3 Conceptual Quartet: Security and its Linkages with Peace, Development, and Environment

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3.1 Introduction

As a political term and as a scientific concept ‘security’ has been closely related to ‘peace’, the combined goals in the UN Charter. The other two concepts ‘development’ and ‘environment’ have been added to the national and international agenda in the 1950’s and since the 1970’s. In colloquial language, and in national and international politics, as well as in the scientific analysis of international relations these four concepts form a conceptual quartet and with each of these basic concepts a specialized research programme is associated: of security studies, peace, development, and environmental research. While these concepts have been widely used in the social sciences (sociology, psychology, economics, political science, international relations) systematic conceptual analyses of these four terms have been rare in international relations and in the four policy-oriented research programmes (Wæver 2006).

In the scientific literature ‘objective’ and ‘subjective’ (Wolfers 1962; Art 1993) as well as ‘intersubjective’ (Wendt 1992; chap. 51 by Hintermeier) concepts of security have been distinguished. From a constructivist approach ‘securitization’ has been referred to as a ‘speech act’ (Wæver 1995, 1997) by which an individual, or representatives of the state (government, parliament, courts), of political parties, interest groups, non-governmental organizations, of civil society, social movements, and the media attribute to a specific danger or concern ‘utmost importance’ (chap. 1 by Brauch, 2 by Mesjasz, and 4 by Wæver) that require extraordinary efforts for coping with and overcoming a specific threat, challenge, vulnerability, and risk (Brauch 2007a). Speech acts consist of terms and concepts with multiple meanings and in most cases they can be analysed in historical written documents as well as oral expressions in the recorded media. In politics these four basic concepts have been used to describe and explain the positions and activities of social groups and parties to express basic values and goals, and to legitimize past actions and future oriented programmes in the name of security, peace, development, and the environment.

This chapter develops a conceptual framework (3.2) by analysing the meaning and evolution of these basic terms (3.3) and scientific concepts as well as their six dyadic linkages (3.4) and the four pillars of a widened, deepened, and sectorialized security concept (3.5) as a conceptual contribution for a fourth phase of research on human and environmental security and peace (HESP) where gender issues are also considered (3.6).

3.2 Methods: Conceptual History and Context

The analysis of colloquial terms and concepts requires a combined methodological approach of etymology (3.2.1), concept formation (3.2.2), conceptual history (3.2.3), and a systematic conceptual mapping (3.2.4).

3.2.1 Etymology of Terms

Etymology, derived from the Greek ‘étymos’, refers to the ‘original meaning of a word’ that has become a major research field of comparative linguistics analysing the origins, basic meaning, historical evolution of words, and its relationship with similar words (synonyms) in different languages. Etymology has a long tradition in Greek philosophy and drama that was carried over to the Middle Ages by Isidore of Seville (Etymologiae).
The scientifically based etymology which started in the 19th century uses methods and findings of historical and comparative linguistics. According to the *Encyclopaedia Britannica* (15. ed., 1998, vol. 4: 587) the principles in contemporary etymology are, i.a. “The earliest form of a word, or word element, must be ascertained, as well as parallel and related forms,” and “any shift in meaning that has occurred in the historical transmission of the word must also be explained.” *Internal etymology* refers to the relationship of a word family to related words, while *external etymology* includes the words in related languages (Brockhaus Enzyklopädie, 21st ed., vol. 8, 2006: 473). The etymological roots of the four concepts are discussed in 3.3.2

### 3.2.2 Concept Formation

There is a basic difference between ‘words’ or ‘terms’ and scientific ‘concepts’. In linguistics, a ‘word’ is the basic element of any language with a distinct meaning. A ‘term’ (from Latin ‘terminus’), in logic, is the subject or predicate of a categorical proposition or statement. The word ‘concept’ according to the *Encyclopaedia Britannica* (15. ed., 1998, vol. 31: 514) is used in the analytic school of philosophy as “logical, not mental entities.” Concept formation refers to “the process of sorting specific experiences into general rules or classes” where in a first phase “a person identifies important characteristics and in a second identifies how the characteristics are logically linked.”

The German word ‘Begriff’ combines the meaning of the English words ‘concept’, ‘term’, and ‘idea’. It is defined in the *Brockhaus Enzyklopädie* (21st ed., vol. 3, 2006: 491) as “an idea of objects, attributes and relations that have been obtained by an abstraction of unchangeable characteristics” and thus acts as a basic element of thinking and cognition. A ‘Begriff’ describes an object not in its totality but focuses on its characteristics with regard to its content (intention) and scope (extension). Thus, a concept requires a mental effort that separates the essential from the irrelevant features. Since Descartes pure (a priori) concepts and those based on empirical experience have been distinguished. For Kant the interaction between concept and contemplation produces cognition and knowledge. He also distinguished between empirical concepts and categories based on reason. The modern logic of concepts analyses primarily the extensional relations between concepts. Concept formation refers to a psychological process where the essence and function of an object or situation are covered. Charles E. Osgood distinguished between perceptive, integrative, and representative concepts that involve three cognitive processes of: 1. discrimination, 2. abstraction and 3. generalization. Concept history was first used by Hegel for a historical and critical research of the development of philosophical and scientific concepts.

### 3.2.3 Conceptual History

The history of concepts or conceptual history as inspired by Lucien Febvre and Marc Bloch of the French school of the *Annales* (‘les choses et mots’) was instrumental for a major German editorial project on key historical concepts (Brunner/Conze/Koselleck 1972–1997) that was masterminded by Koselleck (1979, 2002, 2006) who addressed the complex interlinkages between the temporal features of events, structures, and concepts in human (societal) history but also the dualism between experience and concepts.

Schultz (1979: 43–74) pointed to four possibilities linking concepts and factual context: a) both the context and the concept remain unchanged; b) the context changes but the concepts remain unchanged; c) the meaning of concepts changes while the context remains unchanged; and d) the factual contexts (‘Sachverhalte’) and the meaning of concepts totally disintegrate. This volume deals with a fifth possibility where a contextual change triggers a conceptual innovation. In some cases, the social and economic context had fundamentally changed while the concepts (e.g. of Marxism) remained unchanged, but with the collapse of the regimes the Soviet Marxist-Leninist ideology collapsed as well in 1990. This dualism differed with regard to the state, its factual evolution and conceptual development from the 17th to the 20th century.

A major focus of Koselleck’s (2006: 86–98) work of the editorial project on historical concepts dealt with the temporal structures of conceptual change. In the introduction to his last book *Begriffsgeschichten* (histories of concepts) Koselleck (2006: 529–540) argued that it is essential for conceptual history to de-
velop hypotheses with the goal to show their internal semantic structure, to develop hierarchies of conceptual fields to point to the power of some concepts to structure the context. At the same time on the semantic level concepts reflect experiences and expectations in different scientific disciplines. Thus, the language (or ‘speech act’) becomes an important tool to document conceptual changes as they are perceived, articulated, and documented at a certain moment or over a period of time. The semantic documentation of experiences is scientifically linked to contexts.

A methodological challenge is to understand the specific semantic contribution in order to understand the nonverbal phenomena (facts) as well as the challenge of the nonverbal predispositions that require a semantic or conceptual response. Conceptual history, Koselleck argued, “opens a way to empirically check these differentiations”. He pointed to the contextual nature of concepts that gain in precision from their relationship to neighbouring and opposite concepts. Furthermore, he argued that conceptual history looks for key and corner points that illustrate an innovative strength that can only be observed from a longer-term perspective.

Influenced by Koselleck, Wæver (2006) drafted a conceptual history of security for international relations relying primarily on the Western intellectual tradition from its Greek and Roman origins up to the present in which he also documented the different reconceptualizations with a special focus on launching the ‘national security’ concept in the 1940’s that was later taken up by Russia, Japan, Brazil (as a doctrine), and other countries. The chapters in part III broaden the focus to non-Western cultures, religions, and intellectual traditions.

Both the temporal evolution and systematic analysis of concepts has been a major task of philosophy, and especially of political philosophy and of the history of ideas that links one subfield of political science with broader philosophical endeavours and trends. In German there have been several philosophical efforts to document the contemporary philosophy and its concepts in its interrelationship to their historical structure and the sciences.³

3.2.4 Conceptual Mapping: Contextual and Theoretical

This book aims at a ‘conceptual mapping’ of the use of the concept of security in different countries, political systems, cultures and religions and scientific disciplines, in national political processes, within civil society and social movements, but also as a guiding and legitimating instrument within international organizations. Any conceptual mapping has to reflect the specific context in time and space that influence the meaning and the use of concepts.

In the social sciences, especially in the debate in security studies, the meaning of the concept of security is theory-driven. For this reason all authors in this volume have been asked to define the concept of security as they use it in their respective chapter. The ‘conceptual mapping’ of security in relation to peace, development, and environment is a task of political science that requires the knowledge of other disciplines (linguistics, history, philosophy) with a specific focus on the theoretical approaches prevailing in the social and political sciences.

3.3 Four Key Concepts of International Relations: Peace, Security, Development, and Environment

Below the four key concepts of the conceptual quartet: peace, security, development, and environment will be reviewed, relying on the knowledge gained from etymology, conceptual history, and conceptual mapping to which these volumes will contribute: In a next step the six dyadic linkages between these concepts will be examined on the background of the contextual change(s) in world history and theoretical innovations (constructivism, risk society, etc.).

3.3.1 Concepts of Peace

The word ‘peace’ (3.3.1.1) is a key term (3.3.1.2) and a crucial religious (chap. 10 by Oswald) and scientific concept in philosophy, theology, history, international law, and in international relations as well as in peace research (3.3.1.3), and it has been a declared goal of
national policy-making, of international diplomacy, and of the activity of many international institutions (3.3.1.4). Since 1990 the yearning for ‘peace’ has been replaced by an intensive discourse on a widened and deepened concept of ‘security’ (3.3.1.5).

3.3.1.1 Etymology of the Words ‘Pax’, ‘Peace’ and ‘Frieden’

The English term peace originates from the Latin ‘pax’ and the French ‘paix’ (Italian: pace; Spanish and Portuguese: ‘paz’). In common English use the term ‘peace’ is associated with:

1. no war, a) a situation in which there is no war between countries or in a country ..., b) a period of time where there is no war: a lasting peace; 2. agreement, an agreement that ends a war; 3. no noise, a peaceful situation with no unpleasant noise; 4. calmness, a feeling of calmness and lack of worry and problems; 5. a situation in which there is no quarrelling between people who live or work together ...; 6. disturb the peace, ... to behave in a noisy and violent way (Langenscheidt-Longman 1995: 1041).

The Compact Oxford English Dictionary describes ‘peace’ as “1. freedom from disturbance, tranquillity, 2. freedom from or ending of war, 3. an action such as a handshake, signifying unity, performed during the Eucharist” (Soanes, OUP 2002: 830). The Shorter Oxford English Dictionary (5th Ed., 2002, Vol. 2: 2128) offered additional meanings. The New Collins Concise English Dictionary (McLeod 1985: 831) defines ‘peace’ as: “1. the state existing during the absence of war ..., 2. a treaty marking the end of war, 3. a state of harmony between people or groups, 4. law and order within a state ..., 5. absence of mental anxiety, 6. a state of stillness, silence, or serenity”. These dictionaries combine a state of no war with a positive state of harmony. There are also slight differences between British and American dictionaries. For Webster’s (1979: 1317) ‘peace’ means: “1. freedom from war or civil strife; 2. a treaty or agreement to end war; 3. freedom from public disturbance or disorder, public security, law and order; 4. freedom from disagreement or quarrels, harmony, concord; 5. an undisturbed state of mind; absence of mental conflict, serenity; 6. calm, quiet tranquillity.”

The German term ‘Frieden’ refers to a ‘condition of quietness, harmony, resolution of warlike conflicts’ and also a ‘protected territory’ (Pfeifer, 2005: 375–376). The modern word ‘Frieden’ derives from the old German ‘fridu’ meaning protection and security, and is closely related to the Dutch term ‘vrede’ and the Swedish: ‘frid’. In the Germanic and old German law ‘Friede’ referred to a state where a legal order prevailed as the basis for life in a community or in the whole country (of the land, of the king, in the castle or on the marketplace). In Middle High German, ‘Frieden’ was also used to refer to an armistice.

In Russian ‘mir’ refers to both ‘peace’ and the ‘world’. In the pre-Hispanic culture ‘peace’ implies an equilibrium between nature and humans; gods and humans, as well as among human beings. Peace may also be linked to the Oriental concepts of harmony or equilibrium. In traditional societies the equilibrium has been very important (chap. 10 by Oswald).

While both the Latin pax and the German Frieden are rather narrow concepts, “the Greek eirene, the Hebrew shalom, and the Arab salam seem to approach ‘peace with justice’ including an absence of direct and structural violence”. Galtung (1993: 688) pointed out that the Hindi ahimsa “no harm” adds the ecological dimension that was missing in the Occident but this was used by Gandhi as the basis for his

5 For Webster’s Third New International Dictionary (2002: 1660), peace refers to: 1. a freedom from civil clamor and confusion; a state of public quiet; b. a state of security or order within a community provided for by law, custom, or public opinion; 2. a mental or spiritual condition marked by freedom from disquieting or oppressive thoughts or emotions; serenity of spirit; 3. a tranquil state of freedom from outside disturbance and harassment; 4. harmony in human and personal relations; mutual concord and esteem; 5. a. (1) a state of mutual concord between governments: absence of hostilities or war, (2) the period of such freedom from war; b. a pact or agreement to end hostilities or to come together in amity between those who have been at war or in a state of enmity or dissension; a formal reconciliation between contending parties; 6. absence of activity and noise; deep stillness; quietness; 7. one that makes, gives or maintains tranquillity.
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non-violent struggle (chap. 10 by Oswald and 15 by Dadhich). This is a preliminary and very selective overview of a few primarily occidental once culturally dominant languages and it does not intend to cover the global diversity in languages. Different values, goals, and other concepts (law, security, justice, harmony with nature) are associated with ‘peace’, also in other languages and cultures not covered here.

3.3.1.2 Conceptual History of Peace

Many different scientific concepts of peace have been used in different time periods, disciplines, and within disciplines during the same time. As peace requires a minimum of order and consensus, peace is closely associated with law that presupposes freedom. Peace is no state of nature but must be created by human beings, and thus it often relies on legal agreements that are in most cases backed by power. In many cultures the internal peace corresponds closely with the defence of the territory against outside infringements.6

While the Encyclopædia Britannica lacked any entry and thus definition of the concept of peace, and covered peace only as “disturbing the peace” and “justice of the peace”, the German encyclopaedia Brockhaus (16th ed., 1954, vol. 4: 292–293) defined peace as a “condition of undisturbed order or balanced harmony that will be confused by quarrel and destroyed by battle.” And it reviewed the concept in theology, law, and international law. The Brockhaus Encyclopædia (19th ed., 1988, vol. 7: 660–663) defined peace as a “condition of a treaty-based and secured living togetherness within social unity and among groups, societies or organizations,” as the opposite to war that will not last without a minimum order and consensus.7 After the end of the Cold War, the Brockhaus Encyclopædia (21st ed., 2006, vol. 9: 774–779) defined peace as a concept that may be applied to “harmonious relations ... among peoples, groups, organizations, interest groups and states.” Peace was considered as a stable process pattern of an international system that guarantees that inter-state conflicts are being resolved without the use of organized force that requires democratization.8

In Greek philosophy, for Plato war and conflicts were to be avoided within the polis. Aristotle combined peace (‘eirene’) with politics and emphasized that all political goals may only be realized under conditions of peace, and war is only accepted as a means for the defence of the polis. Greek sophism distinguished among three levels of peace, a) within the polis, b) within Hellas, and c) with other peoples and barbarians. During the Roman period, ‘pax’ was closely tied to law and contracts, and with the emergence of the Roman Empire; the imperial Pax Romana relied on the contractual subjugation under the emperor in exchange for protection against external intruders.

