Part I: The Theory of International Regimes

Chapter 1

International Regimes: A Subject of Inquiry in International Relations Theory

The debate about international regimes re-introduces norms and institutions as a relevant subject of inquiry into the analysis of international relations. It is dominated by an approach that heavily draws on rational choice assumptions. The mainstream theory of international regimes may be considered as an economic theory of international norms and institutions. A number of rival approaches, focusing on the role of social institutions, international law, and knowledge for the analysis of international regimes identify weaknesses of the mainstream but have not so far developed a coherent concept.

1. The Roots of Mainstream Regime Theory

The mainstream concept of international regimes has two important theoretical roots, namely structural realism and the issue-area approach. A short assessment of these two roots will facilitate an understanding of the innovations introduced by regime theorists.

1.1. Structural Realism

Regime theory in its mainstream version is closely related to structural realism as developed mainly by Waltz. This branch of international relations theory is heavily influenced by micro-economic theory. It considers the structure of the international system as a largely stable variable that is formed by the co-action of individual actors and intervenes between their actions and political outcomes. The general
model is that of a market that 'intervenes' between producers and consumers of goods and orients the behaviour of actors accordingly.

Structural realism adopts a number of far-reaching assumptions on the properties of actors. Actors are modelled as behaving unitarily because systemic theory does not account for internal political processes. It abstracts from all internal diversities as well as from national particularities. Actors are assumed to have consistently ordered preferences and choose among alternative courses of action so as to further these preferences. They are 'rational'. Moreover, actors are assumed to be 'egoistic', that is, their preferences shall be oriented toward the achievement of their own well-being.

Waltz assumes that the international system is composed of state actors. "So long as the major states are the major actors, the structure of international politics is defined in terms of them." Like the structure of a market that changes upon the emergence of a few large participants from a state of complete competition into one of oligopolistic domination, notwithstanding a number of small and therefore relatively unimportant actors which might continue to exist, the structure of the international system is, in essence, made up of a relatively small number of major actors. This premise has some justification, considering that neorealism is not only entirely devoted to structure (and not process), but also concerned with the overall structure of the international system.

As structural realism is not concerned with the unit level, it does not assume a functional differentiation between the different units, i.e. states. The units are, however, distinct from each other by the amount of 'capabilities' which they possess and which they can employ to pursue their interests. Though 'capability' is an attribute of the units, it appears only at the system level. Like the structure of a market, the structure of the international system is determined by the constellation of the relative strength of a number of important actors.

The international system modelled by structural realism is anarchic. Anarchy is not chaos. It does not at all preclude order. It simply implies that order is determined by structural patterns. International institutions and norms will have to be supported by capabilities and thus reflect systemic patterns, or they will be largely ignored.

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5 See Waltz, Theory of International Politics, pp. 89-91.
6 Structural realism thus adopts the classical 'billiard ball' model.
7 The rationality assumption allows an interpretation of the action of states as meaningful and purposive. States respond directly to structural incentives (without intervention of their internal decision processes); see Snidal, The Game Theory of International Politics, p. 38.
8 This is an essential condition for the evaluation of external incentives and the employment of rational choice models.
9 Waltz, Theory of International Politics, p. 94.
10 This is an important premise. Modified realism and mainstream regime theory generally adopted the concept of states as acting units, despite the fact that these approaches are concerned not any more with the structure of the overall system, but with the structure of confined issue-areas. Modified realism cannot, therefore, invoke the same justification as structural realism.
11 See Waltz, Theory of International Politics, pp. 97-98.
12 See Waltz, Theory of International Politics, pp. 88-89.
and break down. Human intervention cannot effectively change the structure of the international system. Actors in a system governed by structure are not considered to act without expectations about the outcome of their behaviour. On the contrary, it is the structural order which shapes these expectations and guides actors' decision-making.

An anarchic system is based on the self-help of its units within the framework of a constraining structure. Whether those units live, prosper, or die depends on their own efforts. Structural realism therefore predicts a continuing struggle for 'capabilities', the aggregate asset securing the survival of the state. A relative increase of capabilities available to one actor necessarily implies the relative decrease of capabilities controlled by other actors. 'Capabilities' are therefore a relative asset. In structural realism, actors are considered to maximize their status relative to that of others. They may therefore not be expected to engage in cooperation that benefits their co-actors more than themselves, even though they might gain in absolute terms.

It follows that the issues pursued by states are hierarchically ordered. First and foremost, states will strive for capabilities for survival. These are mainly composed of military and economic strength. Only in the second place, and only to the degree to which security is assured, they may in addition strive for well-being.

The overall struggle for survival extends across all sectors. The principal distinction between the international and modern domestic systems is not the frequent occurrence of violence in the international system but the fact that the international system does not have at its disposal an enforcement mechanism to control this violence. Hence, force is assumed to be a relatively effective means.

Mainstream regime theory draws heavily on structural realism. It borrows the concept of actors in the international system as unitary and rationally behaving units that act to promote their interests, and the role of structure for the determination of 'rational behaviour' in a given situation. The decision to adopt these concepts has far-reaching implications for mainstream regime theory. It becomes a purely structural approach that is, like all structural approaches, confined to an examination of constraints faced by individual actors and their patterns of behaviour within these constraints. Accordingly, the decision to adopt this approach entails a severe limitation of the focus of regime analysis. It disregards factors leading to the appearance, change or disappearance of international regimes originating from the

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13 Existing organizational patterns are, thus, considered to be mere epiphenomena of the distribution of capabilities in the system; they are not capable of exerting autonomous influence; see Waltz, Theory of International Politics, p. 88.

14 The generation of expectations is facilitated by the stability of structure. Accordingly, 'a structural change is a revolution ... and it is so because it gives rise to new expectations about the outcomes'; Waltz, Theory of International Politics, p. 70 (emphasis added).

15 Waltz, Theory of International Politics, p. 91.

16 See Young, Toward a New Theory of Institutions, p. 118.

17 Accordingly, 'in a self-help system, considerations of security subordinate economic gain to political interest'; Waltz, Theory of International Politics, p. 107.
unit level. As long as the modelling of actors precludes an extension of the analysis to processes at the unit level, both approaches have in common an inherent focus on stability, while not being able to account for change that is generated at the unit level.

1.2. Complex Interdependence and Issue-Areas

However, other assumptions of realism were relaxed or entirely given up. Several important events during the 1970s could not be consistently explained by the realist theoretical and analytic framework, among others the oil crisis caused by a number of comparatively weak oil producing states and the rise of developing countries' influence in spite of their still very limited power resources. Theoretically, it was even more puzzling that changes in some issue-areas, such as oil supply, proceeded far more rapidly than in others, e.g. world trade. While the general decline of post-war 'regimes' could be accounted for by an assumed decline of the relative 'capability' of the United States as the dominant hegemonic power, differences in change could not be explained by a theoretical approach entirely focusing on the overall power structure. Apparently, area-specific parameters exerted a sufficiently high influence on outcomes to warrant their examination.

Keohane and Nye contrasted the realist analytical model of a world entirely dominated by the overall power structure with an opposing ideal type, namely 'complex interdependence', that modified three fundamental assumptions of political realism in the light of empirical observations. On a continuum of situations, the realist model would provide one extreme, and complex interdependence the opposite one.

While within the realist self-help model states base their existence and their protection against decline on their own power resources, the ideal type of complex interdependence assumes that their survival is generally secured. Consequently, the fixed hierarchy of issues in the international system diminishes. The perceived interest of states may extend to the striving for wealth and other goods which are of...
only secondary importance in the realist model\textsuperscript{25}. In comparatively quiet periods, security considerations are reduced to one out of a number of parallel concerns. Although basic realist assumptions about actors, i.e. their rational behaviour and their stable order of preferences, are retained, the dissolution of a hierarchy of issues implicitly modifies actors' calculations of preferences. While the capabilities available to actors, i.e. the predominant asset under realist conditions, are measured in quantities relative to those of other actors, other goods, such as wealth, are measured in absolute terms. An actor striving for power is a status maximizer (maximizing his status \textit{relative} to that of other actors irrespective of the absolute level), while an actor striving for wealth, e.g. economic or environmental benefits, is a utility maximizer\textsuperscript{26}. This distinction has an important theoretical impact on options for cooperation. A rationally behaving status maximizer will have to decline cooperation if he expects to gain in absolute and to lose in relative terms\textsuperscript{27}. A utility maximizer may cooperate in such situations and will generally be inclined to accept constraints to achieve cooperation.

In the ideal type of complex interdependence power is not fungible\textsuperscript{28}. Its transfer from one issue-area to another is difficult and its use is therefore limited. The realist assumption according to which force is always a relatively effective instrument is therefore abandoned. Instead, the exertion of naked power is assumed to be costly and frequently rather ineffective. Under this assumption, the distribution of military power will exert only a minor influence on outcomes in many, although not in all, areas of political conflict. As a consequence, militarily powerful actors face difficulties in transferring their high overall capabilities into capabilities that are applicable to specific issue-areas. The constellation of power and interests \textit{within} a given issue-area gains importance\textsuperscript{29}. Actors may be more powerful in one issue-area and less powerful in another.

Contingent upon the dissolution of a hierarchy of issues, states may pursue competing interests in different issue-areas which may well be in conflict with each other. They may promote these distinct interests through a number of channels of communication. Consequently, the notion of 'actor' requires a refinement. States cannot any more be considered as 'unitary actors', but it must be assumed that different administrative units conduct their own external relations\textsuperscript{30}. If administrative units from different countries active in the same issue-area cooperate, \textit{international} relations may be transformed into \textit{transnational} relations\textsuperscript{31}. Outcomes of the politi-

\textsuperscript{25} See Keohane/Nye, Power and Interdependence, pp. 32-33.
\textsuperscript{26} See Young, Toward a New Theory on Institutions, pp. 118-119.
\textsuperscript{27} See Waltz, Theory of International Politics, p. 105; He summarizes the argument as follows: 'When faced with the possibility of cooperating for mutual gain, states that feel insecure must ask how the gain will be divided. They are compelled to ask not 'Will both of us gain?' but 'Who will gain more?' If an expected gain is to be divided, say, in the ratio of two to one, one state may use its disproportionate gain to implement a policy intended to damage or destroy the other'; ibid.
\textsuperscript{28} See Keohane/Nye, Power and Interdependence, pp. 24-25; see also Keohane, Theory of World Politics, p. 194.
\textsuperscript{29} See Keohane/Nye, Power and Interdependence, pp. 30-32.
\textsuperscript{30} See Keohane/Nye, Power and Interdependence, pp. 33-35.
\textsuperscript{31} On transnational relations, see Keohane/Nye, Transgovernmental Relations; and also the early approach of Kaiser, Transnationale Politik.
cal process are not any more determined by a structure formed by the constellation of the traditional units of the international system. As an immediate theoretical consequence of the dissolution of the realist unitary state into a variety of competing governmental administrations with a varying relevance in different issue-areas, factors such as cooperation and organization may 'intervene' between structure and outcome. While these factors are located at the system level, transnational relations cannot be thought of without consideration of their repercussion on domestic processes. Hence, the consequences of this last relaxation of realist assumptions address the unit level and reach far beyond the scope of systemic structural theory.

The dissolution of the stable hierarchy of issues and the related existence of issue-area specific structures of power and interests is an assumption essential for regime theory at large. It allows the investigation of confined areas of possible cooperation within a generally anarchic system. Mainstream regime theory did not, however, abandon the concept of the state as a unitary actor.

2. The Mainstream Concept of International Regimes

The influential works of Waltz and Keohane/Nye reflect the two roots of mainstream regime theory, namely structural realism and issue-area orientation. The initial prominence of the regime concept in international relations was, however, largely a consequence of empirical observations and a superficial attempt to adapt the existing analytical apparatus, rather than the result of careful theorizing. Only in a second step, was endeavour directed at the development of a theoretical framework. The two aspects of mainstream regime theory, i.e. the empirical assessment of international regimes against the backdrop of an assumed decline of the United States' hegemonic power and the theoretical concept related to situative structuralism, should be carefully distinguished from each other.

2.1. Hegemonic Stability and International Regimes

Empirically observed changes in the post-war international economic system during the 1970s were explained by realist analysis on the basis of a steady decline of the hegemonic power of the United States. The former hegemon could not any more effectively support an international economic order that had been established under its supervision. However, some sectoral arrangements persisted basically unchanged and posed puzzles to the realist explanation of world politics. Hence, the research programme was oriented at an inquiry into the problem of why major and

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32 See Stein, Coordination and Collaboration, p. 319. On the relevance of the disaggregation of international relations into issue-areas, see also Zürn/Wolf/Efinger, Problemfelder und Situationsstrukturen, pp. 152-153.
33 Situative structuralism focuses on the structure of particular decision-situations. Like structural realism, it is an essentially structural approach, but like complex interdependence it assumes that structures of situations differ according to the particular constellations of power and interests of actors involved. On the implication of situative structuralism for mainstream regime theory, see below, Chapter 1, pp. 33-41.
well established regimes did not fall apart\textsuperscript{34}. Required was a device for the explanation of an observed but unexpected stability.

