

# The Connections Between Control Attitude, Locus of Control and Self-Control

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## Abstract

The main purpose of the current study is to examine the widely-used term *controllability* through analysis of three important factors that continuously receive scientific attention- based on three known theories of delinquency and crime: The first factor; the control ratio is the relationship between people's perception of their control over their environment and their perception of the environment's control over them [1-3]. The second factor; locus of control; differentiates between people who think they control their own lives and those who feel that their lives control them [4]. Finally, the third factor; self-control relates to people's ability to direct their behavior [5]. This third factor; whereby the person is both the subject and the object, is more focused than the first two, as it relates to the people themselves, not to their external environment.

Five research hypotheses were examined: (1) the higher the internal locus of control, the lower the external locus of control - fate and others ; (2) the higher the self-control, the higher the internal locus of control/control ratio; (3) the greater the lack of control (i.e., the lower the control ratio), the greater the external locus of control; (4) the lower the self-control, the higher the external locus of control/lack of control; (5) the higher the control ratio, the higher the internal locus of control. Questionnaires were completed by 215 undergraduate students from four different faculties from the same university, 53 males and 58 females studying psychology or social work (i.e., therapy-oriented disciplines), 58 males and 46 females studying economics or law (i.e., non-therapy-oriented disciplines). The findings of the study reinforced all five hypotheses, thereby providing an additional layer of infrastructure for conducting the important mapping of various factors that are part of controllability. The results also enabled ties and connections to be made between these and additional factors, on the road to understanding, coping with and intervening in a range of human activities in general, and deviant behavior specifically.

**Keywords:** Locus of Control, Control Ratio, Self-Control, Deviant Behavior, Criminal Behavior

## 1. Introduction

*Controllability* is an abstract term that incorporates a range of factors important when studying people and their behavior in general, including deviant behavior such as violence [6]. However, despite the importance and the frequent use of "controllability", this term, and its components (which appear below) lack clarity and a uniform definition. Thus, the current study aims to provide a better, consistent, and more strict definition of controllability by examining three specific factors entangling it: *control ratio*, *locus of control*, and *self-control*. By understanding these three factors, we believe that the connection between deviance and delinquency to the extent of the person's control will become clearer.

The *control ratio* is a central component of Tittle's Control Balance Theory [1-3]. It refers to the relationship between

people's perceptions of their control of their environment and their perceptions of their environment's control of them. *Locus of control* has been a component of numerous psychological theories likewise; it enables the differentiation between people who feel that they control their lives and those who feel that their lives control them [4]. Finally, *self-control* refers to people's ability to direct their behavior toward goals, and to keep themselves away from delinquency [5]. This third term whereby both the object and the subject of control are the people themselves, is more precise than the previous ones, as it focuses solely on people, regardless of their external environment; moreover, in their Self-Control Theory of Crime, Gottfredson and Hirschi (1990) claimed that *self-control* is this main influencing factor in criminal behaviors [5].

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A better understanding of these three terms could provide a solid ground for untangling specific elements of *control* and their mutual relationships. Moreover, we believe that it would also shed light on their theoretical and practical implications. Although the theoretical frameworks of *locus of control* and *control ratio* address similar issues, studies of the relationship between the two are rather scarce.

Yet, examining their possible relation is necessary to achieve integration between the components and enhance the understanding of their theoretical frameworks. Therefore, the current study provides an important stepping-stone toward mapping these three control components, understanding their mutual relationships and their associations with additional components. Altogether to develop novel interventions and treatment methods for various human behaviors.

First, let us start by presenting each component and its meaning, especially its influence on people's tendency to become involved in criminal behavior and delinquency.

## 2. Control Ratio

In Tittle's criminology-related Control Balance Theory, the term *control ratio* is frequently used for the ratio between two components: (1) the degree to which people perceive that they have control over their various surroundings (i.e., "being in control"); and (2) the degree to which they perceive themselves as being controlled by those surroundings (i.e., "being controlled") [1-3]. The ratio between these two components differs from one to the other, resulting in three different personality types: **balanced**, **surplus**, or **deficit of control**. A *balanced control ratio* refers to people subjected to being controlled to the same degree as they are subjected to being in control. According to Tittle, people with a balanced control ratio are least prone to deviating from social norms. On the other hand, an imbalanced control ratio occurs when people are subject to greater control than they exercise, or *vice versa* [1-3]. People with *control surplus* perceive themselves as being more in control of their environment than being controlled by it, while people with *control deficit* perceive themselves as being more controlled by their surroundings than being in control of it.

In their attempt to achieve a *balanced control ratio*, people with control surplus or control deficit may deviate from social norms – the former as they feel that it is within their rights to act as they please, the latter to overcome feelings of deprivation or to achieve their objectives [1-3]. Tittle (2017) claims that the *balance of control* is influenced by people's control ratio, the opportunity for deviant behavior, external constraints, and self-control and that increased self-control leads to decreased deviant behaviors [3]. Another interesting finding about control ratio was found by Hickman and Piquero (2001), also by Curry and Piquero (2003), and Curry (2005), who explored the gender implications of control balance theory, and found that there were no significant differences between the main control ratios of men compared to women [7-9].

## 3. Locus of Control

First introduced by Rotter (1966), *locus of control* refers to people's expectations of reinforcement from a certain event. Such reinforcement can be internal or external, positive, or negative [4]. According to Rotter, people with an *internal locus of control* believe that they are mainly responsible for certain occurrence that happens in their lives (success in exams, for example). In contrast, people with an *external locus of control* believe that their surroundings are responsible for a certain occurrence (failure in exams, for example). Moreover, there are two types of people within the *external locus of control*: those who hold others responsible, and those who hold fate or coincidence responsible for outcomes or effects in their life. In his "Social Learning Theory", Rotter (1966) claimed that people's behaviors are influenced by the anticipated value of reinforcement that could be achieved by behaving in a certain manner [4]. In addition, the degree to which people believe that the reinforcement is or is not dependent on their behavior also contributes.

Cumulative data suggest that *locus of control* is a significant part of normative behaviors. For example, the internal locus of control may be a central component in determining people's effective adjustment to their environment [10]. Furthermore, Duttweiler (1984) and other researchers found that the greater a person's age, education, and social economic status, the higher the *internal locus of control*; these findings can tell us something about the characteristics of habitual people, and are more likely to be involved in delinquency and crime [11-13].

Since the *locus of control* and *control ratio* originate from a similar theoretical point-of-view, associations between them may exist. On the one hand, people with a *control surplus*, who believe they have greater control of their surroundings, may also have a higher *internal locus of control*, taking responsibility for events that occur [14]. On the other hand, people with *control deficits*, who believe their surroundings control them greatly, may also have a higher external locus of control, blaming others – or fate – for events that occur [15]. Based on the above, one can formulate the following hypotheses: *internal locus of control will be higher among people with greater control surplus and the external locus of control will be higher among people with greater control deficit*.