Augustine developed a comprehensive Christian concept of peace that distinguished between the peace on earth (pax humana) and the peace of God (pax divina). Thomas Aquinas stressed the close connection of peace with justice (iustitia), but also with the love for other human beings (caritas). For him peace is a political good and the goals of the state, and a precondition for a good life. Others studied the links between internal and external peace. During the 14th and 15th centuries, several convents called for a peace among Christians (pax Christiana) but this also referred to a peace according to the Christian rules for others.

The Westphalian Peace of 1648 requested that all parties adhere to the ‘pax Christina universalis perpetua’. After the Peace of Utrecht (1713), Abbé de Saint-Pierre called for a federation of princes to secure a ‘pax perpétuelle’ in the tradition of peace proposals from Thomas More’s Utopia (1516) to William Penn’s Essay towards the present and future peace in Europe (1693), and by utilitarian (Bentham) and socialist authors (Fourier, Saint-Simon).

In the tradition that emerged from the movement for a peace of the land (Landfrieden) the ruler was considered as the ‘defensor pacis’ who was unconstrained by religious powers. The defence of the territorial peace was linked to the monopoly of force by

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6 This section is based on: “Frieden”, in: Brockhaus Enzyklopädie (vol. 7, 1988: 660–663; Schwerdtfeger (2001) has reviewed the many efforts within the peace research community to define peace, he examined peace as a reflexive concept, he discussed the evolution of the peace concept in history and he assessed peace in comparison with opposite concepts of violence, power, aggression, war, security, enmity, and conflict.

7 This lead article reviewed the evolution of the concept in theology and the history of Western religions, in Greek, Roman, medieval and modern political philosophy, and state practice.

8 This second lead article published 18 years later discusses the concepts of peace in Greek and Roman thinking, the Pax Christiana, the legalization of peace, from peace utopia to peace movements, peace as a project of modern times and peace by democratization and international cooperation and by conflict prevention and non-violent conflict resolution.
the sovereign rulers. Besides the ‘peace within the state’ that was achieved through its monopoly of the means of force and its use, the ‘peace between and among states’ has become a major concern of modern international law since the 16th (de Vitoria, Suárez) and 17th century (Grotius, Pufendorf). Its authors considered war still as a legitimate means for the realization of interests among states (ius ad bellum) but at the same time they called for constraints during war, such as a continuation of diplomacy and of the activity of neutral organizations (ius in bello). In his treatise for an eternal peace (1795) Kant went a step further and proposed a ban on war itself and developed a legal framework for a permanent peace based on six preliminary and three definite articles that called for a democratic system of rule, an international organization (league of nations), and the respect for human rights.

While Kant’s philosophical conceptualization of peace influenced many philosophers and writers during the Napoleonic period, during the age of nationalism in the 19th and early 20th centuries, Treitschke, Nietzsche, Sorel, and many other writers contributed to a glorification of war (bellicists) while simultaneously radical pacifists and the peace movement of the late 19th century requested a condemnation of war. In modern theories of hegemonic stability Pax Americana refers to a peace according to the rules proposed (and in some case even imposed) by the USA. Earlier Pax Britannica applied similar goals within the colonial British Empire.

During the 20th century after World War I, the liberal Kantian tradition, represented by Woodrow Wilson at the Versailles Peace Conference, was instrumental for the creation of the League of Nation, while after World War II, Hobbesian lessons were drawn from the collapse of the League of Nations. The new United Nations were added teeth, and during the Cold War a bipolar power system based on strong military alliances prevailed. But with the peaceful implosion of the Soviet Union and the end of the Cold War (1989–1991), war as a social institution was not defeated but it has returned in the form of resource, ethnic, and religious conflicts, primarily within states but also as pre-emptive wars not legitimized by the United Nations Security Council and against the expressed preferences of many state members (attack on/liberation of Iraq in 2003). During the 1990’s proposals for a new international order of peace and security in the Kantian and Grotian traditions, especially for Europe and the Mediterranean region, were gradually replaced – after the failed peacekeeping missions in the Balkans in the framework of the global (UN) and regional (OSCE) systems of collective security – by power-driven concepts of preventive wars (White House 2002, 2006).

3.3.1.3 Peace as a Scientific Concept

Peace has been defined as a basic value (Zsîkovits 1973) and as a goal of political action, as a situation of non-war, or as an utopia of a more just world. Schwerdtfeger (2001: 28–29) distinguished four alternatives to define peace: 1. a nominal definition; 2. as a result of a contemplative hermeneutic process; 3. a review of the historic evolution of the concept; 4. a determination by an analysis of opposite concepts. In his effort to define peace, Galtung (1967, 1969, 1975, 1988) distinguished between a condition of ‘negative’ (absence of physical or personal violence – or a state of non-war) and positive peace (absence of structural violence, repression, and injustice). Picht (1971) defined peace as protection against internal and external violence, as protection against want, as protection of freedom as three dimensions of political action, and thus comes close to what has been defined in the 1990’s as ‘human security’. Senghaas (1997) pointed to the following five conditions of peace among nations. 1. positive interdependence; 2. symmetry of interdependence; 3. homology; 4. entropy; that require 5. common softly regulating institutions. In his ‘civilisatory hexagon’ Senghaas (1994, 1995) referred to six related aspects: 1. an efficient monopoly over the use of force; 2. effective control by an independent legal system; 3. interdependence of social groups; 4. democratic participation; 5. social justice, and 6. a political culture of constructive and peaceful conflict transformation. Among the many attempts to define peace, no consensus on a generally accepted minimal definition emerged. Defining peace as the result of a reflective process requires an understanding of its components and conditions (Schwerdtfeger 2001: 44–48).

Conceptual histories of peace have tried to reconstruct the evolution of this concept in philosophy, theology, history, and law in relationship to political and state practice (Biser 1972: 1114–1115). Schwerdtfeger (2001: 49–77) interpreted the evolution of the peace concept in the Greek, Jewish and Christian traditions, the Roman concept of pax and its use in the Middle Ages, during the Reformation, Enlightenment and in modern times, in liberalism, socialism and bellicism with their historically contextualized and changing meanings.
3.3.1.4 Peace: A Basic Value and Goal of Peace Research

While there were pioneers of peace research in the interwar period, such as Lewis Fry Richardson (1960a) and Quincy Wright (1942, 1965), who focused on arms races and on the causes of wars, peace research as a value-oriented academic programme – primarily in the social sciences and in international relations – emerged during the Cold War in the US and in Northern Europe as an intellectual challenge to the prevailing Hobbesian perspectives in international relations and in the newly emerging programmes of war, strategic and security studies (preface essay by Oswald).

Johan Galtung (1993: 688), one of the founders of peace research, has defined peace narrowly as the absence of warfare, i.e. organized violence, between groups defined by country, nation (culture, ethnicity), race, class or ideology. International or external peace is the absence of external wars: inter-country, inter-state, or international. Social or internal peace is the absence of internal wars: ethnic, racial, class, or ideological groups challenging the central government, or such groups challenging each other.

Galtung (1968; 1993: 688–689) has distinguished between direct, personal or institutionalized violence and structural violence taking the form of “economic exploitation and/or political repression in intra-country and inter-country class relations.” In his mini-theory of peace, Galtung (2007) argued that “peace is not a property of one party alone, but a property of the relation between parties.” He distinguished among negative (disharmonious), indifferent and positive (harmonious) relations that often coincide in the real world manifesting themselves as negative (absence of violence, cease-fire, indifferent relations) or positive peace (harmony).

Huber and Reuter (1990: 22f.) argued that a basic condition for peace is the survival of humankind, and that “talking about peace does not make sense any longer, if life on the planet is destroyed.” Discord exists in those processes that threaten life on earth, e.g. by an exploitation and destruction of nature, that lead to mass hunger and to an endangerment of life by military means. “Devastation of nature, hunger and war are those processes that are incompatible with the preconditions of peace, the survival of humankind.”

Czempiel (2002: 83), a co-founder of peace research in Germany, noted that “peace research does not have a clarified peace concept.” According to Czempiel (2002: 84) the elimination of war was in the forefront of all peace concepts since prehistoric times, and more recently conceptual efforts to prevent and avoid violent conflicts have become one major research concern. In his understanding, peace exists in an international system where the allocation and creation of values in the issue areas of security, welfare, and rule are institutionalized and can be realized without the use of organized military force. This refers to three causes of war that must be replaced by ‘negative peace’ at a) the level of the international system and its structure, b) in the system of rule, especially between the political system and its societal environment, and c) in the interactions between the political systems and the societal environments in the international system.

One shortcoming of the anarchic international system has been the realist’s security dilemma, while liberals believe that international organizations and regimes can foster international cooperation. For decades, and prior to the US debate on the ‘democratic peace’ of the 1990’s, Czempiel has pointed to the democratic nature of systems of rule as a second precondition for peace as has also been stressed in

9 Janssen (1998, vol. 2: 543–591) provided a detailed analysis of the concept ‘Friede’ from its Germanic roots to medieval moral theology, the positive peace concept of the late medieval period with the ‘pax civilis’ as a condition of order and security guaranteed by the state to an international peace as an unstable treaty-based condition, eternal peace as a proposition during the enlightenment and in the period of economic utilitarian rationalism, the doctrine of ‘bellum iustum’, and the division of state and peace in the peace concept of the French Revolution, he contrasted the tendencies towards bellicism with Kant’s thinking on peace and the development of the peace concept during the 19th century.

10 See at: <http://www.transnational.org/Resources_Treasures/2007/Galtung_MiniTheory.html>: “From this … follow three types of peace studies: negative peace studies: how to reduce, eliminate negative relations; positive peace studies: how to build ever more harmonious relations; violence-war-arms studies: the intent and capability to inflict harm. … One approach to negative peace studies opens for peace and conflict studies, seeing violence-war as the smoke signals from the underlying fire of a conflict. And that leads to a major approach to negative peace: remove the conflict, by solving it or, more modestly, by transforming it so that the parties can handle it in a non-violent way, with empathy for each other, and with creativity. … That leads us to the two key tasks in search of, as a minimum, negative peace: mediation to resolve the incompatibility, and conciliation, healing the traumas, removing them from the relation between the parties, and closure.
Kant’s first definitive article. Interaction as a third cause of violence may be overcome by institutionalized forms of cooperation by an increase of mutual information, confidence building measures, arms control and verification efforts, as well as by new forms of learning and training of the foreign policy elites. According to Czempiel, peace as an institutionalized patterned process of no-war has to comply with six preconditions:

a) the anarchy of the international system must be changed by cooperation of the states in system-wide international organizations;

b) the dominance of power must become more equal due to a higher distributive justice of societal opportunities for development;

c) the systems of rule must be democratized to permit that the demands of society will be better reflected in the decisions of a society;

d) interest groups must become more transparent and their access to the decision-making process must be better controlled;

e) the opportunities to steer complex interactions with a regional and global scope must be improved by new forms of governance in which the societies should participate;

f) the strategic competence of the actors must be improved, their education must be modernized and become more professional.

To contribute to the realization of these goals, peace research should advance them in the public conscience and prevailing opinions. Brock (2002: 104f.) reviewed that peace should be more than the absence of war in the framework of five dimensions: a) of time (eternal peace), b) space (peace on earth), c) society (domestic intra-societal peace), and d) procedure (peace as peaceful dispute on peace), and e) a heuristic dimension to move from the study of the causes of war to the conditions of peace. However, both authors left nature and the human-nature interactions as a cause of conflict outside of their scope of analysis.

Ho-Won Jeong (1999: 6–7) has defined the field of peace research as a: “methodologically pluralist community with emancipatory interest in transformative possibilities for the improvement of human well-being as well as the prevention of violence.” He argues that peace research, in contrast to strategic studies, “take a critical view of traditional international relations theories” that interpret the world in the “power politics framework of realist and neorealist paradigms”, and he notes that “peace research was influenced by the idealist tradition of functional cooperation”, as well as by the “non-violent traditions of Tolstoy and Gandhi.”

The new agenda of peace research focuses on both negative peace “as absence of wars and other types of physical violence” and on positive peace, he defines as “social progress” but also as “the elimination of poverty and injustice” and he added that “the symbiotic relationship between positive and negative peace would not be understood without having a broad notion of human security.” Ho-Won Jeong (1999: 8) argues that the:

Concept of security binds together individuals, states and the international system so closely that the conditions of peace can be treated in an integrative manner. It includes non-military sources of threats such as environmental degradation, migration and poverty. The concept of security for the global community is needed to articulate the concerns with global ecology. The visualization of collective existence on the planet can be made possible by understanding a new set of spatial, metaphysical and doctrinal constructs. Since the underlying premise of ecology is holism and mutual dependency of parts, ecological security defies the traditional boundaries of modern territoriality.

He considered among the integrating themes of future peace research “a critical examination of state centric paradigms in the areas of alternative military security, the environment, and human rights.” Among the policy-relevant issues remain efforts to prevent and control violence as “the emancipatory goal of peace research” and as its “normative core”.

Chadwick F. Alger (1999: 13–42) provided a map of 24 peace tools that can be derived from efforts of peacebuilding during the 19th century (2 tools) and the 20th century (22 tools) which he associated both with the negative (11) and the positive (13) peace concept and which he grouped into six drawers: I: diplomacy, balance of power; of the League’s Covenant (II), including collective security, peaceful settlement, disarmament and arms control; of the UN Charter (III) of 1945 (functionalism, self-determination, human rights); with UN practice between 1950–1989 (IV) on the negative side: peacekeeping and on the side of positive peace: 5 tools of economic development, economic equity, communication equity, ecological balance and governance for commons; with the UN practice since 1990 (V) with the new tools of humanitarian intervention and preventive diplomacy; and finally with NGOs and people movements (VI) with whom he associated for negative peace three tools: track II diplomacy, conversion and defensive defence, and on the positive side five: non-violence, citizen defence, self reliance, feminist per-
perspectives and peace education, of which only one deals with nature and the environment (ecological balance) that has gradually become a dimension of peace since 1972, viewed from two perspectives:

One perspective achieved widespread visibility during the UNCED Conference when disputes erupted about (1) who is responsible for global pollution, (2) which ecological problems should receive priority and (3) who should pay ‘to clean up the mess’. … a second perspective on the peace-ecological balance is that by disrupting normal relationships between specific human beings and their environment, pollution directly produces peacelessness for these people. In some cases, as with the destruction of the habitats of people in rain forests with bulldozers and explosives, it is as quick and devastating as war.

In a final step, Alger (1999: 40–42) filed the 24 peace tools into nine categories based on their essential characteristics and instruments: “(1) words, (2) limited military power, (3) deterrent military power, (4) reducing weapons, (5) alternatives to weapons, (6) protecting rights of individuals and groups, (7) collaboration in solving common economic and social problems, (8) equitable sharing of economic, communications and ecological systems, and (9) involvement of the population at large through peace education and organized participation.”

Alger grouped the peace tool “ecological balance” in category VIII (international communications, equity, ecological balance, governance for commons) and associated them with three instruments: to overcome one-way international communication, to overcome destruction of the habitat, and to share equity in use for the commons that “seek to attain equitable international economic, communications and ecological systems” which requires “collaborative problem solving in governance for the global commons (oceans, space, Antarctica) and equitable sharing in the use of the commons.”

However, in neither of these two recent representative American and German reviews of the state of the art on the peace concept and on the peace research agenda, problems of global environmental change and their extreme or fatal outcomes were perceived as issues of peace research. This is also reflected in the conceptualization of peace in the United Nations Charter.

