

**„НАУЧЕН ОПИТ В ОБЛАСТТА НА РАЗСЛЕДВАНЕТО НА
АВАРИЙНО-СПАСИТЕЛНИ ДОБРОВОЛЦИ В ИЗВЪНРЕДНИ
СИТУАЦИИ“**

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**SCIENTIFIC BACKGROUND IN THE RESEARCH FIELD OF
ORGANIZATIONAL RESCUE VOLUNTEERS IN EMERGENCIES**

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Abstract

Scientific background in the research field of organizational rescue volunteers in the scientific background is prevalently National Security in issue of political science and also based on findings of modern Psychology, Sociology, Economics, Political science and Philosophy. The sources should explain the National Security phenomenon of a country, from the aspect of ORGANIZATIONAL RESCUE VOLUNTEERS IN EMERGENCIES, while setting to delineate several perspectives of scientific background investigation: evolution of the rescue organizations concept in National Security (Political science) literature; Definitional issues of rescue volunteering and altruism; personality and motives of rescue volunteers and assessment thereof in sociology, psychology political science; volunteering personality traits criteria; risk-taking (altruism) and risk-averting behavior during rescue activities in emergency events by rescue volunteer activities, etc .

Key words: *emergencies, disasters, rescue volunteerism, rescue personality, altruism; multi rescue volunteer; Irrational Theory; intuitive (non-*

rational) decision; Irrational choice theory; risk-taking; risk-averting, interdisciplinary attitude, psychology of taking risk, personality, genetic(biology) motives, religious (philosophy), economics,

Introduction

The main scientific background in domain of risk-taking decision-making in perpetrating altruism activities. In our opinion, must be demonstrated a correlation between risk-taking and risk-averting behavior during perpetration of activities to save people's lives. We need to exceed the limits imposed by National Security science and focus on latest achievements of psychology, economics and sociology aspects. All that in order to build a new philosophy of the National Security space in political science.

In order to create a more holistic picture of volunteers under emergency situations, we strongly believe that National Security in Political science requires several comprehensive explanations from sciences of psychology, philosophy, biology, economically and sociology.

In our opinion, the core of rationalization is hidden in behavioral explanations of the human economics approach based on psychological outcomes (Rub, J. 2014). Before we will demonstrate the utility and reasonability of Irrational Theory in explanation of the phenomenon of altruism in emergencies events (war, terrorism, earthquake, etc.), we decided to make a detailed analysis of the entire spectrum of sociological perspective and psychological perspective. The theories are focused on explanation of this phenomenon. Thus, we will do our best to explain the phenomenon by modern science.

Emergency and Terrorism. Types of emergency service volunteers are in rescue organizations the likes of police, firefighters, EMS (for example

paramedics). Terrorist attacks existence threatens over a billion people of the world (Rub & Gîrla, 2016), etc. Terrorism poses difficult questions for every country, and especially challenging questions for democratic countries, because not every effective means is a legal means. The armed conflict against terrorism is an armed conflict of the state and less of the law against those who seek to destroy the country. So the author has demonstrated that the State fights while upholding the law, whereas its enemies fight while violating the law. Terrorists are fighting against and in defiance of the law (Rub, J., Gîrla L. 2016).

Terrorism is a form of a violent struggle, aimed mainly against civilians, for the purpose of achieving political and social aims such as getting states change policy and even overthrow and collapse regimes (Rub, J. 2015). Terror attacks threatens is of over a billion people of the world population (Rub, J., Gîrla L. 2016). Terrorism do not know any limits.(Rub, J. 2017). Very danger type of Terror is the "lone wolf terrorism". A 2003 study identified 30 cases of lone wolf terrorism in the United States between 1955 and 1999. Although these cases account for 2% of all terrorist arrest arrests, they caused 15% of terrorist damages. The prevalence of lethal terrorist activity in the United States increased from 7% of all victims of terrorism to 26%. Studies show that lone wolf terrorism is on the rise in the Western world (Rub, J. 2018).

As a result of what was mentioned above regarding scientific literature, we must extract from the field models of success and learn from the wisdom of the field from successful volunteer projects which take place in the field and build new models for explanation and implementation of the phenomenon of volunteerism.