## 4. Self-Control

While not originally included in his Control Balance Theory, Tittle later added *self-control* as a third factor influencing human behavior in general, and delinquency specifically [2,3]. According to Tittle (2017), the balance of control is influenced by people's self-control, as well as by their control ratio, the opportunity for deviant behavior, and external constraints [3]. Since *increased self-control* leads to decreased deviant behaviors, this factor is necessary for achieving a complete picture. Moreover, the General Theory of Crime presents *self-control* as the main factor for predicting criminal and deviant behavior [5]. Additionally, others claimed that out of six components for self-control: impulsiveness, insensitiveness, preference to perform simple tasks

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rather than complex ones, preference to perform physical tasks rather than mental ones, mood control, and tendency to take risks, and impulsiveness is the most important factor [16-18].

Tittle (2004) also discussed impulsiveness regarding *self-control*, defining it as the degree to which people act without thinking or considering the consequences [2]. Other findings show that people with low *self-control* are more impulsive and insensitive, take greater risks, and commit more crimes than people with high *self-control* – and are less able to be rehabilitated after imprisonment [19,20].

For individuals with poor self-control, criminal opportunities are gratifying and exciting. In conclusion, low self-control was found as a strong and robust predictor of different forms of criminal activity (e.g., violence, property offenses, and drug use) [21].

In line with the above, we can see that the connections between these three components of controllability are strong (especially the connection between locus of control and control ratio). Furthermore, in our opinion, understanding the mechanism between these three components may clarify the influence that exists between them and deviant behavior.

We decided in our research to examine four hypotheses:

1. The higher the internal locus of control, the lower the external locus of control - fate and others.
2. The higher the self-control, the higher the internal locus of control/control ratio.
3. The greater the lack of control (i.e., the lower the control ratio), the greater the external locus of control.
4. The lower the self-control, the higher the external locus of control/lack of control.
5. The higher the control ratio the higher the internal locus of control.

## 5. Method

### 5.1 Participants

The study included 104 women and 111 men (N=215), BA students at a university in Israel. 52 men and 58 women studying therapy-oriented disciplines (psychology or social work), 58 males, and 46 females studying non-therapy-oriented disciplines (economics or law). Their average age was 26.36 (SD=6.07). 80.9% were born in Israel, 77.7% were Jewish, 13.0% were Christian, and were 5.6% Muslim. 50.2% reported that they are traditional, 44.7% secular, and 5.2% religious. Analysis of their fathers' education showed that 21.5% had less than 12 years of education, 36.7% had a high-school education, 25.2% held a BA, and 16.4% held a Master's degree or higher. 60.4% of the participants stated that their parents' financial standing is above average, 26.4% average, and 13.2% below average. When asked about their financial situation, 54.9% rated themselves as being of average financial standing, 14.9% above average, and 30.2% below average.

## 6. Materials

Participants were asked to complete a questionnaire about *control ratio*, *locus of control*, and *self-control*, which also included several socio-demographic questions. The questionnaire was divided into several sections. First, the *control ratio* was examined through two versions of a questionnaire: one developed by Tittle and Curry- "The control Balance Theory" (1995), and one adapted for this study. When the original questionnaire was used in a study in the USA, Cronbach's alpha used to determine reliability, was 0.78; in our study, the internal reliability was 0.90. In both the original and the adapted versions, participants were asked to rate the degree to which each statement is typical of themselves.

In the original questionnaire, participants were asked to rate 24 items on a scale of one to five (1=not influenced at all; 5=greatly influenced). The first 12 items measured the degree to which the individuals perceive themselves as being able to control their surroundings (e.g., *I frequently fail at making strangers whom I meet to comply with my needs and desires*), while the remainder measured the degree to which they perceive themselves as being controlled by their surroundings (e.g., *strangers whom I meet have a great influence on me*).

In the adapted part, participants were asked to rate 20 items on a scale of one to five (1=not true at all; 5 = extremely true). The first 10 items measured the degree to which the individuals perceive themselves as being able to control their surroundings (e.g., *I have a great deal of influence on most strangers that I meet*), while the second half measured the degree to which they perceive themselves as being controlled by their surroundings (e.g., *In many cases, the people closest to me realize that they cannot influence me*). As the internal reliability of this part was only 0.58, twelve items were removed, resulting in reliability of 0.63.

Next, the *locus of control* was examined to measure the degree to which the participants feel they are in control of their lives or are controlled by their surroundings. The participants were asked to rate 30 items on a scale of one to five (1=not true at all; 5 = extremely true). These items were divided into three subcategories, which included: (A) 10 statements about the internal locus of control (e.g., *Whether or not I am involved as a driver in a car accident mainly depends on how good a driver I am*); (B) 10 statements regarding the external locus of control as a result of fate (e.g., *My life, to a large degree, is controlled by coincidental events*), and (C) 10 statements regarding the external locus of control as a result of other people (e.g., *I feel that what goes on in my life is mainly determined by strong others*). These 30 statements were presented to the participants in random order, not according to sub-categories. Three mean scores were calculated for each participant – one for each sub-category (A, B, and C). Cronbach's alpha was used to measure the internal consistency of each sub-category: A=0.72; B=0.80; and C=0.82. Two items were removed to increase the internal consistency of sub-category A, resulting in A=0.79; to increase the internal consistency of sub-category C, one item was removed, resulting in B=0.82.

Finally, *self-control* was examined. The participants were asked to rate 24 items on a scale of one to five (1=not true at all; 5 = extremely true). Developed by Grasmick in 1993, the questionnaire was utilized by Higgins in 2007 in a college in the United States [16]. The reliability coefficient was 0.86 with internal consistency (Cronbach's alpha) of 0.83.

Six statements were aimed at measuring people's self-control during interactions with others (e.g., *Often, when I'm angry at people I feel like hurting them more than the reason I am angry*), while half were related to people's self-control about themselves (e.g., *If I had a choice, I would almost always rather do something physical than something mental*). Participants who agree strongly with these statements are considered to have low self-control, while those who disagree strongly with them are considered to have high self-control.

### 6.1 Socio-Demographic Characteristics

In this study, the background data of the research participants were also collected, including, for example, gender, age, profession, parental education, and income.