Apparently, some influential issue-area specific factors 'intervened' between the structure of the international system and political outcomes. They were labelled 'international regimes'\textsuperscript{35}. Contrary to traditional realist assumptions, these regimes did not entirely reflect the underlying structure of power and interests. If they intervened, they had to actually influence, i.e. to change, actors' behaviour. According to structural theory, they had to be sought at the system level. In addition, international regimes had to be of a lasting nature. They were to be understood as something more than temporary arrangements that change with every shift in power or interests\textsuperscript{36}, since they were precisely designed to explain stability \textit{in spite of} a changing structure of power and interests. The concept of regimes that are stable at least in their more general components\textsuperscript{37} seemed to be well adapted to these analytical demands\textsuperscript{38}, although careful case studies did not support the hypothesis of institutional stability followed by sudden change but revealed a gradual, but continuing, development of regimes\textsuperscript{39}.

The international trade system, GATT, became the prime example and prototype of an international regime\textsuperscript{40}. These institutions were believed to be composed of principles, norms, rules and decision-making procedures around which actors' expectations converged in a given issue area\textsuperscript{41}. Following two symposia on the theory of international regimes in 1981 and 1982, Krasner gave the following account on the coming into being, development and effects of international regimes. When they are created, regimes first reflect a high degree of congruity between power distributions and regime characteristics: powerful states establish regimes that enhance

\textsuperscript{34} See Krasner, Regimes and the Limits of Realism, p. 500.
\textsuperscript{35} 'Modified structuralists' adopted a notion first used by 'institutionalists', as Ruggie, International Responses to Technology, p. 570, and Haas, On Systems and International Regimes.
\textsuperscript{36} Krasner, Structural Causes and Regime Consequences, p. 186. See also Keohane, After Hegemony, pp. 63-64.
\textsuperscript{37} Keohane, The Theory of Hegemonic Stability, p. 133, acknowledged, of course, that the institutional framework of GATT had changed with each successive round of trade negotiations. These changes were, however, only considered as minor modifications within the regime and not as changes of the regime. See also Krasner, Structural Causes and Regime Consequences, pp. 188-189.
\textsuperscript{38} Keohane/Nye, Power and Interdependence, pp. 38-60, did not inquire into the newly discovered phenomenon of 'international regimes', but instead attempted to explain 'regime change'.
\textsuperscript{39} See for instance the material produced by Keohane/Nye, Power and Interdependence. They admit considerable difficulty in fixing a specific date or event for regime 'change'. For the monetary system, they assume a major change at the 1971 shift in US policy, although the case study reveals that the system as designed worked only between 1958 and 1961 (pp. 79-82). It seems even more questionable to identify the 'change' of the oceans regime with the famous 1967 speech of the Maltesian ambassador Pardo before the UN General Assembly (p. 92). For a process-oriented interpretation of the monetary as well as the trade regime, see Ruggie, International Regimes, Transactions and Change, pp. 405-410.
\textsuperscript{40} See Kratochwil/Ruggie, International Organization. A State of the Art, p. 769.
\textsuperscript{41} See Krasner, Structural Causes and Regime Consequences, p. 186. On this 'consensus definition' and its implications, see below, Chapter 1, pp. 44-49.
their interests. They are therefore established primarily upon major re-arrangements within the international system, usually following major wars.

This result is somewhat surprising. When 'regimes' of this type come into being, they can hardly be considered as 'intervening variables', since they closely reflect the underlying structure; they are mere Waltzian epiphenomena. But over time, Krasner continues, the structure of the international system and an established regime can drift apart. Regimes may assume a life of their own, a life independent of the basic causal factors that led to their creation in the first place. A change of the prevailing power distribution does not always imply a change in outcomes because regimes may function as intervening variables. Obviously, this concept precisely reflected the requirements for modifications of realist theory. The coming into being of GATT could be explained by structural factors, while its persistence against the backdrop of an assumed declining hegemonic power was attributed to the intervention of the regime. However, this concept implies several problems.

The international system at the time of regime creation was modelled as an Olsonian privileged group. Irrespective of whether a benevolent hegemon accepted the costs of a liberal international trade system and thus allowed other actors to take a free ride or whether these others were forced to contribute, within the realist theoretical framework political outcomes could only be explained on the basis of structural considerations. Both the hegemon and other actors acted under structural constraints, but they acted solely in their own parochial interests. International arrangements, such as GATT, were mere reflections of structural conditions. For a later period, mainstream regime theory considered the same international arrangements as intervening variables without which outcomes could not be readily explained any more. Hence, a turning point of utmost theoretical importance should have been passed. At that point, a set of norms merely re-

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42 Krasner, Regimes and the Limits of Realism, p. 499.
43 Krasner, Regimes and the Limits of Realism, p. 499, explains: "Regime creation usually occurs at times of fundamental discontinuity in the international system, such as the conclusions of major wars." Since Krasner's articles form the introduction and conclusion to a special issue of International Organization containing contributions to the symposia, they may be assumed to report more than his personal views on the subject.
44 From a theoretical point of view regimes require 'adjustment' of behaviour by actors, see Keohane, After Hegemony, p. 51.
45 Krasner, Regimes and the Limits of Realism, p. 499.
46 Krasner, Regimes and the Limits of Realism, p. 499. Hence, contrary to the view of Rittberger, Konflikttransformation durch internationale Regime, p. 327, Krasner holds that international regimes do acquire a certain ability of self-preservation that is usually attributed to systems.
47 On the role of group-theoretical considerations for the discussion about international regimes and on Olson's typology of groups, see below, Chapter 1, pp. 34-41.
48 Hegemonic stability theory comprises different schools; on the version assuming a benevolent hegemon, see Kindleberger, The World in Depression.
49 On the coercive approach to hegemonic stability, see Gilpin, War and Change in World Politics, pp. 35-36; Gilpin, The Political Economy of International Relations, p. 126.
50 It is therefore somewhat surprising that Haggard/Simmons, Theories of International Regimes, pp. 501-504, in their review extensively discuss the role of hegemonic stability for international regimes without inquiring into the impact of hegemonic regimes on outcomes.
51 Snidal, The Limits of Hegemonic Stability Theory, pp. 597-602, also does not identify this turning point. Nevertheless, he assumes that from that point onwards the interests of some few larger actors in the group
fleeting the power and interest structure underwent a metamorphosis into an autonomously intervening variable. Yet, this turning point is not evident per se, nor did it form a subject of inquiry for mainstream regime theory.

The assumed stability of international regimes was attributed to two mechanisms. First of all, the widening gap between a basically stable sectoral normative system and an underlying structure that drifted apart was believed to be caused by a 'time-lag'\textsuperscript{52}. Regimes provided stability divorced from the underlying power and interest structure until a major 'regime change', i.e. the break-down of the entire normative system, occurred\textsuperscript{53}. However, the assumption that international regimes as sets of norms could be based on an outdated power and interest structure and exert a considerable and autonomous influence on political outcomes is not easily accommodated within a theoretical approach for which structure is the prime variable\textsuperscript{54}.

Considerable endeavour was devoted to the integration of the 'time-lag'-hypothesis into the body of mainstream regime theory. This was, however, neither independent deductive reasoning nor the evaluation of empirical research, but simply a collection of loosely related arguments supporting the hypothesis\textsuperscript{55}. It was argued that the transaction costs of the establishment of a new international regime following the breakdown of an outdated one might be considered too high by actors\textsuperscript{56} or that actors could not necessarily be expected to recalculate the costs and benefits of an arrangement every now and then\textsuperscript{57}. Explanations attributing the persistence of a regime to the interests of the participating states even though it does not any more reflect the power and interest structure either leave the realm of deductive structural theory, or they risk coming close to a tautology. They will leave structural theory if they assume that actors do not know what precisely a normative system reflecting structure looks like or if they assume that actors do not behave according to their order of preferences\textsuperscript{58}. If they do not leave structural theory, they must assume that

52 See Krasner, Regimes and the Limits of Realism, pp. 501-503. The very function of international regimes was assumed to contribute to this stability, as they were »designed to mitigate the effects on individual states of uncertainty deriving from rapid and often unpredictable changes in world politics«, Keohane, The Demand for International Regimes, p. 351.
53 Wolf/Zürn, Internationale Regime und Theorien der internationalen Beziehungen, p. 214, argue therefore that stabilization of outdated regimes is not necessarily peace-keeping.
54 Beyond structural theorizing, regimes may play a role in conserving old structures, as they may influence and hence stabilize the calculation of perceived interests of actors, see Stein, Coordination and Collaboration, p. 323.
55 Snidal, The Limits of Hegemonic Stability Theory, p. 585, holds from a game theoretic perspective, which does not distinguish between the creation and maintenance of regimes, that mainstream regime theorists did not so much elaborate the theory ... as seek to plug the gaps between the static theory and the empirical reality with plausible, and almost non-falsifiable, theoretical filler«.
56 Keohane, The Demand for International Regimes, pp. 348-349, argues that 'ineffective regimes' such as GATT may nevertheless provide information and opportunities for contacts and thus create their own causes for persistence.
57 Stein, Coordination and Collaboration, p. 322. Note that this factor leaves the realm of rational choice and implicitly introduces the concept of 'bounded rationality'. On 'bounded rationality' see below, Chapter 9, pp. 355-356.
58 Krasner, Regimes and the Limits of Realism, p. 502, mentions 'custom and usage, uncertainty, and cognitive failing'. An actor complying with a set of norms because he acts under uncertainty, or even upon false calcula-
actors continue to sustain a regime as long as it is in their interest; and they must conclude from its existence that it is (still) in their interest. In short, the 'time-lag'-hypothesis turns out to be a poorly designed and incoherent explanation of empirical observations.

This is equally true for Krasner's second model of the effect of international regimes on outcomes, namely their 'feedback' on structure and causal variables. Some of these feedback effects depend on the 'time-lag'-hypothesis. Only if time-lag occurs, for example, may a regime alter the capabilities of actors and serve as a source of power. Somewhat more sophisticated is an assumed feedback on the interests of actors. Many international regimes create property rights; and property rights, in turn, create economic interests. This kind of influence may, however, exist even as long as a regime fully reflects the underlying structure. If it guarantees property rights, it will stabilize a situation that might have changed without such rights. This effect reaches beyond structural theory, even though it is not inconsistent with it. It emerges only over time in the process dimension which structural theory excludes from its focus. A last feedback effect addresses the incentives of actors to cooperate voluntarily in order to overcome a dilemma situation. As will be seen in the next section, this effect is not necessarily confined to the stabilization of existing regimes; it may also theoretically explain the creation of new ones.

While mainstream regime theory introduced sets of norms as a relevant subject of inquiry into modified realism, the conceptual basis was more informed by empirical observations than directed by intentions to develop a coherent theory. Apparently, mainstream regime theory focused too closely on a very limited number of post-war regimes. It missed the central characteristics of international regimes as institutions and neglected regimes established in periods of declining hegemony, or even without the participation of a hegemon.
2.2. Issue-Area Structure and International Regimes

Waltz formulated the basic research question for any attempt to enhance the theoretical soundness of mainstream regime theory and to accommodate the role of norms and institutions with a structural approach:

»What are the conditions that would make nations more or less willing to obey the injunctions that are so often laid on them? How can they solve the tension between pursuing their own interests and acting for the sake of the system? No one has shown how that can be done, although many wring their hands and plead for rational behaviour. The very problem, however, is that rational behaviour, given structural constraints, does not lead to the wanted results. With each country constraint to take care of itself, no one can take care of the system.«

A whole branch of international relations theory tried to answer the question when, and under which conditions, cooperation may be expected to emerge despite the fact that the international system is decentralized, and the enforcement of compliance with norms is difficult.

A regime approach intended not to overthrow the realist framework of inquiry but to adapt it to empirically perceived political developments starts with the assumption of a generally anarchic international system in which the power and interest structure largely determines political events. It thus acknowledges that the international system is still, and will be in the medium-term future, lacking powerful centralized mechanisms for the enforcement of obligations. And it avoids the criticism of 'smuggling in' assumptions of altruist motivations of actors for their compliance with norms.