Before we will demonstrate the utility and reasonability of the *Irrational Theory in explanation of taking risk in psychology*, we will make a detailed analysis of the entire spectrum of *Psychology, Sociology, Economics, Political science and*

Philosophy theories, which are focused on explanation of the phenomenon of volunteering to rescue organizations.

So, we will do our best to explain this phenomenon by macro and micro level mainstream theories adopted in the modern science of national security.

Etiology of the phenomenon of volunteering to rescue organizations originates from persons, who are empowered to adopt altruistic acts in danger and emergency events. From the very beginning we have to remember that such a person is volunteering with a moral point of view. Such persons constitute by themselves a risk-taking factor that facilitates the act of saving people in disasters.

Regarding the importance of volunteerism, Britton (1991) argues that Voluntary action scholars and disaster researchers have paid little attention to large-scale social crisis. There is a lack of systematic and profound research on disaster volunteerism. Naftali (2001) argues that *"Volunteering is the cornerstone of building civil society, reflecting and enlightening the noblest aspirations of the human race"*.

The definition of the phenomenon of volunteering of International labor organization is as follows: *"volunteer work refers to activities performed willingly and without pay to produce goods or provide services for others outside the volunteer's household or family. Volunteer work plays an important role in countries, contributing to production and to economic output, particularly in the non-profit sector, and also to community development, social cohesion and civic participation"*. (International Labour Organization ,ILO

Nevertheless, volunteering is positively correlated to personality traits. Lodi-Smith and Roberts (2007) argue that volunteering activities have influence of broad implications for both an individual and a society. Results show that the extent of a volunteer's investment of will in volunteering is positively correlated with

volunteer's agreeableness, conscientiousness, emotional stability and low psychoticism, which committed not simply to demographically traits.

Volunteering in social and human sciences means prosocial behavior and altruism; charity and philanthropy behavior; social responsibility; democratic behavior and active citizenship; community development. Community development means, "*Volunteers can give help and it will be accepted as such, sympathy mobilizes those who like each other, to focus on the moral aspects, the cultural rules and thereby sympathy has the function of social integration*".

In our opinion, the *etiology of rescue volunteering* in emergency situations originates from the persons who are empowered to adopt altruism acts, as well as from persons who must put them in life for multiple reasons. Not all rescue volunteers understand the level of risk in emergency situations such as war, terrorism, earthquakes, floods and more. As a result, it can be concluded that there are rescue volunteers, who have real interests and opportunities to improve their image for various reasons, e.g. from the first moment one must know that such a volunteer is supposed to **save lives** in emergency disasters. Rescue volunteers in organizations are part of the emergency system of every country and are in fact a part of the fabric of National Security.

Our basic question is: how to deal with and how to create a new, holistic picture of volunteers under emergency situations with inventive and resourceful attitude to improve the potential rescue volunteer in emergency Hybrid organizations? This can be presented into two levels:

1) **Macro aspect** – the identification of the potential multiorganizational rescue volunteers before the working during the pre-employment casting; it means to improve the effectiveness of the rescue act or propensity to operate with optimal-risk taking to save as many victims as possible in emergencies events;

2) *Micro aspect* – the identification the "rescue personality of the multiorganizational rescue volunteers by identification of the comprehensive common denominators according a new Hybrid theory. All this is under the National security behavior responsibility of every State or every rescue organization.

Hybrid Volunteer rescue organization is defined as the volunteers themselves in the organization serve in a number of rescue organizations, for example: volunteering for a paramedic medical organization, and volunteering also to serve as a firefighter volunteer in firefighter organization.

According to *Economic theories*, Götz (2015) argues that these largely fail to explain the existence of altruism in emergencies crisis. The definition of ‘moral economy’ as a traditional consensus does not exist. Instead, appear moral economies of welfare, humanitarianism and civil society which are the alternative ways of altruistic meaning for economic transactions. However, predominant sociological theories of volunteering can explain the existence of volunteering under risk.

Another set of theories that have demonstrated applicability and understanding of volunteerism is economic research which has represented other theories. Chambre and Einolf (2011, p. 1-2) talking about resource theories that focus on human capital and economic factors which both as the core of meaningful volunteering as volunteers become attractive to organizations. As an example, the *Hybrid theory of volunteering*. It describes altruistic behavior by: 1) sociological theories about importance of social context; 2) social integration; 3) social networks. It focuses on social responsibility. It was found that combining of these three variables can predict 40.7% of variance in volunteering.