3.3.1.5 Peace: Goal of Policy, Diplomacy, and International Institutions

In the United Nations’ Charter of 1945, the ‘concept of peace’ has been mentioned among the purposes of the UN in Art. 1,1: “to maintain international peace and security”, and “to take effective collective measures for the prevention and the removal of the threats to the peace, and for the suppression of acts of aggression or other breaches of the peace”, as well as peaceful conflict settlements. Wolfrum (1994: 50) pointed to both narrow and wide interpretations of peace in the Charter:

If ‘peace’ is narrowly defined as the mere absence of a threat or use of force against the territorial integrity or political independence of any states (Art. 2(4)) (“negative peace”), the term ‘security’ will contain parts of what is usually referred to as the notion of ‘positive peace’. This latter notion is generally understood as encompassing the activity which is necessary for maintaining the conditions of peace. The preamble and Art. 1(1), (2), and (3) indicate that peace is more than the absence of war. These provisions refer to an evolutionary development in the state of international relations which is meant to lead to the diminution of those issues likely to cause war.

In Art. 1(2) and 1(3) the UN Charter uses a wider and positive peace concept when it calls for developing “friendly relations among nations” and for achieving “international cooperation in solving international problems of an economic, social, cultural, or humanitarian character.”

In 1945, the protection of the environment was not yet recognized as a specific goal for the UN. In chapter IX on international economic and social cooperation, Art. 55 (a), (b) and (c), without specifically mentioning environmental issues but its reference to “development”, and “related problems” on which the UN based its activities in the area of environmental protection in its GA Res. 2994 (XXVII) of 15 December 1972 which endorsed the Action Plan for the Human Environment that had been adopted at the Stockholm Conference (1972). In res. 2997 (XXVII), on the same day the GA established the Governing Council of UNEP with the task to promote international cooperation in the environment area. In subsequent years, the GA adopted resolutions on a wide range of environmental and global change issues:

- on cooperation in environmental protection, on the interdependence of resources, on environmental protection, population, and development, on the preparation of environmental prospects for the Year 2000 and beyond, and on the clean-up of war debris, and desertification (Wolfrum 1994a: 775).

A wider concept of peace was the basis for the “Proclamation of the International Year of Peace” in GA Res. 40/3 of 3 October 1985 that stated that the promotion of international peace and security required
continuing and positive action by peoples and states on these goals:

The prevention of war; the removal of various threats to peace (including the nuclear threat); respect for the principle of the non-use of force; the resolution of conflicts and the peaceful settlement of disputes; the development of confidence-building measures; agreement on disarmament; the maintenance of outer space for peaceful purposes; respect for the economic development of states; the promotion and exercise of human rights and freedoms; decolonization in accordance with the principle of self-determination; the elimination of racial discrimination and apartheid; the enhancement of the quality of life; the satisfaction of human needs; and the protection of the environment (Wolfrum 1994: 51).

In chapter VI on the Pacific Settlement of Disputes, Art. 33 uses a ‘negative’ concept of peace that is “ensured through prohibitions of intervention and the use of force” (Tomuschat 1994: 508). In Chapter VII of the UN Charter dealing with “Action with Respect to Threats to the Peace, Breaches of the Peace, and Acts of Aggression”, in Art. 39, a ‘negative’ concept of peace prevails, referring to “the absence of the organized use of force between states.” But in a SC meeting of the Heads of States and Government on 31 January 1992 they “recognized that the absence of war and military conflicts amongst states does not in itself ensure international peace and security” (Frowein 1994: 608). But according to Art. 2(7), Art. 39 does not include the use of force in internal situations, and in this understanding a civil war is “not in itself a breach of international peace” but it can lead to a threat of international peace. Thus, most cases of the low level of violence that may result from the fatal outcomes of global environmental change are outside of the focus of Chapter VI and VII of the UN Charter. However, since 1990 a significant change could be observed in state practice as documented in UNSC resolutions (see chap. 35 by Bothe in this vol.)

In the framework of Chapter IX on “International Economic and Social Cooperation”, Art. 55 (3) refers to the “universal respect for, and observance of, human rights and fundamental freedoms.” It has been suggested, to include “the right of self-determination, to peace, development, and to a sound environment” (Partsch 1994: 779) as “human rights of the third generation” (Vasak 1984: 837).

In the UN Charter of June 1945, a narrow or a ‘negative’ concept of peace has been in the centre with a few direct references to ‘positive’ aspects to be achieved by ‘friendly relations among nations’, and by ‘international cooperation’. No reference is included in the Charter that refers to ‘peace with nature’, nor can extreme outcomes emerging from global environmental change be conceptualized as ‘threats to the peace’.

However, since 1972 environmental protection has become an increasing task for UN activities (Meier 2002: 125–129) and a significant body of international environmental law has evolved that deals with many aspects of global environmental change (Beyerlin 2002: 119–125).

Art. 24 of the UN Charter mentions as the responsibility of the UNSC “the maintenance of international peace and security”, two goals that have been closely linked both in the preamble, among the purposes and principles (Art. 1), the functions of the GA and the SC, and in the framework of the pacific settlement of disputes (chap. VII), and with threats to the peace, breaches of the peace, and acts of aggression (chap. VIII), and the regional arrangements (chap. VIII). Thus, the related concept of ‘security’ is crucial for understanding the UN Charter and its peace concept (chap. 35 by Bothe).

3.3.2 Concepts of Security

The word and concept of ‘security’ is closely related to peace, and has also become a value and goal of activity by nation states and supra and sub-state actors that require ‘extraordinary measures’, and has thus also been used to legitimize major public spending. The word has many different roots and meanings in different cultures. In the Western tradition the Roman and Christian thinking had a lasting impact on contemporary security concepts (4.3.2.1).

The political and scientific concept of security has changed with the modifications in international orders. With the Covenant (1919) the concept of ‘collective security’ was introduced, after World War II the concept of ‘national security’ was launched to legitimize the global US role and after 1990 the security concept widened and new concepts such as ‘human’, ‘environmental’, and many sectoral security concepts were added to the policy agenda (3.3.2.2).

3.3.2.1 Etymology of the Words ‘Securitas’, ‘Security’, and ‘Sicherheit’

The term ‘security’ is associated in recent British11 (2002) and American12 (2002) dictionaries with many different meanings that refer to frameworks and dimensions, apply to individuals, issue areas, societal conventions, and changing historical conditions and circumstances. Thus, security as an individual or societal political value has no independent meaning and is
always related to a context and a specific individual or societal value system and its realization.

In the Western tradition, as a term 'security' (lat.: securus and se cura; it: sicurezza, fr.: sécurité, sp.: seguridad, p.: seguridad, g.: Sicherheit) was coined by Cicero and Lucretius as 'securitas' referring initially to a philosophical and psychological status of mind, and it was used since the 1st century as a key political concept in the context of 'Pax Romana'. As Arends argues (in chap. 17 of this vol.) there has been a second intellectual origin, starting with Thomas Hobbes, where 'security' became associated with the genesis of the authoritarian 'super state' - Hobbes 'Leviathan' - committed to the prevention of civil war. Surprisingly, in this phase an ancient Greek concept was revived functioning during Athenian imperialism of the fifth century B.C.; especially Thucydides, Hobbes' favourite classical historian, influenced its modern 'Hobbesian' meaning. The contemporary concept of 'security' therefore proves to be a 'chimeric' combination of a) the ancient Athenians' intention to prevent the destruction of their empire, b) the religious connotations of Roman 'securitas', and c) the Hobbesian intention to prevent civil war.

The German words 'sicher' (secure) and 'Sicherheit' (security) evolved from Latin and meant in Old High German (sichharheit, 9th century) being protected, protection of dangers, but also carelessness, certainty, firmness, to be trained, and in Middle High German (sicherheit) also decisiveness, being unconcerned, without worry, vow (Pfeifer 2005: 1287).

3.3.2.2 Conceptual History of 'Securitas', 'Security', and 'Sicherheit'

Conze (1984: 831–862) has reviewed and analysed the evolution and change of the meaning of the German concepts security ('Sicherheit') and protection ('Schutz') that evolved, based on Roman and Medieval sources since the 17th century with the dynastic state. Conze argued that the origin and development of the security concept has been closely linked to an intensification of the modern state. As a political concept of the medieval period, 'securitas' was closely linked to Pax Romana and Pax Christiana (e.g. to the making and maintenance of peace) while it later also applied to persons and goods as the object of protection.

Since the mid 17th century internal security was distinguished from external security, and during the mid 17th century external security has become a key concept of foreign and military policy and of international law. During the 17th and 18th centuries internal security was stressed by Hobbes and Pufendorf as the main task of the sovereignty towards its people. In the American constitution, safety is linked to liberty, thus violating liberty of a government directly affects its safety.

During the French Revolution the declaration of citizens' rights has declared security as one of its four basic human rights (la sûreté et la résistance a l’op-

11 See e.g.: for a previous review: Brauch (2003: 52–53); and for the most recent use in British English: Shorter Oxford English Dictionary, 2002, vol. II: 2734: I 1: "The condition of being protected from or not exposed to danger, safety; spec. the condition of being protected from espionage, attack, or theft. Also, the condition of being kept in safe custody; the provision or exercise of measures to ensure such safety. Also a government, department or other organization responsible for ensuring security. 2 Freedom from care, anxiety, or apprehension, a feeling of safety or freedom from danger. Formerly also, overconfidence, carelessness. 3 Freedom from doubt, confidence assurance. Now chiefly spec. well-founded confidence, certainty. 4. The quality of being securely fixed or attached, stability. If § property etc. deposited or pledged by or on behalf of a person as a guarantee of the fulfilment of an obligation and liable of forfeit in the event of default. 6 A thing which protects or makes safe a thing to a person; a protection, a guard, a defence. 7 A person who stands surety for another. 8. Grounds for regarding something as secure, safe, or certain; an assurance, guarantee. 9 A document held by a creditor of his or her right to payment ... 10 A means of securing or fixing something in position." The same dictionary defines "securitize" as a term used in commerce: "Convert (an asset, esp. a loan) into securities, usu. for the purpose of raising cash and selling them to other investors.

12 See: Webster’s Third New International Dictionary, 2002: 2053–2054 does not yet mention the verb: "securitize"). Security is defined as: “1: the quality or state of being secure: a: freedom from danger: safety (from famine, against aggression), b: archaic: carefree of cocky overconfidence; c: freedom from fear, anxiety, or care; d: freedom from uncertainty or doubt, confidence, assurance; e: basis for confidence; f: firmness: dependability, firmness; 2 a, something given, deposited or pledged to make certain the fulfillment of an obligation ...; b: one who becomes surety for another ...; 3: a written obligation, evidence or ownership or co-editorship ...; 4: something that secures: defense, protection, guard ... a: measures taken to ensure against surprise attack; b: measures taken to guard against espionage, observation, sabotage and surprise; c: protection against economic vicissitudes; d: penal custody ...; 5: the resistance of a cryptogram.”

13 For different interpretations of securus in the French literature and for the etymology of the Polish and Russian concepts of security see chap. 2 by Mesjasz.
pressio). For Wilhelm von Humboldt the state became a major actor to guarantee internal and external security while Fichte stressed the concept of mutuality where the state as the granter of security and the citizen interact. Influenced by Kant, Humboldt, and Fichte the concept of the ‘Rechtsstaat’ (legally composed state) and ‘Rechtssicherheit’ (legal predictability of the state) became key features of the thinking on security in the early 19th century (Conze 1984).

On the background of the new social questions the concept of ‘social security’ gradually evolved in the 19th and 20th centuries, and became a terminus technicus during F.D. Roosevelt’s New Deal when he addressed on 8 June 1934 as a key goal of his administration to advance the security of the citizens: “the security of the home, the security of the livelihood, and the security of the social insurance.” This goal was also contained in the Atlantic Charter of 1941 as “securing, for all, improved labour standards, economic advancement and social security.” In 1948 social security became a key human right in Art. 22 of the General Declaration on Human Rights.

Conze (1984) ignored another key element of the emerging post war security concept in the US that resulted between 1945 and 1949 in the emergence of the “American security system” (Czempiel 1966), or of a national security state (Yergin 1977). This concept of national security became an important political concept for the legitimization of the competing public funding priorities for ‘national security’ and ‘social security’.

While the Democratic Presidents (Roosevelt, Truman, Kennedy, Johnson) pleaded for a big state to deal with both security challenges, the US Republicans in the 1940’s first opposed the big state and its two security agendas, and Eisenhowern warned in his farewell address of the unlimited power of the military-industrial complex. During the end of the Cold War and in the post-Cold War period, US Republican presidents called for maintaining a big security apparatus with a strong industrial and economic basis, and a powerful intelligence and police force.

The ‘national security’ concept emerged as a key concept in the US during World War II and became a key post war concept during the evolution of the American security system (Czempiel 1966). In the US, this concept was used to legitimize the major shift in the mind-set between the interwar and post-war years from a fundamental criticism of military armaments during the 1930’s to a legitimization of an unprecedented military and arms build-up and militarization of the prevailing mind-set of the foreign policy elites.

### 3.3.2.3 Efforts for a Systematic Conceptual Mapping of Security

Thus, the changes in the thinking on security and their embodiment in security concepts are also a semantic reflection of the fundamental changes as they have been perceived in different parts of the world and conceptually articulated in alternative or new and totally different security concepts. The success or failure in the credibility of securitization efforts (of terrorism or climate change) as two opposite contemporary security dangers and concerns has been behind the transatlantic security debate and the global scientific conceptual discourse. The meaning of the security concept has significantly changed since it was first widely used after 1945.14

While the Encyclopædia Britannica lacks an entry on the ‘security’ concept and on ‘security policy’. the German Brockhaus Encyclopaedia15 (1993) reviewed security as a key term from its Roman origins, pointing to its many meanings due to the different contexts and dimensions, as a societal value or symbol (Kaufmann 1970, 1973) that is used in relation to protection, lack of risks, certainty, reliability, trust and confidence, predictability in contrast with danger, risk, disorder, and fear. It summarized its historical dimensions, its different meanings during the medieval period and its modern meaning with the evolution of the modern territorial state since the 17th century and of the nation state since the 19th century, and the evolution of the concept of social security. It discussed social and anthropological aspects of the changes in the perception and use of the security concept in the sociological debates on new values and on risks (Beck

14 “Security”, in: The New Encyclopædia Britannica, vol. 10 (Chicago: Encyclopædia Britannica, 1998): 595 refers only to securities, such as stocks.

15 In three editions of the German ‘Brockhaus’ encyclopaedia the concept gradually evolved. In its 16th edition (Wiesbaden: Brockhaus, 1956, vol. 10: 688) security was defined as “a need, especially of the civilized society, to be precise, security of the individual as well as of societal groups, peoples, states (personal, economic, social, political security”). In its 19th edition (Mannheim: Brockhaus, 1993, vol. 20: 227–229) security was introduced as a key term (Schlüsselbegriff) while in its 21st edition (Leipzig-Mannheim: Brockhaus, 2006, vol. 25: 177–179) it was downgraded to a regular term and only slightly modified, while “security policy” (vol. 25: 182–183) had now become a key term focusing on the basic patterns of security policy, especially in Germany during and after the Cold War and to the new challenges since 11 September 2001.

From a philosophical perspective Makropoulos (1995: 745–750) analysed the concept ‘Sicherheit’ from its Latin and Greek origins, its evolution during the medieval period and since the reformation as a concept in theology, philosophy, politics and law, with a special focus on Hobbes, Locke, Wolff, Rousseau, Kant and in the 20th century on its dual focus on prevention and compensation of genuinely social and technical insecurity as well as new social risks. It noted ‘social security’ but the concepts of ‘national’ or ‘human security’ were not mentioned.