### 6.2 Procedure

215 questionnaires were completed during university lectures for Bachelor of Arts (BA) students in psychology, social work, law, and economics. The researcher was present during this time and the participants were assured that they were not required to participate in the study if they did not wish to do so. Complete anonymity was ensured to all participants, as was the assurance that no details whatsoever would be submitted to the lecturers, nor would their course grades be affected in any way, whether they agree to participate in the study or not.

### 6.3 Statistical Analysis

We compared demographics, psychological indices, and questionnaires across all subjects using Pearson correlation tests and independent t-tests.

### 7. Results

As mentioned, the current study aims to test the hypotheses regarding self-control and the locus of control, through analyzes of variance and correlations.

First, we will present the correlations between the study variables as shown in Table 1.

Table 1: Pearson's correlations of the research variables

	Physical exercise	Simple tasks	Taking risks	Self-absorbed	Impulsive	Control ratio	Being controlled by others	Controlling others	Having a temper	Internal locus of control	Control ratio (original)	Being controlled by others (original)	Controlling others (original)	Locus of control ratio	External other	External fate
Physical exercise	1	0.30**	0.40**	0.32**	0.44**	0.01	0.11	0.16*	0.38**	0.05	0.06	-0.09	-0.02	-0.13	0.15*	0.21**
Simple tasks	0.30**	1	0.26**	0.45**	0.52**	-0.32**	0.33**	-0.1	0.41**	-0.28	-0.28**	0.01	-0.36**	-0.47**	0.41**	0.47**
Taking risks	0.40**	0.26**	1	0.46**	0.54**	0.03	0.13	0.18**	0.40**	-0.1	0.03	-0.15*	-0.13	-0.31**	0.27**	0.42**
Self-absorbed	0.32**	0.45**	0.46**	1	0.59**	-0.03	0.12	0.07	0.46**	-0.15*	0.02	-0.21**	-0.23**	-0.36**	0.33**	0.48**
Impulsive	0.44**	0.52**	0.54**	0.59**	1	-0.1	0.21**	0.03	0.55**	-0.24**	-0.06	-0.13	-0.27**	-0.50**	0.43**	0.58**
Control ratio	0.01	-0.32**	0.03	-0.03	-0.1	1	-0.68**	0.55	-0.06	0.33**	0.31**	-0.16*	0.24**	0.37**	-0.29**	-0.29**
Being controlled by others	0.11	0.33**	0.13	0.12	0.21**	-0.68**	1	0.16*	0.18**	-0.05	-0.21**	0.18**	-0.05	-0.28**	0.38**	0.32**
Controlling others	0.16*	-0.1	0.18*	0.07	0.03	0.55	0.16*	1	0.03	0.44**	0.21**	-0.03	0.31**	0.26**	-0.57	-0.12
Having a temper	0.38**	0.41**	0.40**	0.46**	0.55**	-0.06	0.18**	0.03	1	-0.11	-0.07	-0.04	-0.16*	-0.36**	0.35**	0.43**
Internal locus of control	0.05	-0.28	-0.1	-0.15*	-0.24**	0.33**	-0.05	0.44**	-0.11	1	0.22**	0.07	0.44*	0.69**	-0.17*	-0.34**
Control ratio (original)	0.06	-0.28**	0.03	0.02	-0.06	0.31**	-0.21**	0.21**	-0.07	0.22**	1	-0.74**	0.42**	0.26**	-0.17*	-0.18**
Being controlled by others (original)	-0.09	0.01	-0.15*	-0.21**	-0.13	-0.16*	0.18**	-0.03	-0.04	0.07	-0.74**	1	0.23**	0.02	0.01	-0.07
Controlling others (original)	-0.02	-0.36**	-0.13	-0.23**	-0.27**	0.24**	-0.05	0.31**	-0.16*	0.44**	0.42**	0.23**	1	0.44**	-0.25**	-0.39**
Locus of control ratio	-0.13	-0.47**	-0.31**	-0.36**	-0.50**	0.37**	-0.28**	0.26**	-0.36**	0.69**	0.26**	0.02	0.44**	1	-0.73**	-0.79**
External other	0.15*	0.41**	0.27**	0.33**	0.43**	-0.29**	0.38**	-0.57	0.35**	-0.17*	-0.17*	0.01	-0.25**	-0.73**	1	0.70**
External fate	0.21**	0.47**	0.42**	0.48**	0.58**	-0.29*	0.32**	-0.12	0.43**	-0.34**	-0.18**	-0.07	-0.39**	-0.79**	0.70**	1



## 8. Preliminary Analyses

Before examining the hypotheses, statistical analyses were conducted to examine the research variables in the context of the questionnaires and the research groups. We began by conducting a preliminary examination of the results of both the original questionnaire and the adapted one. Analysis revealed a significant positive association between the two questionnaires ( $r_p=0.31$ ,  $p<0.01$ ). A significant positive association was also found between the original and adapted questionnaires regarding being controlled by others ( $r_p=0.18$ ,  $p<0.01$ ), and with the control ratio ( $r_p=0.31$ ,  $p<0.01$ ).

Next, differences between people's perception of their control of others and being controlled by others were examined by using paired sample t-tests (regardless of their field of study). Tests indicated that the level to which participants perceived themselves

as controlling others ( $M=3.29$ ,  $SD=0.6$ ) was significantly higher than their perception as being controlled by others ( $M=2.76$ ,  $SD=0.58$ ), [ $t_{(214)}=10.00$ ,  $p<0.001$ ].

In addition, independent t-tests were conducted to examine possible gender differences in the perception of the subject's ability to control others, being controlled by others, and the association between the two (based on the original questionnaire). As depicted in Table 2, a significant difference was found between men and women in their perception of being controlled by others [ $t_{(213)}=2.97$ ,  $p<0.001$ ]. Women perceived themselves as being controlled by others ( $M=3.68$ ,  $SD=0.78$ ) to a higher level compared with men ( $M=3.37$ ,  $SD=0.70$ ). In contrast, no differences were found between men and women in their perceived ability to control others, or in their control ratio [ $t_{(213)}=1.50$ , N.S.,  $t_{(213)}=1.36$ , N.S. - respectively].

	Men		Women		Df	T
	M	SD	M	SD		
<b>Control of others</b>	3.84	0.62	3.97	0.58	213	1.50
<b>Being controlled by others</b>	3.37	0.70	3.68	0.78	213	2.97**
<b>Ratio:</b>	1.19	0.33	1.19	0.32	213	1.36
<b>Control of others: Being controlled by others</b>						
* $p<0.05$ ** $p<0.01$ *** $p<0.001$ N.S. = non-significant						

**Table 2: Differences in Control between Men and Women / Original Questionnaire**

Three additional independent t-tests were conducted to examine the difference between the control ratio of men and women, based on the adapted questionnaire. As depicted in Table 3, no differences were found between men and women in their perception of

controlling others, being controlled by others, or control ratio [ $t(213) = 1.08$ , N.S.,  $t(213) = 0.52$ , N.S.,  $t(213) = 0.35$ , N.S. - respectively].