Chambre and Einolf (2011, p. 1-2) argue that Sociological theories of rescue volunteering maintain that social culture, like helping people, appreciation and self-

realization are socially constructed interpretations of danger and risk. Sociological theories focus on the fact that the macro level of volunteering phenomenon depends on contextual and community factors, as well as factors that influence volunteerism on the micro level.

Adams (1983) argued that Sills' in his research from 1957 with a goal of a more systematic theory of volunteers, was the first empirical study of recruitment of volunteers due to a social problem of social disaster such as natural disaster that causes people to help and cope. Four types which he identified were: polio veterans, humanitarians, good citizens and regular people as joiners .

Salamon and Anheier (1992, p. 17-18), argue that classification is the crucial prerequisite for scientific progress in study in general. The development of clear definitions and classification systems for the nonprofit sector like volunteerism studies is a need of development thinking have written as follows: "In a previous article, we argued that the lack of attention that has historically been given to the nonprofit sector around the world has been due to factors that are as much conceptual as empirical. The nonprofit sector is poorly understood, in other words not so much because the data on it are so limited as because the concepts used to depict its boundaries are so murky and imprecise ."

Another research by Hayeshi et al. (2009) found that in addition to broad historical factors, volunteer motives are related to neighborhood, country and district of residence. Volunteers had higher personal and neighborhood well-being than non-volunteers; Wilson (2008) found that volunteer motives (activities such as participating in a voluntary association) are related to helping others as a result of good things the person received; Smith, Stebbiins and Grotz (2016) found that volunteer motives are related to the community and it was found to be positively associated with participation in a voluntary association.

A study by Siti and Maimunah (2013), suggested one of the earliest theories of volunteering "dominant status theory". This model of dominant statuses approach was established by Lemon, Palisi and Jacobson (1972). This model argues that " people will participate more in philanthropic activities if they hold “dominant” statuses, such as religion, educational level, marital status, age, and income gender ."

The following argument belongs to Bang and Ross (2009) motivations can be grouped into seven factors: Expression of Values, Community Involvement, Interpersonal Contacts, Career Orientation, Personal Growth, Extrinsic Rewards and Love of Sport.

The attitude of human capital variables are powerful predictors of volunteering. Chambre and Einolf (2011, p. 33-35) support the attitude of human capital. They argue that human capital variables are powerful predictors of volunteering. It means that volunteers with higher education and occupation will volunteer more, while the rich will find it easier to volunteer rationally. People with low salary will volunteer more than rich people. They argue that salary explains a minor reason of motivation to volunteer according the resource theory. Volunteering is positively influenced by a combination of cultural and social components. Particularly in contrast to those who do not participate, volunteers are influenced by prosocial, especially religious values, and are more socially integrated.

The fact is that death inevitably creates a conflict with the will to live. The conflict produces terror, which is managed through symbolic systems to achieve a sense of eternity and to enable a life of value and meaning. This is the theory of terror management from the field of social psychology.

Moreover, self-esteem as a personality component of volunteering helps dealing with the thoughts of death. Greenberg, Pyszczynski and Solomon (1985)

argue that "*People need self-esteem*" (e.g., Adler, 1930; Allport, 1937; Horney, 1937; James, 1890; Maslow, 1970; Murphy, 1947; Rank, 1959; Rogers, 1959; Sullivan, 1953).

Thoughts of death are the field of terror management theory. Pyszczynski, Solomon and Greenberg (2015) argue that more than 400 studies have been conducted in field of terror management theory in more than 15 different countries. Three hypotheses of the study of terror management theory are: Mortality salience hypothesis, Death-thought accessibility hypothesis, Anxiety-buffer hypothesis. Psychological mechanisms regarding thoughts of death have exerted a profound influence on diverse aspects of human thought, emotion, motivation and behavior. People manage the terror management theory influence upon anxiety resulting from this awareness by faith in absolute validity of their cultural worldviews and self-esteem by standards of value that are part of their worldviews. Hirschberger (2015) represents the central thesis according to "defensive compassion theory". He argues that the empirical study examining management of mortal horror finds the symbolic mechanisms that protect human beings from this horror – cultural values, values and beliefs, providing scientific theories do not doubt these beliefs, and should they be doubtful, defense of faith will stem from a need to ward off the threat of death-threatening management mechanisms.

