

THEORIES OF PEACE

A Synthetic Approach to Peace Thinking

By

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To the memory of Julian Hochfeld

PREFACE

The present work is an effort to make a comprehensive and relatively exhaustive survey of thinking about peace. It has been carried out under a subcontract with the International Peace Research Association, Groningen, which was commissioned by the UNESCO to explore peace thinking, with particular emphasis on peace thinking after the Second World War; and is submitted to the UNESCO in partial fulfillment of that contract.

In the first phase of this work a typology of "peace thinking" was prepared by a study group at the International Peace Research Institute, Oslo, during the spring of 1966. Participants in the group were Fenna van den Burg, Groningen; Sverre Bergh Johansen, PRIO; Åsmund Egge, PRIO; Ingrid Eide Galtung, PRIO; Johan Galtung, PRIO; Helge Hveem, PRIO; Roman Jasica, Warszawa; and Naomi Shapiro, New York. Fenna van den Burg was supported by a grant from the Polemologisch Instituut in Groningen, Roman Jasica was at PRIO on a UNESCO fellowship and the Norwegian participants were supported by the Norwegian Council for Research in Science and the Humanities and the Norwegian Council for Research on Conflict and Peace.

A first draft of the present work was then presented to a "peace theory week" organized by the International Peace Research Institute, Oslo and the International Peace Research Association, Groningen December 12-17 1966 at PRIO, Oslo; with support from the UNESCO to permit scholars from Eastern Europe to participate. The extensive discussions were extremely useful as a basis for the written presentation, which was initiated when the author was working in Paris early 1967 under a grant from Ecole Pratique des Hautes Etudes. Grateful acknowledgement for all the support received, directly or indirectly, is hereby expressed.

The work is dedicated to the late Julian Hochfeld, as a small expression of gratitude and admiration. I met him as the Deputy Director of the Department of Social Science in the UNESCO, particularly concerned with the development of peace research; as a fellow Pugwash participant; as a colleague in the social sciences and as a friend. His wide experience, his dedication and above all his sincere concern for the human condition were tremendously stimulating. Few people meant so much personally for the establishment of peace research in those first, very difficult years as Julian, and his premature death was a great shock and setback. I know that the present work would not live up to his expectations, but very much hope that it can be improved in a direction he would have approved of.

Oslo, September 1967
Johan Galtung

NEW PREFACE

This work on theories of Peace was done for the UNESCO 1966-67 under a contract with the International Peace Research Association. IPRA had been founded in 1964, Bert Röhling, an international lawyer of world fame as a member of the Tokyo tribunal was the first Secretary General and the first General Conference was in Groningen, Netherlands, where he was professor, in 1965. UNESCO was most supportive in the whole process under the able director of social sciences, Julian Hochfeld. And my task was to present a report for the next conference in Tällberg, Sweden, 1967. So I did. The last chapter on "Entropy and the General Theory of Peace" was that report, later published in the Proceedings from the conference, and some years later in Essays in Peace Research, Vol. I, Copenhagen: Ejlers, 1975, ch. 2. Another point - today a triviality - was to highlight the multidisciplinary character of peace research. The division into sub-, inter and supra-national peace thinking under lined how all social sciences are necessary and none is sufficient. Psychology and sociology are needed for subnational peace thinking, like political science and international studies (II, H-I-M; III, A-B-C), religion studies (II, J), International law II, K) and economics II, L) for inter- and supra-national peace thinking.

Sometimes new was added: an effort towards a sociology of inter-state relations (II, A-G) treating states and the state system like sociologists treat groups and organizations in search for stable equilibria - that also should be peaceful. What, then, happened to all the other chapters? Answer: nothing, till now. And why? Simply because to me all the rest had been raw material for the conceptualization that emerged while working on these theories, the effort to explore the use of entropy/energy as an overriding approach to theories of peace. In this there were also a fatigue with standard theories. That peace thinking was sub-, inter- and supernational was trite. The latter two was new, and it was not so obvious that for each theory highlighting a peace factor there seems also to be a peace theory based on the negation of that factor. However, that there are those who believe in military approaches, and consequently those who believe in the opposite, also had an air of the trivial. I wanted something new

So the manuscript somehow was forgotten, the work having served its purpose as a basis for a theory at a level of complexity more adequate to the complexity of the subject, peace. Forgotten things, however, have a tendency to turn up, announcing themselves, how about me? And some colleagues who will remain anonymous, had managed a peek. One of the arguments was that worse books have been written, it can still the light of the day after those long nights in files and boxes. Where that unpublished MS was not alone, by the way. Its publication now coincides with the publication of another book, A theory of Peace, under a different, more human, umbrella: equality. The entropy perspective still has its place, among others, as a perspective, but not as overriding approach.