	Men		Women		Df	T
	M	SD	M	SD		
<b>Control of others</b>	3.33	0.58	3.24	0.63	213	1.08
<b>Being controlled by others</b>	2.78	0.58	2.74	0.57	213	0.52
<b>Ratio:</b>	1.25	0.37	1.23	0.36	213	0.35
<b>Control of others: Being controlled by others</b>						
* $p<0.05$ ** $p<0.01$ *** $p<0.001$ N.S. = non-significant						

**Table 3: Differences in Control between Men and Women / Adapted Questionnaire**

Next, independent t-tests were conducted to examine for possible differences between participants according to their academic fields. Table 4 depicts a significant difference between Social Work/Psychology students and Economics/Law students in their perception of controlling others. Economics/law students ( $M=3.47$ ,  $SD=0.56$ ) perceived their control of others as significantly higher than psychology/Social Work students ( $M=3.12$ ,  $SD=0.61$ ), [ $t_{(213)}=4.43$ ,

$p<0.001$ ]. However, no differences were found between the two groups regarding their perception of being controlled by others [ $t_{(213)}=0.25$ , N.S. - respectively]. Finally, a significant difference was found between the two groups in their control ratio. Economics/law students ( $M=1.33$ ,  $SD=0.42$ ) exhibited significantly higher control ratio compared to psychology/Social Work students ( $M=1.16$ ,  $SD=0.28$ ), [ $t_{(213)}=3.48$ ,  $p<0.001$ ].

	Social Work		Economics		Df	T
	M	SD	M	SD		
<b>Control of others</b>	3.12	0.61	3.47	0.56	213	4.13***
<b>Being controlled by others</b>	2.77	0.57	2.75	0.57	213	0.25
<b>Ratio: Control of others: Being controlled by others</b>	1.16	0.28	1.33	0.42	213	3.48***
* p<0.05 ** p<0.01 *** p<0.001 N.S. = non-significant						

**Table 4: Differences in Control between Students of Economics and Social Work**

Additional paired t-test analyses were carried out to examine differences between participants who are in a relationship and those who are single. As depicted in Table 5, no differences were

found between the two groups regarding their perceived ability to control others, being controlled by others, or their control ratio [t(209)=1.25, N.S., t(209)=0.17, N.S., t(209)=1.00, N.S.- respectively].

	Social Work		Economics		Df	T
	M	SD	M	SD		
<b>Control of others</b>	3.32	0.60	3.21	0.62	209	1.25
<b>Being controlled by others</b>	2.76	0.57	2.77	0.60	209	0.17
<b>Ratio: Control of others: Being controlled by others</b>	1.26	0.36	1.20	0.38	209	1.00
* p<0.05 ** p<0.01 *** p<0.001 N.S. = non-significant						

**Table 5: Differences in Control between Single People and those in Relationships**

The final paired t-test analysis was carried out to examine possible differences between the original questionnaire and the adapted one. As depicted in Table 6, perceived control of others was higher in the original questionnaire (M=3.90, SD=0.61) than in the adapted one (M=3.29, SD=0.61), [t(214)=12.61, p<0.001]. A similar pattern of results was also found for being controlled by others [t(214)=12.80, p<0.001].

Higher reporting was obtained in the original questionnaire (M=3.52, SD=0.76) compared to the adopted questionnaire (M=2.76, SD=0.58). However, the reported control ratio was lower in the original questionnaire (M=1.16, SD=0.32) compared with the adopted one (M=1.24, SD=0.37), [t(214)=2.96 p<0.01].

	Adapted Questionnaire		Original Questionnaire		Df	T
	M	SD	M	SD		
<b>Control of others</b>	3.29	0.61	3.90	0.61	214	12.61***
<b>Being controlled by others</b>	2.76	0.58	3.52	0.76	214	12.80***
<b>Ratio: Control of others: Being controlled by others</b>	1.24	0.37	1.16	0.32	214	2.96**
* p<0.05 ** p<0.01 *** p<0.001 N.S. = non-significant						

**Table 6: Differences in Control between the Original and Adapted Questionnaires**

To strengthen the findings, Pearson correlations were computed to test for associations between being controlled by others and controlling others, and the control ratio to the mother's and father's level of education, the subject's financial status, and their age. A significant positive association between the participant's perception of being controlled by others and their mother's education level was found [r<sub>p</sub>=0.20, p<0.01]. Participants whose mothers had a higher education perceived themselves as being more controlled by others. A significant positive association was also found between participants' control ratio and their mother's

level of education [r<sub>p</sub>=0.18, p<0.01]. Subjects whose mothers had a higher education level had a higher control ratio. Similarly, a positive significant association was found between the control ratio and the father's level of education [r<sub>p</sub>=0.16, p<0.05]. The higher the father's education level, the higher the subject's control ratio was. In addition, a significant positive relationship was found between people who perceive themselves as controlling others and their financial status [r<sub>p</sub>=0.15, p<0.05]. The better their financial status, the greater their perception of controlling others. Finally, a significant positive relationship was found between the control

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ratio and the age of the participant [ $r_p=0.14$ ,  $p<0.05$ ]. The older the participant, the higher his control ratio.

## 9. Examining the Research Hypotheses

The first hypothesis hypothesized that the higher the internal locus of control, the lower the external locus of control – fate, and others. Three Pearson tests were computed between the three types of control locus:

internal, external – others, and external – fate. Significant negative associations were found between internal and external – fate – the locus of control and between internal-external – others – the locus of control [ $r_p=-0.34$ ,  $p<0.01$ ,  $r_p=-0.17$ ,  $p<0.05$  – respectively]. Lastly, a significant positive association was found between external – others – and external – fate – the locus of control [ $r_p=-0.70$ ,  $p<0.01$ ]. The higher the internal locus of control, the lower the external locus of control - fate and others. However, among the external locus of control, the higher the fate the higher the others respectively, and *vice versa*.

A second hypothesis was designed to examine the higher the self-control, the higher the internal locus of control/control ratio. Pearson correlations were computed for internal locus of control, the participant's perception of their ability to control others, and the control ratio. Significant positive correlations were found between the internal locus of control and the participant's perception of their ability to control others [ $r_p=0.44$ ,  $p<0.01$ ]. A similar association was found between the internal locus of control and control ratio [ $r_p=0.33$ ,  $p<0.01$ ]. The higher the subject's internal locus of control was, the greater their internal locus of control and the higher the control ratio was. A positive significant association was also found between internal locus of control and the original questionnaire regarding people's perception of their ability to control others [ $r_p=0.44$ ,  $p<0.01$ ]. To put it simply, the higher the subject's internal control was, the higher the person's control of others was. Finally, a positive significant association was found between the internal locus of control and statements regarding the control ratio in the original questionnaire [ $r_p=0.22$ ,  $p<0.01$ ]. The higher the subject's internal control, the higher the person's control ratio was.