Following theory is "Terror Management Theory" (TMT). Greenberg, Vail and Pyszczynski (2014, p. 3, 50) argue that the facts oscillate between belief and disbelief that there is more in our life. The problem is also with the ultimate futility of strivings for symbolic immortality and recognizing the irresistibility of the urge to make a permanent mark on the world. They argue that the central thesis of TMT developed an increase in self-esteem of identification with social norms in coping with fear of death. According to them, as argued by Becker (1997), people are aware

and therefore ideals and values in life are the drives of our strivings for meaning and significance.

An interesting attitude regarding death was presented by Becker (1997) who argues that denial of death is a brilliant and impassioned answer to the "why" of human existence. It is contrast to the vital lie – man's refusal to acknowledge his own death.

Attitude regarding death was presented by Becker (2015) as follows: *"he argues that "the basic motivation for human behavior is our biological need to control our basic anxiety, to deny the terror of death"*.

Shorek (2008) in his study from 2008 about the theory of dealing with terror and defending the worldview regarding the theory of dealing with terror found that there is a mechanism in actions continuously and unconsciously to keep the thoughts about death not lasting long in awareness. According to the theory of dealing with terror, the fact of death leads to an encounter between instinct and life, and awareness of the fact that death is inevitable creates the potential for a paralyzing terror. However, there are a process refraining people from thoughts of death. It is true that people not often think about their death as there is a mechanism of good self-esteem which stems from a cultural worldview that is immortal after physical death, in a symbolic or explicit way, unconscious of holding thoughts of death.

Another opinion regarding TMT theory was argued by Simon et.al (1997), who argues that terror management theory posits that the problem of the knowledge of mortality has unique psychological reason. The challenge of further research is to somehow gain access into this experiential system to further examine how terror management processes evolve and operate, as a general nature of psychological defenses and the dynamic unconscious.

Simon et al. (1997) argue on the basis of the terror management theory proposition that self-esteem provides protection against concerns about mortality. It was found that hypothesis results showing that individuals with high self-esteem that self-esteem would reduce the worldview defense produced by mortality salience. High self-esteem facilitates the suppression of death constructs following hard illness.

Conclusions. Owing to progressive literature we have formulated the definition of organizational rescue volunteering, as Hybrid volunteering for rescue organizations, which is non-utilitarian, they are altruistic, expressing love and caring for others, and have a good influence of a volunteer as a personal, emotional and intensive experience. Exposure to suffering of another creates a sense of collective mission amongst volunteers. Rescue organizations reflect not only naiveté and idealization, but rather require skill, professionalism and efficiency for saving people like doctors for example. An organizational volunteer has a "rescue personality" for activities in emergencies or disaster events such as war, terrorism, earthquake, floods, fires, tsunamis, etc. Rescue volunteers in organizations are part of the emergency system of any country and are in fact a part of the fabric of National Security.

Taking into consideration the above-mentioned scientific background, in modern national security science of organizational rescue volunteers, Irrational Theory (Prospect Theory) is a missing part. We believe that we are on the right path in order to create a valid and authentic organizational rescue volunteering which is particularly supported by assumption of past volunteering experience

If critical thinking is the key standpoint of Rational Choice Theory, then intuition is considered to be the core of irrational decisions. We believe that taking risky decisions in order to save and help people becomes particularly challenging under conditions of uncertainty, where it is difficult to foresee the consequences or

outcomes of emergencies events with clarity. In light of explanation of Prospect Theory in national security risk activities, should one option be better in at least one aspect, and at least as good on all other aspects, it will be a preferred option .

As a result of the literature analysis, we believe in Hybrid variables which describe organizational rescue volunteerism under emergencies .

Revelation that volunteering for rescuing people is an umbrella concept, in National security in general, while including, however not limited to, focus on terrorism, and internal and/or external events / Emergency Preparedness like natural disasters - any hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, drought, fire, etc., Which constitutes a threat to life and require "medical emergency" situations. Proper conduct of volunteers in rescue organizations increases the chances of saving lives. Undoubtedly, volunteerism activities are an integral part of the resilience of a society.