3.3.2.4 Security as a Concept in the Social Sciences

In The Oxford Companion to Politics of the World (Krieger 1993; Art 1993: 821) claimed that security as a social science concept “is ambiguous and elastic in its meaning”. Referring to Wolfer’s (1962: 150) definition: “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,” for Art (1993: 820–22) its subjective aspect implies: “to feel free from threats, anxiety or danger. Security is therefore a state of the mind in which an individual ... feels safe from harm by others.” While objective factors in the security perception are necessary they are not sufficient. Subjective factors to a large extent have influenced security perceptions in many countries. Due to the anarchic nature of international relations, “a concern for survival breeds a preoccupation for security.” For a state to feel secure requires “either that it can dissuade others from attacking it or that it can successfully defend itself if attacked.” Thus, security demands sufficient military power but also many “non-military elements ... to generate effective military power.” Art noted a widening of security that involves “protection of the environment from irreversible degradation by combating among other things, acid rain, desertification, forest destruction, ozone pollution, and global warming,” while the second implied a revival of the UN and better prospects for collective security. “Environmental security has impelled states to find cooperative rather than competitive solutions” (Art 1993: 821).

The German Lexikon der Politik (Rausch 1998: 58–583) defined security as the absence or avoidance of insecurity. The security concept is limited to the state, and is discussed at length in its relationship to internal security (extremism, crime, terrorism) and external national security as well as social security. ‘Security policy’ is discussed in relation to the arms control agenda of the early 1990’s. The discourse on reconceptualization of security since 1990 remained unnoted in most dictionaries and in the encyclopaedias in the social sciences.

During the interval war period (1919–1939) in the social sciences’ references to defence, national survival, national interests and sovereignty (Meinicke 1924) or power (Carr 1939) prevailed, when the security concept was hardly used. Since the Covenant (1919) ‘collective security’ had become an established term (Claude 1962, 1984: 247). The ‘national security’ concept emerged during World War II in the United States “to explain America’s relationship to the rest of the world” (Yergin 1977: 193). It was widely used by the first US Defence Minister Forrestal to legitimize a strong military establishment and this is reflected in the National Security Act (1947) that created its legal and institutional basis (Czempiel 1966; Brauch 1977; Yergin 1978). It was criticized by Wolfers (1952, 1962) and Herz (1959: 236f.)

The ‘security concept’ has gradually widened since the 1980’s, as have the objects and means of security policy in the framework of three security systems in the UN Charter, and within the UN framework several sector-specific security concepts have emerged. For Krell (1981) the security concept has been “one of the most complex concepts, comparable to values and symbols” that has been used “as one of the most important terms of everyday political speech, and one of the most significant values in political culture” (chap. 38 by Albrecht/Brauch).

For the constructivists, security is intersubjective (Wendt 1992). It depends on a normative core that can not simply be taken for granted. Its political constructions have real world effects by guiding action of policy-makers and exerting constitutive effects on political order (chap. 51 by Hintermeier, chap. 37 by Baylis). For Waever (1997 and chap. 4, 44) security is the result of a ‘speech act’ (‘securitization’), according to which an issue is treated as: “an existential threat to a valued referent object” to allow “a call for urgent and exceptional measures to deal with the threat”. Thus, the ‘securitizing actor’ points “to an existential threat” and thereby legitimizes “extraordinary measures”. For Waever:

the central idea of the theory is, that it is not up to analysts to try to settle the ‘what is security?’ but is may be

16 The Political Dictionary by Schmidt (1993, 864; 2004: 618) is limited to an abbreviated definition by Wolfers.
studied as an open, empirical, political and historical question: who manages to securitize what under what conditions and how? And not least: what are the effects of this? How does the politics of a given issue change when it shifts from being a normal political issue to becoming ascribed the urgency, priority and drama of 'a matter of security' (Waever in chap. 44 in this vol.).

Waever (1997: 26–68, 2006), tracked the emergence of security as a scientific concept in international relations, in security studies (Buzan 1991: 12–14, 1997) and in peace research (chap. 4 by Waever; 38 by Albrecht/Brauch), and he noted a paradox that the IR discipline has to a large extent ignored to reflect “on what ‘security’ might be” (Waever 1997: 28).

Security is often discussed in relation to ‘threats and defence’. In Waever’s (1997: 30) view: "security is that which one wants to preserve, threat that which questions one’s ability to preserve this, and defence is what is done to counter (or forestall) the threat", but what a ‘threat’ is has often been defined as the result of a political discussion or activity which de-

What a ‘threat’ is has often been defined as the result of a political discussion or activity which development pose threats and are treated as ‘security issues’, and which do not. He divided threats by their source (external vs. internal), time (short vs. long-term) and motivation (intentional vs. non-intentional, see Brauch 2007a, 2007b, 2007c). Waever (1997: 31) distinguished positive and negative as well as change and accommodation strategies, while the distinction between ‘national’ vs. ‘international security strategies (Wiberg 1987, 1988; Buzan 1991) refers to different choices on the preferred means to achieve the goal ‘security’.


The perception of security threats, challenges, vulnerabilities, and risks (Brauch 2003, 2005) depends on the worldviews or traditions of the analyst and on the mind-set of policy-makers. The English School (Bull 1977, Wight 1991) distinguished three approaches to the security concept where the realist (Thucydides, Machiavelli, Hobbes, Morgenthau) points to the interests and power of his own state, while the rationalist or pragmatist (Grotius) points to an international society (not humankind) where the subjects are states as the decisive units that by cooperation can build institutions, norms, diplomacy and international law, and thus build “a society of states, an international society”. The idealist or for Wight the revolutionist (e.g. Kant) believes that the “ultimate solutions only exist when we get the states and their state system off the scene and allow for the unfolding of dynamics based on individuals and a community of mankind, world society (where the subjects in contrast to international society are individuals, not states).”

With regard to the security concept, for the realist, security refers to “the security of my own state,” the revolutionist “will opt for a concept of individual or global security,” while for the Grotian security is relational, resting on the relationship between the states that may build durable patterns that generate vicious circles (security dilemmas) or positive circles (security regimes; Waever 1997: 51–52).17 These three European or Western traditions stand for three ‘ideal type’ (Max Weber) approaches to international relations and security that also exist in non-Western cultures and philosophies. Snyder (2004) distinguished among three rival theories of realism, liberalism, and idealism (constructivistic).

Booth (1979, 1987: 39–66) argued that old mind-sets often have distorted the assessment of new challenges. These mind-sets include “ethnocentrism, realism, ideological fundamentalism and strategic reductionism,” and they “freeze international relations into crude images, portray its processes as mechanistic responses of power and characterize other nations as stereotypes” (1987: 44). Many mind-sets have survived the global turn (Booth 1998: 28).

Influenced by these worldviews and mind-sets, the perception of security is a key concept of a) war, military, strategic or security studies from a Hobbesian perspective, and b) peace and conflict research that has focused on negative (war prevention) or positive peace. Since 1990 the distance between both schools has narrowed and an intensive theoretical debate has taken place within security studies (chap. 38 by Albrecht/Brauch). While in ‘security studies’ (Walt 1991) and in peace research (Brock 2004, 2004a) some authors prefer a narrow concept of security, many specialists have used concepts of ‘environmental’ and ‘human’ security. Environmental security challenges expose the societal vulnerability; this may lead to a ‘survival dilemma’ (Brauch 2002, 2004; chap. 40) for those with a high degree of societal vulnerability.

17 Waever argues that Herz, Jervis, and Buzan stand in the Grotian security tradition. He considered Haftendorn’s classification of ‘national’ (Hobbesian), ‘international’ (Grotian) and ‘global security’ (Kantian) as misleading.
who may be most seriously affected by natural (or man-made) environmental hazards.

Since the late 1970’s, an expanded security concept has been used in the academic debate (Krell 1981; Buzan 1983; Buzan/Wæver/de Wilde 1998; Møller 2001, 2003). Ullman (1983), Mathews (1989) and Myers (1989, 1994) put environmental concerns on the US national security agenda. Since the end of the Cold War, many European governments and defence ministries have adopted an extended security concept. Thus, within the UN and NATO, different security concepts coexist, namely a narrow state-centred military security concept and an extended concept that includes economic, societal, and environmental dimensions.


Some suggested expanding the human security discourse to the environmental dimension, especially to interactions between the individual and humankind as the cause and victim of global environmental change (Bogardi/Brauch 2003; Brauch 2003, 2005, 2005a). The consumption of fossil fuel has increased global warming and extreme weather events, major victims thereof are the poorest and most vulnerable people in developing countries (table 1.1).

While since the 17th century the key ‘actor’ has been the state, it has not necessarily been a major ‘referent object’ of security which has often been referred to as ‘the people’ or often ‘our people’ whose survival is at stake, but the survival of the state or regime has often been achieved with a high cost for the people.

A major ongoing debate (Wiberg 1987: 340; Walker 1990, 1993; Shaw 1994) has evolved since the late 1980’s whether the state as the key referent object (‘national security’) should be extended to the people (individuals and humankind as ‘human security’). Walker (1988) pointed to the complexity of a non-state centred redefinition of security towards ‘individual’ or ‘global peoples’ security while Buzan (1991) following Wálz’s (1959, 2001) man, state and war, distinguished between the international, state and individual level of analysis and the inherent tension especially among the latter two.

While security has always been gendered (Burgess 2004: 403), gender security has become an evolving issue in international relations (Enloe 1989: Sylvester 1994, 2002; Tickner 1992, 2001; Hansen/Olsson 2004: 405-410). It refers both to a gender (or feminist) approach to security as well as to the manifold gender dimensions of societal, environmental, human, social, food, water, health and livelihood security (Mies 1998; Bennholdt-Thomsen/Farclas/Wehr-Wolf 2001; Shiva 1988) that have been widely used also in the UN context (e.g. by the Inter-Agency Committee on Women and Gender Equality (IACWGE) or International Fund for Agricultural Development (IFAD). Wilkinson (2007: 27) contextualized the security approach with field research on Kyrgyzstan, addressing critically the Westphalian straitjacket. From a Southern eco-anthropological perspective Oswald (2001, 2007a, 2008) relying on a wide gender concept that includes besides women, also other vulnerable groups (children, old and indigenous people, homeless) has suggested a composite concept of human, gender, and environmental security (HUGE). This concept analyses the potential of technical, financial, and human support for reducing this vulnerability, enabling women and other exposed groups to reinforce their own resilience through bottom-up organization combined with top-down policies and tools able to guarantee livelihood and a holistic social representation-building.

Whether a security threat, challenge, vulnerability, and risk (Brauch 2005a, 2006) becomes an ‘objective security danger’ or a ‘subjective security concern’ also depends on the political context. While in the European security discourse climate change has become a major security issue, in the US the urgency of this problem was downgraded. Thus, labelling or ignoring climate change as a security problem, implies different degrees of urgency and means for coping with it. This self-referential practice of ‘securitization’ can also be illustrated for the claimed threat posed by the WMD


19 Economic security issues were discussed by Gilpin 1981; Luciani 1989; Crawford 1993, 1995; Gowa 1994; Mansfield 1994.
of Iraq that was used to legitimize the use of extraordinary means (military intervention) and expenses in a war of liberation.

Harald Müller (2002: 369) argued that the traditional understanding of security “as the absence of existential threats to the state emerging from another state” (Baldwin 1995; Betts 1997; Gray 1992; Kolodziej 1992; Prins 1998; Walt 1991) has been challenged both with regard to the key subject (the state), and carrier of security needs, and its exclusive focus on the “physical – or political – dimension of security of territorial entities” that are behind the suggestions for a horizontal and vertical (Suhrke 1999; Klare 1994, 1996; Klare/ Thomas 1991, 1994, 1998) widening of the security concept. The meaning of security was also interpreted as a reaction to globalization (Cha 2000; Mesjasz 2003). Müller (2002) opted for a “conventional understanding of security: security between states, and related mainly to the organized instruments for applying force – the military in the first instance (Betts 1997; Buzan 1985)”.


a) prevailing traditional methodological approaches (e.g. geopolitics20, English School);

b) critical security studies (Klein 1994; Jones 1999; Ralph 2001);

c) constructivist and deconstructivist approaches.

H. Müller (2002) disentangled the puzzle of security cooperation from the perspective of the realist (371–374), neoinstitutionalist (374–376), liberal (376–379), constructivist (379–382) and postmodernist (382–384) accounts, opting himself for “constructivism, with its emphasis on ideas and the cultural grounding of beh-

20 For a survey of recent publications with relevance to the Mediterranean, see Brauch 2001, chap 22.


haviour, its treatment of the interplay between structure and agency, may be best fitted to explain security cooperation.” But he noted that “the theory is much too indeterminate at present to allow for the development of distinct hypotheses, let alone prediction” (385). Primarily from a traditional approach, different cooperative security concepts have emerged since the early 1980’ s: a) common security (Palme 1982; Väyrynen 1985; Butfoy 1997; Liotta 2003); b) mutual security (Smoke/Kortunov 1991); c) cooperative security (Carter/Perry/Steinbruner 1992; Nolan 1994; Zartman/Kremenunk 1995; Carter/Perry 1999; Cohen/Mihalka 2001) and d) security partnership (Bahr 1982; Marquina 2003).

With regard to its ‘spatial’ context, the classical goals of security policy to defend national sovereignty, in terms of its territory, people, and system of rule22 has also been changing due to the trends of globalization and regional integration. In Europe, close economic interdependence, sometimes competing trans-Atlantic and European political goals but also changes in technology, have replaced these classical security goals. During the 1990’s in many parts of the world two processes (Brauch 2001a: 109–110) have coexisted:

• A process of globalization in the economic world of finance, production, and trade, and in the societal world of information, media, but also of political and economic with a progressing de-borderization of exchanges for people, capital, and goods among its member states, and a de-territorialization of international relations that has permeated the boundaries of the modern ‘Westphalian’ state system.

• A process of partly violent territorial disintegration and fragmentation of multi-ethnic states combined with a re-borderization of space along ethnic and religious lines and disputes on territorial control of areas.

In the scientific discourses on territory two schools have coexisted: a) the debate on geopolitical and new or critical geopolitics (Amineh/Grin 2003); and b) the debate on globalization (Mesjasz 2003). In the North, national security has partly been replaced by alliance security, in the South security has remained nation-oriented with a strong role of military thinking in the security and political elites.

In an objective sense security refers to an absence of threats that is to be achieved – at the national and alliance level – by deterrence and defence. Due to the widening security concept since the 1990’s, the objects of security policy have also increased. In the security discourses different concepts are being used, often without clear demarcations: threats, vulnerabilities, challenges, uncertainties, and risks dealing with both hard (military) and soft security issues (drugs, human trafficking, migration). In Europe, alliance or national (NATO, EU) and internal security issues (justice and home affairs) are distinguished due to an increasing securitization of asylum, illegal migration, and citizenship. The de-borderization has been complemented with two securitization strategies based on intergovernmental structures in contrast to the communication of other issues.

While the classical means and instruments of security policy have remained the military and diplomacy, in the EU this classical domaine réservé of the nation state has entered a process of fundamental transformation with close consultations, common policies and strategies, and increased common voting in international institutions (UN, OSCE). In many international regimes (food, climate, desertification) the EU has become a full member besides its 27 member states. The evolving common European Foreign and Security (CFSP) as well as a Security and Defence Policy (ESDP) of the EU has affected the traditional national military and diplomatic leverage.

Within international organizations (UN, FAO, UNDP, UNEP, OECD, IEA), sector-specific security concepts are now widely used, such as ‘environmental security’ (Toepfer 2003: 139–140; El-Ashry 2003: 140–143), ‘food security’ (FAO 1996; Collomb 2003), ‘global health security’ (WHO 2002a), ‘energy security’ (IEA), and ‘livelihood security’ (OECD 2002).