Following structural realism, mainstream regime theory resorts to the theoretical simplification of unified and rationally behaving actors striving for a maximization of their well-being. Actors are considered as rational utility maximizers with a stable order of preferences, but they do not necessarily have to be states. If the constellation of actors in a given situation so warrants, the analytical apparatus developed may well be applied to interaction between other types of actors, such as multinational corporations or transnational associations. Mainstream regime theory is therefore not necessarily state-centred. Yet, it vigorously externalizes developments at the unit level and replaces them by the rationality assumption. Transna-

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66 See Keohane: After Hegemony, p. 29. See also Oye: Explaining Cooperation under Anarchy, p. 1.
67 See Keohane, After Hegemony, p. 67.
68 In order to avoid 'theoretical anarchy', see Keohane, The Demand for International Regimes, p. 328.
70 See regime analysis of the international banking business' coordination during the developing countries' debt crisis by Lipson, Bankers' Dilemmas; and see Cowhey/Long, Testing Theories of Regime Change, on arrangements for world automobile markets that are heavily influenced by a number of large corporations.
tional relations, to which 'complex interdependence' assigns a prominent place, are thus excluded. Most important, mainstream regime theory does not focus on the international system at large, as does structural realism, but on situations in which particular issues are at stake. It adopts the premise that different issue-areas are only to a limited extent interconnected and that they may be examined separately. Endeavour is then directed at an elucidation of structural opportunities for 'cooperation under anarchy' in confined areas. For this purpose mainstream regime theory draws upon two rational choice approaches, namely game theory and the theory of the supply of public goods.

2.2.1. Game Theory

Game models may be considered as »natural adjuncts to third image theory, because they show the results of different combinations of actions in terms of the actors' own preferences«. As a specific branch of general decision theory that accounts for 'strategic' action involving two or more actors, it is used in particular for the assessment of situations as to their appropriateness for cooperation and regime building. A number of frequently discussed situations can be identified on a continuum between the two extremes of insurmountable conflict with no area of common interest among actors and complete harmony with no area of conflict. Between these two extremes, a variety of different situations exist in which actors have 'mixed motives', that is, partially conflicting and partially coinciding interests in varying combinations. In these situations, conflict may prevail, but cooperation may also overcome discord. Hence, they allow a simultaneous inquiry into 'cooperation and discord'. Generally, only these 'mixed motive' games are of interest to mainstream regime theory.

One of the extremes of the continuum is made up by 'Deadlock' situations, in which no margin whatsoever for cooperation exists between actors. A large group of this category are zero-sum-games, in which either actor loses precisely as much as his counterpart wins. There is no prospect for mutually beneficial action, and, conse-

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71 See Kohler-Koch, Interdependenz, p. 120. Keohane/Nye, Power and Interdependence Revisited, p. 733, claim that the two components of international regimes, namely the 'realist' part of structural analysis and the concept of complex interdependence as its 'liberal' corollary, are "to some extent 'decomposable'". In fact, they have been largely decomposed.

72 See Oye, Explaining Cooperation under Anarchy; Axelrod/Keohane, Achieving Cooperation under Anarchy.

73 For a concise overview of this branch of international relations theory, see Abbott, Modern International Relations Theory. For a structural approach to institutions, Schotter, The Economic Theory of Social Institutions.

74 Abbott, Modern International Relations Theory, p. 354. For a recent excellent study in this field of theorizing, see Zürn, Interessen und Institutionen.

75 Generally, the type of 2 x 2 games is employed. It reduces the number of actors to two and their options for action to a choice between what is conveniently labelled 'cooperation' and 'defection'. Thus each play comprises four possible outcomes. Only by way of generalization, three or n-person games are subject to inquiry.

76 See the subtitle of Keohane, After Hegemony, 'Cooperation and Discord in the World Political Economy'.

77 On zero-sum games, see Junne, Spieltheorie in der internationalen Politik, pp. 38-46.
quently, an actor will refuse to cooperate independently of the choice of the other\(^78\). A 'deadlock' situation also exists, however, if only one of the actors chooses non-cooperation as his dominant strategy, i.e. irrespective of the choice of the other\(^79\). The opposite extreme of the continuum is formed by a situation in which each actor chooses 'cooperation' independently of the choice of the other\(^80\). Neither actor has any incentive to 'defect' since collective and individual rationality are fully coinciding. Provided that actors behave rationally, as assumed, the structure of this situation, labelled 'Harmony', leads automatically to an optimum outcome, without either of the actors having to adjust his behaviour\(^81\). These extreme situations are of little interest to mainstream regime theory, since they pose no puzzles\(^82\).

The most important 'mixed motive' game is the *Prisoners' Dilemma*\(^83\). It reflects the 'dilemma of common interest' of actors\(^84\) that consists of three relations: (a) all actors as a group gain most by mutual cooperation (CC); (b) an actor gains even more by defection while his counterpart cooperates (DC > CC); (c) an actor loses most by cooperation while his counterpart defects (DD > CD). Because of the incentive to defect for an actor regardless of the option chosen by his counterpart, Prisoners' Dilemma situations lead to a stable outcome of mutual defection, even though the actors are aware that all of them would be better off by cooperation\(^85\). Communication among actors alone does not suffice to overcome the dilemma as long as choices are made simultaneously and independently\(^86\), because even upon mutual agreement both actors cannot be sure that their counterparts will keep their promises and cooperate.

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78 Hence, a stable outcome is mutual defection, formalized as DD, of which the first letter indicates the choice of actor A and the second the choice of actor B. 'C' symbolizes 'cooperation', and 'D' symbolizes 'defection'.


80 In Deadlock situations D > C, in Harmony situations C > D.

81 See Oye, Explaining Cooperation under Anarchy, p. 6. The stable outcome of Harmony situations is thus mutual cooperation, CC.

82 Keohane, After Hegemony, pp. 51-53. This is true at least from a purely structural perspective. Keohane admits, however, that even in situations which come close to Harmony games, such as the establishment and maintenance of a liberal world trade system according to neo-classic economic theory, frictions frequently exist on a small-scale level due to actors' constraints (ibid., p. 54). But this reasoning is already beyond structural analysis. Likewise, a structurally determined 'Deadlock' situation may gain some leverage for cooperation due to unit level processes.

83 The tale runs as follows: Two prisoners are suspected of a major crime, but evidence suffices only for a minor sentence. If neither of the two confesses, they will both be sentenced for the minor crime only (mutual cooperation, CC). If one of them confesses, he will go free, while his counterpart will get a heavy sentence (unilateral defection, while the other cooperates, DC); if both of them confess, they get a moderate sentence (mutual defection, DD). The payoff-structure is accordingly: DC > CC > DD > CD; see Oye, Explaining Cooperation under Anarchy, p. 7.

84 See Stein, Coordination and Collaboration, pp. 305-308.

85 An important real-work situation modelled by the Prisoners' Dilemma is the security dilemma, see Jervis, Cooperation under the Security Dilemma; Snyder, Prisoners' Dilemma and Chicken Models, pp. 68-8 Jervis, Security Regimes, pp. 358-359. For examples from the economic field, see Conybeare, Trade Wars, p. 170; Abbott, Trading Nation's Dilemma; Conybeare, Public Goods, Prisoners' Dilemmas, p. 10 (Free Trade).

However, the dilemma diminishes as soon as moves are not made simultaneously and independently, but gradually and accompanied by continuing communication\textsuperscript{87}. Equally important, the dilemma may be overcome if actors have reliable expectations about how they \textit{ought} to behave and how they \textit{will} behave\textsuperscript{88}. Outcomes may differ significantly if a game is not considered in isolation but as a sequence of related games. Similarly, separate issues can be linked to sequences of moves\textsuperscript{89}. This has an impact on actors' interests as they now include effects of present action on future decisions of the co-actors. The emerging 'shadow of the future' increases the probability of the return of an investment into cooperation\textsuperscript{90}.

Prisoners' Dilemma situations are located right in the centre of the mentioned continuum between the extremes of Deadlock and Harmony. They provide sufficient common interests among actors to warrant cooperation, but also a sufficiently wide margin of discord to preclude such cooperation. Structurally based strategies to overcome the dilemma exclusively focus on modifications of the disadvantageous pay-off structure, e.g. by reducing the incentive for unilateral defection or expanding the time frame\textsuperscript{91}. Hence, they attempt to move Prisoners' Dilemma situations along the continuum toward the end that is more benign to cooperation. International regimes may play an important role in this regard\textsuperscript{92}.

Modifications on either end of the pay-off structure of Prisoners' Dilemma situations considerably enhance the prospect for cooperation. Yet it renders the situations indecisive. In \textit{Chicken} games\textsuperscript{93} actors have conflicting preferential outcomes, but a common aversion\textsuperscript{94} against the worst case. The model provides two equilibria,
mutual cooperation and mutual defection. Cooperation and defection are both 'rational' strategies\(^95\) that may be chosen by actors. Actors may try to achieve the preferred outcome (CD) but then risk mutual defection. They may also attempt to minimize the risk ('minimax')\(^96\) and resort to cooperation, but then sacrifice the prospect of achieving the maximum benefit. Chicken games are far more benign to cooperation as Prisoners' Dilemmas, since even unilateral cooperation avoids the least preferred outcome and thus pays in minimizing risk. Nevertheless, the achieved cooperation remains precarious, since unilateral defection promises an even higher benefit\(^97\).

If this incentive for defection diminishes, a Prisoners' Dilemma will be transferred into a Stag Hunt game\(^98\) in which both actors prefer mutual cooperation (CC) most. However, as they cannot be sure of the cooperative behaviour of their counterparts, they retain a certain incentive to defect, thus achieving the second best solution and avoiding the worst. Contrary to Harmony, cooperation is not the dominant strategy of either party, but contrary to Prisoners' Dilemma, 'free riding' does not pay. In the isolated version of this 'assurance game'\(^99\) achievement of the desired outcome again depends on the strategy chosen. Actors may well avoid risk and resort to the second best outcome, but they may also attempt to achieve the preferred outcome despite the risk of defection on the part of their counterparts. If all actors choose the risky strategy, cooperation will occur almost automatically. Yet, with an increasing number of actors involved, the probability of cooperation decreases rapidly\(^100\). However, once a shared expectation about the cooperative attitude of co-actors has evolved, a rational actor is not inclined to defect. Contrary to the above-mentioned situations, Stag Hunt situations are highly appropriate for cooperation even under conditions of anarchy, because they are virtually self-enforcing\(^101\).

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\(^95\) On the notion of strategy, see Junne, Spieltheorie in der internationalen Politik, pp. 19-30.

\(^96\) Minimax is the strategy that leads to the lowest possible loss; in chicken games it is 'cooperation', while in Prisoners' Dilemma it is 'defection'.

\(^97\) With respect to Chicken games the assertion by Stein, Coordination and Collaboration, p. 314, that games of common aversion are self-enforcing once established, is misleading. Oye, Explaining Cooperation under Anarchy, p. 14, notes that iterated Chicken games may, contrary to Prisoners' Dilemma and Stag Hunt games, decrease the prospect of cooperation.

\(^98\) The situation is illustrated by the following tale. A community of hunters sets out to catch a stag; if successful, all will eat well, but to that end, all hunters have to cooperate (CC > DC). If only one of them attempts to catch a rabbit in the meantime, the defector will eat lightly, while all others starve. Hence, defection pays if only one co-actor is expected to defect (DD > CD). The pay-off structure of Stag Hunt situations is CC > DC > DD > CD; see Oye, Explaining Cooperation under Anarchy, p. 8. It may be noted that from the perspective of the decision-maker there is no real difference between the two intermediate outcomes.

\(^99\) See Sen, Choice, Orderings and Morality, pp. 59-60.

\(^100\) Kratochwil, Rules, Norms, Values, pp. 314-318, argues that for three players the preferred outcome (CCC) is rendered highly improbable without shared expectations.

\(^101\) It should, however, not be overlooked that the distinction between a Prisoners' Dilemma situation on the one hand, and a Chicken or Stag Hunt situation on the other may well be a matter of degree, which is not reflected in these models. The familiar 'tragedy of the commons', i.e. the overgrazing of a common almende belonging to a village by individual cattle growers, comes close to a Prisoners' Dilemma; see Schelling, Micromotives and Macrobehaviour, pp. 110-115; Stein, Coordination and Collaboration, p. 313. But it may come close to a Chicken game, if the difference between the two worst outcomes decreases. While game theory only provides turning points, i.e. reversals of pay-off structures, human activity may be expected to account for relationships, i.e. relative differences between outcomes.
Coordination games are even more benign to cooperation. While actors may either prefer different outcomes or be indifferent as to a number of equally beneficial outcomes, they win or lose simultaneously and, accordingly, prefer cooperation to non-cooperation. In order to ensure a beneficial outcome, choices have to be coordinated, but once this has been achieved, there is no incentive whatsoever for defection. Whereas in Stag Hunt situations actors have to be quite sure of the cooperative attitude of their co-actors, in Coordination games they can be sure (as long as rational behaviour is assumed).

Although actors may play different games at the same time, and their decisions may be influenced by their own perception of a situation's structure rather than by 'objectively' given patterns, game theory contributes to regime analysis in providing a number of distinct models that address various combinations of coinciding and diverging interests of actors. These models generate interesting insights about the impact of structural conditions on the prospect of future cooperation, or on the stability of existing cooperation. The crucial stage of game theoretical approaches, however, is the evaluation of the orders of preferences of actors.

