1. Introduction

In the present debate on theory of international relations attention is paid to the concept of broadening and deepening of security. Most of the discussions on security are concentrated upon selected, predominantly normative issues: Security for whom? How? According to which norms? Less attention is being paid to the questions which are equally important: What security is about? What is the meaning of security? Is it possible to identify a set of properties common for all definitions of security?

Subsequently two other questions are arising. Can a broadened and deepened idea of security in international relations be used as a foundation of a more rigorous research? If the first answer is "yes" then another question must be put before: How the concept of security can be used as an analytical instrument of IR theory (security theory), and subsequently, as a good point of departure for improved decision making in security policy.

There is also another reason for studying properties of the concept of security. It is also applied as a tool for social communication. Better understanding of its properties will help to study the processes of communication, or in other words, the social discourse, upon security.
These questions are dealt with in author’s research (Mesjasz 2004). Analytical properties of security should be concentrated firstly on its adequate definitions and interpretations. Following the concepts of broadened and deepened interpretations of security, each domain – military, political, economic, societal, environmental and informational can have its specificity.

The aim of the paper, constituting an introductory part of two broader research projects, is to present an introduction to the study of analytical properties of the concept of security. Attempts are made to provide preliminary answers to the above questions. Special emphasis is put on the thesis that it is possible to elaborate a universal set of properties (dimensions) unifying all concepts of security. It is also argued that this collection of properties can be used as a foundation for more rigorous studies of security. This statement also relates to the human security. In this last case only the first directions of research aiming at making human security an instrument of research are presented.

Since the paper is a kind of blueprint of further research ideas therefore several ideas and bibliographical references may still be missing. It is necessary to emphasize that the author is fully aware of all the formal and conceptual deficiencies of the paper. Therefore any comments and/or suggestions are welcome.

2. Analytical properties of concepts of social theory

Discussions about the sense of analysis in social sciences must obviously be rooted in the framework of general methodological considerations. For the use in introductory research analytical properties of the concepts are referred to description and interpretation of the present (sense-giving, sense-making), prediction and action. The complete analytical approach not necessarily should provide a full picture of the phenomenon under study. It can be partial and its scope can result either from the purpose of research and/or capabilities/methods of research.

In a very preliminary way it can be stated that in spite of declared methodological stance, any research approach in social sciences can be placed between “objective” and “subjective”. Objective means that the observer-analyst places him/herself outside of the object under study. In such case modernist or rationalist methods can be applied Subjective means that observer-analyst is somehow associated with the object of research and it is the discourse that matters.

The first approach gives ground for sophisticated mathematical modelling and definitions based upon operationalization. Mathematical models can be of axiomatic character
like in economics and/or models supported with empirical data. The second approach concentrates on the “discourse” and its social and psychological determinants. Both approaches which in extreme form are sometimes treated as completely opposite, can be unified within the framework of “language games” of Wittgenstein (Fierke 2002). This middle-of-the-road approach allows both for analysis of the discourse as well as for more “objective” considerations.

The language of analysis in social sciences is based upon mathematical models and various analogies and/or metaphors. For a sake of simplicity of the discussion it may be assumed that models are only mathematical and the remaining instruments are but metaphors (Mesjasz 1999).

Mathematical models and metaphors in social sciences can be used for the following approaches:
- descriptive
- explanatory,
- predictive,
- normative,
- prescriptive,
- regulatory,
- retrospective,
- retrodictive.

In the middle-of-the-road methodological approach, interpretations of descriptive, explanatory and predictive approach in social sciences seem indisputable. Differences between normative and prescriptive approaches should be exposed. In their studies in decision theory, Bell, Raiffa and Tversky (1988) proposed to discern between the normative approach resulting from mathematical models, predominantly game models, and prescriptive approach reflecting practical recommendations resulting from decision analysis, including also qualitative aspects.

Regulatory approach can be interpreted as the language depicting actions resulting from Retrospective approach means description of the past events with the use of present knowledge and retrodictive means making predictions about the past – “so if….” with the use of the actual knowledge about the past and about the present.

A question may be raised how metaphors can be used in prediction while in an objective science mathematics is the only acknowledged instrument of prediction. It can be developed in further studies but in many methods of qualitative forecast it is metaphors are
the basic methods of analysis, beginning from a central metaphor – a point of departure of prediction and ending with detailed scenarios of developments.