In addition to these two classic concepts of the UN Charter, two new concepts and policy areas of development and environment and of sustainable development have gradually emerged since the 1950’s, 1970’s, and late 1980’s.

### 3.3.3 Concepts of Development

Development is a key term (3.3.3.1) and a major scientific concept in the social sciences (3.3.3.2), but also a key policy goal (3.3.3.3) and policy area (3.3.3.4) for national and international policy making and thus a topic of scientific specialization of development studies (3.3.3.5). The impact of global environmental change on extreme outcomes is closely linked with the stage of economic development that determines the available resources for adaptation and mitigation measures to enhance resilience.

#### 3.3.3.1 Defining the Term Development

The English term ‘development’ (French: développement; Spanish: desarrollo; Portuguese: desenvolvimento; Italian: sviluppo; German: Entwicklung) refers to “1. the act or process of growing or developing; 2. the product of developing; 3. a fact or event, especially one that changes a situation; 4. an area of land that has been developed” (McLeod 1985: 305).\(^{23}\)

The Shorter Oxford English Dictionary (2002: 662) lists additional meanings: “9. Economic advancement or industrialization.” Only the last refers to the concept as it evolved in the biological and social sciences since the 18th century. The German term ‘Entwicklung’ is used since the 17th century for creation and display, exposition and presentation (Pfeifer 2005: 289).

#### 3.3.3.2 Development: Definitions of a Scientific Concept

The New Encyclopædia Britannica only refers to ‘development’ as a concept in biology as “the progressive changes in size, shape, and function during the life of an organism by which its genetic potentials are translated into functioning adult systems” (Chicago 1998, vol. 4: 45). The German encyclopedia (Der Große...

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\(^{23}\) See also for similar definitions: The Compact Oxford English Dictionary refers to four meanings: “1. the action of developing or state of being developed; 2. a new product or idea; 3. a new stage in a changing situation; 4. an area with new buildings on it” (Soanes 2002: 297). The Concise Oxford Dictionary defines the term as: “1. gradual unfolding, fuller working out; developing of land and etc.; ..., growth evolution (of animal and plant races); full-grown state; stage of advancement; ... 2. product; more elaborate form; developed land.” (Sykes 1985: 262). In a similar vain the Chambers Universal Learners’ Dictionary distinguishes between “1. the profess or act of developing... [and] 2. something new which is the result of developing” (Kirkpatrick 1980: 180). The Webster Unabridged Dictionary points to the French term: développement and to the French and English verbs and distinguishes these meanings: “1. a developing or being developed; 2. a step or stage in growth and advancement; 3. an event or happening; 4. a thing that is developed; result of developing.” (McKechnie 1981; 499). The Langenscheidt-Longman Dictionary of Contemporary English (1995: 374) lists five meanings for development that are all included in the other definitions with a slightly different wording.
Brockhaus (Wiesbaden 1953, vol. 3: 587–591) reviewed the concept for a) the philosophy of science (evolution); b) biology and c) the cultural sciences. Thirty-five years later, the Brockhaus Enzyklopädie (Mannheim 1988, vol. 6: 437) refers to development in five disciplinary contexts in biology, philosophy, photography, politics and economics and in psychology. In politics and economics development is defined as:

the building-up, expansion and working to full capacity of the production potential for the population with goods and services in the context of a social and political order that relies on human and citizens rights as well as other basic values such as freedom, social justice, domestic and external peace, and that preserves the cultural heritage in national independence and that protects the natural conditions for life. Thus, the term development has an economic, a social and a political dimension.

The most recent Brockhaus Enzyklopädie (Mannheim 2006, vol. 8: 150–153) refers to UNDP’s Human Development Index (since 1990), to ‘sustainable development’ and competing theories of development of modernization, to dependencia and more recent models of underdevelopment. In economics, development is defined as a synonym for economic growth. The term is also used for the improvement of the living conditions that includes besides the standard of living also social indicators (conditions of work, individual freedom, social security), and aspects of distribution (of income, public goods, and infrastructure).

The Dictionary on Basic Historical Terms (Brunner/Conze/Koselleck, 1975, vol. 2: 199–228) traced the historical development of the German term “Entwicklung” to the sphere outside the political and social world that was first used in the philosophy of history and in historiography. It was gradually introduced into the political language and used by the public at large since 1770. Wieland (1975: 201) pointed to these common features of the development concept in philosophy and history:

a) development of an irreversible, gradual, longer-term change in time; b) this change may not exclusively be understood as an object of deliberate action and planning, but it follows its own laws; c) the change is based on an identical and insisting subject ...; d) no sensible use of development can neglect the use of teleological concepts.

Wieland reviewed its early use by the philosophers Möser, Herder and Kant, by the poets Schiller and Goethe, since 1800 by Romantic authors, by Savigny and the historicists, by Adam Müller and Hegel prior to 1848, and by Marx who introduced many features that are still used today. Based on Darwin and Haeckel, the German concept of ‘Entwicklung’ was widely used in the late 19th century and in the 20th century often synonymously for the biological concept of ‘evolution’. However, the meaning of ‘development’ in historiography (Bayer 1965: 116–117) is hardly relevant for the concept as it is presently used in economics, sociology and in political science, especially with regard to a political goal and policy area.

According to Hillmann (1994: 186) in sociology development refers to “processes and forms of movement and change of social structures to other or higher relatively stable conditions”. Furthermore, continuous, abrupt, evolutionary or revolutionary quantitative and qualitative developments are distinguished whose causes can be endogenous or exogenous to structures and systems. Grüske and Recktenwald (1995: 159–162) in their economic dictionary avoided a definition but introduced instead several applied concepts of the secular development of the state, of development assistance, policy and theories as well as of developing countries.

In political science, Manfred Schmidt (1995: 267–268) referred to development “for events or results of societal, economic, and political change directed at a level of progress and public welfare often with regard to economic resources of Western industrial countries. Political development is a technical term for the analysis of developing countries in comparative government focusing on the institutional conditions and the process of the evolution of differentiated, pluralist political systems compared with Western democracies.”

Nohlen and Nuscheler (1992: 56) acknowledged that the concept and its contents are the result of continuous change. They suggest an empirical concept that aims at satisfying basic human needs focusing on a magic pentagram consisting of a) economic growth, b) work, c) equality and justice, d) participation, and e) independence and self-reliance (64–73). For Nohlen (1998, vol. 7: 148) development is a normative concept that incorporates perspectives on societal change, theories on causes of underdevelopment, on social actors and processes of socio-economic transformation, decisions on instruments of its initiation and continuation.

Ake (1993: 239–243) stated that after World War II, during decolonization development theory emerged as a variant of modernization theory, but these theories “were at best heuristic devices” that were “too general and too vague to be taken seriously
as scientific theories and paradigms” because “their major concepts could not be operationalized and their empirical referents were unclear”. Toye (1996: 212–215) argued that by 1965 “prolonged and steady increase of national income” was identified as an indicator of economic development. It is accompanied by rapid population growth due to declining mortality, longer life expectancy, rapid urbanization, and improved standards of literacy and education. These processes have been criticized if the distribution of income remains unequal and if the population majority remains impoverished. Some claimed that “indicators of economic growth and structural change must be complemented by indicators of improvement in the quality of every day life for most people”. Sen (1981, 1984, 1994, 1999) argued that distribution of income should be complemented by a fair distribution of entitlements to food, shelter, clean water, clothing and household utensils.

These definitions excluded environmental factors contributing to and constraining economic development, especially natural hazards and disasters. The concept of ‘sustainable development’ was introduced by the Brundtland Report (1987: 8) that defined sustainability “to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainable development was understood as “a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs” (Brundtland 1987: 9). ‘Sustainable development’ contains two key concepts:

- the concept of needs, in particular the essential needs of the world’s poor, to which overriding priority should be given; and
- the idea of limitation imposed by the state of technology and social organization on the environment’s ability to meet present and future needs (Brundtland Report 1987: 43).

This concept calls for a ‘sustainable development’ path that implies “a concern for social equity between generations, a concern that must logically be extended to equity within each generation”. The concept has become a key policy goal of environment and development.

3.3.3.3 Development: A Key Political Goal

The policy goals of development have been as varied as its definitions. The goals differed among the industrial (OECD, G 7, G 8) or developing countries (Group of 77 and China) or between those who supply or receive development aid. During the Cold War these goals were closely associated with the economic systems in a bipolar world. The goals differed on import-substitution or export-led industrialization, capital or labour intensive strategies.

Stallings (1995) used this concept primarily for economic development, i.e. for growth and equity of distribution. He pointed to five new elements in the new international context for development since 1990: “the end of the Cold War, new relations among advanced capitalist powers, increased globalization of trade and production, shifting patterns of international finance, and new ideological currents” (Stallings 1995: 2).

3.3.3.4 Development: A Key Policy Area

Decolonization and global competition between rival systems and modes of production prevailed during the Cold War where development aid was also an instrument of global strategic policy where the geo-strategic and geo-economic importance of developing countries was rewarded with economic and military assistance. Development assistance was supplied by national governments, the EU (Menck 1996: 51–54), multilateral international organizations (OECD, UNCTAD, UNIDO), financial institutions (e.g. World Bank Group, EIB, EBRD) and development banks (Asian, African and Latin American development banks), by non-governmental economic, societal, and humanitarian (ICRC-RCS) organizations.

Since 1990, the overall development assistance from OECD countries as a percentage of their GDP dropped from 0.37 per cent (1980) to 0.33 per cent (1990) to 0.23 per cent (2002).24 Thus, there was neither a peace nor a development dividend after the end of the Cold War. Rather, with the end of the bipolar global order, the geo-strategic importance of several developing countries (e.g. of Somalia) de-

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24 This trend applies especially for the five large OECD countries: US (1980: 0.27 per cent; 1990: 0.21; 2002: 0.13 per cent), Japan (1980: 0.32 per cent; 1990: 0.31; 2002: 0.23 per cent), Germany (1980: 0.44 per cent; 1990: 0.42; 2002: 0.27 per cent), France (1980: 0.63 per cent; 1990: 0.60; 2002: 0.38 per cent) and UK (1980: 0.35 per cent; 1990: 0.27; 2002: 0.31 per cent). In 2003, only five countries complied with their declared commitment of 0.7%: Norway (0.92 per cent); Denmark (0.84 percent), Luxembourg (0.81 per cent); the Netherlands (0.80 per cent) and; Sweden (0.79 per cent); (Brockhaus Enzyklopädie 21: 2006, vol. 8: 155–157).
declined, as did the security-motivated economic and military aid which contributed in some cases to weak, failing or failed states.

3.3.3.5 Development: Object of Social Science Research and Theories

Development research emerged after World War II as an objective of social and political science. Before, it was a domain of anthropological and ethnological research. The initial focus was on preconditions and features of development processes, especially on the economic, social, political and cultural factors that enhance or restrain development. Later the goals of development and the causes of underdevelopment were added (Boeck 1994, vol. 2: 100–105). Two main theories emerged: of modernization, used by scientists in OECD countries, and critical approaches, influenced by theories of imperialism, *dependencia*, self-reliance, or autocentric development.

With the end of the Cold War a crisis of development theories was noted (Boeck 1995, vol. 1: 69–80). Scientific concepts are influenced by development theories and strategies for poverty eradication, social and sustainable development that are linked to the theories and strategies for poverty eradication, social and political and cultural factors that enhance or restrain development. Later the goals of development and the causes of underdevelopment were added (Boeck 1994, vol. 2: 100–105). Two main theories emerged: of modernization, used by scientists in OECD countries, and critical approaches, influenced by theories of imperialism, *dependencia*, self-reliance, or autocentric development.

With the end of the Cold War a crisis of development theories was noted (Boeck 1995, vol. 1: 69–80). Scientific concepts are influenced by development theories and strategies for poverty eradication, social and sustainable development that are linked to the state, market, community, and civil society (Kothari/Minougue 2002: 1–15). The concept of development has undergone major change since the Bretton Woods Conference in 1944. According to Reményi (2004: 22) during these 60 years four ‘false’ assumptions prevailed:

1. blind faith in the belief that Western ‘scientific’ methods are superior to traditional practices;
2. the belief that there is no gender dimension to development;
3. the proposition that the elimination of poverty can be achieved by realizing sustained economic growth, poverty targeting notwithstanding;
4. the priority of economic development over all else, so that governance issues are incidental to economic development.

During the 1950’s and 1960’s most development experts emphasized ‘economics first’ through investment driven economic development strategies with a focus on industrialization. Since 1980, the focus shifted to poverty and development and a basic human needs approach (Boserup 1970; Sen 1988; McNamara 1981). This was reflected in an upgrading of poverty eradication programmes but until 1985 there was no emphasis on governance issues, social capital development, institution building and capacity building for self-reliance. During the 1990’s there was a gradual shift to agriculture, gender issues, and participatory community development to put people first as reflected in the Human Development Reports that introduced ‘human security’ (UNDP 1994) as a complement to ‘human development’.

3.3.4 Concepts of Environment and Ecology

As peace, security, and development, the ‘environment’ or ‘ecology’ is a fourth intensively used but often undefined concept in politics and in the social sciences. Not until the late 20th century have environmental and climate concerns been perceived as security dangers and concerns or as threats that may undermine the survival of individuals. ‘Environment’ and ‘ecology’ as basic terms (3.3.4.1) and key concepts in the natural and social sciences (3.3.4.2) have been used in different schools, conceptual frameworks and approaches (3.3.4.3), and as guiding concepts for national and international governance (3.3.4.4).

3.3.4.1 Defining the Key Terms: Environment and Ecology

Two terms are used to define the object ‘environment’ (fr: *environnement*; sp: *medio ambiente*; it: *ambiente*; p: *meio ambiente*; g: *Umwelt*) and ‘ecology’ (fr: *écologie*; sp: *ecología*; p: *ecologia*; g: *Ökologie*). In English dictionaries ‘environment’24 and ‘ecology’25 were given many different meanings.26 Webster’s Third New International Dictionary (2002: 760) is more specific by pointing to:

2. the surrounding conditions, influences or forces that influence or modify, as a: the whole complex of climatic, edaphic, and biotic factors that act upon an organism or an ecological community and ultimately determine its form and survival; b: the aggregate of social and cultural conditions (as customs, laws, lan-

26 See e.g.: a) a surrounding or being surrounded, something that surrounds (objects, regions, conditions, circumstances), surroundings; b) all the conditions circumstances, and influences surrounding, and affecting the development of organism or group of organism; c) all the situations, events, people, etc. that influence the way in which people live of work; d) the air, water, and land in which people, animals and plants live; e) synonyms: atmosphere, background, conditions, context, domain, element, habitat, locale, medium milieu, scene, setting, situation, surroundings, territory, in: Langenscheidt-Longman 1995: 455; McKeechnie 1983: 609; McLeod 1986: 372; McLeod 1985: 219; Sykes 1985: 323.
guage, religion, and economic and political organiza-
tion) that influence the life of an individual or commu-
nity.

The definitions of ecology in the Shorter Oxford Eng-
lish Dictionary (2002: 789) are more pertinent: “1. The branch of biology that deals with organisms’
relations to one another and to the physical environ-
ment in which they live; (the study of) such relations
as they pertain to a particular habitat or a particular
species; also human ecology; 2. The political move-
ment that seeks to protect the environment, esp. from
pollution.” According to Webster’s Third New Inte-
national Dictionary (2002: 720) ecology is: “1. a
branch of science concerned with the interaction
of organisms and their environments especially
as manifested by natural cycles and rhythms, commu-
nity development and structure, interaction between
different kinds of organisms, geographic distribu-
tions, and population alterations; 2. the totality or pa-
tern of relations between organisms and their environ-
ment; 3. human ecology.” While the term ‘environment’ has many meanings, the scientific concept has been
more specific.