To examine the third hypothesis, according to which, the greater the lack of control (i.e., the lower the control ratio), the greater the external locus of control, Pearson conducted correlations that were computed for the external locus of control as a result of fate or coincidence. A significant positive association emerged between the external locus of control and people's perception of being controlled by others [ $r_p=0.32$ ,  $p<0.01$ ]. The higher the level of external locus of control was, the greater their perception of being controlled by others was. A negative significant association emerged between the external locus of control and the control ratio ( $r_p=-0.29$ ,  $p<0.01$ ). The higher the external locus of control level was, the lower the person's control ratio. Similarly, the original questionnaire also found a significant negative association between external – fate – the locus of control and people's perceptions of controlling others [ $r_p=-0.39$ ,  $p<0.01$ ]. The higher the locus

of control, the lower the participants' perception of themselves controlling others. Finally, a significant negative association was found between the locus of control and the control ratio for the original questionnaire [ $r_p=-0.18$ ,  $p<0.01$ ]. The higher the external – fate – locus of control, the lower the control ratio was, and *vice versa*.

Fourthly, to examine the hypothesis that the lower the self-control, the higher the external locus of control/lack of control, Pearson correlations were computed for the external locus of control as a result of other people. A significant positive correlation between external – others – the locus of control and people's perceptions of being controlled by others was found [ $r_p=0.38$ ,  $p<0.01$ ]. The higher the external locus of control was, the higher the perception of being controlled by others was. Moreover, a significant negative association was found between this external locus of control and the control ratio [ $r_p=-0.29$ ,  $p<0.01$ ]. The higher the locus of control was, the lower the control ratio was. In addition, a significant negative correlation was found between external – others – the locus of control and perception of controlling others in the original questionnaire [ $r_p=-0.25$ ,  $p<0.01$ ]. The higher the external locus of control was, the lower the subject's perception of controlling others. A significant negative association was also found between the external locus of control and the control ratio in the original questionnaire [ $r_p=-0.17$ ,  $p<0.05$ ]. The higher the external locus of control was, the lower the subject's perception of controlling others was, and *vice versa*.

Finally, for the examination of the fifth hypothesis according to which the higher the control ratio, the higher the internal locus of control, Pearson correlations were computed for all types of locus of control (internal, external – others, and external – fate) and control ratio. Significant positive correlations were found between internal or external – fate locus of control and control ratio in the adapted questionnaire and for the control ratio in the original questionnaire [ $r_p=0.35$ ,  $p<0.01$ ,  $r_p=0.26$ ,  $p<0.01$  - respectively]. The higher the locus of control, the higher the control ratio for both the adapted and the original questionnaires. Positive correlations were also found between internal or external – others – the locus of control and control ratio for both the adapted and the original questionnaires [ $r_p=0.34$ ,  $p<0.01$ ,  $r_p=0.23$ ,  $p<0.01$  - respectively]. The higher the locus of control, the higher the control ratio, and *vice versa*. Finally, positive correlations were found between internal and external (average rating of fate and others) locus of control for both the adapted and the original questionnaires [ $r_p=0.37$ ,  $p<0.01$ ,  $r_p=0.26$ ,  $p<0.01$  – respectively]. For both questionnaires, the higher the locus of control, the higher the control ratio.

## 10. Discussion

The main aim of our current study was to examine the widely-used term *controllability* through analysis of three factors that continuously receive scientific attention, and try to understand the effect they have on human behavior, especially on delinquency and criminal behavior.

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The first factor, the *control ratio*, is the relationship between people's perception of their control over their environment and their perception of their environment's control of them [1-3]. The second factor, *locus of control*, differentiates between people who think they control their own lives and those who feel that their lives control them [4]. Finally, *self-control* relates to people's ability to direct their behavior [5].

We will start by examining the five main assumptions which we have introduced above, and then we will continue to present other interesting findings which can shed light on another angle of the wide-term *Controllability*:

The first hypothesis suggests that the higher the internal locus of control, the lower the external locus of control - fate and others.

This assumption was confirmed, upon finding that the external and internal locus of control are contradictory, meaning that when the internal locus of control is high, the external locus of control is low and vice versa. Furthermore, A clear, positive correlation was found between the external locus of control – others and the external locus of control – fate. Meaning that between the two types of external locus of control, when one increases so does the other, and vice versa.

The second hypothesis suggested that *the higher the self-control, the higher the internal locus of control/control ratio*. The significant negative relationships found between self-control and the ability to control others – regarding four out of the six components of self-control (impulsiveness, self-absorbed, preference to perform simple tasks, and inability to control one's temper) – support this hypothesis and indicate that the higher an individual's self-control, the lower their control surplus. It could be explained that people with high self-control feel less of a need to attempt to control others. Such an explanation expresses a perception whereby controlling others is an outcome of need. Therefore, people who need to control others will exert such control and may even achieve it. The question is, where does such a need stem from? The literature shows that the need to control others stems from an inability to achieve self-control. This relationship is part of a compensation mechanism, whereby people compensate for one inability (in this case, self-control) by developing another (such as controlling others). The findings of this study are in line with Winstok (2009), who supported this claim in a study that found a negative relationship between self-control and the need to control others.

The third hypothesis suggests that *the greater the lack of control (i.e., the lower the control ratio), the greater the external locus of control*, and was based on the theoretical framework provided by Rotter (1966) and Tittle (2004; 2017), whereby the former claims that people with an external locus of control perceive events as occurring because of others, fate, or coincidence, while the latter claims that people with control deficit perceive themselves as having less control of their surroundings and being more controlled by them.

The significant positive relationship between the adapted measurement of controlling others and the adapted measurement of external – others – the locus of control supports this hypothesis: the higher the controlling of others, the higher the external – others – the locus of control. This hypothesis is also supported by the relationship between the adapted measurement of controlling others and that of external – fate – the locus of control. As mentioned, the external locus of control is related to the perception of social situations. This locus of control is typical of people who feel that they have no control over events that occur in their lives. People's control over events depends on their perceived abilities to control these events. People who lack high abilities to control others and feel that others tend to control them tend to feel unable to control events that occur in their lives. If their perception is realistic, then an indication of this will be seen in high levels of external locus of control – both fate and others, and in their perception of being controlled by others. A high perception of being controlled by others is also a high perception of being controlled by events in our lives. Finally, as no relationship was found between the original measurement of being controlled by others and measurements of external control, this part of the hypothesis was not supported.