I want to express my gratitude to Dr. Ramon Jasica who worked as an assistant one the list of literature that served as a base; to John Curtin University in Perth, West Australia for scanning, and to Michael Kuur Sorensen for handling the final stages in the digital version. Nothing has been changed, for good, or for bad.

Alfaz. July 2005 Johan Galtung

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1. PEACE AS AN END

1.1 Introduction

To write about peace thinking is to write about everything and nothing; it is neither precise nor sufficiently vague to be discarded completely as a subject of serious inquiry; the closer one approaches it the more does it recede - and it is frighteningly important. But this is in the nature of human affairs: the more important the matter, the vaguer and the more difficult becomes the thinking about it - for if it had already been conquered intellectually and mastered technically, then it would no longer have been so important because it would no longer loom so high as a problem. Some other problem would have taken its place.

Peace thinking seems to be characterized by the following three properties:

1. It is only rarely original, usually it has appeared before, in the thinking of earlier generations, even centuries ago.
2. It is usually vague, confused and contradictory.
3. It is very often designed more to let "peace" glorify certain means than to show how these means lead to peace.

The first of these alleged properties of peace thinking will be the subject, to some extent, of the next section which will give an historical survey of some types of peace models; the second will be treated throughout the present monograph, and the third property will be dealt with briefly in this introduction.

Peace seems to be an "umbrella concept", a general expression of human desires, of that which is good, that which is ultimately to be pursued. Mankind will always be heading for goals, some of them very concrete, some of them more abstract and diffuse, and "peace" seems to be one of the terms that is used for this generalized goal. "Happiness" is perhaps another such term, to be used at the more individual level, "peace" has the advantage of expressing global, collective concerns. To fulfill this function the concept must not be too specific, for if it were very specific, then the term could no longer serve general purposes. There is a need in human intercourse to express ultimate concerns and values and goals - in sermons, in solemn speeches, on solemn occasions; and if "peace" were only given one and relatively precise meaning such as the "absence of organized group violence", then this purpose would not be well served. In earlier days the term "God" might have fulfilled this important function, but that term is meaningful only to a part of mankind, whereas, peace probably makes sense to many people precisely because it corresponds to their experiences and they can endow it with the meanings that to them are most important. In other words: had there not been the word "peace" to glorify means, policies, occasions, then some other term would have to be invented - and the moment peace

becomes more technical, split into its component meanings and worked into a system of means-ends thinking, that very moment will the term have lost its usefulness as an umbrella concept. Earlier generations would justify policies they wanted for any reason by claiming that they were an expression of God's will - the present generation will claim that they serve the cause of peace. What will the next generation do?

This position is venerable, but it has hardly furthered peace thinking. On the contrary, it has probably contributed to the widespread idea that peace is something irrational, diffuse, intangible, that cannot be researched and hardly even analyzed - like some type of nirvana concept. To preserve the concept and the term for these purposes, peace thinking should be repetitive, like a religious ritual, and it should be vague, confused and contradictory - as if the concept were never intended for other than ritualistic and expressive purposes.

But "peace" can also stand for very concrete matters, for states of the international system of major significance. To many those states are so important that they should not only be the subject of high-sounding formulas, but of the most serious thinking and research that can be brought to bear on any phenomenon - irrespective of the fact that it is much more difficult than thinking and research in most other fields because of the infinite complexity of the underlying subject matter. For this to happen peace thinking must be examined and analyzed to bring to light its component parts, its assumptions, the structure of the reasoning. This will be the subject of the following pages, starting in the next section with a brief and necessarily superficial historical survey followed by an effort to spell out some major meanings of the term "peace". After that there will be two chapters devoted to general aspects of means-ends thinking and peace thinking, and then a major chapter presenting the main types of peace models, and finally a chapter with an effort to synthesize some of the ideas.

1.2 The history of peace thinking: a bird's eye view.

In antiquity two of the major systems of peace policy, the balance of power and the power monopoly systems found clear expressions in Hellas and in Rome, in the complex relations between the various Greek states on the one hand and in the pax romana system on the other. This type of peace was enforced from above and gradually took the form of the pax ecclesia system with the Pope as an arbiter, based on the special type of allegiance towards him and the hierarchy that the belief in Catholicism would engender. This led to a very monocentric Christian world, and with the Protestant reformation, or rather revolution, it is natural that balance of power thinking came to the foreground as a concept that would preserve autonomy and peace. It can be discussed whether the reformation came about as a doctrinal rationalization of drives for autonomy and/or other socio-economic forces, or whether these efforts to redistribute power and resources were an outcome of the new ideas of what it meant to be a Christenmensch. Both perspectives are probably correct and useful, but there were also other forces contributing to the rise of balance of power philosophies at that period, such as the Italian city state system (for instance the relation between the League of Venice and Charles VIII). In the period from the Renaissance to the French revolution balance of power thinking became crystallized and obtained a form surprisingly similar to what is found in modern strategic analysis. It became systematic policy with the Peace of Westphalia, and has played a dominant role ever since. But there are also other trends in the thinking that are more clearly peace-directed.