3.3.4.2 Defining the Scientific Concepts:
Environment and Ecology

The Encyclopaedia Britannica (1998, IV: 512) has
defined ‘environment’ as: “the complex of physical,
chemical, and biotic factors that act upon an organ-
ism or an ecological community and ultimately deter-
mine its form and survival”. Aspects of the natural en-
vironment of human beings are covered under
atmosphere, hydrosphere, biosphere, geosphere. The
Brockhaus Encyclopaedia (1993, XXII: 601) distin-
guished among different environments of an organ-
ism: a) psychological, b) physiological, c) ecological,
and d) cosmic. For humans, physical (natural), tech-
nical (manmade), and societal factors are of importance.
28: 286) the concept ‘environment’ was introduced by
von Uexküll (1921) as the key concept of ecology refer-
ing to the vital surrounding for animals. It distin-
guishes five features: a) biological, b) minimal, c)
physiological, d) ecological, and e) cosmic. For hu-
man beings the physical, technical, and social environ-
ments are essential. ‘Ecology’ - according to the Ency-
clopaedia Britannica (1998, IV: 354) – refer to:

study of the relationship between organisms and their
environment. … Ecological studies may focus on the
relationship between individual organisms and the physi-
cal and chemical features of their environment (physio-
logical ecology). … Among the characteristics studied
would be the food-gathering techniques of individuals,
the survival adaptations against pedations, and mating
... (behavioural ecology). … Population ecology is the
study of the processes that affect the distribution and
abundance of animal and plant populations. … Commu-
nity ecology is the study of the organization and func-
tioning of communities. … Paleoecology – the study of
the ecology of fossil organisms. … In applied ecology,
basic ecological principles are applied to the manage-
ment of populations of crops and animals, so that the
yields can be increased and the impact of pests reduced.
… Theoretical ecologists provide simulations of particu-
lar practical problems ... and develop models of general
ecological relevance [emphasis added, HGB].

The concept of ecology was used by Ernst Haeckel
(1834–1919) for the study of living species and their
physical and biotic surroundings. A modern definition
includes a) the interactions between organisms (indi-
viduals, populations, biocoenosis), b) in their abiotic
and biotic environment and c) the links in the energy,
material and information flow.

According to Ellen (1996: 207), the ecology con-
cept “has been centrally concerned with the concept of
adaptation and with all properties having a direct

29 The Brockhaus Encyclopaedia (1991, XVI: 148–151) distin-
guished between populations, aut and syn ecology as well as
system ecology with a natural science focus and human ecology
that includes philosophical, psychological, theological, legal and social science dimensions.
and measurable effect on demography, development, behaviour and spatio-temporal position of an organism.” Biological ecology has been concerned “with population dynamics, energy transfer, systems modelling, nutrient cycles, environmental degradation and conservation; and since the 1970’s, especially with the application of neo-Darwinian thinking of socio-ecology.” Human ecology is used in human geography, urban sociology and anthropology. Advances in biological ecology: “linked to the ... ecosystem ... led during the 1960’s to a new formulation of ecological problems in the social sciences: in archaeology, geography, and also in anthropology.” Ellen argued that “the other major impact of ecological concepts in the social sciences has been in the relation of political environmentalism, and to environment and development. ... Increasing attention is also being paid to the cultural construction of nature, indigenous technological knowledge, the management of collectively owned resources, and environment history” (Ellen 1996: 208).

Many different concepts of the environment and ecology are used in the natural and social sciences. For O’Riordan (1996: 250) ‘environment’ is: “a metaphor for the enduring contradictions in the human condition; the power of domination yet the obligation of responsibility; the drive for betterment tempered by the sensitivity of humility; the manipulation of nature to improve the chances of survival, yet the universal appeal of sustainable development; the individualism of consumerism and the social solidarity of global citizenship.” In the Encyclopedia of Global Environmental Change30, Munn (2002, I: xi, xiv) wrote:

In the 1960’s, the scientific community began to use the word environment in this new non-specialist sense. ... In the ensuing decades, the world community has come to see the ‘environment’ in many different ways, as a life-support system, as a fragile sphere hanging in space, as a problem, a threat and a home. ... In the 1970’s and 1980’s; ... global environmental change acquired a popular currency. ... Another vital insight began to emerge about 1980: the inescapably interlinked nature of these many environmental changes. ... Thus, the term global environmental change has come to encompass a full range of globally significant issues relating to both nature and human-induced changes in the Earth’s environment, as well as their socio-economic drivers.

For Fleming (2002, II: 290) “environment refers to the physical, chemical, and biotic factors that affect an organism or an ecosystem and ultimately determine its form or structure and survival.” He distinguishes between abiotic (climate, minerals, soil, sunlight, water) and biotic (organisms) factors that are linked by “the flow of energy and the cycling of nutrients”.

The major components of the Earth’s physical environment include the atmosphere, climate, weather, continental landforms, hydrosphere, cryosphere, and oceans. The relationship between the principal physical components of the environment and the major ecosystems of the earth is mediated through the biosphere. Human interference in the global environment is widespread and accelerating. Most of this interference derives from three basic contributing factors: human population growth, pollution, and misuse of resources and natural ecosystems. ... Environmental gains from better policies and improved technology are being outstripped by the pace and scale of human population growth and economic development.

Lovelock (1975, 1986, 1992) in cooperation with Margulis (1974, 1974a) expressed the complicated physical, chemical, and biological processes that maintain life on earth in the Gaia hypothesis. The Gaia hypothesis claims “that the entire range of living matter on Earth defines the material conditions needed for its survival, functioning as a vast organism ... capable of modifying the biosphere, atmosphere, oceans, and soil to produce the physical and chemical environment that suits its needs” (Oxford 1998). For Douglas, Huggett and Robinson (1996: 5) the Gaia hypothesis is

the latest recasting of the ancient, holistic belief that there exists interconnectedness and harmony among the phenomena of Nature. ... At least two versions of the Gaia hypothesis have evolved: weak Gaia and strong Gaia (Kirchner 1991). Weak Gaia is the assertion that life wields a substantial influence over some features of the abiotic world, notably the temperature and composition of the atmosphere. In other words, it makes the simple proposal that the earth’s climate and surface environment are actively regulated by animals, plants, and micro-organisms. Strong Gaia is the unashamedly teleological idea that the earth is a superorganism which controls the terrestrial environment to suit its own ends. ... Lovelock [1988: 10] seems to favour strong Gaia. ... Lynn Margulis ... appears to prefer a weak version of Gaia. ... Margulis chooses to restrict Gaia to the surface features of the Earth, simply because they can be observed [Margulis/Hinkle 1991: 11].

30 The Encyclopedia of Global Environmental Change focuses on: a) Physical and Chemical Dimensions of Global Environmental Change (Vol. 1), b) Biological and Ecological Dimensions of Global Environmental Change (vol. 2) and Causes and Consequences of Global Environmental Change (vol. 3) while vol. 4 deals with political aspects: Responding to Global Environmental Change, and vol. 5 examines Social and Economic Dimensions of Global Environmental Change.
O’Riordan (1996: 251) defined and interpreted the Gaia hypothesis:

as a self-regulating system that emerges from the tightly coupled evolution of biota and the material elements and fluxes that circulate substances and energy around the globe. In an important sense, Gaia is a very special scientific concept. It utilizes traditional scientific enquiry to reveal how the totality of physics, chemical and biological process interact to retain the conditions vital for the survival of the earth. Gaia has no morality, nor a purpose. It has no special place for humans. ... If Gaia tells us anything, it is that humans must adapt to survive, and that the process of adjustment is part of the totality of self-regulation. Otherwise the earth will do it for us.

According to Williams (2002, V: 287–290) the Gaia hypothesis is intriguing and has provoked much scientific debate. In the context of Earth systems analyses “the Gaia contribution has been an enhanced recognition of the role of the biosphere” (290).

From an international relations perspective Ronald Mitchell (2002: 500–516) reviewed the history, the causes of international environmental problems with a special focus on: a) agenda setting, b) policy formulation, c) policy implementation and effectiveness and policy evolution and social learning. Mitchell (2002: 512) concluded:

Theoretically, we need a framework to make sense, for each stage of the policy process, of which factors are influential under a wide range of circuits, which are influential only in limited circumstances, and which are simply not influential despite earlier theorizing. Methodologically we need to supplement the almost exclusive use of case studies with quantitative methods, formal modelling and simulation. ... Empirically, we need to develop data for quantitative and large-n quantitative comparisons across issues (emphasis added, HGB).

Mitchell (2002: 512) argued that scholars who want to contribute to global environmental management “must begin developing contingent knowledge that identifies how the choices actors make promote environmental protection, the structural constraints on their ability to do so, and the conditions under which the former can help us overcome the latter. For the analysis of national and international environmental governance and regime formation all three stages of the policy process are relevant.

### 3.3.4.3 Scientific Traditions, Schools, Approaches, and Frameworks

On environmental issues, especially on population growth and resource constraints, two opposite traditions have evolved (Kennedy 1992):

- a pessimist or Neo-Malthusian view stimulated by Malthus’ Essay on Population (1798) that stressed the limited carrying-capacity of the Earth to feed the growing population;
- an optimist or Cornucopian view that believed an increase in knowledge, human progress, and breakthroughs in science and technology could cope with these challenges.

These two ideal type positions have dominated the environmental debate since the Club of Rome’s Limits of Growth (Meadows/Meadows/Randers/Behrens 1972), and Lomborg’s (2001) Skeptical Environmentalist (Gleditsch 2003). O’Riordan (1996: 250–252) distinguished among three environmentalist world views: technocentric, eco-centric and deep green. The technocentric perspective (Hays 1959; Mies/Shiva 1993; Simon/Kahn 1984) believes in the betterment of both people and nature and calls for “environmentally benign technology, environmentally friendly product substitution, and the wealth creating engine that will allow the poor to be emancipated from their prisons of enforced environmental and social debasement.” In contrast, the ecocentric view (Dobson 1990; O’Riordan 1981; Pepper 1986) incorporates “the costs of altering the natural world. ... This ... has spawned a host of manipulative middle ground, accommodationist mechanisms aimed at making economic development more socially tolerable and environmentally sustainable.” O’Riordan associated five concepts with the eco-centric view: a) sustainable development, b) the precautionary principle, c) ecological economics, d) environmental impact assessment, and e) eco-auditing or environmental burden analysis to make economic progress environmentally tolerable. The deep green interpretation promotes small-scale self-reliant and politically empowered communities.

For Nazli Choucri (1993: 267–271) environmentalism is based “on a view of humanity as integral to nature, of nature as empowering humans and of the relationship between both as uneasy at best, and perhaps even threatening to the integrity and viability of nature and hence of humans.” Environmentalism calls for a “coherence of environmental and social processes”. Environmentalism “evolves ideas of nature, ecological balances, and ecological growth as central to the survival of the human species”.

Rayner and Malone (2002, V: 109–123) pointed to a descriptive vs. interpretative tradition in social science analyses dealing with global environmental change. While the descriptive tradition relies on quantitative methods “of tracing stocks and flows of social
data through time and space” using natural science methods and models, the interpretive tradition tries “to understand motivations, ideas, and values” (109). But both are essential for research, e.g. descriptive approaches “have revealed much what would happen under various scenarios of climate change” while “interpretive approaches can provide value-oriented parameters as a basis for choosing among candidate policies”. Social science research can both describe:

the human activities that give rise to environmental concerns, identify possible mitigation actions, indicate where adaptations will be necessary, and illuminate how institutional and cultural structures and abilities to change will both constrain and open up possibilities to make and implement policy. Social science research demonstrates that the process through which choices articulate across scales is not a linear mechanism. ... Rather, it is a social as well as a knowledge process that requires a high level of trust and agreement ... to gain recognition at another scale (119).

In the social sciences, the analysis of issues of global environmental changes and human-nature relationships (Glæser 2002, V: 11–24) are polarized between epistemological idealism and realism, or between social constructivism and an orientation “that presupposes a material world independent of percipient human actors” (Rosa/Dietz 1998) - neo-realism.

The neo-realism guides the social and scientific analysis of environmental changes as well as the political economy interactions between environment and society. A famous example is the still influential IPAT model which was proposed in the early 1970’s and assumed that environmental impact is a function of population size P, affluence per capita A and technological development T. The systems approach in world modelling simulates similar relationships on the basis that there are crucial driving forces that regulate the system and that are probably influenced by policy and politics. Social scientists have often criticized such concepts as being too simplistic ... (Glæser 1993).

The opposite neo-idealist orientation has highlighted two aspects: a) the uncertainty of scientific knowledge and claims; and b) the attempt to explain the scientific and public recognition of environmental change influenced by political and historical forces (Rosa/Dietz 1998).

In this approach, the emergence of scientific concerns and the rise of public awareness are scrutinized; these issues eventually become more important than the environmental problem under dispute. Environmental threats to the global ecosystem or human health are perceived only to the extent that they attract media attention and are publicized accordingly. To a great extent the social constructivist approach is reflexive, and it is applied as a science of science-meta-theory. ... Social constructivism ... has been criticized for neglecting real world problems and concerns in that human-nature relations and environmental change issues are constructed or conceptualized, that is, ‘produced’ or ‘created’ rather than ‘extracted’ or ‘mapped’ (Glæser 2002: 20).

Glæser calls for a combination of the strongholds of both positions, i.e. for a critical analysis of the assumptions and models of the natural scientists and of their inherent interests.

Within the scientific discipline of international relations the analysis of problems of global environmental change has been pursued from different theoretical or practical orientations. Paterson (2000: 5) distinguished among six basic positions of a) liberal institutionalism, b) idealism, c) eco-authoritarianism, d) eco-socialism (Pepper 2002, V: 224–225), e) social ecology (Pepper 2002a, V: 484) and f) deep ecology (Pepper 2002b, V: 211), and one may add g) ecosocialism (Warren 2002, V: 218–224) that differ both with regard to the perceived causes and responses. In addition, several ideologies have been distinguished: eco-centric “that centres on and prioritizes the whole planetary ecosystem”, that is synonymous with bio-centric centring on the biosphere and Gaia-centric that focuses on the Earth as one living system. Homer-Dixon (1999: 28–46) distinguished among neo-Malthusians (biologists, ecologists); economic optimists (economic historians, neoclassic economists, agricultural economists) and distributionists (poverty, inequality, misdistribution of resources) while Gleditsch (2003) referred to Neo-Malthusian and Cornucopian perspectives.

3.3.4.4 Environment Policies and International Governance


Major steps in the political agenda-setting were the Stockholm Conference (1972), the Brundtland Report (1987), the Earth Summit in Rio de Janeiro (1992) and in Johannesburg (2002). On 15 December 1972 GA Res. 2994 (XXVIII) “endorsed the Action Plan for the Human Environment adopted by the UN Conference on the Human Environment (1972)” (Wolfrum 1994a: 775) and GA Res. 2997 (XXVIII) set up the

Paëleké (2002, V: 49–61) distinguished two waves in the establishment and institutionalization of environmental politics: a) the early environmental movement with an often apocalyptic and apolitical dimension that focused on pollution and global sustainability concerns, b) a second wave with “the re-emergence of conservationist and biodiversity concerns”.

Mostafa Tolba (2002, IV: 1–13), a former executive director of UNEP, noted eight trends in national and international responses of industrialized countries to environmental problems: a) inclusion of environmental impacts into sectoral policies; b) increase in cross-sectoral policies; c) replacement of a reactive approach to pollution control with a preventive one; d) growing interests in economic instruments as incentives to energy and pollution control; e) promotion of energy efficiency, energy conservation, and environmentally sound processes in industry, transport and domestic environments; d) recognition of the international, and often regional nature of many environmental problems; e) increased public information and participation; f) more public information and participation; and g) better environmental science and monitoring (Tolba 2002, IV: 5).