The fourth hypothesis suggests that *the lower the self-control, the higher the external locus of control/lack of control*. The findings of this study support this hypothesis regarding the relationship between self-control and external – others – the locus of control. Significant positive relationships were found between all six components of self-control (impulsiveness, insensitiveness, preference to perform simple tasks, preference to perform physical tasks, mood control, and tendency to take risks) and external – others – the locus of control. This finding could be interpreted as such that people with low self-control feel the need to blame events on others, rather than take responsibility for themselves. The source of this need, it would seem, stems from people's lack of self-control. This relationship is part of a compensation mechanism, whereby people compensate for their low self-control by not taking responsibility for their fate but rather blaming others.

Regarding the relationship between self-control and external – fate – the locus of control, this hypothesis was supported. Significant positive relationships were found between all six components of self-control and external – fate – the locus of control. In other words, people with low self-control feel a need to blame events on fate rather than take responsibility for their occurrence. This need seems to be part of a compensation mechanism, whereby people with low self-control compensate for this inadequacy by blaming fate or coincidence for events that occur in their lives.

With regards to the relationship between self-control and the adapted measuring tool of being controlled, this hypothesis was only partially supported, as significant positive relationships were found for three out of the six components of self-control: impulsiveness, performing simple tasks, and bad temper. In other words, people with low self-control may feel the need to be controlled by their environment – as part of a compensation



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mechanism, whereby being controlled compensates for a lack of self-control. The hypothesis of the relationship between self-control and the original measurement tool for being controlled was not supported, as significant negative relationships were only found between two out of six self-control elements (self-absorbed and risk-taking) and being controlled.

The fifth and final hypothesis suggests that *the higher the control ratio, the higher the internal locus of control*, and is based on claims that people with an internal locus of control will tend to see themselves as the cause of an event they were involved in and that people who perceive themselves as controlling others more than being controlled by them have a control surplus [1,2]. The significant positive relationship between the original tool for measuring people's control of others and their internal locus of control supports this theory, whereby the higher the perception people have of themselves controlling others, the higher their internal locus of control. This theory was also supported when using the adapted questionnaire.

As explained earlier, internal locus of control is related to perceptions of social situations and is more prevalent among people who feel that they control events that occur in their lives. The ability to control others also means the ability to control events, which is dependent on a series of capabilities such as people's ability to control themselves, having the ability to control others that is greater than their being controlled by others, and more. People who can control others to a high degree also control events that occur in their lives, and providing their perceptions are realistic, an indication of this will also be seen in their high internal locus of control, and in their perception of their ability to control others. A low ability to control others also means a low ability to control events. Beyond the study of the 5 hypotheses that are presented here, our research studied elements that might explain another aspect of the topic called Controllability.

A. Piquero & Curry claimed that there are no differences between men and women regarding their controllability (control ratio) [7]. Contradictory, the original questionnaire which was submitted to the study participants, showed a clear difference between men and women in their perception of being controlled by others. Women perceived themselves as being controlled by others at a higher level in comparison to men.

Yet, there were no significant differences between men and women in their perception of controlling others and their control ratio.

B. Another interesting finding was discovered upon a thorough study of the differences existing between the research participant's choice of study subjects: We found differences between students in psychology/social work, therapy-oriented disciplines, to students in economics and law, non-therapy-oriented disciplines. Their perceptions of controlling others differed. The students studying economics/law, are characterized by practicality. They perceived their control of others as significantly higher than the students who studied psychology and social work. At the same time, a significant

difference was found between the two groups regarding their control ratio. The students studying economics/law demonstrated a significantly higher control ratio in comparison to students studying psychology/social work. This finding might strengthen the connection between gender and the components of controllability. The previous finding seems to show that men express a higher self-perception of controlling others, in comparison to women.

C. We found a significant positive connection between the participant's perception of being controlled by others to the level of their mother's education. Whereas participants whose mothers had a higher level of education perceived themselves as being more controlled by others. Moreover, we found a positive, significant connection between a participant's control ratio and their mother's education. Whereas participants whose mothers had a higher education presented a higher control ratio.

D. Similarly, we found a significant connection regarding the fathers; the higher the father's education, thus the higher the participant's control ratio.

E. In regards to the participant's economic situation, a positive, significant connection was found between people who perceive themselves as being controlled by others to their economic situation; whereas the individual's economic situation was better, thus his/her perception of controlling others was increased.

F. In regards to the age of the participant; we found a positive, significant connection; whereas the older the participant was; thus, the higher the control ratio, accordingly. It seems that this finding may be clarified due to the participant's increased good judgment – due to their maturing.

G. To conclude, we examined the status of the participants in our study, those who were in a relationship, in comparison to those who were not in a relationship. We did not find differences between the two groups either in their perception of controlling others or in their control ratio.

We believe that our study contributes to the theoretical field of research. The purpose of this study was to examine different aspects and expressions of control that include control ratio, locus of control, and self-control – components that have been discussed widely in the literature. When combined, these elements represent possible interactions between the identities of the controller and the contolee. Self-control refers to people controlling themselves; the control ratio stems from two factors: controlling others and being controlled; locus of control is very similar to an internal locus of control (i.e., the degree to which people control themselves and their environments), and both types of external locus of control (i.e., the degree to which people are controlled by external factors). The relationships found in this study provide an important step towards mapping various control factors – which is a prerequisite for integrating between different fields of knowledge and promoting the understanding of fundamental components of

human behavior, and for dealing with numerous behavioral issues.

### 11. Limitations and Future Studies

This research has several theoretical and methodological limitations. First, the study attempts to connect two different theoretical fields that are based on vague terminology not previously discussed explicitly. Our interpretation that lays the foundation of this study may, therefore, be one of many. Moreover, the components of *control* analyzed in this study require further examination, such as needs, capabilities, and expressions. Furthermore, the study did not focus on a specific social context, as the research tools used are theoretical, yet the relationship between the components of control may be context-dependent. Furthermore, the study sample is relatively small and homogenous, thereby limiting our ability to generalize the findings.

Finally, the seven findings represented in the discussion – which are not part of our main assumptions in this study – are meant to be further examined in continued research in two aspects; to examine their recurrence in additional studies and the other our wish to understand the rationality in the basis of these finding – in regards to the different components of control among human beings.