3. Interpretations of security

In descriptive terms security and its counterparts in various languages (not necessarily direct etymological clichés) reflect the relations between object (subject) and its environment. For any analytical considerations it must be also borne in mind that security is a normative, emotionally laden idea.

Any attempts to elaborate a comprehensive definition of security are of course vain. The collection presented herein reflects but the directions of evolution of the concept of security. It must be also underlined that the term security can be used in three meanings.

- "traditional meaning" - security as an attribute of state, absence of military conflict - "military security",
- security used in a broader sense yet still referring directly to the phenomena taking place in international relations, or directly/indirectly caused by inter-state relations
- security as a public good,
- security in a universal sense (of a unit and of a social entity) - human security.

Etymological discussions on the English notion “security” are twofold. In the first approach the term security is deriving from Latin *securus* safe, secure, from *se* without + *cura* care - the quality or state of being secure or as a freedom from danger (freedom from fear or anxiety). In the classical sense security - from the Latin *securitas*, refers to tranquility and freedom of care, or what Cicero termed the absence of anxiety upon which the fulfilled life depends (Liotta 2002, p. 477).

In the second interpretation, the English word "security" originates from the Latin word *"se-curus"*. *"Se"* means "without" and *"curus"* means "uneasiness." That is, "security" originally meant liberation from uneasiness, or a peaceful situation without any risks or threats. The English word "security" has a wide range of meaning including "to feel safe," and "to be protected" and is used to describe a situation without any risks or worries1.

In other discussions on security some classical concepts are recalled (Møller 2001): "In his seminal work on Realism, Hans Morgenthau thus hardly bothered to define “security”. The closest he came to a definition was: “National security must be defined as integrity of the national territory and its institutions” (Morgenthau 1960). In another connection, he added

1 This discrepancy and other etymological aspects of security, e.g. its meaning in various languages and cultures will be studied in further research.
“culture” to the list, emphasizing that the “survival of a political unit in its identity” (i.e. “security”) constitutes “the irreducible minimum, the necessary element of its interests vis-à-vis other units” (Morgenthau 1971, p. 219).

A more comprehensive definition of security was proposed by Arnold Wolfers (1962). This definition has become a “standard” in IR theory (Møller 2001): "Security, in an objective sense, measures the absence of threats to acquired values, in a subjective sense, the absence of fear that such values will be attacked".

It must be reminded, especially when the increasing role of economy and finance is considered, that in economic terms security is a “public good” which provides benefits to all members of a community as soon as it is made available to any one person. Such a good is collectively consumed by everyone in a community, and it’s impossible to charge for its use.

This collection of definitions of security used in the project is in the making and will have to be developed along with relevant typologies. It should be supplemented with an explanation of human security - the broadest and the deepest concept of security, which is now dominating the debate in security theory and policy.

"The concept of security must change-from an exclusive stress on national security to a much greater stress on people’s security, from security through armaments to security through human development, from territorial security to food, employment and environmental security" (Human Development Report 1993 - www.undp.org/hdro/e93over.htm).

For too long, the concept of security has been shaped by the potential for conflict between states. For too long, security has been equated with the threats to a country’s borders. For too long, nations have sought arms to protect their security. For most people today, a feeling of insecurity arises more from worries about daily life than from the dread of a cataclysmic world event. Job security, income security, health security, environmental security, security from crime-these are the emerging concerns of human security all over the world. (..)

Human security is relevant to people everywhere, in rich nations and in poor. The threats to their security may differ-hunger and disease in poor nations and drugs and crime in rich nations-but these threats are real and growing. (..)

Most people instinctively understand what security means. It means safety from the constant threats of hunger, disease, crime and repression. It also means protection from sudden and hurtful disruptions in the pattern of our daily lives-whether in our homes, in our jobs, in our communities or in our environment (Human Development Report 1994 -
www.undp.org/hdro/e94over.htm. In another short declaration, human security is to be concentrated on “…survival, daily life and dignity of human beings” (Sen 2000, p. 1).

4. Universal properties of security
4.1. The core of the concept of security

Initially, in a narrow realist, or later, neorealist approach, military security was an attribute of relations of a state, a region or a grouping of states (alliance) with other state(s), regions, groupings of states. It was also referred to as “international security”. It is obvious in such sense that security had a strong positive interpretation. Security was viewed as an absence of threat or a situation in which occurrence of consequences of that threat could be either prevented or state (region, alliance) could be made isolated from that.