Since the 1960’s and 1970’s many new governmental and non-governmental institutions were set up, and an increasing number of environmental laws and regulations were adopted in OECD countries. The developing countries have followed this pattern “but with a different range of concerns and on a different time-scale” (Tolba 2002, IV: 8), with a primary focus on land and fresh water management and food production. While for them development is crucial “to improve the quality of life, eliminate poverty and support the infrastructure needed in order to deliver the health care, education and other institutions essential to the national future”, many countries have prepared national conservation strategies.

International environmental regimes and institutions have gradually evolved since the end of World War II in the framework of the UN institutional family (FAO, WHO, UNESCO, IMO, ILO). In 1948 the IUCN (World Conservation Union) was founded by state and non-governmental members to protect natural areas and species. The decision at the Stockholm Conference (1972) to set up the UN Environment Programme (UNEP) in Nairobi and the adoption of the Agenda 21 and of several environmental regimes at the Earth Summit (UNCED) in Rio (1992) were major steps towards international responses. The Brundtland Report (WCED, 1987) and a UNEP (1998) report stimulated new thinking and fostered an integrated global approach that was supported by regional efforts of the five economic commissions (ECE, ECA, ESCWA, ESCAP, ECLA) under the ECOSOC and by UNEP’s regional seas programme, which has “produced as much sectorialization and fragmentation as synthesis”. From an Egyptian perspective, Tolba (2002, IV: 12) stressed that development strategies need substantial adjustment, and that this must go far beyond the technology of environmental management to incorporate trade debt, and social infrastructure. It is also evident that environmental costs and benefits must be incorporated into the technologies and processes of development, from the initial planning stages.

The progressing awareness and commitment for international environmental problems requires a management of national environmental adjustments. In some cases, resource scarcities may evolve the use of force to limit dissent. On the global level, Choucri pointed to five underlying principles that should guide the international community’s strategy for managing environmental issues: a) legitimacy, b) equity, c) volition, d) universality, and e) efficacy.

### 3.3.5 Linkages: Peace, Security, Environment, and Development

These four basic social science concepts of peace, security, environment, and development refer to four research areas and programmes in political science and international relations:

- a) peace research, science or studies as a value-oriented research programme;
- b) security, strategic or war studies as a theory and policy-oriented research field;
- c) environmental studies and international environment policy;
- d) development studies.

Each of these programmes provides experts with qualifications in different areas of international politics:

- a) specialists for dealing with conflicts, conflict prevention, and avoidance in foreign and development ministries but also in international organizations;
b) security specialists in foreign and defence ministries, intelligence agencies;
c) environment specialists in ministries, agencies, consultancies, and with international organizations and NGOs; and
d) development specialists in ministries, agencies, and with international organizations and NGOs.

Global environmental change is not only an issue for the natural sciences and for environmental specialists in international relations. Its extreme and in some cases fatal outcomes and its sometimes violent societal consequences affect the activities of foreign, security and development specialists and many of their respective institutions as well. Thus, global environmental change should be analysed from all four specialized perspectives in international relations with a focus on the six unique linkages within the conceptual quartet (figure 3.1).

The UN Charter focuses only on the classical ‘agenda’ of peace and security and on the many linkages between both (L1). With the start of the decolonization process ‘development’ was added as a new concept on the UN agenda since the 1950’s. Not until the first UN Summit on Environment in Stockholm in 1972 was the ‘environment’ put on the international agenda that later required a focus on ‘sustainable’ development and environment linkages (L5). Since the 1990’s, three phases of research have analysed the linkages between security and environment (L6). A primary focus of this book series is to contribute to a fourth phase of research on environment and security linkages that will take the other key concepts (peace and development) and five linkages into account, as far as they are relevant for the analysis of the factors of global environmental change, its extreme outcomes, and violent societal consequences.

For the four key concepts nine different positions can be distinguished: For the classical peace and security agenda the three ideal type worldviews of a) Hobbesian realists, b) Grotian pragmatists, and c) Kantian optimists have been distinguished. With regard to development three ideal type approaches have emerged that have been the focus of theoretical controversies between: d) the classical and more recent modernization theories, e) the critical theories (imperialism, dependencia, peripheral capitalism, etc.) that challenged the modernization mainstream, and f) the many sustainable development concepts. Finally on environmental issues, three ideal type positions have emerged: a) the pessimist Neo-Malthusians b) the pragmatic equity-oriented distributionists, and c) the optimist Cornucopians. These nine ideal type positions point to a total of 27 possible theory guided linkage concepts.

Of these 27 linkages only six conceptual linkages (figure 3.1) will be discussed (3.4.) Four linkage concepts will be developed (3.5) as conceptual pillars for a fourth phase of research on human and environmental security and peace: Two are widely used in security and environmental studies:

1. Security dilemma for the classical peace and security interaction (L1);
2. Sustainable development for the link between environment and development (L5).
In addition, two new concepts will be introduced and discussed below:

3. **Sustainable peace** that has been used as a semantic construct in the UN context and by action-oriented researchers who combined peace with sustainable development (PED).

4. **Survival dilemma** as a new concept reflecting the security, environment, and development linkages caused by human and nature induced factors of global environmental change (SED).

From a Northern view (figure 3.2) the three concepts of peace, security, and environment and the linkages (L1, L3, L6) are crucial, while from a Southern view (figure 3.3) the concept of development is in the centre as well as the linkages (L2, L4, L5, L6). But so far little research exists on the linkages between peace and environment (L3). The linkages between the factors contributing to global environmental change, its fatal outcomes and violent societal repercussions have not been discussed from these perspectives, and they have not yet been an issue of intensive theoretical reflection and empirical research.

### 3.4 Six Linkage Concepts of Security in Relation to Peace, Environment, and Development

For centuries and in many cultures, peace has been a major concept of philosophical reflection, of policy declarations, and of social science research (see chap. 10 by Oswald). Below six conceptual linkages between the four key concepts of peace, security, environment, and development will be briefly introduced and discussed in more detail.

#### 3.4.1 Linkage 1: Peace and Security in the Three Traditions

This linkage between peace and security has been analysed from three ideal type perspectives or intellectual traditions (table 3.2), and it is the key goal of the UN Charter (chap. 35 by Bothe).

The English School (Bull 1977, Wight 1991, Buzan 2001, 2004, 2006) has distinguished three basic traditions in the thinking on international relations they associated with *realism* based on power (Machiavelli, Hobbes), *rationalism* relying on cooperation (Grotius), and *idealism* relying on international legal norms (Kant). These three traditions reflect basic ideal type thinking that may have also existed in other traditions of political philosophy in the East (India, China, Japan), but also in the Muslim (Arab, Persian and other), the African and pre-Columbian Mesoamerican traditions that are unknown and thus ignored in the Western discourses on international relations, and especially on peace and security.

Waever (chap. 4 below) reviews the origins of both concepts and their complex interplay prior to 1945, during the Cold War (1947–1989), and since its end (1990–), and he concluded that during the Cold War ‘peace research’ and ‘security studies’ were opposite approaches, while in the post-Cold War era ‘security’ has become intellectually more challenging (chap. 38 by Albrecht/Brauch). Bothe noted a major shift in the state behaviour on peace and security as reflected in many resolutions of the UNSC with regard to reasons that justify its involvement. During the Canadian UNSC presidency in February 1999 (chap. 46 by Deizing) ‘human security’ was introduced, while during the British presidency in April 2007 climate change was debated as a security issue (chap. 40 by Brauch).

#### 3.4.2 Linkage 2: Concepts of Peace and Environment

Several conceptual linkages have evolved in the social scientists between ‘peace’ and ‘environment’. In the intellectual history of ideas and concepts, there has been a debate on ‘peace with nature’ going back to Bacon in the 17th century up to ‘peace with creation’ in the ecumenical movement of the 20th and 21st century, and in the context of the debates on earth ethics or on ethical approaches to global environmental change. Three basic standpoints on environmental issues may be distinguished between:

<table>
<thead>
<tr>
<th>Peace</th>
<th>Security</th>
<th>Development</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td>(L 1)</td>
<td>(L 2)</td>
<td>(L3)</td>
</tr>
<tr>
<td>(L 1)</td>
<td>x</td>
<td>(L4)</td>
<td>(L5)</td>
</tr>
<tr>
<td>(L-2)</td>
<td>(L4)</td>
<td>x</td>
<td>(L-6)</td>
</tr>
<tr>
<td>(L-3)</td>
<td>(L5)</td>
<td>(L6)</td>
<td>x</td>
</tr>
</tbody>
</table>
A pessimist or Neo-Malthusian view stimulated by Malthus’ Essay on Population (1798) that stressed the limited carrying-capacity of the Earth to feed the growing population (Meadows/Meadows/Randers/Behrens 1972; Meadows/Meadows/Randers 1992; Brown 1977);

- an optimist or Cornucopian view that believed an increase in knowledge, human progress, and breakthroughs in science and technology could cope with these challenges (Lomborg 2001, 2001a, 2001b, 2002);

- an equity oriented pragmatist (Homer-Dixon 1999; Brauch 2003, 2005).

Table 3.3 combines the three traditions on peace and security with these three standpoints on the environment. This leads to nine positions on peace and security and environmental issues.

Wars cause a loss of life of soldiers and civilians, destroy economic values and infrastructure, and damage the environment. Peace shifts the environmental impact of human behaviour to consumption, unequal distribution, and use of resources, e.g. food surplus in the industrial North and its insufficient supply and distribution in developing countries that are also more vulnerable to environmental hazards and social disasters. Droughts often lead to famine and hazard-
induced internal displacement. Neo-Malthusians stressed the linkage between environmental scarcity and violent conflict.

From a Cornucopian view, Lomborg (2001: 317) challenged the Neo-Malthusian pessimism that global warming would decrease food production and increase extreme weather events, but he acknowledged

### Table 3.2: Peace and Security as Seen from Three Ideal Type Worldviews.

<table>
<thead>
<tr>
<th>Worldviews</th>
<th>Realists</th>
<th>Rationalists, Pragmatists</th>
<th>Idealists, Constructivists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern tradition</td>
<td>Tzun Tse, Confucius</td>
<td>Grotius, Pufendorf, Locke, Burke</td>
<td>Kant, Woodrow Wilson</td>
</tr>
<tr>
<td>Western tradition</td>
<td>Thucydides, Machiavelli, Hobbes, Clausewitz, Lenin</td>
<td>Nezahualcóyotl, Nezahualpilli</td>
<td>Moctezuma II</td>
</tr>
<tr>
<td>Arab, Muslim tradition</td>
<td>Ibn Khaldun, Anwar Al Sadat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African</td>
<td>Idi Amin, Nkrum, Mandela</td>
<td></td>
<td>Nyerere</td>
</tr>
<tr>
<td>Mesoamerican</td>
<td>Pachacuti, Topa Inca, Itzcoatl, Moctezuma I, Axayacatl, Tizoc, Ahuiizot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>F.D. Roosevelt, Washington, Jefferson</td>
<td></td>
<td>Martin Luther King</td>
</tr>
<tr>
<td>Schools of International Relations</td>
<td>structural or (neo)realists</td>
<td>liberal neoinstitutionalists</td>
<td>Social constructivists</td>
</tr>
<tr>
<td>Research programmes</td>
<td>War, strategic or security studies</td>
<td>peace research (polemologie)</td>
<td></td>
</tr>
<tr>
<td>International Relations specialists</td>
<td>Carr, Morgenthau, Waltz, Kindermann</td>
<td>Wight, Bull, Buzan</td>
<td>Boulding, Alger, Albrecht Czepiel, Senghaas</td>
</tr>
<tr>
<td>Key categories</td>
<td>Power, alliances</td>
<td>Cooperation</td>
<td>International law, human rights</td>
</tr>
<tr>
<td>Goals and concepts of peace</td>
<td>Negative peace: lack of direct personal violence</td>
<td>Both negative and positive peace</td>
<td>Positive peace: lack of (structural) violence, peace with social justice</td>
</tr>
<tr>
<td>Goals and concepts of security</td>
<td>External, domestic, national, international security reaction: armament</td>
<td>Widened security concept (military, political, economic, social,environmental)</td>
<td>‘human security’ ‘human survival’</td>
</tr>
<tr>
<td>21st century</td>
<td>Survival Dilemma (‘people centred’)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Principles of security</td>
<td>Superiority and general balance of power</td>
<td>Balance of power</td>
<td>Limited inferiority (Self defence)</td>
</tr>
<tr>
<td>Referent object</td>
<td>Nation state</td>
<td>State, international organization</td>
<td>Human being, transnational actors, states, IGOs</td>
</tr>
<tr>
<td>Explanation model (for arms, armed forces)</td>
<td>External factors: action-reaction process</td>
<td>Mixture of external and internal factors</td>
<td>Domestic factors: autodynamnic process</td>
</tr>
<tr>
<td>‘Mind-sets’</td>
<td>Worldviews of policy-makersa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order of Vienna (1815)</td>
<td>Metternich, Talleyrand</td>
<td>Castlereagh</td>
<td>Tsar Alexander (?)</td>
</tr>
<tr>
<td>Order of Versailles (1919)</td>
<td>Clemenceau</td>
<td>Lloyd George</td>
<td>Wilson</td>
</tr>
<tr>
<td>Order of Yalta (1945)</td>
<td>Stalin</td>
<td>Churchill, Roosevelt</td>
<td></td>
</tr>
<tr>
<td>Order of Paris (1990)</td>
<td>Bush, Thatcher</td>
<td>Mitterrand, Kohl</td>
<td>Gorbachev (?)</td>
</tr>
</tbody>
</table>

---

a.) This list categorizes these conceptual architects relative to the others that participated in setting up the international orders of Vienna (1815), Versailles (1919), and Yalta (1945). This categorization does not necessarily imply e.g. that Tsar Alexander (1815) and Gorbachev were acting as ‘idealists’ (e.g. on domestic or foreign politics), but they used ‘idealist’ arguments during the debate on the new international order. This categorization was inspired by Holsti (1991) and Osiander (1994), and was published first in Brauch (1996a).
the high cost of global warming and that developing countries are hit most due to poverty and lesser adaptive capacity. From the third perspective peace improves the conditions for environmental policies. Resource scarcity is often a result of unequal domestic distribution and of a lack of equity in the international division of labour.

Below Ursula Oswald Spring (chap. 5) reviews the linkages between peace and environment and the conceptual and policy-oriented contributions on sustainable peace as seen from the South. She explores the physical, structural, cultural and gender violence, the positive and negative peace concept, as well as feminist peace. On the environment she discusses the Gaia approach, deep and social ecology, ecofeminism and the possibility of an ecofeminist peace, before she explores the challenge of the concept of ‘sustainable peace’ and the potential for linking it with sustainable development and gender equity. Southern countries and their vulnerable social groups are particularly affected by wars and complex emergencies where the effects of global environmental change and their impact on hydro-meteorological hazards often lead to social disasters. She concludes with a discussion of the future of ‘sustainable peace’ for Southern countries, its potential, limits, and capacity to increase equality and equity for women and the socially vulnerable.

3.4.3 Linkage 3: Concepts of Peace and Development

While the peace research programme emerged during the Cold War as a critical response to cold war policies and to prevailing realist approaches in security or strategic studies, development studies evolved with the decolonization process in economics and political science as a field of study that focused on the processes of economic and human development and on causes of underdevelopment. What conceptual linkages have evolved between both concepts and research fields, and how has the global turn of 1990 impacted on both?

While in peace and security studies three traditions have been distinguished (table 3.2), on development issues three basic theoretical schools can be identified: a) modernization theorists, b) critical theorists, and c) since the 1980’s a third perspective evolved that stressed environmental issues and inter-generational justice (sustainable development).