REFERENCES

Book

- **Rub, J.** (2020). SAVING LIVES IN TIMES OF EMERGENCY THROUGH MULTI-VONLUNTEER RESCUE ORGANIZATIONS: THE CONCEPT OF "RESCUE PERSONALITY" WHICH TAKES RISKS IN THE FIELD OF NATIONAL SECURITY. Publishing: Dr. JACOB RUB ,ISBN978-965-92755-26

Articles

• **Adams, D.S.** (1983). Selection, socialization, and four types of members in the Red Cross chapter: a typology of voluntary association members. <https://journals.sagepub.com/doi/abs/10.1177/089976408301200205> (retrieved: 31.3.2019)

• **Andronic, R.L.** (2014). Volunteering: theoretical approaches and personal characteristics. Faculty of Psychology and Pedagogy, University Spiru Haret, Braşov, România. International conference of scientific paper. Brasov, 22-24 May 2014. Definition of volunteering in social sciences, p. <http://www.afahc.ro/ro/afases/2014/socio/Andronic,%20Razvan-Lucian%20Volunteering.pdf> (retrieved: 3/4/2019)

• **Bang, H., Ross, S.D.** (2009). Volunteer motivation and satisfaction. <https://pdfs.semanticscholar.org/57bc/d374bf289b02f99651d06adda4bdde4208f5.pdf> (retrieved: 2/4/2019)

• **Becker, E.** (2015). Ernest Becker theories. Ernest Becker Foundation. <http://ernestbecker.org/about-becker/> (retrieved: 3/4/2019)

• **Britton, N.R.** (1991). Permanent disaster volunteers: where do they fit? Non-profit and Voluntary Sector Quarterly 20(4), 395-414. <https://journals.sagepub.com/doi/10.1177/089976409102000404> (retrieved: 24/4/2019)

• **Chambre, S.M., Einolf, C.J.** (2011). Who volunteers? Constructing a Hybrid theory, DePaul University, Baruch College Center for Nonprofit Strategy and Management Working Papers. https://works.bepress.com/christopher_einolf/11/ (retrieved: 23/4/2019)

• **Götz, N.** (2015). 'Moral economy': its conceptual history and analytical prospects. Journal of Global Ethics, 11(2).

<https://www.tandfonline.com/doi/full/10.1080/17449626.2015.1054556>

(retrieved: 31/3/2019)

• **Greenberg, J., Pyszczynski, T., Solomon, S.** (1985). The causes and consequences of a need for self-esteem: A terror management theory. In *Public self and private self*, chapter 10. (p.189). Springer New York
https://link.springer.com/chapter/10.1007/978-1-4613-9564-5_10 (retrieved: 2/4/2019).

• **Hayeshi, M. et al.** (2009). Volunteering and its relationship with personal and neighborhood well-being. *Nonprofit and Voluntary Sector Quarterly*, 38(1), 144 -159
https://www.researchgate.net/publication/249677089_Volunteering_and_Its_Relationship_With_Personal_and_Neighborhood_Well-Being (retrieved: 3/5/2019)

• **Hirshberger, G.** (2015). Grace will save from what? Ben-Gurion University, Faculty of Humanities and Social Sciences.
<https://alaxon.co.il/article/%D7%A6%D7%93%D7%A7%D7%94-%D7%AA%D7%A6%D7%99%D7%9C-%D7%9E%D7%9E%D7%94/>
(retrieved: 2/4/2019)

• **International Labour Organization (ILO).** Volunteer work.
https://www.ilo.org/global/statistics-and-databases/statistics-overview-and-topics/WCMS_470308/lang--en/index.htm (retrieved: 24.4.2019)

• **Lemon, M., Palisi, B.J., Jacobson, P.E.** (1972). Dominant Statuses and Involvement in Formal Voluntary Associations.
<https://journals.sagepub.com/doi/10.1177/089976407200100206> (retrieved: 31/12/2020)

• **Lodi-Smith, J., Roberts, B.W.** (2007). Social investment and personality: a meta-analysis of the relationship of personality traits to investment in work, family, religion, and volunteerism. *Personality and Social Psychology Review*,

11(1), 68-86. <https://journals.sagepub.com/doi/abs/10.1177/1088868306294590> (retrieved: 24/4/2019)

