives with an unpredictable single mother with neglectful and emotionally abusive toward the child would experience such stress.

Conducted studies present that early adverse experiences, evoking toxic stress, impacting brain functioning and architecture [65] if they occur in a sensitive period.

For further investigating the influence of childhood adverse/toxic experiences and the related early maladaptive schema on

psychological capital, body stress management systems should be described. Naturally, the body has two types of stress systems which are associated with "fight and flight" responses to stressors and threats [34]. Facing a potentially threatening situation, the body's autonomic nervous system releases epinephrine and norepinephrine hormones, by which physiological reactions are initiated to respond to the threat quickly. This immediate response increases heart rate and blood supply to muscles and brain.

The second stress system, hypothalamic-pituitary axis, stimulates the stress hormone, Cortisol. This hormone affects the areas of the brain which are related to memory, attention, and regulation of thoughts and emotions [34]. However, prolonged high levels of Cortisol, which is derived from long-term stress, can create a detrimental impact on cognition and regulatory systems [66].

To come with a conclusion, it should be taken into account that childhood adverse experiences always associated with a high amount of stress and cortisol. This hormone release results in a change in brain architecture, by which an individual's responses to stressful events, fight or flight, can be affected. Therefore, in stressful circumstances that an individual needs to rely on his/her psychological capital to face to the challenges, the developed brain architecture influenced by the high amount of Cortisol may hinder him/her, and deplete the PsyCap. In this case, whenever the related early maladaptive schemas are stimulated, the stress hormones release and physiological and cognitive responses will evoke. This affected brain architecture may block the arousal of PsyCap due to the high level of stress produced by an event. Hence, considering that PsyCap sub-constructs are cognitive states it is expected that the childhood adverse/toxic experiences and their relevant early maladaptive schemas can negatively relate to one's positive psychological capital [20,55].

## DISCUSSION AND CONCLUSION

The literature deficiency that this article aims to address was how to justify the relationship between childhood toxic experiences and their related early maladaptive schemas and positive psychological capital. Although there is some quantitative research investigates this relationship quantitatively, they were not underpinned by a robust justification which investigates why early maladaptive schemas can affect psychological capital. By the absence of such justification, the findings are not reliable. In this paper two main psychological theories introduced which can declare how people positive psychological capital can be affected by their early maladaptive schemas. These theories are Information Processing Theory (IPT) and Brain Development. These theories explained that because of the attention robber phenomena as well as brain architecture shaped by stress, every event that re-experiences childhood toxic circumstances raise early maladaptive schemas, which in turn, deplete one's psychological capital. Therefore, further study should be conducted to find whether such interventions, say schema therapy, can improve people psychological capital.

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