2.2.2. Collective Action and the Supply of Public Goods

Cooperation in the international system reflects the dilemma between individual and collective rationality and is a classical problem of collective action. Besides game theory, the public goods approach provides a widely used analytical tool.

The dilemma of the supply of public goods is related to the fact that the properties of these goods preclude their trading on markets. Contrary to marketable goods, no member of a relevant group can be excluded from the consumption of a public good once it is supplied (non-excludability). In addition, the consumption of a particular unit of the good by one actor does not reduce its availability for consumption by other ones (jointness). Beside the provision of security, a liberal trade system and an orderly exchange rate system, the protection of the stratospheric ozone layer and of other environmental commons reflect the properties of public goods.

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102 Examples of coordination games are all kinds of standardization which may be conflicting in the standard setting stage, but not in later stages, e.g. the choice between left or right lane driving, see Stein, Coordination and Collaboration, pp. 309-311; see also Abbott, Modern International Relations Theory, pp. 371-374.

103 In a world of rational actors, this type of cooperation does not require stabilizing mechanisms, but in real-world situations it may well do so, see reasons given by Ullmann-Margalit, The Emergence of Norms, pp. 83-89.

104 See the critical comments by Kratochwil, Rules, Norms, Values, pp. 303-304.

105 See generally Snidal, The Game Theory of International Politics, pp. 40-44. Preferences of actors may be assessed empirically or deduced from the structure of the situation. Note that in the latter case the structure of the situation is a premise of its game theoretical analysis. This may provide a source of severe mis-assessment; see the critical comments by Gowa, Anarchy, Egoism and Third Images, p. 180, on the interpretation of World War I trench war situations as Prisoners' Dilemmas by Axelrod, The Evolution of Cooperation, pp. 73-87. See the discussion by Zürn, Interessen und Institutionen, pp. 80-90.

106 See Snidal, Coordination versus Prisoners' Dilemma, p. 923.


108 Problems of environmental deterioration have long been framed in terms of the public goods approach; see G. Hardin, The Tragedy of the Commons.
According to a fundamental assumption of market theory, actors are considered as rational utility maximizers that decide unilaterally. If appropriate, they will take into account the anticipated reaction of other actors to their own behaviour. Actors will supply a good only as long as their costs of production are lower than their expected benefits. The dilemma of the supply of public goods then is reflected in the negative ratio of costs and benefits for the actors separately and in the positive ratio for the group at large. This concept has been transferred from market theory into the field of collective action of groups. It explains why the size and the composition of groups may have an impact on successful collective action\(^\text{110}\).

In a large group composed of actors of a relatively equal size, each actor holds only a very small share of the market. His decision whether to cooperate does not immediately affect the market. Due to his negligible market share, it will not even be noticed by other actors. An individual actor does not, therefore, have to take into account any reactions by his co-actors to his own behaviour. Given the supply of the good by the group, a rational actor chooses not to participate in joint supply, since cooperation would not produce noticeable collective benefits but generate noticeable individual costs. A rationally behaving actor will thus choose to take a 'free ride'. If, on the other hand, the good is not yet supplied by the group, his own contribution will not significantly alter the collective deficiency. Accordingly, a rationally behaving actor will again abstain from contributing. This rationale is valid for any individual member of the group. Consequently, the good is not supplied, even though all actors are aware that they could gain net benefits from cooperation because their individual costs of cooperation would be lower than their individual gains. Hence, the dilemma of the large group is related to the fact that any individual member has an incentive to defect unilaterally, independently of the decisions of his co-actors\(^\text{111}\).

In a small group composed of relatively large members, the rationale is completely different\(^\text{112}\). Here, benefits may outweigh costs even for individual actors. In this case, the actor with the largest market share will supply a limited amount of the public good, even though his co-actors may not be excluded from its consumption\(^\text{113}\). For all other actors it is rational to refrain from cooperation and to take a 'free ride', thus saving incremental costs. In this 'privileged group' the supply of the public good remains below optimum levels\(^\text{114}\), but the group receives at least a certain amount. Since in the small group all actors but one take a free ride, only the

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109 R. Hardin, Collective Action, pp. 18-20, draws attention to the fact that true public goods according to a narrow definition are difficult to think of. The structural problem is, however, similar to the one posed by collective or group goods.


111 The constellation is similar to an n-person Prisoners' Dilemma situation; see Snidal, The Limits of Hegemonic Stability Theory, p. 598.

112 On small groups, see Olson, The Logic of Collective Action, pp. 22-33.

113 Take, for example, the case of a price-cartel, in which a major actor controls a market share of 25%. If the price reaction to a decrease in supply by one per cent is an increase of more than four per cent, it is rational for him to take advantage of the opportunity, see Olson, The Logic of Collective Action, p. 26.

114 Sub-optimality is due to the fact that shares that would be supplied by smaller participants in a fully cooperative group are still lacking; see Olson, The Logic of Collective Action, pp. 27-29.
largest member incurs the costs of supply. The largest actor tends to be 'exploited' by his co-actors\textsuperscript{115}. Over time, small free riders may undermine the position of the largest group member due to over-proportional gains. As a consequence, small group situations imply an inherent dynamics.

Structural characteristics of small group situations have been applied to the international system in the form of the theory of hegemonic stability. According to this approach, a 'benevolent' hegemon supplies the system at large with collective goods such as stability and a liberal trade system\textsuperscript{116}. As in the Olsonian 'privileged group'\textsuperscript{117}, the hegemon acts in his own interest but smaller participants gain over-proportionally since they may take a free ride. Both the establishment of major post-war international regimes, such as GATT, and their assumed decline may be analyzed on the basis of this approach.

In small and large groups, cooperation is improbable, because rational actors do not sacrifice opportunities for the maximization of their utility functions. Actors behave according to their own interests, regardless of the reaction of their co-actors to their choice. In medium size groups, the rationale is different. As in the small group, no actor has an incentive to supply the public good individually, since costs outweigh individual benefits. But actors' market shares are sufficiently large to seriously affect the market. Actors must therefore act strategically and include anticipated reactions of their co-actors into their calculations of choice. As in the small group, free riding pays at first glance, but it reduces the benefits of co-actors tangibly and may lead to a termination of the supply of the public good altogether. A rational actor may therefore be inclined to continue cooperation in his own interest. Only if he expects his co-actors to supply the good in spite of his non-cooperation, he may choose defection. Hence, depending on his evaluation of his co-actors' reaction to his own action, he is encouraged to overcome his parochial self-interest for his individual benefit but also for the benefit of the group at large.

The constellation of medium size groups provides a serious, structurally supported opportunity for cooperation among rational utility maximizers because actors are locked in a collective situation in which they have to calculate their interests strategically. Yet, the option of defection still remains open and renders cooperation precarious. Due to the relatively low number of actors in the international system, constellations resembling medium size groups may be assumed to be wide-spread in international relations. Moreover, as the international state system comprises participants of differing size, the cooperation of some major members may suffice to surpass the threshold beyond which the supply of public goods pays for these members\textsuperscript{118}. Accordingly, a fairly large group may be divided into two sub-groups com-

\textsuperscript{115} See Olson, The Logic of Collective Action, p. 29: "There is a systematic tendency for 'exploitation' of the great by the small."

\textsuperscript{116} See Kindleberger, The Great Depression.

\textsuperscript{117} Olson, The Logic of Collective Action, p. 49.

\textsuperscript{118} See Olson, The Logic of Collective Action, p. 35; R. Hardin, Collective Action, pp. 40-41.
posed of the members necessary for a cooperative effort (k-group) and of the (smaller) members that may take a free ride.

This branch of reasoning elucidates structural elements of the supply pattern for cooperation dependent upon the size and composition of groups. It suggests that cooperation in certain cases (medium size group) is possible in a world of rational egoists even without effective enforcement. In these cases, cooperation does not change the structure of the situation. It merely ensures that actors choose options that are most beneficial for the group at large and subsequently also for themselves. In some other situations (large group), cooperation required a structural change, e.g. the establishment of an effective sanctioning apparatus. Actors had to calculate and behave differently from their behaviour without such cooperation, while incentives for defection remained high and enforcement required considerably more attention.

2.3. Consequences of the Structural Approach to International Regimes

Neorealism and mainstream regime theory start from the premise that in the international system political outcomes are largely determined by structure. Cooperation is scarce relative to discord and requires careful explanation, since it is considered to flourish only in case of support by structural determinants.

The concepts of game theory and the supply of collective goods offer a theoretical framework for the assessment of the structure of situations. They are apt to explain that a mutually beneficial outcome is frequently not achieved because the prevailing structure guides actors to behave in ways that lead to sub-optimal results. However, they also identify situations with opportunities for cooperation serving the interest of the actors involved. Structurally, these situations are not fully determined. They include in particular 'mixed motive' games and medium size groups in which actors must behave strategically.

The most important contribution of mainstream regime theory is therefore the provision of evidence that even in an anarchic international system situations exist in which cooperation pays even for rational and egoist actors. In these situations, the participating actors are expected to strive for such cooperation even though difficulties must be overcome. In distinguishing cooperative from non-cooperative situations, mainstream regime theory opens the sterile dichotomy of those simply believing in the possibility of international cooperation despite the lack of an enforcement agency, and those flatly denying this possibility because of the lack of such agency.

{119} On this basis, a new version of hegemonic stability theory is put forward, in which a small hegemonic group of cooperating states assumes the supply of the desired good. In that way, persistence of the international economic order may be explained despite the decline of the largest participant of the group; see Snidal, The Limits of Hegemonic Stability Theory, pp. 597-612; and Keohane, After Hegemony, pp. 78-79.

120 See Keohane, After Hegemony, p. 5; and Krassner, Structural Causes and Regime Consequences, p. 194.
Despite mutual benefit, cooperation does not evolve automatically. As long as a situation is unorganized, an actor retains certain incentives to defect. They are due either to uncertainty about the cooperative intentions of other participants or to the benefit promised by a 'free ride'. Although even in a Prisoners' Dilemma situation cooperation may evolve without direct communication solely by strictly reciprocal behaviour, a reduced probability of unilateral defection will clearly enhance the prospects for cooperative behaviour of all (or most) participants and facilitate the achievement of an optimum outcome for the group at large. The task of organizing this cooperation is assigned to international regimes.

In cooperative situations the behaviour of an actor is closely related to his expectations about action of his counterparts and their response to his own action. In an assurance game, an actor chooses cooperation only if he expects his counterparts to choose cooperation as well. In a medium-size group an actor will abstain from free riding only if he expects his co-actors to stop their cooperative behaviour. Accordingly, cooperation can be reinforced by the development of mutual expectations in the framework of an existing structurally determined conflict. In the case of appropriately structured conflicts, shaping and stabilizing expectations of behaviour becomes a task of international politics. This, however, is nothing else than establishing norms, albeit avoiding their frequently implied moral connotation.

Accordingly, an important task of international regimes is the provision of secure normative expectations about the behaviour of individual actors, that is, expectations of how actors ought to behave to achieve cooperation in the interest of the group at large and of its members separately. As a game-theoretical prerequisite, the options of 'cooperation' and 'defection' have to be clearly distinguished from each other. Moreover, international regimes shall stabilize expectations of how actors will behave. They have to address the problem of compliance with these norms. Within the structural approach, this can be achieved by modifications of the pay-off structure of a situation with the purpose of reducing the benefit of unilateral defection and enhancing its costs.

As long as mainstream regime theory relies on the analytical apparatus of the theory of collective action and game theory, it argues on stable ground. It may evaluate situations as to their structural opportunities for cooperation. Yet this approach

121 See Snidal, The Game Theory of International Politics, p. 40; see also Kohler-Koch, Zur Empirie und Theorie internationaler Regime, pp. 24-25. In the terms of Rittberger, Editor's Introduction, p. 2, this is 'governance' which should be distinguished from hierarchically organized 'government'.

122 The stabilization of expectations is a prerequisite for the transformation of an iterated Prisoners' Dilemma game into an assurance game. On such a transformation, see Sen, Choice, Orderings and Morality, pp. 56-62.

123 In his 'functional theory' Keohane, After Hegemony, pp. 90-92, assigns to international regimes the function of an umbrella under whose protection a multitude of opportunities for cooperation evolves. Apparently, the prototype is again GATT. The umbrella function is discharged basically by way of stabilizing expectations.

124 See Oye, Explaining Cooperation under Anarchy, pp. 15-16. Note that this function of international regimes is already beyond structural theory, since it is based on the fact that actors have to act under conditions of uncertainty.

125 Still the authority of norms is not an inherent property of these norms, see Eder, Die Autorität des Rechts, p. 209. On compliance, see generally Young, Compliance and Public Authority.
bears some inherent difficulties\textsuperscript{126}. Situative structural approaches take the situation under examination as given. While structural realism adopts the international system at large as its unit of inquiry, situative approaches are applicable to a multitude of different and frequently changing situations. To some degree, the actual type and scope of these situations may be the result of choices that have already been made by actors individually or collectively and that may be reversed or modified. Likewise, issue-areas are not determined by an 'objective' structure. Their existence depends on actors' perceptions and decisions, although these perceptions and decisions will be influenced by structural determinants.