• **Naftali, M. (2001).** Volunteering in Israel. National Council for Volunteering in Israel: simplify and demand voluntary action. <http://ivolunteer.org.il/?CategoryID=672&ArticleID=2546> (retrieved: 24/4/2019)

• **Rub, J. (2014).** Decision theory – renewing the empirical study of economic behavior. *Studia Universitatis, Moldaviae (Seria Științe sociale)*, 8(78), 176-183, ISSN 1814-3199/ISSNe 2345-1017 (retrieved: 3/4/2019)

• **Rub, J. (2015).** Global risk of terrorism: a criminological review. *Revista Națională de Drept* 12(182)/2016/ISSN 1811-0770 (retrieved: 3/4/2019)

• **Rub, J., Gîrla L. (2016).** Fight against terrorism poses especially challenging questions for democratic countries. *Revista Națională de Drept* 3(185)/2016/ISSN 1811-0770 (retrieved: 3/4/2019)

• **Rub, J., Gîrla L. (2016).** Terror attacks: ring around the existence threatens of over a billion people of the world. *Revista Națională de Drept* 5(187), ISSN 1811-0770 (retrieved: 3/4/2019)

• **Rub, J. (2017).** Evil has never left us, it seems. So there is no need for it to return. It is here, it is now, and it is since hidden in the human historical memory. *Revista Națională de Drept* 2(196)/2017/ISSN 1811-0770 (retrieved: 3/4/2019)

• **Rub, J. (2018).** The rise of the "lone wolves". *terror/* <https://www.articles.co.il/article/183008> (retrieved: 3/4/2019)

• **Pyszczynski, T., Solomon, S., Greenberg, J. (2015).** Chapter one-thirty years of terror management theory: From genesis to revelation. *Advances in Experimental Social Psychology*, 52, 1-70. <https://arizona.pure.elsevier.com/en/publications/thirty-years-of-terror-management-theory-from-genesis-to-revelati-2> (retrieved: 2/4/2019)

• **Salamon, L.M., Anheier, H.K.** (1992). In Search of the Nonprofit Sector II: The Problem of Classification. Working papers of the Johns Hopkins comparative nonprofit sector project. Baltimore: The Johns Hopkins University Institute for Policy Studies. http://ccss.jhu.edu/wp-content/uploads/downloads/2011/09/CNP_WP3_1993.pdf (retrieved: 31/3/2019)

• **Simon, L., Greenberg, J., Harmon-Jones, E., Solomon, S., Pyszczynski, T, Arndt, J., Abend, T.** (1997). Terror management and cognitive-experiential self-theory: evidence that terror management occurs in the experiential system. *Journal of Personality and Social Psychology*, 72(5), 1132-1146 http://www.socialemotiveneuroscience.org/pubs/simon_etal97tm.pdf (retrieved: 24/4/2019)

• **Siti, A., Maimunah, I.** (2013). Conceptualizing philanthropic behavior and its antecedents of volunteers in health care. *Graduate research in education*, 758-769. http://www.academia.edu/27228475/Conceptualizing_Philanthropic_Behaviour_and_Its_Antecedents_of_Volunteers_in_Health_Care (retrieved: 2/4/2019)

• **Smith, D.H., Stebbiins, R.A., Grotz, J.** (2016). *The Palgrave handbook of volunteering, civic participation, and nonprofit associations*. <https://www.palgrave.com/gp/book/9781137263162> (retrieved: 6/4/2019)

• **Shorek, S.** (2008). Theory of coping with horror and defense of world view: effect of prominence of death on appreciation of famous figures. Essay for M.A. in Humanities and Society. Ben-Gurion University. <http://aranne5.bgu.ac.il/others/SorekShai.pdf> (retrieved: 1/12/2018)

• **Vail,k., Pyszczynski.T., Greenberg. J.** (2014). Terror management theory and research: How the desire for death transcendence drives our strivings for meaning and significance

https://www.researchgate.net/publication/290485363_Terror_management_theory_and_research_How_the_desire_for_death_transcendence_drives_our_strivings_for_meaning_and_significance (retrieved: 27/5/2021)

• **Wilson, M.** (2008). Volunteers a social profile. Indiana university, p. 99
<https://www.annualreviews.org/doi/10.1146/annurev.soc.26.1.215> (retrieved: 17/4/2019)