In the beginning of the 14th century proposals for international organizations or associations of states for the maintenance of peace emerged for the first time. During the next four centuries we can roughly distinguish between two approaches to the problem which fought for prevalence.

The first would be a continuation of the power monopoly approach that is the idea that Europe should be organized as a single political system maintained by a single political authority, consisting of one or more states, with more or less a monopoly of power.

The other approach could be designated the federal approach, that is the idea that Europe should be organized as an international organization of separate states, on an equal basis.

Almost every thinker concerned with this problem in this period has elements of both the federal and the power monopoly idea in his writings. Almost everybody makes proposals for some kind of union of nations or common council with some central authority, but the power monopoly idea is predominant in most of them

Dubois (1305-1307) in De Recuperatione wanted a federation of Christian, sovereign states, with a council of nations to decide, a system of judges, the Pope as a final arbiter, and boycott against aggressive nations. He even suggested international schools to train personnel, an idea not yet fully realized. He rejected world government under a single authority however, and it looks as if his

Common Council should be somehow under the control of the king of France.

Dante (1310) in De Monarchia wanted Europe to be "a unique principedom extending over all persons in time". To him it was of major importance that Heaven and Earth should be somehow be isomorphic: since there was one Mover, one Law in Heaven, then this should also be the case on Earth. But this should only apply to the international system, there should be local rule otherwise. Pax Romana was his inspiration, and he took the fact that Christ was born under Augustus as a sign of divine acceptance of the pax romana system.

Campanella (1600) advocated the world dominion of Spain, later of France. Leibniz urged every prince to accept the Holy Roman Emperor as their head. And duc de Sully's Grand Design was in one particular connection essentially a plan for the establishment of French hegemony in Europe.

On the other side Emeric Cruce' (1623) was concerned exclusively with the federal idea and criticised the search for political control of all Europe. During this same period it is also possible to distinguish between the thinkers as to what was their main aim. All the thinkers before Cruce' were primarily concerned - not with peace, but with European unity. They advocated some sort of association between Christian states to keep order in Europe and to wage war against Turkey or Russia. Peace was at best a by-product.

One example is the very interesting system suggested under the name of George Podebrad of Bohemia (1450): he wanted an international parliament where each nation had one vote, with both assembly and tribunal, and rotating meeting-places and staff to avoid domination by one power. One of his concerns was to limit the powers of the Pope, another to unite against the Turks. Cruce' was the first to search for peace as the main goal, and characteristically he advocated the membership of all the nations of the known world: Turkey, Persia, China; Ethiopia, the East and the West Indies - in addition to the European countries.

With the writings of William Penn, John Bellars and H. de Saint-Pierre at the end of the 17th and in the beginning of the 18th century the federal approach became predominant. They all proposed to establish some sort of international organization with a rather extensive authority. At the same time their proposals were the first - apart from Cruce's - whose primary object was the maintenance of peace. Throughout the first half of the 18th century they got several followers and the federal approach became almost universally accepted.

But in the second half of that century their proposals were equally universally rejected as either unattainable, unwanted or unnecessary. The philosophes from Frederick the Great to Voltaire dismissed the plan of Saint-Pierre as impracticable. And Rousseau who examined this plan very closely, rejected it in the end as "ar. absurd dream". Kant demanded the law of nations to be based upon a federalism of free states, but he did not accept any central

authority of the "federation". Bentham, who was to influence the Anglo-Saxon thoughts on the subject to a considerable extent, felt that the causes of war *between* states had already almost disappeared and that the rest of what might be done would be attained by appeal to reason, to law and public opinion. He wanted to reduce the power of governments within the states, not act to increase the power of governments on the international level.

In the 19th century two different lines of ideas may be distinguished, one in England and United States, and one on the Continent.

The Anglo-Saxon thinkers were inspired by the liberalistic ideas of the time - in fact their thoughts were part of the liberalistic trend. Typical exponents of these ideas were apart from Bentham -men like James Mill, William Ladd (An Essay on the Congress of Nations) and Richard Cobden. They did not want any international organization at all, but believed free trade and free exchange of thoughts to be sufficient means for maintaining peace. It could be achieved by massing public opinion behind enlightened policies; political integration and international enforcement procedures need not be attempted.