As soon as empirical uncertainty has been removed from the situative design, opportunities for cooperation are structurally determined. From the perspective of the analyst they are 'objectively' given. This is true even if the orders of preferences of actors are assessed empirically. Consequently, the basic outline and the general policy direction of an international regime designed to organize cooperation in a given issue-area may also be derived 'objectively' from the structural dilemma that should be overcome. It is thus not assumed to constitute a relevant matter of choice of actors individually or collectively and is excluded from scientific inquiry. Instead, the making of decisions about compliance with an established set of norms amounts to the only important field of actors' choice. Accordingly, the guarantee of compliance with existing norms and the preclusion of defection and 'free riding' gains an overwhelming importance in the scientific inquiry.

Likewise, an approach that predominantly addresses opportunities for cooperation in given situations\textsuperscript{127} is not apt to explore the process of transfer of a situation from non-cooperation into cooperation\textsuperscript{128}. As long as the actors involved in a situation mistrust each other, they will avoid cooperation. As soon as they trust each other, they may achieve the more benign mutual cooperative outcome\textsuperscript{129}. The mechanisms for the development of mutual trust should therefore constitute an important subject of inquiry in the analysis of international regimes. It is not only relevant for the development of a coherent theory. It is even more important for the making of practical decisions in international relations.

\textsuperscript{126} This is true even when problems of application, such as the assessment of the orders of preferences of actors, are left aside. On the difficulties of applying game models to real-world situations, see Jervis, Realism, Game Theory and Cooperation.

\textsuperscript{127} Rosenau, Before Cooperation, p. 873, suggests that this branch of reasoning deals with situations 'before cooperation'.

\textsuperscript{128} See Voss, Rationale Akteure und soziale Institutionen; and Kohler-Koch, Zur Empirie und Theorie internationaler Regime, p. 50.

\textsuperscript{129} This fact may contribute to the prominence of the 'time-lag' hypothesis that emphasizes the stability of existing regimes.
2.4. The Concept of Norms in Mainstream Regime Theory

A theory about international regimes has to devote some attention to the type of international institutions that organize cooperation in the international system. Generally,

*regimes can be defined as sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations. Principles are beliefs of fact, causation, and rectitude. Norms are standards of behaviour defined in terms of rights and obligations. Rules are specific prescriptions or proscriptions for action. Decision-making procedures are prevailing practices for making and implementing collective choice.*

All of these constituting components of international regimes are norms in a wider sense, albeit of differing degrees of specificity. Hence, according to the widely used definition, international regimes are institutions entirely composed of norms. In fact, they are considered to be more or less coherent normative systems. Consequently, a theory about international regimes implies a theory about norms. Despite its primary interest in opportunities for cooperation, mainstream regime theory has to address the issue of norms in the decentralized international system. In this regard, it heavily draws on an existing approach to norms, namely legal positivism. It thus adopts a very formal concept that is entirely concerned with static norms, and excludes from its research programme the issues of both the coming into being of norms, and their impact on outcomes. Significantly, regime theory which reintroduces norms into international relations theory in cases in which their relevance for international politics can be established resorts to a traditional concept of international law that has been widely blamed for its inadequacy precisely because it does not acknowledge the interrelationship between norms and the underlying structure of power and interests.

Both the concepts of positive law and mainstream regime theory separate the creation of normative systems from their operation and exclude the former from their inquiry. In positive legal theory, a normative system relies on a 'basic norm' that emerges from an entirely political process, i.e. *extra-legal* or on formal 'rules of recognition', or on a doctrine of 'sources of law'. These basic rules of normative systems inform about the characteristics of valid legal norms. Lower-order

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130 Krasner, Structural Causes and Regime Consequences, p. 186.
131 Unless otherwise indicated, the term 'norm' as used in the present study comprises normative prescriptions of any degree of specificity. It must not be confused with the use of the term for the indication of one particular type of norms in the consensus-definition of international regimes referred to above.
132 See Kelsen, General Theory of Law and State, p. 116: «The basic norm is not created in a legal procedure ... It is presupposed to be valid because without this presupposition no human act could be interpreted as a legal ... act.»
134 See for example Kimminich, Einführung in das Völkerrecht, pp. 223-229; Verdross/Simma, Universelles Völkerrecht, pp. 321-423. The main sources of positive international law are referred to in Article 38 of the Statute of the International Court of Justice and comprise international treaties, international customary law, and general principles of international law.
norms that are part of the respective normative system must be systematically related to them. While changes of norms may occur within a given normative system, a modification of the basic rules amounts to a revolution of the system itself.\textsuperscript{135} Mainstream regime theory also adopted the concept of a hierarchically arranged system of norms.\textsuperscript{136} The creation of a normative system itself originates outside the regime in question. Its emergence amounts to a largely unexplained transfer of an issue-area from anarchy to regulated cooperation. Its basic rules, the components of 'principles' and 'norms' within the regime definition, are largely determined by the structure of the situation from which cooperation arises.\textsuperscript{137} Their change indicates a structural change and amounts to a 'revolution' of the situation. If opportunities for cooperation exist, a new regime may be established. Only modifications of the more specific parts ('rules' and 'decision-making procedures') shall be considered as changes within an existing regime.\textsuperscript{138} However, contrary to legal positivism, mainstream regime theory did not adopt rules of constitution as its basic rules, but rules of policy. These rules do not inform about the criteria for the validity of norms, including the criteria for decision-making about valid norms. They immediately prescribe policies. This approach follows from situative structuralism. However, it raises some conceptional problems.

A major requirement for international regimes is their stability over time.\textsuperscript{139} If a regime is entirely composed of norms of different degrees of specificity, at least its more general components have themselves to be stable over time. Any development of an issue-area and, accordingly, of its structure of power and interests entails therefore either a divorce of the underlying structure of power and interests and the related international regime, as reflected in the 'time-lag' hypothesis, or it entails a breakdown of the regime that may be replaced by a succeeding one. It follows conceptionally that rapidly developing issue-areas may well be governed by a sequence of international regimes that differ only slightly from each other in their general normative components. Apparently, the mainstream theoretical terminology of 'regime change' does not address such minor modifications of principle within an otherwise unchanged normative system, but focuses on major shifts in the structure of the international system.\textsuperscript{140}

The alleged analytical sharpness of the distinction between change within and change of an international regime is not of much heuristic value. It is not even analytically as clear as it may seem. The line between the two categories of higher and

\textsuperscript{135} See the interesting remarks of Kelsen, General Theory of Law and State, pp. 117-118, regarding the change of a 'basic norm' after a successful revolution that provides with legitimacy what otherwise had to be considered state treason.

\textsuperscript{136} See Krasner, Structural Causes and Regime Consequences, pp. 187-188; Kohler-Koch, Zur Empirie und Theorie internationaler Regime, p. 35.

\textsuperscript{137} See above, Chapter 1, pp. 41-43.

\textsuperscript{138} See Krasner, Structural Causes and Regime Consequences, pp. 187-188.

\textsuperscript{139} See Krasner, Structural Causes and Regime Consequences, p. 186; Keohane, After Hegemony, pp. 63-64; see also Efinger/Rittberger/Zürn, Internationale Regime in den Ost-West Beziehungen, p. 69.
lower order norms, i.e. the boundary between the components of 'norms' and 'rules' within the consensus definition, is somewhat arbitrary and difficult to delimitate\textsuperscript{141}. Consequently, the distinction between change within and change of an international regime becomes arbitrary, too\textsuperscript{142}. Yet, the implications of this admitted arbitrariness have not been of much theoretical interest\textsuperscript{143}, even though 'regime change' understood as change of (and not within) an international regime was an important subject of inquiry\textsuperscript{144}.

According to legal positivism, a normative system is essentially a constraint system. Its purpose is the preclusion of certain options of behaviour otherwise open to legal subjects. Therefore, norms must be accompanied by the threat of sanctions\textsuperscript{145}. However, norms are considered to be valid as soon as they meet the relevant criteria of the normative system to which they belong. They \textit{ought} to be followed by legal subjects, but compliance is not a matter of a precise cause-effect relationship. As a consequence of this logical-systematic approach, valid norms may or may not be effective\textsuperscript{146}. While the 'validity' of norms refers to the legal system, their 'effectiveness' is a behavioural category to be measured, for example, in the degree of compliance.

Mainstream regime theory adopts the concept of normative systems as constraint systems. The purpose of international regimes is generally the constraining of choice of the participating actors to overcome sub-optimal outcomes. To fulfil their purpose, norms should not only fit into a more or less coherent normative system. The normative system at large must also be effective\textsuperscript{147}.

'Effectiveness' rests on two conditions. As in any approach to norms, it is measured in terms of behavioural compliance\textsuperscript{148}. However, a second condition is

\begin{enumerate}
\item Consequences of this close relationship between changes in structure and assumed changes of institutions are discussed below, Chapter 8, pp. 343-346. Mainstream regime theory, in fact, avoids addressing institutions in rapidly changing issue-areas; see \textit{Strange}, Cave Hic Dragoones, pp. 488-490.
\item See \textit{Krasner}, Structural Causes and Regime Consequences, p. 188; \textit{Haggard/Simmons}, Theories of International Regimes, p. 493.
\item Admitted by \textit{Keohane}, After Hegemony, p. 58.
\item In an attempt to delimitate the boundary more exactly, \textit{Müller}, Selbsthilfe oder Kooperation, p. 13, explicitly refers back to the formal concept of international law. He suggests that the component of 'rules' may consist of legally relevant prescriptions, while the component of 'norms' may regulate behaviour in areas that are not (or not yet) regulated in a legally binding way. Hence, while 'rules' are positive international law, 'norms' are not. This suggestion introduces, however, the category of 'legally binding' prescriptions, without any further discussion of its impact. To be relevant for the concept of international regimes, it had to refer to differences \textit{in effect} of legally binding and legally non-binding prescriptions, for example as a consequence of differing application mechanisms for the two categories of prescriptions. But this seems to be hardly possible.
\item See \textit{Keohane/Nye}, Power and Interdependence, pp. 19-22.
\item According to \textit{Kelsen}, Principles of International Law, pp. 18-89, the sanctioning force in the international legal system consists of reprisals by other subjects of international law, and of wars if legitimated by 'the law'. A legal concept based on sanctioning force has been put forward by \textit{Weber}, Wirtschaft und Gesellschaft, pp. 181-194. On the relevance of sanctions for theories of international law, see \textit{Blenk-Knoke}, Zu den soziologischen Bedingungen völkerrechtlicher Normbefolgung, pp. 42-48.
\item For international legal norms, \textit{Kelsen}, General Theory of Law and State, pp. 29-44, explicitly distinguishes between 'validity' and 'effectiveness'. A similar distinction between 'Geltung' and 'Wirkung' is adopted by \textit{Verdross/Simma}, Universelles Völkerrecht, pp. 52-53.
\item On the strength of international regimes, see \textit{Zacher}, Trade Gaps, Analytical Gaps, pp. 177-178; 189-190.
\item See \textit{Keohane}, International Institutions: Two Approaches, p. 387.
\end{enumerate}

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added. International regimes should establish meaningful constraints, that is, they should exclude options that would otherwise be attractive for actors. 'Cooperation' emerges only in 'mixed motive' situations characterized by non-coinciding interests and not in situations that are governed by complete coincidence of interests ('Harmony'). By definition, it involves an active adjustment of the behaviour of an actor according to the expected behaviour of his counterparts\textsuperscript{149}. Mainstream regime theory considers the exertion of an autonomous influence on political outcomes an essential precondition for the existence of an international regime\textsuperscript{150}.

According to the two elements of the 'effectiveness' requirement, three ideal types of possible normative systems may be distinguished.

First, normative systems may be complied with although their norms do not rule out attractive options for action and do not require an adjustment of behaviour by actors. Normative systems of this type closely reflect the structure of the international system. Their norms may appear to govern the behaviour of actors. They may be used as 'rules of thumb' by decision-makers for the facilitation and acceleration of decision-making\textsuperscript{151}. However, a careful structural analysis of a given situation without regard to existing norms would lead to similar decisions. These norms are mere epiphenomena of structure\textsuperscript{152}. Normative systems of this type do not meet the requirements of the mainstream concept of international regimes. They draw attention to the fact that an evaluation of the behavioural performance of actors is not considered a sufficient condition for the identification of an international regime\textsuperscript{153}. Much of the existing disagreement between the mainstream and other, 'reflective' approaches to international regimes\textsuperscript{154} rests on the rigid exclusion of normative systems of this category from regime analysis.

