Self-leadership and Growth Mindset as Mutually Supportive Determinants of Behaviors

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Abstract

Purpose: This article is focused on checking whether there is an interdependence between the levels of self-leadership and growth mindset presented by an individual and whether these factors affect the functioning of employees.

Methodology: The respondents were an open group of 237 participants of different age, job seniority and position. The following questionnaires were used in the study: ASQL by Houghton, Dawley and DiLiello – to measure the level of self-leadership, and NNR by Godlewska-Werner – to measure the level of growth mindset.

Findings: The results of the study show that self-leadership and growth mindset are factors that significantly affect each other. However, there are no relationships between the overall level of self-leadership and: age, sex, job seniority or holding managerial positions.

Research and practical implications: Research can be important to management practice in team building processes as the level of self-leadership can be a relevant factor which promoted and shared among coworkers allows to create a more balanced, engaging work environment for managers and those they lead.

Originality/value: The research conducted so far has focused on the analysis of the connections between growth mindset and leadership. This research shows that growth mindset also affects the level of self-leadership, and thus individuals' attitude to aspects such as: making the effort, accepting feedback or the success of co-workers.
Paper type: research paper

1. Introduction

The growing knowledge about the significant influence of psychological factors on the achieved professional successes causes that company managers focus on building teams not only based on hard qualifications, but also the attitudes, values and behaviors of specific people. This approach is to promote the full use of the potential of employees. Rad and Yarmohammadian (2006) emphasize that people are a particularly important human resource influencing the effectiveness of an organization, because by hiring qualified employees with a psychological profile matching the given position, achieving objectives is easier. Research by Lee (2018) shows that growth mindset has a moderate impact on the relationship between authentic leadership and organizational effectiveness. Moreover, people characterized as self-leaders direct their own efforts, personally motivate themselves, constantly renew thinking patterns and are determined in achieving their goals (Norris, 2008; Manz and Sims, 1989). Following their reasoning, the authors of this article formulated a hypothesis that growth mindset might be one of the factors that is related not only to the level of leadership, but also to self-leadership. Therefore, the purpose of the research was to determine to what extent the growth mindset and self-leadership are interdependent factors shaping human behavior. In the first part of the article, the concept of self-leadership is explained and the particular factors with their role in self-leadership are presented. Then, we focused on presenting the theory of the growth and fixed mindset described by Carol Dweck. In the last part of the article, the results of the relationship between growth mindset and self-leadership, which are the conclusions of our own study, are described.

2. **Theoretical background: Self-leadership theory**

The self-leadership concept ushered in Manz in 1986 focusing on how people head up and manage themselves. Despite the fact that human behavior often depends on external factors, for example on other people, our final decisions and activities are taken up by ourselves. A theoretical framework for this concept presented by Manz (1986) is shown in Figure 1. It should be noted that there are three groups of factors (cognition, behavior and environment) affecting on one another and in this way influencing on the level of self-leadership. According to the self-leadership theory, at first, an individual compares perception of situation to external or internal standards. In case of differences it is important to narrow the gap between current and optimal status, what's evince in new behavior. The impact of this new behavior is then assessed by the environment which affects individual's perception of situation. This way feedback loop re-starts (Stewart et al., 2011).
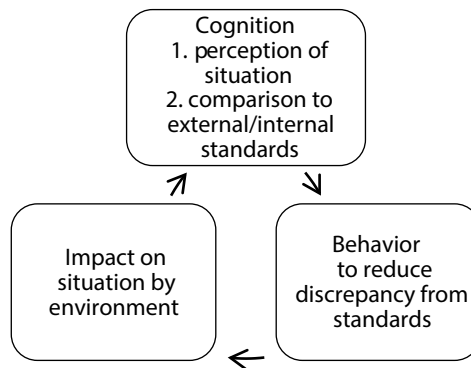
Figure 1. Theoretical framework for self-leadership

Source: own work based on Stewart et al. (2011, p. 187).