The study, which provided an empirical starting point for mapping elements of control, is the first step towards achieving a comprehensive theoretical framework that incorporates all the elements and their inter-relationships. Further studies could significantly expand on this framework from both a theoretical and practical point of view. Future research should focus on broadening the mapping scope to include additional control factors, and on differentiating between *ability* and *control*. Finally, specific life settings should be addressed, such as the home and place of work, as should social, cultural, and developmental aspects.

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**Appendix 1**

We, the research team, request you complete the questionnaire, which deals with coping with social situations in general and personal conflicts. You are requested to answer anonymously so that your participation in this study is not known and your answers remain discreet.

However, you don't have to participate in this study if do not wish. Moreover, if you do decide to participate, you may choose not to reply to all the questions and you may stop at any point if you choose to do so. However, we must emphasize that your participation is extremely important to us, and it is crucial to reply to all of the questions.

This questionnaire is not a test, it has no correct or incorrect answers. When filling out this questionnaire, you may ask for assistance. We appreciate your willingness and thank you for agreeing to participate in this research.

**Before beginning the questionnaire**, it is important to us that you note and remember the following:

The questions in this questionnaire are intended for both men and women.

Please answer the following:

What is your gender: 1. Male \_\_\_\_\_ 2. Female \_\_\_\_\_  
 What is your age: \_\_\_\_\_

**Part 1 (reaction to a provocation)**

Please read the situation carefully and imagine it is happening to you (**participants who do not own a driver's license are requested to reply**):

You are invited to an event with important people that could influence your professional future. So, it is important you arrive on time for this event. You reach the parking lot adjacent to the event location, 2-3 minutes before it begins, and find out that there are

no available parking spots. Other drivers and yourself are driving around the lot looking for a parking space. Suddenly you see an available space. You drive towards the space. Despite that, you are the first to spot the space, (however you are not the only one), another driver whom you are not acquainted with, your age and gender, notices the vacant space too and speeds up to reach it, even though he sees that you are trying to reach the same space. The result is that you both reach the space at the same time. In this situation, only one of you can park your car. It is either him/her or yourself. Therefore, one of you must move.

**It is important to emphasize:** The participants in the study are requested to imagine that the driver of the second vehicle is a male. The female participants in the study are requested to imagine that the driver of the second vehicle is a female.

Please mark a possible reaction from the reactions presented. Which reaction are you most likely to choose?

1. You immediately back away and leave the parking lot.
2. You wait a moment or two, to see if he/she willingly gives up the space, if he/she does not, you leave the parking lot.
3. If he/she does not give up the space, you too do not give in. You are prepared to argue over your right to park your car, only if the argument does not escalate to yelling, threats, and cursing. When the argument escalates to threats and cursing you leave the parking lot.
4. You do not give in, even if the argument escalates to yelling, cursing, and threats. However, you will leave the place if you think the argument is going to become physically violent (towards your vehicle or yourself).
5. Even if the argument escalates to a physically violent one, you do not give in. However, if you feel that as a result, someone might get hurt you will leave the parking lot.
6. You will not leave the parking lot. Even if you think that as a result of the escalated argument it becomes violent and someone might get hurt, you will not leave.

	Which of the following sentences best describes you (circle the answer which Best applies to you.)	Not true at all	True to a Small degree	True to A medium degree	True to a High degree	True to a very high degree
1.	I have a high ability to influence thoughts And behaviors of relatives and friends.	1	2	3	4	5
2.	Frequently, I fail to cause strangers whom I met daily to respond to my Requests and needs.	1	2	3	4	5
3.	If I desire, I can make many People that I know, do things they do not want to do.	1	2	3	4	5
4.	I have a great influence on most strangers I meet daily.	1	2	3	4	5
5.	Usually, I am not able to make most of My acquaintances do what I desire.	1	2	3	4	5
6.	In all, many of my relatives and friends do what I request.	1	2	3	4	5
7.	Most people I am acquainted with, listen To and appreciate what I say to them.	1	2	3	4	5
8.	In many cases, I find that I can not Influence relatives and friends.	1	2	3	4	5

9.	It is rare that strangers I meet daily, refuse my request.	1	2	3	4	5
10.	In general, I can state that I highly Influence people who surround me.	1	2	3	4	5
11.	Most of my relatives and friends have a High ability to influence my thoughts and Behavior.	1	2	3	4	5
12.	Frequently, strangers that I meet daily, Succeed in making me respond to My needs and desires.	1	2	3	4	5
13.	Most of my acquaintances, if they desire, Can make me do things I do Not want to.	1	2	3	4	5
14.	Strangers I meet daily, have a high influence on me True to a very high degree	1	2	3	4	5
15.	Usually, people, I do not know, succeed In making me do as they request.	1	2	3	4	5
16.	Mostly, I consent to do this, as requested by surrounding friends and family.	1	2	3	4	5
17.	I listen and appreciate what people surrounding me have to say.	1	2	3	4	5
18.	In many cases, relatives and family found out that they cannot influence me.	1	2	3	4	5
19.	Rarely, do I refuse people I see on a daily basis.	1	2	3	4	5
20.	Most of my relatives and friends have a high influence on me.	1	2	3	4	5

**Part 2 A (Control Ratio)**

	<b>Which of the following sentences best describes you (circle the answer which Best applies to you.)</b>	<b>Not true at all</b>	<b>True to a Small degree</b>	<b>True to A medium degree</b>	<b>True to a High degree</b>	<b>True to a very high degree</b>
1.	Frequently, I act upon instinct without prior consideration.	1	2	3	4	5
2.	If my actions annoy others, it is their Problem and not mine.	1	2	3	4	5
3.	On occasion, I enjoy doing things which Are dangerous, so that I can test myself.	1	2	3	4	5
4.	Sometimes I take a risk just for fun.	1	2	3	4	5
5.	I usually avoid taking assignments that I know to be complicated.	1	2	3	4	5
6.	Sometimes it may be exciting to do Things that might cause me trouble.	1	2	3	4	5
7.	I do not like difficult assignments that Require my efforts to the limit.	1	2	3	4	5
8.	If I could choose, almost always, I would prefer physical assignments over assignme that require thinking.	1	2	3	4	5
9.	Frequently, I do things that bring me Immediate pleasure, even if it affects a future goal.	1	2	3	4	5
10.	Mostly, I feel better when in motion, over Sitting and thinking.	1	2	3	4	5
11.	Adventures and excitement are more Important to me that a sense of security.	1	2	3	4	5
12.	I always try to look out for myself, even If it is at the expense of others.	1	2	3	4	5
13.	I am more interested in my short term Being then in long term.	1	2	3	4	5