Second, normative systems may require effective adjustment of behaviour without being complied with. Apparently, systems of this type also do not effectively constrain actors' choices. Their norms may be based on moral or ethic premises, but the actual performance of actors demonstrates that compliance cannot be ensured. Norms of these systems may be broken at will as the situative structure militates against normative demands. Accordingly, rational actors cannot be assumed to base their decisions on these norms. Normative demand and the structure of power and

\textsuperscript{149} See Keohane, After Hegemony, p. 51; see also the discussion above, Chapter 1, Sections 2.2. and 2.3.

\textsuperscript{150} See Krasner, Regimes and the Limits of Realism; see also Wolf/Zürn, International Regimes und Theorien der internationalen Politik, pp. 204-205.

\textsuperscript{151} See Keohane, After Hegemony, pp. 110-116.

\textsuperscript{152} See for this realist argument against an autonomous influence of international regimes Strange, Cave ! Hic Dragones, p. 487.

\textsuperscript{153} See Zacher, Trade Gaps, Analytical Gaps, p. 176: «Norms, rules and decision-making procedures in an issue-area may be mere reflections of the principle of self-help and thus not part of the regime» (emphasis added); see also Haggard/Simmons, Theories of International Regimes, pp. 494-495; Stein, Coordination and Collaboration.

\textsuperscript{154} For the discussion of 'reflective' approaches to international regimes, see below, Chapter 1, pp. 50-57. Among the authors arguing that patterned behaviour could be identified in almost all existing issue-areas, and that therefore almost all issue-areas were directed by 'international regimes', see e.g. Puchala/Hopkins, Lessons from Inductive Analysis; and Young, Regime Dynamics.
interests are simply too far divorced from each other to allow norms to exert a tangible influence on the political process.

Only the third category of normative systems meets the conditions of both necessary adjustment of behaviour and compliance with norms. It is characterized by a considerable closeness of norms to structural demands, but not by their coincidence. The underlying structure of power and interests provides actors with a sufficiently high incentive to comply with normative prescriptions. The incentive does not stem from the norm itself but from the prospect of a cooperative benefit, i.e. from the self-interest of actors. Only normative systems of this third category meet the criteria for international regimes developed by mainstream regime theory. By adopting a notion of effectiveness that includes the condition of an effective influence on the political outcome, i.e. on the actual behaviour of actors, mainstream regime theory considers the 'autonomous influence' of international regimes an as independent variable\textsuperscript{155}. Unfortunately, the boundaries between these three categories are not always clearly delimitated. Mainstream regime theory is remarkably silent as to the evaluation of the boundary between regimes and mere epiphenomena. Although the 'time-lag' hypothesis relies upon the transformation of a non-cooperative into a cooperative situation\textsuperscript{156}, the turning point remained in the dark. The conceptional separation of regimes requiring effective adjustment of behaviour and mere epiphenomena is entirely blurred in the case of normative systems that are established for the sole purpose of stabilizing existing situations\textsuperscript{157}.

A particularly intricate theoretical and practical problem is the assessment of the adjustment requirement. In order to establish whether a normative system is in fact an international regime according to mainstream regime theory, an analyst requires an 'objective' yardstick that allows a comparison between behaviour in the norm-governed existing situation and assumed behaviour in the hypothetical absence of relevant norms. The assessment of behaviour in the hypothetical unregulated situation can only rest on a structural analysis. It must be assumed that, in the absence of norms, a given actor would, in fact, determine his behaviour exclusively by structural considerations. But a structural analysis alone does not suffice to predict outcomes in specific situations\textsuperscript{158}. The assessment could also exceed the realm of structural analysis and explore internal decision-making processes. Yet then, it had to determine whether and how internal decision-making in the regulated real situation is already influenced by the existence of international norms. Again, the influence of norms and other factors influencing outcomes could not be readily separated

\textsuperscript{155} Apparently, the condition of effective influence upon outcomes is far beyond positive legal theory. It is, however, not easily accommodated within any concept of norms.

\textsuperscript{156} See above, Chapter 1, p. 31.

\textsuperscript{157} No adjustment of behaviour would, for example, be noted in cases of a mere understanding to accept a status quo that evolved on the basis of an existing situative structure; see Nye, Nuclear Learning, p. 393, on the understanding between the superpowers about European territorial questions, including Berlin and Germany.

\textsuperscript{158} Mainstream regime theory acknowledges that it cannot predict outcomes because it does not account for factors located at the unit level; see Keohane, International Institutions: Two Approaches, p. 388.
from each other. The analysis of hypothetical behaviour is not only precluded on practical, but also on theoretical grounds.\footnote{See, however, the remark by Keohane/Nye, \textit{Power and Interdependence Revisited}, pp. 742-743, on the necessity of this analysis.}

Even the distinction between the second and third categories of normative systems is not as clear as may be desirable. Normative systems of both categories require adjustment of behaviour, but those of category three are complied with while those of category two are not. However, normative systems are usually not fully complied with. Almost always a certain margin of non-compliance exists and is tolerated by the community of actors concerned. Beyond that, within a single normative system (international regime) some norms may be generally complied with while others are widely ignored. It may therefore be assumed that most normative systems may be placed somewhere on the continuum between the two extremes of total compliance and complete non-compliance.

Mainstream regime theory generally employs a dichotomy of defection or compliance with the prescriptions of a regime. It does not consider the stage of application of a general norm to a specific case, and it does not assume that this stage has an impact on the prescriptive content of that norm. In this regard, mainstream regime theory again heavily draws upon legal positivism. Theories on international regimes and positive theories of international law generally focus on abstract sets of norms and rules, be they formalized or not. Necessarily these norms and rules have to be interpreted and applied to specific cases. Any application of abstract norms to specific cases involves a choice of policy. Even judicial institutions in highly integrated, hierarchically organized normative systems have a certain margin of discretion to develop and change law as applied to specific cases without changing statutes.\footnote{On the fundamental difference between a 'command', related to specific actors in specific situations, and a 'rule' that is generally applicable but must be applied to specific cases, see Hart, \textit{The Concept of Law}, pp. 19-25; similarly Ross, \textit{Directives and Norms}, p. 99.}

The margin of discretion available in applying normative prescriptions in a horizontal society that lacks effective institutions for the application of norms and their enforcement will be even larger. Hence, the evaluation of a given behaviour in light of the norms of an international regime, and the process of application of these norms to a specific case, become relevant.\footnote{The term 'judicial law' emphasizes this margin of discretion.}

The relevance of this stage is, however, not addressed by the concept of norms employed by mainstream regime theory assuming that existing norms are largely stable and prescribe behaviour clearly.

In contrast to political realism, regime theory recognizes that norms matter in the decentralized international system. Since, however, it is evident that not all formal legal norms matter, while some formally non-legal norms do, it develops criteria for the identification of those norms that are relevant to international politics. This is a first step towards a more appropriate concept of norms, but the concept actually employed is largely insufficient. It heavily draws upon legal positivism and is thus fraught with the difficulties inherent in this concept. Moreover, in contrast to legal...
3. Other Approaches to International Regimes

Mainstream theory on international regimes leaves a host of questions unresolved, and poses new ones due to its rigid basic assumptions. However, the debate on international regimes is not confined to rational choice approaches. On the contrary, 'regime theory' is a cluster of more or less related theories\textsuperscript{163}. A number of authors have addressed the deficits and inconsistencies of the mainstream, without having been able to form a coherent research programme. Despite considerable differences, these approaches are frequently summarized under such labels as 'reflective'\textsuperscript{164}, 'cognitive'\textsuperscript{165}, or 'Grotian'\textsuperscript{166} concepts. In this section, the basic premises of three of these concepts shall be identified against the backdrop of mainstream regime theory. In a fourth sub-section, some important aspects of the German debate on international regimes shall be discussed.

3.1. International Regimes and Social Institutions

Rational choice approaches strip real-world situations of much of their empirical complexity so that the 'pure structure' appears at the surface. Actors are not only considered as 'rational' utility maximizers, but also as being able to collect and process an infinite amount of information that is necessary for the calculation of their interests in decision situations. From this perspective behaviour according to the structure is the simple option for an actor, while norms, including international regimes, increase the complexity of the situation and pose many new problems.

A sociological, as opposed to an economic or structural, approach to international institutions and regimes tackles the decision-making problem from the opposite perspective\textsuperscript{167}. Its starting point is an actor faced with the overwhelming complexity of actual situations in which he decides while having at his disposal only a limited capacity for the processing of information\textsuperscript{168}. For this actor, patterns of behaviour and conventions provide welcome devices to reduce complexity because they stabi-

\textsuperscript{163} See Kohler-Koch, Zur Empirie und Theorie internationaler Regime, p. 21; Haggard/Simmons, Theories of international Regimes; Efinger/Rinberger/Wolf/Zürn, Internationale Regime und internationale Politik, pp. 267-273.

\textsuperscript{164} See Keohane, International Institutions: Two Approaches, p. 389.

\textsuperscript{165} See Haggard/Simmons, Theories of International Regimes, p. 509.

\textsuperscript{166} See Krasner, Structural Causes and Regime Consequences, pp. 193-194.

\textsuperscript{167} On the difference, see Barry, Sociologists, Economists and Democracy; and Zürn, Interessen und Institutionen, pp. 35-62.

\textsuperscript{168} See e.g. Young, Compliance and Public Authority, pp. 16-17. Complexity is even further increased, since interests of actors in the international system result to a large extent from internal conflicts and bargaining, see Young, Anarchy and Social Choice, p. 242. As far as can be seen, Young is the only active participant in the debate on international regimes explicitly drawing on this concept. The further argument of this sub-section shall therefore be developed on the basis of his contributions.
lize expectations of outcomes. If actors attribute a high legitimacy to social institutions reflecting these patterns, they will acquire a normative connotation. According to this concept, meaningful norms and normative systems guide actors' behaviour, regardless of whether they reflect structural patterns or require adjustment of behaviour.

Arguing - not entirely without justification - that the current concept of international regimes is «conceptionally thin», Young proposes to employ sociological approaches to institutions as a theoretical framework for the analysis of international regimes. His approach, however, runs into difficulties if transferred to the analysis of international regimes without appropriate modifications. It necessarily leads to an unsharp and over-inclusive notion of 'international regime' that contributes more to the confusion of regime analysis than to its clarification. According to Young, international regimes are, as other social institutions, «recognized practices consisting of easily identifiable roles, coupled with collections of rules or conventions governing relations among the occupants of these roles». They are not always voluntarily, some of them not even deliberately, entered into by actors.

On the contrary, almost all areas of international relations are considered to be governed by international regimes of one kind or another. This wide and unmanageable notion of 'international regime' has been frequently criticized and appears to be largely unnecessary. In fact, Young's own empirical work did not reveal how these wide categories, including spontaneous and coerced regimes, could contribute to the understanding of the phenomenon of international regimes.

However, these critical remarks do not dismiss an inquiry into the similarities of social institutions and international regimes. On the contrary, the concept addresses a number of important issues that are excluded from the research programme of mainstream regime theory. It draws attention to the fact that actors, including cor-

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169 See Young, Resource Regimes, p. 19; Young, Regime Dynamics, pp. 278-279.
170 Accordingly, considering an international regime as an intervening variable loses precision; see the claim made from a similar position toward mainstream regime theory by Kratochwil/Ruggie, International Organization: A State of the Art, p. 768.
171 Young, Toward a New Theory of Institutions, p. 106.
173 Young, Toward a New Theory of Institutions, p. 107.
174 Young, Regime Dynamics, pp. 282-285, develops three modes of emergence: international regimes may come into being by coercion (e.g. colonial regimes), by negotiation (e.g. multilateral treaty regimes), or spontaneously (e.g. the 'market').
175 See also Puchala/Hopkins, Lessons from Inductive Analysis, p. 247. 'Non-regime' situations may exist in issue-areas of new human activity, e.g. outer space or deep sea-bed mining, and in issue-areas formerly governed by an international regime that has broken down, see Young, Resource Regimes, p. 42.
177 Far from analyzing spontaneous regimes, such as 'the market', he examines several well formalized, or at least deliberately negotiated, international resource and environmental regimes, for example, regimes on marine fisheries, deep seabed mining, and Arctic shipping, see Young, International Cooperation. More recently, he explored the formation of negotiated regimes; see Young, The Politics of International Regime Formation. This empirical focus on negotiated regimes even leads Haggard/Simmons Theories of International Regimes, pp.
porate actors\(^{178}\) operating in the international system, have at their disposal only a restricted capacity for the processing of information and calculation of decisions to be made permanently. This minor relaxation of the rigid assumptions of rational choice approaches may have a great impact on such issues as the generation and properties of norms and compliance with norms by individual actors. In fact, social institutions do not usually rely upon a centralized enforcement system\(^ {179}\). The mechanism that assures wide compliance with these institutions is the process of 'internalization' of generated normative expectations. Its transfer into the international system could offer explanations of rule-compliance beyond narrow utilitarianism. The latent risk of an implicit or explicit comparison of the decentralized international system with developed domestic legal systems and their centralized enforcement mechanisms may be avoided. However, 'internalization' is a difficult concept that risks being used as a mere behavioural description and as a theoretical filler for the explanation of phenomena that would otherwise remain unexplained\(^ {180}\). More important, it could draw attention to the gradual development and continuing evolution of social institutions and direct the focus of inquiry beyond the stability and eventual break-down of international regimes. Developments proceeding within international regimes, including their largely ignored procedural and organizational components, could become subject to examination\(^ {181}\).