A lot of researchers indicate that categorizing self-leadership strategies into the three primary categories – behavior-focused strategies, natural reward strategies and constructive thought pattern strategies – is advisable (Neck and Houghton 2006, Manz and Neck, 2004; Manz and Sims, 2001; Prussia et al., 1998). Within the scope of behavior-focused strategies, there are included: self-observation,

self-goal setting, self-reward and self-orientation. In this case, the level of motivation is independent of the level of interest in doing the task. Moreover, important abilities such as self-rewarding (praise) or self-punishment (warnings and reprimands) have specific meaning in relation to the future, through fast interference with own behavior (through strengthening or weakening). In this strategy, award or punishment depend on the level of complexity of the task and are directly proportional to the effort contribution in taking the task. In natural reward strategies, individuals focus on creating situations where the main motivation and reward is taking measures and achieving goals. This requires creating an environment that ensures satisfaction with the achieved results and guarantees a pleasant path to their implementation or a lack of focus on the unpleasant aspects of the event. The key to success in this case is the assessment of own competences and determination. Believing in his or her competences, an individual is able to take on more difficult challenges, which often results in a measurable reward. Self-determination is also important, because it may strengthen the level of commitment. The third and last type of behaviors are constructive thought patterns strategies that largely influence our perception of different behaviors and the interpretation of external conditions that determine them. By identifying and changing assumptions about dysfunctional beliefs and conjectures, a person can replace them with other constructive beliefs that give him or her a strong motivation to act on a daily basis. In addition, what can be helpful are actions such as eliminating pessimistic self-talk and exchanging it with more optimistic self-dialogues or mental imagery which means imagining what a given situation could look like before it happens (Neck and Houghton, 2006). Research conducted by Driskell et al. (1994) show that mental imagery has significant positive impact on enhancing performance and this effect is stronger the more the task involves cognitive elements.

Based on the aforementioned division into three strategies and using the six main dimensions from the Revised Self-Leadership Questionnaire (RSLQ), Houghton, Dawley and DiLiello (Houghton et al., 2012) created the ASLQ Shortened Self-Healing Questionnaire (used for measuring the level of self-leadership). The ASLQ model optimizes the number of questions without losing the psychometric properties, which was the reason to use it in this study. It contains nine questions, three for each category: behavior awareness and volition

(questions 1 to 3), task motivation (questions 4 to 6) and constructive cognition (questions 7 to 9). The individual questions are as follows:

(1) I establish specific goals for my own performance (self-goal setting).
(2) I make a point to keep track of how well I'm doing at work (self-observation).
(3) I work toward specific goals I have set for myself (self-goal setting).
(4) I visualize myself successfully performing a task before I do it (visualizing successful performance).
(5) Sometimes I picture in my mind a successful performance before I actually do a task (visualizing performance).
(6) When I have successfully completed a task, I often reward myself with something I like (self-reward).
(7) Sometimes I talk to myself (out loud or in my head) to work through difficult situations (evaluating beliefs and assumptions).
(8) I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with (self-talk).
(9) I think about my own beliefs and assumptions whenever I encounter a difficult situation (evaluating beliefs and assumptions).

3. Growth or fixed mindset as determinants of human behavior

According to theory described by an American psychologist Carol Dweck, who made a distinction between growth and fixed mindset, authors decided to check the role of mindset in self-leadership. The first kind on mindset, growth mindset, is related to behaviors and convictions connected with opportunity to develop skills, which are shown in Table 1 (the left column). In the the right column, to indicate the differences between these two approaches, the attitudes of individuals with fixed mindset are presented.

This concept has been used by a lot of researchers in many countries not only in research related to employees, but also to athletes, students or elderly people (Dweck, 2008; Dweck, 2009; Boaler, 2013; Golby and Wood, 2016; Caniëls et al, 2018; Hwang and Lee, 2020). Such diversity motivates researchers to create questionnaires measuring the concept in their national languages. One of the people who undertook

Table 1. Growth and fixed mindset – comparison

Growth mindset	Fixed mindset
Perseverance in facing with failures	Giving up easily
Effort is required to build new skills	Effort is fruitless
Finding inspiration in others success	Threatened by others success
Embracing challenges	Avoiding challenges
Accepting criticism	Desire to look smart
Desire to learn from feedback	Ignoring feedback
Build abilities	Fixed abilities

Source: own work based on Dweck's theory.

research and made a questionnaire in Polish is Godlewska-Werner whose questionnaire was used in this study, because it was validated in the context of the Polish national conditions. It contained 15 questions that are as follows:

(1) I willingly undertake difficult tasks to learn something new.
(2) When I fail, I look for the culprits and excuses.
(3) I ask for feedback on my work.
(4) I prefer to do tasks that are easier than complicated.
(5) When I fail, I try to learn something from that for the future.
(6) I avoid evaluating my work.
(7) I observe how others do their work to make use of new ideas in my work.
(8) In my opinion it is hard to change who we are.
(9) When I fail, I am focused on fixing it.
(10) I avoid rivalry situations.
(11) I undertake another attempt to accomplish difficult task, to assess which elements are the most effective.
(12) I avoid changes in my way of working and in my work environment.
(13) I try to analyze taking my decisions in terms of effectiveness.
(14) I prefer to do tasks that require less effort on my part.
(15) I willingly face varied challenges.