Broadening the neorealist concept of security means inclusion of a wider range of potential threats, beginning from economic and environmental issues, and ending with human rights and migration. Deepening the agenda of security studies means moving either down to the level of individual or human security or up to the level of international or global security, with regional and societal security as possible intermediate points. While broadening can be attributed predominantly to attempts made by representatives of neorealist approach, then parallel broadening and deepening of the concept of security has been proposed by the constructivist approach associated with the works of the Copenhagen School (Buzan et al. 1998). This typology seems representative for most writings discussing reconceptualization of security, e.g. (Krause & Williams 1996), (Knudsen 2001).

Going further, it is necessary to look closer at the meaning of threat (existential threat), which can be perceived as a disturbance. The disturbance (threat) could be resulting either from purposive actions by a “threatener”, or natural phenomena or from their mixture. What must be also taken into account that the course of events perceived as a threat usually leads to the outbreak of large scale conflicts and the use of violence. Character of the threats should be a topic of further investigations.2

Therefore the core issue in any security discussions is a broadly defined prediction, or identification of a disturbance (threat) which should make possible subsequent future actions - “emergency measures” - monitoring, prevention, elimination, isolation, etc. At the same time

2 Fischer (1993, p. 6) has proposed to replace "threat" with "danger". Threat may often have the connotation of a deliberate action pursued by a distinct threatener. Dangers are frequently not intended, whether stemming from natural or human sources. Buzan (1991, pp. 112-116) has suggested a distinction between threat and vulnerability stemming from relative capabilities of states. The terms "existential threat", or "threat" as coming from outside and vulnerability as an inherent or relative feature of the referent object are used in the paper.
it is the most important theoretical problem of all security-oriented disciplines - assuming that their results must have any policy impact.

Fig. 1. The core of the concept of security

The “core scheme” of security can be extended in various directions by combination of the following attributes:

1. Reference object - state, region, alliance, society, various social groups - nations, minorities, ethnic groups, individuals, global system.
2. Areas in which existential disturbances (threats) are emerging (sectors) - political, military, economic, ecological, societal.
3. Methods of prediction (identification) of disruptions - beginning from search for “objective” threats and ending with subjectively perceived threats, also resulting from social discourse (“securitization”).
4. Methods of planning and accomplishing extraordinary actions aimed at monitoring, preventing or eliminating existential threats.

This simple scheme shows that all directions of development of the concept of security provide a ground for prediction (identification) of threats, and planning and preparations of actions, which in turn, are the main goals of any policy-oriented investigations into security. However, in contemporary discussions on widening and deepening of the concept of security too much stress is put on two aspects of results of combinatorial operations with attributes of security:

1. Excessive universalization of security by covering too broad scope of issues - from global security and governance to human rights and climate change.

2. Deepening of the concept of security, e. g. an idea of human security, which as a universal good is becoming a surrogate of other ethical values - well-being, health, happiness, etc.

In both cases the analytical usefulness of the concept of security is changed, perhaps weakened if not at all lost. It is especially visible in any attempts of prediction of threats and policy making at various levels of societal hierarchy.

In order to preserve and develop analytical properties of the concept of security, a specific “middle-of-the-road”, eclectic, or even better, “common-sense” approach is proposed. The main aim of that approach is to combine at least declarative objective value of widened neorealist broadened security concept with the constructivist and at the same time “deepened” idea of security viewed as an “act of speech” (Buzan et al. 1998).³

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³ A “common sense” label is added since knowledge of ontology and epistemology of social sciences show that they can be neither purely constructivist nor objective in the positivist sense.
4.2. Systemic properties of security

Fig. 2. Security as a property of social systems: Conceptual framework
The core concept of security presented in Fig. 1 can be viewed as a foundation for developing a broader idea of security which can be used for studying the links between security treated as a property of social systems and various concepts defined as systems thinking, systems approach or complex systems studies - see Fig. 2.

Reference object

Social entity (subsystem) and individual as an element of a system:
- dimensions of security - survival, identity, coherence (really, is the later the case - maybe something better, or perhaps identity is equivalent to coherence; perhaps a broadly defined identity),
- other systemic properties of a social system, which can be endangered.

Threat, risk, danger
- semantic distinction (if any) of threat, risk and danger,
- relations between meaning of those terms,
- securitization of social phenomena - threats, risks or dangers.

Vulnerabilities
- vulnerability as a systemic property,
- relations between vulnerabilities and threats, risks and dangers.