3.2. International Regimes and International Law

In a series of contributions with intensive reference to the on-going debate on international regimes, Friedrich Kratochwil examines the role of norms in the international system from the perspectives of legal theory and philosophy. He vehemently criticizes the epistemologically positivistic approach of mainstream regime theory toward norms and blames their widespread consideration as 'variables'\(^ {182}\). The

\(^{178}\) Corporate actors are in fact groups of individuals with a sufficiently homogeneous behaviour. They always act through individuals.

\(^{179}\) Even though they may exist under the umbrella of a centralized state, such institutions as 'marriage' or 'Christmas celebrations' exert their tangible influence independently of that state.

\(^{180}\) As far as can be seen, meaningful hypotheses in respect of the concept of 'internalization' have not been introduced into the debate about international regimes. Efinger/Riitherber/Wolf/Zürn, Internationale Regime und internationale Politik, p. 276, consider the 'internalization' of norms as one mode of influence of international regimes. Note, however, the conceptional difficulty involved in the internalization of norms by states participating in regimes. The question arises whether states can internalize norms, and if so, how they do so.

\(^{181}\) According to Young, International Cooperation, pp. 15-20, and Young, Problems of Concept Formation, pp. 333-338, international regimes comprise three elements, besides a 'core' of rights and rules, a procedural element for the making of social choices and an implementation mechanism. Young suggests a clear distinction between 'regimes', considered as practices composed of recognized roles and 'organizations'. While he considers GATT an international regime (despite its Secretariat employing more than 200 officials), the initially discussed International Trade Organization (ITO) would have added an organization to the regime; see Young, Toward a New Theory of Institutions, p. 108. On the relevance of what they call the 'organizational' component, see also Kratochwil/Ruggie, International Organization. A State of the Art, pp. 772-773.

focus of his inquiry is directed at the issue of how norms affect political outcomes in the decentralized international system.

The concept starts from a similar premise as that of social institutions. It assumes that actors permanently decide in over-complex situations. The general function of norms is, accordingly, the desired reduction of complexity and the orientation of decision-making. As an immediate consequence, and contrary to rational choice assumptions, human activity may be considered to be generally norm-governed. Norms do not usually 'intervene' between actors desiring to achieve their individually assessed interests and political outcomes. Due to their inter-subjective quality, they affect the process of calculation of these interests. As in all other approaches to international regimes, actors are generally considered to behave rationally. But 'rational behaviour' does not necessarily imply action according to a narrow instrumental rationality focusing at immediate goal achievement. It may also imply the rationality to behave according to a given norm. To avoid Prisoners' Dilemma situations, for example, it may be far more 'rational' to follow an existing norm requiring cooperation than to choose the instrumentally rational option of defection with the anticipated effect of achieving a collectively and individually sub-optimal result.

Having so far advanced the argument, the question arises why actors should behave norm-rationally and why they should abandon instrumental rationality in their decisions, if this required behaviour contrary to relevant norms. Kratochwil does not simply replace behaviourally observed 'internalization' of norms with the more theoretical term of 'norm rationality'. He sets out to demonstrate that the process of legal reasoning as a specific form of verbal communication determines the authority of legal decisions. Contrary to legal positivism which endeavours to apply the 'appropriate rule' to a given case, he observes that legal decisions always involve a margin of discrete choice. They cannot, therefore, be deduced 'objectively' from a coherent legal system. Instead, the demands and arguments of conflicting parties are framed according to the requirements of a discursive decision process. Norms and rules, around which common expectations converge, are used as 'persuasive reasons' in this process. They gain an essentially rhetorical function.

In respect of the debate on international regimes, an immediate consequence is that a regime's strength results from the deference to authoritative decisions that establish what 'the law' is, or from the acceptance of norm-regulated practices. ... The crucial variable here is institutionalization, i.e. the acceptance of decisions as

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183 See Kratochwil, Rules, Norms and Decisions, p. 10. Despite this common starting point of scientific inquiry, and despite their common interest in the debate on international regimes, Kratochwil and Young took surprisingly little note of each other.


185 See Kratochwil, Rules, Norms, Values, pp. 306-324.

186 See Kratochwil, Rules, Norms and Decisions, pp. 33-44.

187 For an early discussion of this concept, see Kratochwil, Is International Law Proper Law?, pp. 36-44.
The concept draws attention to the norm-related dimension of international regimes. It demonstrates how compliance with norms may be explained beyond both the rigid utilitarianism employed by mainstream regime theory and the rather unsatisfactory concept of 'internalization'. It emphasizes the function of norms, including those of international regimes, in a continuing communicative decision process and points to processes within established regimes that are rarely considered by the regime literature. By its focus on inter-subjective communication, it recognizes the important margin of discretion for the making of decisions by actors.

However, despite its many explicit references to the scientific discussion on international regimes, the concept remains largely unrelated to the empirically informed debate. Moreover, it does not assess the theoretical relevance of the empirically observed combination of prescriptions of behaviour and prescriptions of procedure for the legal decision-process proceeding in and around international regimes. In fact there is no distinction between the norms of international regimes and those of international law. With his exclusive focus on the process of decision of cases in the light of established norms, Kratochwil inevitably arrives at a discussion of the role of the judge in the legal process. He does not, however, indicate how to transfer domestically generated insights to the international system. Despite the emphasis on the role of persuasion and authority of decisions, he does not address the generation of norms according to which cases shall be decided. These norms may be expected to be somehow related to the existing (and changing) structure of power and interests. Necessarily, legal decisions on particular cases are taken in specific contexts, and they may have an impact on the further acceptability of the norms involved.

To be sure, these deficiencies do not warrant a neglect of the central argument, according to which communication about norms is a core issue of a well-founded approach to international regimes. To some degree, however, they may explain the limited feedback to this concept in the debate so far.

3.3. International Regimes and Knowledge

Cognitive approaches to international regimes introduce the dimensions of 'knowledge' and 'learning' into the discussion and address their relevance at differ-
ent levels. Cognitivists neither accept 'objectively' given issues nor their automatic combination in issue-areas. They challenge structural approaches which consider clear-cut situations that may or may not be overcome by the establishment of appropriate international regimes. From a cognitive perspective, international issues arise when the existing state of affairs is effectively challenged by one or more of the actors concerned\textsuperscript{192} which have, for one reason or another, re-calculated their interests on the subject. Likewise, formerly unrelated issues are clustered in issue-areas when actors consider their relationship close enough for simultaneous treatment\textsuperscript{193}. Actors may add or subtract issues from an existing issue-area as appropriate. Moreover, decisions on the scope of issue-areas depend on the approach adopted to regulate a given problem. Haas demonstrates that even issues generated by scientific and technological development may be clustered into a multitude of different hypothetical issue-areas\textsuperscript{194}.

In short, the existence, scope, size and quality of a given problem to be overcome by the formation or operation of an international regime depends on the perception of this problem by actors on the basis of available knowledge. Knowledge includes both 'political knowledge', e.g. values and preferences on what should be done, and 'scientific knowledge' supported by validity-claims\textsuperscript{195}. Similar to concepts of social institutions, cognitive approaches are based on the assumption of an over-complex world in which actors make choices on the basis of limited information under conditions of uncertainty\textsuperscript{196}. The calculation of preferences may be revised in the light of newly emerging knowledge that modifies the basis of former decisions. 'Learning' becomes a major cognitive source of change\textsuperscript{197}. As soon as learning occurs and affects the calculation of the preferences of actors, situations develop and the prospect of the formation of international regimes or the development of existing ones changes.

In its most simple theoretical version, learning about a new problem precedes the formation of international regimes\textsuperscript{198}. From a cognitive perspective, this type of learning is trivial since it separates the stage of learning, during which problems are shaped and situations are structured, from the stage of regime formation or devel-

\textsuperscript{193} See E. Haas, \textit{Why Collaborate}, pp. 364-367. Haas defines an issue-area as «a recognized cluster of concerns involving interdependence not only among the parties but among the issues themselves»; see ibid., p. 365.
\textsuperscript{194} See the list of hypothetically construed issue-areas addressing issues under the heading of 'ocean space' (law of the sea) negotiations; E. Haas, \textit{Is there a Hole in the Whole}, pp. 834-835.
\textsuperscript{195} See \textit{Haas, Is there a Hole in the Whole}, pp. 848-850. Contrary to 'political knowledge', scientific knowledge has to be replaced upon falsification.
\textsuperscript{196} Uncertainty cannot be expected to be overcome; it is less important whether this stems from the limited information processing capacity of actors or from a principal indetermination of decision-situations.
\textsuperscript{197} As Haggard/Simmons, \textit{Theories of International Regimes}, p. 510, note, 'learning' does not necessarily imply development toward better, or collectively more desirable, outcomes.
\textsuperscript{198} See the argument by \textit{Smith}, \textit{Explaining the Non-Proliferation Regime}, pp. 276-277; see also Efinger/Rittberger/Wolf/Zürn, \textit{International Regime und internationale Politik}, p. 272.
opment. In this case, the latter stage may be approached by assessing the situative structure that already incorporates actors' re-calculated preferences.

More interesting is the case that 'learning' occurs during the process of regime formation or development. Here, the process has steady repercussions on perceived interests by individual actors. In fact, even bargaining may be considered as a permanent process of learning and re-assessment of preferences, if the actors are not aware of the exact 'contract zone'. Another factor of possible learning in the framework of international regimes is the resolution of prevailing disputes by the gradual emergence of commonly acceptable scientific knowledge on which political agreement may be founded in turn. Hence, political disputes may be solved by the generation of scientific knowledge which is based on validity-claims and may be challenged by rational argumentation.

Lastly, learning may occur after a regime has been established or as a side-effect, e.g. due to the very fact that decision-makers representing conflicting actors meet and communicate. Misperceptions of the counterparts' intentions may thus be reduced.

Cognitive approaches to international regimes draw attention to the flexibility and structural indetermination of many notions that are frequently taken as given and assumed to be stable. Actors generate interests and establish issues as well as issue-areas. These factors influence the structuring of situations. While cognitive approaches may appear to be diametrically opposed to structural ones, many areas of agreement exist in respect of concrete situations. Past learning has an impact on the present structure of situations, while structural components will enter the knowledge of actors and influence the calculation of their preferences.

However, the anticipated effects of structure affect the preferences of actors only by the processing and evaluation of relevant information against the backdrop of accumulated knowledge. Acting under uncertainty, actors, be they individual decision-makers or corporate bureaucracies, can never elaborate a structural analysis as clear-cut as assumed by mainstream regime analysis. Therefore, 'learning', i.e. the process of modification of existing knowledge involving the re-calculation of preferences by actors, points to another mode of influence of international regimes on political outcomes.

Cognitive contributions to the debate on international regimes have almost entirely focused on the political process leading to the formation of international regimes. They do not consider such issues as the characteristics of norms or compliance of actors with norms that are addressed by all other approaches to international

199 See P. Haas, Saving the Mediterranean; P. Haas, Do Regimes Matter, p. 377.
201 See Young, The Politics of International Regime Formation, p. 361.
202 See E. Haas, Is there a Hole in the Whole, pp. 850-851.
203 See Nye, Nuclear Learning, pp. 398-400. Although not irrelevant, this mode of learning related to international regimes may be assumed to be the most difficult to assess.
204 Haas, Words Can Hurt You, p. 213, emphasizes that we must focus on notions of process in dealing with the question of how regimes actually work.
regimes discussed so far. Instead, their focus is the process of international interaction for the regulation of issue-areas during which norms, rules and procedures are moulded, but that is also guided by norms, rules and procedures. They introduce the distinction between political and scientific knowledge, but they may at times over-emphasize the role of science and learning as compared to structure.

3.4. The German Debate on International Regimes

Similar to mainstream regime theory in the United States, the German debate has not addressed the genesis and character of international regimes and their inherent processes. Both a workshop on international regimes and a major project on regimes in East-West relations relied upon the 'consensus definition' of 1982. Inevitably, the German debate suffers from a largely insufficient concept of norms. Despite much criticism as to the 'state-centredness' of regime analysis and the lack of recognition of aspects of interdependence, most theoretically informed case studies as well as deductive reasoning heavily rely on the United States' mainstream regime theory with its focus on stability and its exclusion of process.