4. Self-leadership and growth mindset – research results

The research was conducted with the use the CAWI (Computer-Assisted Web Interview) method on an open group of 237 respondents between 19 and 68 years old. The average age of participants was approximately 33. The vast majority (70%) of respondents were women. The average job seniority was 11 years. Nearly a quarter of the respondents hold managerial positions. The data was compiled with the use of statistical methods, in particular: Pearson's correlations and simple linear regression.

Table 2. Characteristics of the survey participants

Feature	Frequency	Share [%]
Sex		
Female	166	70.0
Male	71	30.0
Age		
Under 25 y.o.	107	45.1
25–40 y.o.	58	24.5
Over 40 y.o.	72	30.4
Job seniority		
Under 5 years	115	48.5
5–20 years	66	27.9
Over 20 years	56	23.6
Managerial position		
No	180	75.9
Yes	57	24.1

Source: own work.

The basis for assessing the level of growth mindset and the level of self-leadership were the answers given by the respondents in a five-point Likert scale that indicates the degree of agreement with a statement, where: 1 – Strongly disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly agree. The maximum score on the self-leadership scale was 45 points and the minimum score was 9 points. In the growth mindset research, a maximum of 75 points could be obtained, and a minimum of 15.

Table 3 shows that minimum score is same in each category. The highest single results were achieved by people belonging to the categories: women, under 25 y.o., not holding managerial positions. On the other hand, the highest average score in self-leadership was achieved by the group of people over 40 y.o.

Table 3. Research results on the general level of self-leadership

Factor	Baseline characteristic		Minimum score	Maximum score	Average score
Self-leadership – overall result	Overall		19	45	32.98
	Sex	Female	19	45	32.94
		Male	19	42	33.06
	Age	Under 25 y.o.	19	45	32.90
		25–40 y.o.	19	42	32.05
		Over 40 y.o.	19	44	33.82
	Job seniority	Under 5 years	19	45	32.78
		5–20 years	19	42	32.71
		Over 20 years	19	44	33.66
	Managerial position	No	19	45	32.95
		Yes	19	42	33.05

Source: own work.

Tables 4, 5 and 6 show the results achieved by the respondents in the self-leadership factors. What is worth noting, in most of the categories, the maximum score is the same – 15 out of 15 possible points. Only in the task motivation in the groups: men, over 40 y.o. and people with job seniority over 20 years, none of the individuals received 15 points. Their results amounted to a maximum of 14 points. The minimum scores for each factor varied widely. They were: 3, 4 or 6 points. The most differential results in the behavior awareness and volition factor (Table 4) can be seen in the job seniority section. People working for less than 5 years have the lowest average results, while those working for more than 20 years have the highest average results from all seniority groups.

The task motivation factor (Table 5) shows the smallest differences among the average results of individual groups. At the same time, in this factor of self-leadership, the respondents obtained the lowest average results compared to the behavior awareness and volition, and the constructive cognition.

Table 4. Research results on the level of self-leadership in the field of behavior awareness and volition

Factor	Baseline characteristic		Minimum score	Maximum score	Average score
Behavior awareness and volition	Overall		3	15	11.24
	Sex	Female	3	15	11.19
		Male	6	15	11.36
	Age	Under 25 y.o.	6	15	11.56
		25–40 y.o.	6	15	10.81
		Over 40 y.o.	3	15	11.17
	Job seniority	Under 5 years	6	15	10.61
		5–20 years	4	15	11.11
		Over 20 years	3	15	11.82
	Managerial position	No	6	15	11.38
		Yes	3	15	10.84

Source: own work.

Table 5. Research results on the level of self-leadership in the field of task motivation

Factor	Baseline characteristic		Minimum score	Maximum score	Average score
Task motivation	Overall		3	15	10.68
	Sex	Female	3	15	10.67
		Male	3	14	10.71
	Age	Under 25 y.o.	4	15	10.71
		25–40 y.o.	3	15	10.39
		Over 40 y.o.	3	14	10.88
	Job seniority	Under 5 years	4	15	10.69
		5–20 years	3	15	10.64
		Over 20 years	3	14	10.71
	Managerial position	No	4	15	10.79
		Yes	3	15	10.35

Source: own work.