The power of governments should be reduced as much as possible - so also on the international level. Free trade and non-intervention would result in "as little connection as possible between governments and as much connection as possible between the nations of the world. (Cobden.) This was a certain way to peace.

The Continental stream of thought was more attached to the idea of a close federal organization of Europe than ever before. This strictly federal approach was first presented by Henri de Saint-Simon (1814). He and most of his followers advocated a single parliament and a single government for all Europe. These organs should regulate all questions of common interest and to some extent even internal affairs of the component states. For many the United States of America was to be the model for Europe. The federation was not to be only a coalition of sovereigns, but aimed at a complete suppression of state sovereignties.

At the same time, however, there were some indications that the union of Europe was given precedence over peace as the supreme goal. There was a tendency also known today to limit the federation to Western Europe. And the thinkers were at least as much concerned with the form of government within each state and even presupposed a (revolutionary) change to liberal or republican governments before any federation could be established.

Throughout the 19th century there emerged a third approach which we could call the confederal approach. It represented a middle-way between a comprehensive merger of the separate states and no international organization at all. The idea was to establish an international organization for purposes strictly limited to the peaceful settlement of international problems. (Cooperation between or an alliance of states would be a sufficient guarantee against war.) The Holy Alliance and the Congress System, the Concert of

Europe (Austria, Prussia, Russia, England + France), can be mentioned as attempts of bringing such ideas into life. Most of the confederal thinkers proposed some sort of a diet of government representatives with very limited authority. They also put much weight on arbitration and on the establishment of an international court - this led up to the First Hague Conference, opened on May 18 1899 (Tsar Nicolai II's birthday) with 26 governments present, and to the Second Hague Conference in 1902.

In the first half of the century such proposals were isolated voices - after 1850 they were more common. Gustave de Molinari wanted a concert universel between governments. The Great Power System should be extended to include all the states. James Lorimer wanted to establish an international parliament and a court, the jurisdiction of both should be strictly limited to international disputes. And J. K. Bluntschli advocated an international legislature of government delegates heavily weighted in favor of the six great powers.

Though the federal ideas and the ideas of Bentham and Ladd never ceased to exist - the federal approach even had a revival in the first years of the 20th century, this time in England - the confederal approach became predominant throughout the last part of the 19th and the first of the 20th century. After the outbreak of the First World War the confederal ideas won a final victory, and now the necessity of a wider organization - including non-European nations as well - won general acceptance too. And by the establishment of the League of Nations the confederal ideas were realized, although the organization was to be more loosely confederal than even the confederal group of internationalists had envisaged. The same applies to the organization succeeding the League of Nations, the United Nations, although the total network encompassed by the UN system is so comprehensive that it adds up to considerable constraints on the behavior of nations.

The thinking about peace after 1919 shows many different trends, which is natural, since so many ideas had by that time been tried and been shown to be at least not unconditionally valid. For this reason we shall prefer a systematic rather than a chronological presentation, since we are more concerned with the structure of such thinking than with its origin, genealogy and patterns of influence, and turn first to the concept of "peace" itself.

1.3. The meanings of "peace".

So far we have used the term "peace" several times more or less with the understanding that the term has a reasonably clear, well understood and agreed upon meaning. Since this is far from the case, as already indicated in the introduction, the concept of peace has to be explored further. Without going into details, there seem to be three directions of precisation of "peace".

First of all there is the old idea of peace as a synonym for stability or equilibrium. This conception of peace also refers to internal states of a human being, the person who is at peace with himself. It also covers the "law and order" concept, in other words the idea of a predictable social order even if this order is brought about by means of force and the threat of force. In general this concept does not exclude violence, since the soldier can have peace with himself on the battlefield.

Then there is the idea of peace as the absence of organized collective violence, in other words violence between major human groups; particularly nations, but also between classes and between racial and ethnic groups because of the magnitude internal wars can have. We shall refer to this type of peace as negative peace. In stressing "collective violence" a limitation in the use of the word is indicated: most authors seem to use this word in such a way that it does not cover occasional homicide, i.e. unpatterned individual violence. It is the transition from this type of violence to violence across clear human borderlines, frontiers, so that it becomes group violence that constitutes a break of peace. But again, it is the organized group violence that the concept of peace excludes, not occasional outbursts, sporadic demonstrations and crowd behavior, etc.

And then there is a third concept of peace which is less clearly defined. This is peace as a synonym for all other good things in the world community, particularly cooperation and integration between human groups, with less emphasis on the absence of violence. We shall refer to it as positive peace and clarify it later in this section only add here that the concept would exclude major violence, but tolerate occasional violence. It is a concept that seems to be particularly widespread in underprivileged groups, groups that are less status quo oriented, whereas both the first and the second concepts would meet with more ready acceptance in overprivileged groups: they are interested in stability, law and order, and uninterested in violence since any violence would be directed against themselves.