Initially, the German debate explored the (distributive) effects of regime-governed cooperation for different actors. Under the heading of 'equitable international regimes', the types of inclusive ('benign') regimes benefiting all actors in a given issue-area and 'malign' regimes benefiting a limited number of participating actors at the expense of those remaining outside have been distinguished.

More recently, a group of scholars based in Tübingen has invested considerable effort in the examination of the role of international regimes in East-West rela-
tions. The project does not approach the East-West conflict as an overall ('holistic') conflict between two adverse blocks, but as a multitude of different low- and high-politics conflicts that can be, and in fact are, managed and regulated separately. An open conflict may be 'transformed' into a diplomatic dispute. As a theoretical consequence, the examination of international regimes focuses on their security component. The collective good to be supplied by regimes is, in the first place, security on the basis of agreement on rules commonly accepted by the parties involved. Substantive cooperation in the issue-area is required only as far as necessary for the achievement of this goal. Accordingly, a given conflict may be solved, but it does not have to be. It suffices that it is regulated in a mutually acceptable manner. The project developed a typology of issue-area conflicts according to their suitability for international governance that expands the dominant situative structuralism. In particular, it suggests that the problem-structure of international conflicts has a high impact on the probability of successful regulation.

The reliance of a project that assumes a generally beneficial role of international regimes for the management of international conflicts on a basically structural and static approach toward norms is somewhat surprising. International regimes as one form of response to international conflicts are strictly separated from conference diplomacy as another form, even though in the understanding of the project international regimes are usually moulded and developed at international conferences, and international conferences will frequently only be successful if they facilitate the adoption of norms of existing or newly established regimes.

The project considered behavioural compliance with normative prescriptions as a core criterion for the existence of an international regime. This criterion is

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217 For the design of the Tübingen-project, see Efinger/Rittberger/Zürn, Internationale Regime in den Ost-West-Beziehungen. Interim results have been published in Rittberger, International Regimes in East-West Relations. See in particular Rittberger/Zürn, Towards Regulated Anarchy in East-West Relations. For a comparison of East-West and West-West regimes in the field of the environment; see Efinger/Zürn, Umweltschutz und Ost-West Konflikttransformation.

218 Despite the end of the East-West conflict as an overall conflict many of these substantive issue-areas continue to exist; see Rittberger/Zürn, Transformation der Konflikte in den Ost-West Beziehungen.

219 See Rittberger, Konflikttransformation durch internationale Regime. In this approach the notion of 'conflict' extends to all kinds of diverging interests. It does not imply violence or an overall dispute between parties, see ibid., p. 326.

220 On the basis of a strict structural analysis (and only on that basis), however, the margin for agreement on substance will be determined by the structural dilemma that renders individually achieved outcomes sub-optimal and has therefore to be overcome.

221 This position is sharply opposed to that of Haggard/Simmons, Theories of International Regimes, pp. 508-509, who consider the functional view of international regimes as too positive, precisely because they may become arenas of conflict and sources of legitimacy for powerful actors.

222 Conflicts are ordered according to their probability of regulation as follows: Conflicts about values (very low probability); about relatively assessed goods (low probability); about means (medium probability); and about absolutely assessed goods (high probability); see Rittberger/Zürn, Towards Regulated Anarchy in East-West Relations, p. 31.

223 See Efinger/Rittberger/Zürn, Internationale Regime in den Ost-West Beziehungen, pp. 72-75; the project has been developed not least from a peace research perspective; see Rittberger, Peace Structures through International Organizations and Regimes, and Rittberger, Frieden durch Assoziation und Integration?

224 See Rittberger, International Regimes in the CSCE Region, pp. 352-353.

225 See Rittberger, International Regimes in the CSCE Region, p. 353.
beyond the traditional regime definition, although not beyond US mainstream regime analysis\textsuperscript{226}. While the latter approach assumed effects of an existing regime on political outcomes, here these effects may be subject to inquiry. The distinction of norm-guided and structurally motivated behaviour constitutes a major difficulty in both approaches\textsuperscript{227}, but these difficulties are now primarily of empirical relevance (and not, as in mainstream regime theory, of a conceptual quality)\textsuperscript{228}.

It has been suggested that the effectiveness of an international regime be measured by the degree to which its goals have been achieved\textsuperscript{229}. Apart from the fact that this suggestion does not overcome the difficulty of empirically evaluating the impact of the regime on goal-achievement, it opens a pandora's box of new problems. It is based on the assumption that either international regimes themselves pursue, or that participating actors commonly pursue by the device of regimes a clear-cut set of goals, presumably reflected in the 'principles' component of regimes\textsuperscript{230}. The goals of an international regime would then be stipulated in the preamble of the multilateral treaty on which it is based\textsuperscript{231}. However, international regimes may be based upon implicit principles that are not expressly mentioned in any official document\textsuperscript{232}. Moreover, it is arguable whether agreement about common goals is a condition for regime establishment. In a regime established for the sole purpose of managing a conflict, as implied by the Tübingen project, actors may well agree to disagree about substantive goals to be achieved in the issue-area. They may, nevertheless, agree on some substantive preambular paragraphs hiding this disagreement. Success of such a regime would have to be measured in terms of the intensity of conflict and not in terms of substantive goal achievement. Hence, basing an evaluation of the success of an international regime on its general preambular clauses may turn out to be seriously misleading.

To summarize, the German debate extended the scope of the predominant structural approach to international regimes because it was not hampered by the purely American discussion of hegemonic stability. It did not, however, take up contributions of the 'reflective' branch of the theory of international regimes\textsuperscript{233}.

\textsuperscript{226} See Keohane, International Institutions: Two Approaches, p. 387. See also above, Chapter 1, pp 33-49.

\textsuperscript{227} See Kohler-Koch, Zur Empirie und Theorie internationaler Regime, p. 45.

\textsuperscript{228} On the conceptional difficulty involved in mainstream regime theory, see above, Chapter 1, pp. 44-49.

\textsuperscript{229} See, for instance, Prittwitz, Internationale Umweltrégime. See also Kohler-Koch, Zur Empirie und Theorie internationaler Regime, p. 46.

\textsuperscript{230} See Kohler-Koch, Zur Empirie und Theorie internationaler Regime, p. 37.

\textsuperscript{231} See Müller, Regimeanalyse und Sicherheitspolitik, p. 282.

\textsuperscript{232} Ruggie, International Regimes, Transactions and Change, pp. 405-410, suggests that GATT is not only based on the principle of free trade, but also on the principle of state intervention for social purposes (which is not mentioned in the formal agreement). This may be due to the fact that regimes usually do not emerge 'ex nihilo' but as an answer to a problem, i.e. in a specific context. They may therefore reflect primarily changing elements of the existing state of affairs and not its stable constituents.

\textsuperscript{233} See, however, comments suggesting that this should be done, Kohler-Koch, Zur Empirie und Theorie internationaler Regime, pp. 51-58; and Efinger/Rütberger/Wolf/Zürn, Internationale Regime und internationale Politik, p. 271.
4. The Current State of the Concept of International Regimes

The analysis of international regimes focuses on sets of norms in a wider sense. Despite frequent criticism the 'consensus definition', achieved in 1982 by a group of United States scholars with differing theoretical traditions, still forms the point of reference. According to this definition, international regimes are defined as sets of principles, norms, rules, and decision-making procedures that are widely believed to be hierarchically ordered, with principles being the most general and decision-making procedures the most specific components.

The concept of international regimes reflected in this definition is a formal one that has been borrowed from international law. This is not surprising considering its empirical origin. It focuses primarily on multilateral normative systems and was, in fact, empirically derived especially from the formal appearance of GATT. Although recognizing that 'norms' ('standards of behaviour defined in terms of rights and obligations') and 'rules' ('specific prescriptions and proscriptions for actions') form the core of international regimes, the concept modifies and widens traditional concepts of international law in several ways.

It introduces general 'principles' ('beliefs of fact, causation and rectitude') that outline the general intention of cooperating actors and the basis of their commonly accepted knowledge. Hence, principles form the foundation of envisaged cooperation. However, principles are not an unambiguous concept. They are often contradictory and appear in dichotomies. They may be invoked simultaneously and have to be balanced against each other. From principles alone, prescriptions and proscriptions cannot be deduced. An additional element of choice is essential.

Principles require elaboration by the 'norms' and 'rules' of international regimes. And it cannot be excluded that this elaboration will affect the content of the principles elaborated.

Besides the components addressing material prescriptions and proscriptions, international regimes are believed to comprise 'decision-making procedures' ('prevailing practices for making and implementing collective choice'). Apparently, it is
assumed that international regimes are related to a process of continuous interaction of regime members. The procedural component thus addresses collective choice and suggests a process of development and internal change. However, the relevance of this dimension of international regimes is hardly reflected in regime analysis245.

There is virtually no challenge of another aspect of the concept of international regimes. These institutions are considered throughout as sets of norms that apply exclusively to confined issue-areas. An international regime existing in one issue-area is not assumed to be related to regimes co-existing in other issue-areas. Consequently, international relations at large are believed to be governed by a number of independent sectoral normative systems related to issue-areas. This constitutes a major, and possibly the major divergence from traditional approaches to international law that are based on the premise of one comprehensive legal system.

If the subjects of inquiry in the disciplines of international relations and international law coincide largely, the perspectives vary widely. International institutions are only effective if actors' expectations in fact converge around these norms and guide their behaviour. The past one and a half decades of intensive discussion on international regimes have revealed a lot of insights into the conditions under which 'rational' actors should accept normative constraints for their own benefits, that is, regardless of altruistic motives for compliance with norms. These inquiries were to some degree apt to overcome the fruitless antagonism between 'idealists' and 'realists'246. It was shown that even under rigid assumptions the decentralized international system provides room, although limited in extent, for cooperation in the interest of individual cooperating actors and at the same time in the interest of the community of actors concerned. Some empirically informed work was done on the prospects of regime formation under varying conditions247.

There is, however, not much known about the ways in which international regimes actually affect political outcomes248. One of the more surprising features of the literature on regimes is the relative absence of sustained analyses of the significance of regimes ... as determinants of collective behaviour at the international level249. More empirical work has been called for on the effects of international regimes at the national (unit) level250. This lack of knowledge about the effects of international regimes may be largely attributed to the fact that the theoretical rigidity of methodological individualism employed by mainstream regime theory does not provide much room for the existence and relevance of norms. In fact, not norms and rules

244  Kelsen, Principles of International Law, p. 303, also emphasizes that the creation of lower-level norms is at the same time an application more general norms.

245  Kratochwil, Rules, Norms and Decisions, p. 57, recognizes the different quality of material and procedural prescriptions but dismisses their combination in the regime concept.

246  See Haggard/Simmons, Theories on International Regimes, p. 492; and Keck, der neue Institutionalismus.

247  See Young, The Politics of International Regime Formation; see also the 'problem structural' approach of the Tübingen project, Ritterberger, International Regimes in the CSCE Region; and Ritterberger/Zürn, Transformation der Konflikte in den Ost-West Beziehungen.

248  See Keohane/Nye, Power and Interdependence Revisited, p. 742: We know even less about the effects of international regimes on state behaviour than about regime change.

249  Young, Toward a New Theory of Institutions, p. 115.
but cooperation and discord\textsuperscript{251} are the subjects of inquiry of this branch of research. While 'cooperation' may be considered to be reflected in the material components of international regimes, the procedural component is not easily accommodated within this approach. Structure either provides opportunities for cooperation reflected in norms or it does not.

However, with the adoption of the essentially norm-based concept of international regimes, international relations theory is faced with a much broader set of research questions. Once international institutions come into being and may not any more be dismissed as entirely irrelevant, inquiry will have to include an examination of the nature of developments in and/or around such institutions. Since norms should constitute the core of international regimes, the moulding and application of international norms must be explored. Traditional mainstream regime theory cannot discharge these tasks without drawing on the insights produced by the 'reflective' approaches\textsuperscript{252}.

All reflective approaches accept either explicitly or implicitly that reality is complex while information is scarce and/or the information processing capacity of actors is limited. They draw attention to the relevance of gradual development, as compared to stability and sudden change. Accordingly, they do not focus on sharp junctions but on process. They suggest that international regimes governing particular issue-areas be not necessarily stable over time. On the contrary, the effects of learning and adaptation may be expected to affect the calculation of actors' preferences and the development of international regimes.

The following exploration of international governance in two environmental issue-areas sets out to reconcile this somewhat superficial concept of international regimes conceived as a particular type of institutions in the international system with the fruitful research programme of mainstream regime theory that focuses predominantly, if not entirely, on cooperation.

\textsuperscript{250} See Keohane/Nye, Power and Interdependence Revisited, pp. 743-44.

\textsuperscript{251} See Keohane, After Hegemony, p. 5; and Krause/Ruggie, International Organization. A State of the Art, p. 762.

\textsuperscript{252} See Keohane, International Institutions: Two Approaches, pp. 392-393. See also the suggestions of Kohler-Koch, Zur Empirie und Theorie internationaler Regime, pp. 50-58.