In regard to the last factor of self-leadership, i.e. constructive cognition, the greatest differences among individual average scores in each group are noticeable (Table 6). In this case, the lowest average

results were obtained by people under 25 y.o., and the highest average results for persons holding managerial positions.

Table 6. Research results on the level of self-leadership in the field of constructive cognition

Factor	Baseline characteristic		Minimum score	Maximum score	Average score
Constructive cognition	Overall		3	15	11.05
	Sex	Female	3	15	11.08
		Male	6	15	10.99
	Age	Under 25 y.o.	6	15	10.63
		25–40 y.o.	4	15	10.86
		Over 40 y.o.	3	15	11.78
	Job seniority	Under 5 years	6	15	11.48
		5–20 years	6	15	10.97
		Over 20 years	3	15	11.13
	Managerial position	No	4	15	10.78
		Yes	3	15	11.86

Source: own work.

In order to illustrate the extent to which particular factors influence the overall level of self-leadership, a regression analysis was performed. The overall result in self-leadership can be explained in 71% by task motivation factor, what is presented in Table 7.

Table 7. The impact of individual factors on the overall self-leadership result

Factors examined	R	R-squared	Adjusted R-squared
Behavior awareness & volition	0.770	0.593	0.591
Task motivation	0.845	0.714	0.713
Constructive cognition	0.715	0.511	0.508

Source: own work.

In the case of growth mindset, the results achieved by respondents ranged between 20–74 points and their average was 55.06. While in each group the maximum results was equal to or higher than 70 points

and the difference among the results was only 4 points. In the case of minimum results it is worth paying attention to the result achieved by people between 25 and 40 y.o., because their result differed (was higher) significantly from younger and older people. It should also be noted that significantly higher minimum scores were recorded in the male group. Detailed data are presented in Table 8.

Table 8. Research results on the general level of growth mindset

Factor	Baseline characteristic		Minimum score	Maximum score	Average score
Growth mindset	Overall		20	74	55.06
	Sex	Female	20	73	54.17
		Male	34	74	57.09
	Age	Under 25 y.o.	20	73	52.20
		25–40 y.o.	33	74	56.56
		Over 40 y.o.	22	72	57.72
	Job seniority	Under 5 years	20	74	52.29
		5–20 years	22	70	57.33
		Over 20 years	22	72	57.52
	Managerial position	No	20	74	54.21
		Yes	22	70	57.58

Source: own work.

Correlation of intensity of the given factors and the overall self-leadership score of each individual with their results on the growth mindset scale shows, that these features are interdependent. It is worth noting that self-leadership overall result correlates to the highest degree with growth mindset. Among these factors of self-leadership the most important one is constructive cognition, followed by: task motivation and behavior awareness and volition. Detailed results are presented in Table 9.

Despite the fact that no significant correlation was found between the general level of self-leadership achieved and: age, job seniority or holding the managerial position – it was noticed, that one of the factors – constructive cognition, correlates to a small extent with the data mentioned in Table 10. However, there are no differences in any of the factors between men and women.

Table 9. Correlations between growth mindset and self-leadership factors

Factors examined	Self-leadership – overall result	Behavior awareness and volition	Task motivation	Constructive cognition
Growth mindset	0.335**	0.178**	0.265**	0.333**
Significant	0.000	0.007	0.000	0.000

** correlation coefficient significance level of 0.01 (two-tailed)

Source: own work.

Table 10. Correlations between constructive cognition and baseline characteristic

Factors examined	Age	Job seniority	Managerial position
Constructive cognition	0.19**	0.193**	0.194**
Significant	0.004	0.004	0.003

** correlation coefficient significance level of 0.01 (two-tailed)

Source: own work.

5. Conclusions

Contemporary research emphasizes that people's attitudes and behaviors are as important for achieving high performance. In-depth analysis also shows that some of the individual characteristics – by interacting with each other – can reinforce or extinguish specific behaviors. Our study confirms that such a relationship occurs in the case of self-leadership and growth mindset. Among the three main determinants of self-leadership, constructive cognition is the most important, for which not only the highest correlation with the attitude to growth was noted, but also this factor is the only one which differentiates the studied groups in terms of: age, seniority and holding a managerial position. This means that people with a higher level of growth mindset, older people, those with longer job seniority and holding managerial positions are characterized by greater ease in problem-solving and a greater tendency to self-monitoring and self-dialogues. Research results could be important for business practice also because the level of self-leadership may be,

as Hooker and Csikszentmihalyi (2003) pointed out, a relevant factor which promoted and shared among coworkers allows to create a more balanced, engaging work environment for managers and those they lead.

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