Prediction (identification) of threat (risk, danger)
- classical approach - risk and uncertainty
- threat, risk and uncertainty and methods and limits of their prediction,
- two situations:
  A. Present threat (risk, danger) - known consequences - deterministic features and unknown consequences
  B. Potential threats - unknown features and consequences

Actions
- prevention, securitization, desecuritization, marketization
- elimination,

Structural aspects of security of social systems

Relations between domains
- links between military, political, economic, environmental and societal domains of security

Links between security of elements and security of collectivities
- security of individuals and of collectivities
Attributes of a "secure" reference object (system of reference objects)
- minimization of uncertainty, continuity, survival, increased capabilities of prediction
- stability

Inter-system relational aspects of security
- which systems - units (states, other social entities - ethnic groups, etc.)
- security dilemma, relations with other social systems, relations with natural environment

The above attributes of security treated as a property of social systems will be developed in further studies. In result, a kind of "framework" for discussion of applications of various ideas of systems thinking in security theory and policy research. They can be also used in a preliminary study of economic security.

5. Analytical properties of the concept of security

Mathematical models and metaphors in social sciences can be used for the following approaches constituting the foundation of research and policy making:
- descriptive
- explanatory,
- predictive,
- normative,
- prescriptive,
- regulatory,
- retrospective,
- retrodictive.

Detailed discussion of analytical properties of security goes far beyond the scope of the paper. Therefore only an introductory survey of consequences of deepening and broadening of the concept of security for selected research approaches is presented. Retrospective and retrodictive approaches are left for further studies.

Description

Classical definitions of security – state-oriented, objective provide ground for applications of mechanistic models and metaphors. Description of all systemic aspects of security is simplified, frequently with the use of mathematical modelling, beginning from

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4 Discussion on the links between security and systems approach has been presented elsewhere (Mesjasz 2001, 2004).
considerations about power, war, bipolarity, multi-polarity and ending with sophisticated mathematical, predominantly statistical modelling applied in the discussions on democratic peace. In some cases, e.g. the concepts of power and stability any mathematical models are limited because of “reification” of metaphors.

Reconceptualization of security can be reduced to three issues: broadening, deepening and introduction of securitization treated as a performative idea – an act of speech.

It brings about significant consequences for security discourse. Securitization is definitely most important for descriptive approach. It has the highest significance in description of the following systemic aspects of security: threat (risk, danger) and vulnerability. It would be worthwhile if and to which extent securitization relates also to description of other systemic aspects of security.

Explanation

Identification of causal relationships in discourse on traditional concepts of security is becoming more difficult. Initially, in the studies upon state security some mathematically supported ideas were taken from natural sciences, or from a broader framework of systems approach. Bipolarity, vs. multipolarity, hegemonic stability, sources of international and domestic conflicts, dyadic conflicts and systemic stability could be at least partly explained with the use of systems thinking-based mathematical models and metaphors. Broadening and deepening the concept of security makes explanatory considerations much more complex. Therefore in the security discourse more and more frequently such notions as complexity and chaos usually are treated as less analytically but more emotionally valuable metaphors.

It may be stated that the fact that studies of security are recently concentrating to a large extent on critical, cultural or conceptual aspects is a sign of increasing methodological weakness of that discourse. It is then necessary not only to develop such a meta-discourse on security but to return to approaches in which more precisely categories will be used. The dimensions of security included in the scheme of systemic properties of security appear as a very relevant instrument in identification of causal relationships. Of course multi-causality limiting or impeding a more detailed studies should be also taken into account.

The following causal relationships are of special importance in security-related considerations:

− dyadic interactions and system security,
− relations between security sectors,
− how secure elements can create a secure system – security as an “emerging property”
attributes of a "secure" system of reference objects
inter-systemic relations (relations within and between “security complexes”).

Prediction

In many considerations it is not stated directly but identification and prediction of threats (risks, dangers) and identification of vulnerabilities remain the main challenge of security theory and policy. In the early studies of international security prediction was the main goal of mathematical modelling and computer simulations, beginning from the works of classics such as Lewis F. Richardson, Quincy Wright, Anatol Rapoport, Morton Kaplan, Karl Deutsch and ending with various contemporary attempts to apply Complex Adaptive Systems models in security research.

Broader and deeper ideas of security along with securitization bring about increased complexity, and in consequence more stress is to be paid to the processes of social learning. In the methods based upon learning processes the stress cannot be put upon rigorous methods of prediction. It is necessary to study the processes of social learning and upon the social and psychological limitations of predictive capabilities.