The first concept of peace is less interesting for our purpose since it does not explicitly include absence of major forms of violence, and includes an equilibrium assumption which probably is shared by very few groups or nations today. The concept of positive peace is also problematic as long as it remains so vague, and we shall follow the usage found among most authors and define "peace" in the direction of "negative peace", and use it in the sense of "absence of organized, collective violence". The concept is

problematic because the concept of "violence" is problematic, but for our purposes we shall use the word "violence" mainly in the sense of biological and physical force, in other words as efforts to cause bodily harm to other human beings.

But the whole idea of "negative peace" is problematic. It can immediately be shown that a world where this value is realized is possible, even for a long time span, but not necessarily desirable for other reasons. We shall give two examples.

Imagine that between all the nations in the world today high walls are erected, and much more efficient than walls currently existing between nations, so that no interaction at all is possible, (later discussed as the Minimum interdependence world, world no.10, in 4.2. below). There is no communication, no contact, no interactions between the nations. To obtain this physical walls are of course not the only means: one could also cut down interaction rates by law and supervise that the law is followed. What one would obtain in the world system of nations would be a set of dyads, all of them like the dyad Norway-Nepal today: there is complete absence of organized collective violence between the two nations, but this is only a special case of a complete absence of almost any kind of interaction between the two nations. Many other dyads in the total international system today are of the same kind (if we calculate with 135 nations today, then the number of dyads is 9.045), but very many people would probably say that this would be "peace" obtained at a rather high price. Thus, there seems to be a general feeling that the idea of peace also contains an element of contact and cooperation. It is not only the absence of negative interaction, it also implies the presence of an element of positive interaction.

If this example sounds artificial, consider the following. One can organize the world in what is called a "feudal system" (world no. 14 in 4.2. below), where big powers have a completely domineering influence and other nations are small, poor, uneducated, powerless, etc. In such a world all lines of communication would focus on the big powers, most of what happens in the system will happen between them, and the small powers (which may be colonies or "neo-colonies for that matter) are completely dependent on the big powers. They can be systematically exploited, but due to split and rule techniques they will have few opportunities to come together and join forces so as to oppose effectively the bigger powers.

If now the big powers are able to keep peace between themselves, to cooperate in sharing the fruits of, exploitation for instance, then this system can remain "peaceful" for years, decades, centuries. At the level of individuals, classical caste structure in South Asia can serve as one example; at the level of nations some of the colonial empires the world has seen is another. The point is the centralization around the dominant power: as long as he or they are able to cooperate, then chances of avoiding violence are considerable simply because the big power does not need it and the small powers are unable to use violence for lack of resources and training and very often have internalized the values of the big power so well that they do not want basic changes in the structure either. This is the

reason why we refer to the system as feudal: it is reminiscent of the relations between serfs and lords in feudal Europe.

But the question again is whether this is acceptable as "peace" or, put differently, whether a peace concept that does not exclude at least severe forms of inequality, subservience and exploitation is really fruitful. Put in more concrete terms: would not a peace concept, positively loaded as that word is, that defines feudal systems as peaceful also consecrate, accept such systems? The objection would be, just as above, that peace **is** something more than just absence of organized group violence, peace also contains an element of equality, of absence of exploitation.

One could continue in this vein with more examples of societies where violence has been engineered away at the expense of some other values. But instead **of** presenting more examples, let us try and make more explicit some of these values. Since the search for peace is concerned with the relations between groups, it obviously divides into a negative and a positive part: the search for the conditions for the absence of negative relations, and the search for conditions that facilitate the presence of positive relations. These two aspects of the search for peace are not unrelated since most peace promoters probably would agree that the most promising way to reduce negative relations to a minimum is via an increase of positive relations -but empirical correlation does not imply logical dependence, for which reason the two concepts should be kept separate. And which are these "positive relations"?

Just to mention some examples:

1. Presence of cooperation
2. Freedom from fear
3. Freedom from want
4. Economic growth and development
5. Absence of exploitation
6. Equality
7. Justice
8. Freedom of action
9. Pluralism
10. Dynamism

All these values can be discussed at the intra-national level of individuals as well as at the international level of nations • One can talk about individuals exploiting each other and nations exploiting each other, about individuals living in fear and anxiety and nations doing so, about individuals having a wide range **of** actions open to themselves so that they can live "rich lives" and individuals that have a very narrow spectrum of actions from which they can choose, and one may talk about nations in the same way.

Some comments of this set of ten values:

By "presence of cooperation" we mean a pattern of interaction between nations so that there is an exchange of values between them, of commodities, services, knowledge, people etc. This is the opposite

of isolation, it is interdependence between nations.