14.	I try to reach my goals, even at The expense of others.	1	2	3	4	5
15.	If situations become difficult and require An effort on my part, I tend to pass or quit.	1	2	3	4	5
16.	I prefer to go out, instead of sitting in the House and reading a book.	1	2	3	4	5
17.	I am not concerned with other people's Problems.	1	2	3	4	5
18.	In comparison to people of my age, I have More energy and need for physical activity.	1	2	3	4	5
19.	The things that are easiest for me bring me The greatest pleasure.	1	2	3	4	5
20.	I do not devote too much thought and effor To plan my future.	1	2	3	4	5
21.	I become angry quite easily.	1	2	3	4	5
22.	Mostly, I prefer to hurt those whom I am Angry at, instead of discussing the reason I am mad.	1	2	3	4	5
23.	It is best to stay away from me when I Am angry.	1	2	3	4	5
24.	I usually find it difficult to discuss a Serious argument calmly, without anger.	1	2	3	4	5

### Part 3 (Locus Of Control)

	Which of the following sentences best describes you (circle the answer which Best applies to you.)	Not true at all	True to a Small degree	True to A medium degree	True to a High degree	True to a very high degree
1.	(I) Becoming a leader mainly depends on My capabilities.	1	2	3	4	5
2.	(C) My life is controlled by coincidental Events to a high degree.	1	2	3	4	5
3.	(P) I feel that events in my life are Determined by other, strong people.	1	2	3	4	5
4.	(I) My possible involvement in a car accident depends on how well I drive.	1	2	3	4	5
5.	(I) Upon making plans I make sure they Are executed.	1	2	3	4	5
6.	(C) Frequently, I do not have the chance To protect my interests from bad luck.	1	2	3	4	5
7.	(C) When I achieve my goal it's usually Due to good luck.	1	2	3	4	5
8.	(P) Despite that, I may have excellent skills, I cannot be a leader without support from people in positions of power.	1	2	3	4	5
9.	(I) The number of friends I have depends On how	1	2	3	4	5
10.	(C) Frequently, I find that whatever needs To happen does.	1	2	3	4	5
11.	(P) My life is influenced by (controlled) By other strong people.	1	2	3	4	5
12.	(C) If I am involved or not, in a car accident is mainly a matter of luck.	1	2	3	4	5
13.	(P) People like me, have a small Chance of protecting their interests when dealing with strong groups	1	2	3	4	5
14.	(C) It is not always smart to plan for the Long term, because many things depend On fate (good or bad).	1	2	3	4	5

15.	(P) To achieve my goals, I need To please my superiors.	1	2	3	4	5
16	(C) My becoming a leader depends on If I have the luck of being in the right place At the right time.	1	2	3	4	5
17.	(P) If important people decide not to Like me, I would not succeed in making Many friends.	1	2	3	4	5
18.	(I) I can determine to a high extent what Happens in my life.	1	2	3	4	5
19.	(I) I usually can defend my interests.	1	2	3	4	5
20.	(P) My involvement in a car accident Depends mainly on the question: How well the other driver controls the car.	1	2	3	4	5
21.	(I) Reaching my goals usually depends on How hard I worked to reach them.	1	2	3	4	5
22.	(P) For my plans to succeed I Make sure they are compatible with People who influence me.	1	2	3	4	5
23.	(I) My life is determined by my actions.	1	2	3	4	5
24.	(C) The number of friends I acquire is a Matter of fate.	1	2	3	4	5
25.	(I) My involvement in an agreement Mainly depends on me.	1	2	3	4	5
26.	(C) The successful outcome of an An argument on my part is a result of luck.	1	2	3	4	5
27.	(P) My arguments are influenced (controlled) by the other person's actions.	1	2	3	4	5
28.	(C) The outcome of an argument is Mainly a result of luck.	1	2	3	4	5
29.	(I) I can determine the outcome of an argument to a great extent.	1	2	3	4	5
30.	(P) My involvement in an argument Depends on the person facing me.	1	2	3	4	5

#### Part 4 A (Control Ratio)

#### Part 5 A (Control Ratio)

At the beginning of this part, you will be presented with questions in which you will be asked to evaluate how much you influence different areas and people in your life. Afterward, **you** will be presented with questions in which you will be asked to evaluate to what extent different people and areas influence **your** life.

We will begin with the questions addressing your influence on different areas in your life, meaning how well, you succeed in molding the reality of your life, convincing people to do what you want, providing what you need, and so forth.

**It is important to emphasize:** There are people whose influence is high, some whose influence is medium, and some whose influence is small. In addition, there are people whose influence in some areas is greater than in others.

	<b>How much do you influence the Areas listed below:</b>	<b>Circle:</b> 1.No influence at all. 2. Very small influence. 3. A medium degree of influence 4. A high degree of influence 5. A very high degree of influence	<b>Write an X if it is not relevant.</b>
1.	Your family life.	1 2 3 4 5	
2.	Your intimate relationship with the Opposite sex.	1 2 3 4 5	
3.	Your social life and free time.	1 2 3 4 5	
4.	Your professional life.	1 2 3 4 5	
5.	Academic achievement (career)	1 2 3 4 5	
6.	Your schedule	1 2 3 4 5	
7.	Economic situation	1 2 3 4 5	
8.	Lifestyle.	1 2 3 4 5	
9.	Health and physical fitness	1 2 3 4 5	
10.	Appearance and your image in The eyes of others.	1 2 3 4 5	
11.	Your relationships with people	1 2 3 4 5	
12.	Your relationship with paid services (such as municipality and bank clerks, and home servicemen)	1 2 3 4 5	

In the next series of questions you are requested to evaluate the opposite: To what extent do the areas and the different people in your life influence you, meaning cause you to do as they request, taking what they want and in simple words - achieve their goals?

	<b>How much do you influence the Areas listed below:</b>	<b>Circle:</b> 1.No influence at all. 2. Very small influence. 3.A medium degree of influence 4.A high degree of influence 5.A very high degree of influence.	<b>Write an X if it is not relevant.</b>
13.	Your family life.	1 2 3 4 5	
14.	Your intimate relationship with the Opposite sex.	1 2 3 4 5	
15.	Your social life and free time.	1 2 3 4 5	
16.	Your professional life.	1 2 3 4 5	
17.	Academic achievement (career)	1 2 3 4 5	
18.	Your schedule	1 2 3 4 5	
19.	Economic situation.	1 2 3 4 5	
20.	Your lifestyle	1 2 3 4 5	
21.	Your health and physical fitness	1 2 3 4 5	
22.	Your self-image in the eyes of others.	1 2 3 4 5	
23.	Your relationship with people Who are not your friends (such As neighbors).	1 2 3 4 5	
24.	Your relationship with paid services (such as municipality and bank clerks, and home servicemen)	1 2 3 4 5	

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