In the studies upon the role of prediction in security theory attention must be given to various forms of change. Especially the links between continuity/discontinuity and threats are to be studied. Intuitively threats are associated with rapid, unexpected change. However, there are several threats, e.g. in environmental security, where the slowly developing threats can be identified. In such case both the problem of prediction which is easier for continuous change as well as their securitization require deeper considerations.

Normative and prescriptive approaches

Since security is a normative term therefore it is necessary to identify the sources of norms for any actions aiming at guaranteeing security. Absence of military conflict, economic crises, or in a more general terms, absence of violence, constituted the norms for security, even in the broadened interpretations.

Deepening of security, and especially the idea of human security, brings about several challenges to normative discussions of security. They are to some extent similar as those limiting analytical usefulness of the concept of “positive peace”, “negative peace” and structural violence proposed once by Johan Galtung.

The most general normative framework of human security is reflected in the statement: “Free of fear and free of want” and it relates both to social entities and to
individuals. Universal ethical sense of the above statement seems undisputable. However, if the concept of human security poses great difficulties when applied to more detailed analytical studies allowing for better identification and subsequently for policy measures.

The “free from fear” part of human security description can be associated with “traditional” sectoral aspects of security – military security, political security, internal conflicts (societal security), environmental security with an exception of economic security. In this case normative considerations, although not clear seem easier to define in a more specific manner. Paradoxically in this case deepening of security is returning to the etymological Latin roots of the concept of security as “se cura” or “se curus”. This return also means that security as a result of securitization of all aspects of life of an individual is becoming an ethical (and political!) concept.

Much more difficult obstacles for studying human security are associated with the “free of want” part of the declaration. At the first glance it can be perceived as equivalent to fulfilling the basic needs – food, water, shelter, medical care. However, and here arise similar doubts as in the case of economic security. How to define the minimum fulfilling the basic wants? How to define the ways to achieve the minimum – solely by the interested individuals or groups or in cooperation and assistance from the others? How to agree the rules of market – risk, liberalism free entrepreneurship, etc. with the needs to eliminate the want? In many cases rational actors, instead of relying on their own initiative would wait for initiative by the others.

The above questions can be easily multiplied. It may be thus concluded that the concept of human security is at present rather an ethical, ideological, political and institutional issue. The institutional sense of this term is connected with international organizations, especially the UN.

If human security is an ethical and ideological issue thus a question is arising what is different between human security and declarations of well-being or human rights. The latter can be to some extent defined on the ground of law. Human security as a normative and policy oriented concept still requires further research. Otherwise it is becoming an interesting element of post-modernist social discourse in which the participants do not rationalize their communication by narrowing the scope of the meaning of the terms applied but are becoming involved in complex processes of coordination of the meaning of the terms applied.
**Regulatory approach**

All above approaches have one fundamental aim – how to achieve security described as a state in which an individual or a social collectivity (system?) can enjoy well being and harmony with environment. In classical approaches security of the state was to be achieved by appropriate policy measures, strengthening power, balancing power, etc. or other actions – wars, sanctions, boycotting. In further considerations it was democratization which was supposed to increase probability of peaceful cooperation. Broadening and deepening the concepts of security along with securitization bring about several challenges.

First and foremost, securitization, or securitizing discourse to a large extent is becoming a part of policy making. This phenomenon is not new. In the past a small border incident could be either ignored by politicians or could become a *casus belli*. At present, broadened and deepened concept of security permits securitization (desecuritization) which could be stimulated by the politicians and/or by the media. In addition, broadening (universalization) of the concept of security makes regulatory measures (policy making, actions) too general, moralistic and sometimes self-evident – do not let people to be hungry, save the environment.

**6. Conclusions**

As it was stated in the introduction, analytical properties of the concept of security require further studies going far beyond this paper. Preliminary considerations allow to draw the following initial conclusions:

1. It is possible to identify a universal “core concept of security” actual for all ideas of security.
2. The core concept of security can be used as a foundation of analytical considerations concerning all aspects (dimensions) of security
3. The multidimensional interpretations of security can be useful both for “objective” considerations as well as for considerations referring to various post- (modernist, structuralist) approaches exposing the role of discourse and subjective aspects of security.
4. Modern system thinking, including the so-called complexity studies, can be applied in methodologically rigorous studies of security.
5. The idea of human security requires further scholarly discussion. Otherwise it would become an instrument of ideology and its uses in policy making and in social communication will be very limited.
Bibliography