By "freedom from fear" we mean a state of affairs such that individuals, and nations, predict with relatively high probability a major negative event in the future, an event with relatively high negative utility, and this expectation dominates their life and existence - whether they live in the shadow of floods, earth-quakes, hunger, war (internal or external) or other calamities.

By "freedom from want" we mean that neither in the life of the individuals nor in the life of the nations should major, primary needs remain unsatisfied or unsatisfiable. Thus, we mainly refer to such needs as hunger, thirst, shelter, sex, basic security.

By "economic growth and development" we mean an organization of the structure of nations and the relations between nations so that 1. resources per capita increase, and 2. these resources are better distributed. This is not only a question of technological development but also of social organization, at the national as well as at the international level

By "absence of exploitation" we mean that all value exchanges between individuals as well as between nations take place at, roughly, equal terms. Thus, no individual shall be able to receive very much more from another individual than he gives back to that individual (the example is, for instance, labor force in exchange for money), nor shall any nation be able to extract from another nation much more than she gives to that nation (the example here is, for instance, the rate at which raw materials are exchanged for industrial products in world trade).

By "equality" we mean that all individuals and nations are regarded as having the same essential value, none is implicitly worth more and entitled to basically different types of life or existence than others. Extreme "gaps" in opportunities and resources at the disposal of individuals or of nations should not be tolerated.

By "justice" one may mean roughly the same as by "equality", but there is also the dimension of basic, fundamental rights, not only individual or national worth or value.

By "freedom of action" we mean that all individuals and nations should have a wide range of possible actions open to them - both that they have been stimulated to have the imagination to conceive of such action and that they have the means to carry them out. But the concept is problematic since it implies a kind of independence relative to other individuals or other nations that is incompatible with the interdependence. A person who is happily married renounces on certain types of freedom of action because he gains a wider range of possibilities - but whether the net gain is positive or negative may be a matter of debate.

By "Pluralism" we mean that nations and the world should contain a large social and cultural diversity of forms co-existing side by side, and by "dynamism" we mean that at least parts of the nations and parts of the world are constructed in such a way that a

change or conditions for a change are built into the structure. In other words, there must be options left open for future generations, policies that exclude too many options are harmful from that point of view.

The last two requirements will by many be considered unnecessarily sophisticated. However, they can easily be confronted with a world where neither pluralism nor dynamism are present, since most utopias were constructed according to that formula, where one part of the utopia is essentially a replication of other parts, and one time period of the existence in this utopia is a replication of another time period. This lack of diversity in time and space will probably not be seen as attractive either, to many people, for which reason requirements nos. 9 and 10 have been included in the list.

One may now ask whether there is a logical contradiction inherent in these values, and the answer is probably no. There may be a contradiction in the sense that no empirically viable world exists that will maximize all ten at the same time - but this is a structural incompatibility, not a logical inconsistency. At a purely verbal or conceptual level an inspection of all pairs, triples, etc. of values from the list of ten elements above does not reveal any immediate logical inconsistency.

This, however, does not mean that these values will stand on everybody's list as to what they desire for a future world, nor that it is not relatively easy to multiply the list by including, for instance, many of the so-called "human rights" and other values frequently praised in national anthems, national speeches, and important declarations. But the significance of this list for our purpose is more as a catalogue of analytical problems than as a complete list of what humanity is striving to obtain: the values serve to highlight some problems when they are considered in conjunction because of the difficulty in constructing a world that will maximize all ten - and, in addition, minimize the use of violence.

The next question is whether the values can be said to be mutually independent. Again, we are referring to logical independence, not to whether there is a tendency towards positive correlation between them in the empirical worlds realized in past and present and likely to be realized in the future. In other words, the question is whether the value concepts are constructed in such a way that a relation or implication exists between one subset of them and another subset of them. It is difficult to see that this can be said to be the case. Thus, there may be complete absence of exploitation and still very limited freedom of action, there may be equality in the sense defined above and still exploitation (although this would be an unsatisfactory kind of equality to most people), there may be negative peace but based on fear, as in a system based on balance of terror, and there may be dynamism without pluralism and pluralism without dynamism although both of those combinations may be said to be unlikely.

Thus, there are many problems - to use a mild understatement.

For in addition to the problem of reconciling relatively consensual values that could form a basis for morality in the world community of nations, and the national communities of individuals, come all the other values that individuals and nations pursue, values that are idiosyncratic and far from consensual. One nation may pursue security but do so by extending its sphere of influence so that the net result is subjugation of other nations and peoples. Another nation may be interested in economic growth and extend markets in a way that hampers rather than furthers economic growth in other countries, and so on. All such moves may or may not be reconcilable with the value of negative peace, but are usually not automatically reconcilable with that values particularly since there are nations that want to dominate, militarily, politically, economically, culturally, as a goal in its own right.