<table>
<thead>
<tr>
<th>Worldviews/Traditions on peace and security (➔)</th>
<th>Realism (Tzun Tze, Thucydides, Machiavelli, Hobbes)</th>
<th>Rationalism, pragmatism (Confucius, Grotius)</th>
<th>Idealism, constructivism (Kant, Gandhi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standpoints on environmental issues (➔)</td>
<td>Power matters</td>
<td>Cooperation matters</td>
<td>International law matters and prevails</td>
</tr>
<tr>
<td>Neomalthusian</td>
<td>I. Military, economic power solves resource scarcity</td>
<td>II. International cooperation will solve resource scarcity</td>
<td>III. International law and cooperation solves resource scarcity</td>
</tr>
<tr>
<td>Resource scarcity</td>
<td></td>
<td>V. International organizations and regimes will address/contribute to adaptation/mitigation</td>
<td>VI. International law and environmental cooperation can cope with global environmental change</td>
</tr>
<tr>
<td>Equity-oriented pragmatist</td>
<td>IV. Military, economic power and cooperation will cope with environmental issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperation will solve problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cornucopian neo-liberal</td>
<td>VII. Military, economic power and technological innovation avoids resource scarcity</td>
<td>VIII. International cooperation, organizations and regimes and technological innovation can cope with global environmental change</td>
<td>IX. International law and cooperation as well as technological innovation cope with global environmental change</td>
</tr>
<tr>
<td>Technological ingenuity will solve problems</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
izations reflected the mainstream that influenced development policy that was often an instrument in the Cold War competition. Within international relations, some critical theorists analysed problems of (under) development from a peace research perspective critiquing both realist security concepts and dominant modernization theories by incorporating the thinking of Third World scholars (dependencia, peripheral capitalism), and supporting conceptually self-reliance.

But in both perspectives the environment played hardly any role. The Brundtland Report induced a conceptual reassessment towards ‘sustainable development’ and after the Chernobyl accident in April 1986, Soviet President Gorbachev (in 1987, 1988) was the first head of state who referred to the global ecological crisis, and as president of the Green Cross he has become a major spokesman for global sustainable development strategies. Stimulated by the Brundtland Report (1987), the concept of ‘sustainable development’ has been a primary focus of environmental diplomacy since the late 1980’s, especially at UNCED in Rio de Janeiro (1992) and at UNSSD in Johannesburg (2002). This third position has been strong among theorists and development professionals in international organizations after the Cold War.

On the relationship between war and peace and development, two main political arguments coexist. The negative economic impact of war on development have been human fatalities, destruction of infrastructure, wealth and capital, devastation of the environment, as well as high indebtedness of the state and high interest rates as a constraint for economic activity. As a result of wars, in post-war periods the economic demand for reconstruction has been in many industrialized countries a stimulus for economic growth, high consumption of fossil energy, and technological innovation. In the South periods of peace, security, and domestic stability have been a major precondition for economic and social development. Since 1990, the developing countries did not experience a peace dividend. Rather, some of the weapons to be disarmed in the North were sold or smuggled to the South where violent internal conflicts have occurred in Africa, Asia, in south-eastern Europe, and in Central America primarily due to greed (drugs, diamonds, timber, etc.) rather than to scarcity of natural resources (SIPRI, PRIO, HIHI, Human Security Centre 2005, 2006), involving warlords and criminal gangs.

In chapter 6, Indra De Soysa assesses the relationship between development and armed conflict and outlines the beneficial impacts of increasing globalization for peace and security. Contrary to popular opinion, he demonstrates that poverty and conflict are part of a natural resource trap and that the relative abundance of natural wealth affects economic and governance outcomes. He challenges the view that conflicts have increased since the end of the Cold War, and that civil violence within states has decreased quite dramatically in the past decade. Organized violence that was enduring and persistent during the Cold War has given way to what some term the ‘residue’ of warfare, opportunistic, criminalized violence that is easily addressed with concerted efforts of peace enforcement and traditional policing. He demonstrates that systemic factors underlie the promise for the future, while internal factors related largely to governance and underdevelopment still pose risks. The pre-eminent threat to human security is violent civil conflict, which remains a high impact, high probability around the world, contrary to the low probability, high impact of natural disasters that most human security studies dwell on. In conclusion he identifies policies for mitigating these risks.

3.4.4 Linkage 4: Concepts of Development and Environment

The linkage between development and environment has been stressed by developing countries since the environment summit in Stockholm when many of their representatives called for ‘additional’ efforts and funding by the North to deal with global environmental issues that were to a large extent caused by industrialized nations since the industrial revolution with the tremendous growth in consumption of scarce resources and fossil energy that resulted in a human induced global warming. The controversy between modernization and critical theories of development since the 1960’s was not about the environment. Since the late 1980’s the controversies have increased between proponents of sustainable development and those of the neoclassical modernization theory and critical theories on development.

In chapter 7 on ‘emergent sustainability’ Casey Brown discussed ‘the concept of sustainable development in a complex world’. He argues that the preoccupation of the developed world with ‘sustainable development’ and the lack thereof is perceived by some as a threat to the security of the developed world, in particular global warming is being seen as the most prominent transnational environmental security threat. Brown explores the concept of sustainable de-
development and the linkages between economic growth, the environment, and society. Given the uncertainties regarding the future and the complexity of the human-nature system, a new scientific and policy framework is needed. Relying on complexity science he argues that top-down approaches yield unreliable results. He points to a need to provide the conditions that the human-nature system manifests sustainability as an emergent trait that contribute to economic growth and good governance. His chapter begins with a brief review of the concept of sustainable development, followed by an introduction to complexity science. Then, the three key tenets of sustainable development, economic growth, environmental protection, and social justice are evaluated critically for their relevance to the concept of sustainable development and prospects for implementation.

3.4.5 Linkage 5: Concepts of Development and Security

Peter Uvin (chap. 8) reviews the link between development and security: with a special focus on the genealogy and typology of an evolving international policy area. He presents a broad overview of the evolving paradigms of thinking and action at the intersection between development and security. He focuses primarily on major rich countries and on the World Bank and OECD that provide most of development assistance and define the practical terms on which it is given.

From the perspective of development professionals, the chapter analyses when and why they became concerned with matters of security, including the impact of the end of the Cold War and of 11 September 2001 on development policy and practice (genealogy), and what they do (typology) by presenting an overview of operational and policy approaches to the development/security nexus. In the conclusions, the author points to the shrinking intellectual and operational gap between development and security since the early 1990’s. This theme is discussed from other perspectives by Katseli (chap. 34), Sending (chap. 48), and by Klingebiel and Roehder (chap. 58).

3.4.6 Linkage 6: Concepts of Security and Environment

The debate on linkages between security and environment has also evolved since the Brundtland Report (1987). Since then, three linkages between ‘security’ and ‘environment’ have been discussed: a) impact of wars on the environment, b) peacetime impact of military activities on nature, and c) environmental problems leading to environmental stress that could, under specific socio-economic conditions, either cause or contribute to natural hazards, distress migration, domestic, bilateral, regional or interregional crises and conflicts that may involve the use of violence and force. Three phases of the debate have been reviewed elsewhere (Brauch 2003, 2005, 2005a), and several proposals for a fourth phase have been made (Dalby 2002, 2002a; Brauch 2003a; Dalby/Brauch/Oswald 2008; Oswald/Brauch/Dalby 2008).

In chapter 9 Dalby focuses on the innovations in the thinking in the early 21st century. He argues that the linkages of scarcity leading to violence are more complicated than was assumed in the 1980’s, and that these relationships must be understood in a broader context. The links between violence and environment in conflicts over resources are often matters of political struggles over the control of abundant resources in poor economies. Global climate disruptions may cause more damage to poor peoples than any locally caused environmental disturbances.

The linkages between security and environment are sometimes formulated as a basis for policy initiatives, ignoring the critiques frequently directed at such thinking. Much of the early literature took security for granted and it was closely linked to private property and the protection of the social order that was causing many of the disruptions. The focus of the discussion has shifted and new perspectives emerged. This chapter suggests that political economy and political ecology insights about connections between peoples and places are connecting with analyses of global environmental change so that human vulnerabilities and their causes get a better emphasis. Policy recommendations now focus more on human security and vulnerability, and on the multiple implications of resource wars, rather than on the potential of environmental degradation for causing overt large-scale violence.

3.5 The Four Pillars of a Widened Security Concept

Four conceptual pillars were introduced above emerging from the linkages among the four key components of the conceptual quartet: the classic state-centred ‘security dilemma’ (3.5.1), and the new people-centred ‘survival dilemma’ (3.5.2), as well as the concept of ‘sustainable development’ (see chap. 7 by Brown), and
the related concept of ‘sustainable peace’ (see chap. 5 by Oswald Spring) that were discussed above.

3.5.1 Security and Peace: The State-Centred Security Dilemma

Elements of the ‘security dilemma’ concept can be traced to Kant in his *Treatise on Eternal Peace* (1795). The term was first coined by John Herz (1950, 1959) to interpret the linkage between fear and armament during the bipolar Cold War. After the end of the Cold War, the concept has been used as a key term of security analysis (chap. 40 by Brauch). With this concept John Herz (1950, 1959) referred to the propensity of countries “to acquire more and more power to escape the impact of power of others”, a tendency that has resulted in a vicious circle of mutual arms build-up. Herbert Butterfield (1951) referred to it as a ‘predicament of Hobbesian fear’ or as the ‘Hobbesian dilemma’. But Herz disagreed with the thesis that mutual suspicion and the security dilemma have resulted in a continual race for power and armaments resulting in unending wars. Herz (1996: 231) defined it as a social constellation in which units of power (states or nations) find themselves whenever they exist side by side without higher authority that might impose standards of behaviour upon them and thus protect them from attacking each other. In such a condition, a feeling of insecurity, deriving from mutual suspicion and mutual fear, compels these units to compete for ever more power in order to find more security, an effort which proves self-defeating because complete security remains ultimately unobtainable.

Alan Collins (1995: 11–15) pointed to “four characteristics of a security dilemma: uncertainty of intentions, no appropriate policies, decrease in the security of others, and decrease on the security of all”. Jervis (1976: 66) wrote that “the unintended and undesired consequences of actions meant to be defensive constitute the ‘security dilemma’”, while Wheeler and Booth (1992) labelled them a “security paradox”, and they considered “insecurity as the central characteristic of the security dilemma” (Ralph 2001: 17–19). In Jervis’ (1982: 361) view “the security dilemma cannot be abolished, it can only be ameliorated,” while Wheeler and Booth (1992: 29) claim that “the theory of security communities and the practice of international politics among liberal-democratic states suggests that the security dilemma can be escaped, even in a setting of sovereign states.”

Wheeler and Booth (1992: 54) argued that with the emerging post Cold War security community “peace is predictable; the security dilemma has been escaped.” For Czempiel (2002: 31) the security dilemma is no objective result of analysis but a societal and group determined phenomenon that is created by self, world, and enemy images in the tradition of the political culture of the respective country that may reflect both ethnocentrism and ideological fundamentalism. For Czempiel, the security dilemma is no exogenously existing factor in an anarchic international system but the result of “deliberate choices of particular governments” (Wheeler/Booth 1992: 43). For the constructivists the security dilemma is also influenced by domestic politics (Wendt 1992: 402, 1995: 71–81). Czempiel challenges the use of the ‘security dilemma’ by realists as an ahistoric theorem derived from the uncertainty of international anarchy. He also redefined the concept as the product of domestic politics.

3.5.2 Towards a People-centred Survival Dilemma

Brauch has conceptualized a ‘survival dilemma’ from two perspectives: as a state and human-centred concept. Initially he argued that while the three global orders (1815–1989) were primarily based on power legitimized in terms of the *security dilemma*, the emerging new global challenges of the 21st century (Renner 1997: 25–6) may require a new international order based on a Grotian *survival dilemma* (Brauch 1996, 2000) that may necessitate additional multilateral cooperation in international security (arms control, terrorism) and environmental regimes (climate, desertification, water), and in international and supranational organizations. Coping with the new challenges, he argued that the zero-sum games of realist approaches of the 19th and 20th century must be replaced – from a Grotian or Kantian perspective – by non-zero-sum games where all major players should aim at the creation of conditions for the survival of humankind (Axelrod 1984).

Since 2004, he conceptualized the ‘survival dilemma’ within the discourse on environmental and human security as a ‘people-centred’ and ‘bottom-up’ concept where both the old (violence, conflicts, complex emergencies and wars) and new non-military security threats, challenges, vulnerabilities, and risks posed by the causes of global environmental change (climate change, deforestation, soil erosion and desertification, water scarcity and degradation), their impacts (hazards, disasters), and societal outcomes (forced migration, crises, complex emergencies and wars as well as conflict avoidance, prevention and res-
olution) have confronted individuals, families, communities with several unpleasant alternatives (or a dilemma) to stay in their threatened livelihoods and possibly to die from starvation and thirst, or to flee to refugee camps or migrate to the urban centres or overseas to gain better prospects for themselves and to support their families. These two facets of the emerging concept of a ‘survival dilemma’ try to combine both a top-down state-centred perspective with that of a people-centred human security approach (chap. 40 by Brauch).

3.6 Conclusion: Relevance of the Conceptual Quartet, Six Linkages and Four Pillars for the Analysis of Security

From a European perspective this chapter reviewed the four concepts of the conceptual quartet of peace, security, development, and environment by combining three scientific methods of a) etymology, b) conceptual history, and c) systematic conceptual mapping with an overview of the use of these concepts primarily in the four related research fields or programmes as they have been published in the English language and used in Western political science discourses. Complementary analyses from other cultural backgrounds, intellectual traditions, and disciplines and in other languages are needed to diversify this perspective. These four concepts are used in different contexts in common English language, in policy declarations, and in scientific analyses, and they often may mean different things to different authors, scientific schools and disciplines, which has sometimes complicated the scientific discourse.

The underlying epistemological interest (‘erkenntnisleitendes Interesse’) and research question has been to try a conceptual mapping to which extent the global contextual change with the end of the Cold War (chap. 1 by Brauch) has triggered conceptual innovations primarily in the concept of security and its three other related concepts of the quartet (peace, development, environment) as they have been analysed by the four research programmes and can be observed for six dyadic conceptual linkages and for four conceptual pillars.

This analysis did not intend nor has it been able to offer simple answers. Rather, this book and the two related volumes on reconceptualizing security all attempt to contribute to an intellectual mosaic of a multi-disciplinary and multicultural mapping of the re-thinking of security since the global turn of 1989–1990. The changes have been significant as the widening, deepening, and the sectorialization of the security concept illustrate. As this is an ongoing process, where the securitization has shifted from the narrow military focus of the Cold War to many newly perceived security concerns posed by global environmental change, and most particularly by climate change.

Awarding the Nobel peace prize of 2005 to Wangari Matthai, an environmental activist of the Greenbelt movement and in 2007 a deputy environment minister of Kenya, and putting ‘human security’ and ‘climate change’ on the agenda of the UNSC in 1999 and in 17 April 2007, are all indications of an ongoing change in the thinking on and use of the ‘security’ concept in its relationship to peace, development, and the environment. With the securitization of ‘climate change’ the threat is posed not by ‘them’ (the other, the enemy) but by ‘us’ (human beings and humankind alike), by those who have posed the threat by the consumption of fossil fuels that have contributed to anthropogenic climate change (Oswald/Brauch/Dalby 2008).

This requires a fundamental new policy of peace and security where sustainable development and sustainable peace are two strategic components to deal both with the ‘security dilemma’ among nations (top-down perspective) and with the ‘survival dilemma’ posed for the most vulnerable and poor people (bottom-up perspective) in the developing countries.