To simplify this picture we shall make use of the following distinction:

negative peace, which remains the "absence of organized collective violence",

positive peace, which is the sum total of other relatively consensual values in the world community of nations -exemplified with the list of ten values given above,

national values, which are expressions of other goals that nations pursue.

To pursue peace then, narrowly conceived, becomes like an engineering problem: given the globe as it is, its 3.3 billion inhabitants, its division into nations and other groups; how should this system be organized so as to obtain negative peace? And to pursue peace, broadly conceived:

How can this system be organized so as to obtain both negative and positive peace? The third group of values, the national values, are then left aside for nations to pursue to the extent they are not constrained from doing so by the efforts to realize negative and positive peace.

The assumption underlying this whole work is that it is in the interest of mankind to look at this problem globally, as a technical problem of organization, and not as a problem that can best be discussed from the vantage points of special individuals, groups, nations. In particular one would be highly skeptical about the idea that these global values can be realized by adding up national efforts to realize national values; the assumption is that these values exist sui generis, at a higher level of social organization than the individuals and the nation states.

It is to the examination of this type of thinking, thinking devoted to the promotion of peace, that we now turn. By and large we shall stick to the old tradition of having negative peace in focus, but all the time with the values of positive peace as the background against which efforts to realize negative peace are to be judged.

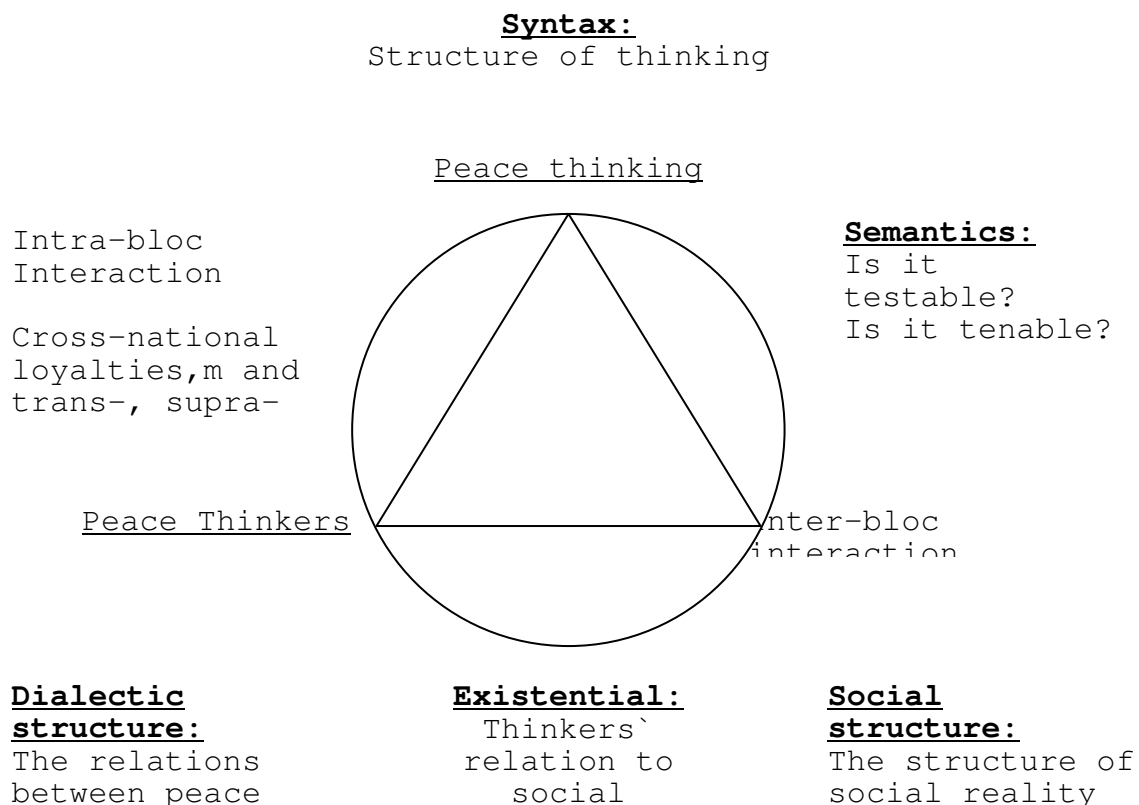
2. MEANS-ENDS THINKING AND PEACE

2.1 The thinker-thinking-reality triangle.

Ogden many years ago introduced his famous semantic triangle where the corners were the words, the concepts and the things they refer to; or the formulations, the propositions and their empirical referents. Such triangles are useful in keeping apart what should be kept apart for a fruitful discussion. They may, of course, later on be collapsed or extended to other polygons, but in the meantime not only serve to keep three ideas apart but also - by using the lines between the corners - to attract attention systematically to all three pairs of relations between the corners, and to all three relations within the corners.

Thus, in the field of peace thinking it is rather obvious that one must make a sharp distinction between the peace thinker, the peace thinking, and the social reality. The triangle tool then leads us to something more interesting; the six relations these three aspects of theories of peace force one to consider:

Figure 2.1.1. The thinker-thinking-reality triangle.



Commenting on this triangle one may start in any corner, and a good place to start seems to be in "social reality".

We assume that there is such a thing, and that it is studied by the

social scientists. "Peace thinking" relates only to some parts of social reality directly, but indirectly all kinds of assumptions about social reality seem to be relevant. Most peace researchers would probably agree with this author that it is difficult to rule out any field of social theory as irrelevant, because all aspects of social reality seem to some extent to be coupled to each other so that insights may be taken from almost any corner to shed light on auxiliary hypotheses needed for the construction of a peace theory.

The how's and why's of social reality in general is the task of the social sciences; peace thinking is concerned with the conditions of group violence. And one characteristic feature of many social structures is precisely the appearance, now and then, of group violence. This phenomenon is neither a necessary, nor a sufficient condition for peace thinkers to emerge, however. Peace thinking will only emerge if there is at the same time a value on absence of violence and a perception of (at least potential) presence of violence. Peace thinking, like means-ends thinking in general, we suppose, is the result of a perceived discrepancy between is and ought, between fact and value. One could easily both imagine and in fact empirically find social structures where there is a great deal of violence but no definition of it as negative, and perhaps also structures where there is little or no violence and some kind of appreciation of this absence of violence. Neither would lead to active peace thinking. As a matter of fact, the latter combination would probably shade over into the fourth possibility where there is absence of violence but no longer any definition of it as positive since it is taken for granted - like the air around us, rarely appreciated positively unless one is about to drown or suffocate for some other reason.

However, the presence of non-peace and the evaluation of it as bad, although necessary are not sufficient conditions to stimulate the kind of peace thinking in which we are essentially interested either. It is not enough that war is seen as bad, it must also somehow be seen as potentially avoidable. If it is only seen as bad - but as inevitable the thinking that emerges will focus on negative descriptions of non-peace and correspondingly positive ones of peace - together with speculations about how these conditions come about. Thus, non-peace may be seen as (1) caused by super-natural forces; or if not by super-natural forces (2) to appear in a random - that is nonpredictable fashion; or (3) if not nonpredictable to be at least non-manipulable, beyond control; or, finally (4) to be not only predictable, but also essentially manipulable. Earth-quakes are good examples: to most human beings today they are no longer seen as caused by super-natural forces, to some they appear as essentially nonpredictable whereas to others they appear as essentially predictable but they are seen (at present) as beyond control by (almost?) everybody.

Diseases have passed through all these four stages, some of them are still in the third stage, but most of them are today in the fourth stage. Non-peace or war seems mainly to be perceived in the third stage, as relatively predictable but (still) beyond control. Non-peace is probably seen as bad by most, but also as

unavoidable by most or at least by very many.

Thus, the question is whether control and change are seen as possibilities in connection with non-peace. If they are this will be linked to a break-through of the sensate type of peace thinking in Sorokin's sense of the word. If they are not the peace thinking will probably be more of the ideational kind, the changes that are asked for will be of an internal nature, linked to ideas of conversion and contact with supernatural forces. We shall have relatively little to say about this type of peace thinking, and concentrate on peace thinking that is based on the assumption that non-peace is not beyond control - and hence tries to spell out factors that may be conducive to peace.

Thus, under certain social and cultural conditions peace thinkers will emerge, under other conditions not. A crucial question now is how they relate to the social structure in which they are embedded, or, put differently, at which points in the social structure does peace thinking emerge, and how can the peace thinkers in turn influence and change the social structure in which they are embedded? This is the general problem that we have referred to as existential, relating the thinkers to their social environment. A special part of this has been referred to as the dialectic problem: how to do the peace thinkers relate to other peace thinkers? What is the structure of the debate between them?

Out of their relation to the social environment in general and to other peace thinkers in particular "peace thinking" as such emerges, as a body of thoughts expressed in non-verbal or verbal symbols (and the latter in writing or orally); in such a way as to be accessible to others. All experience with any type of thinking seems to indicate that the relation between thinker and thought is not a random one. Put more precisely: the more we know about the peace thinker, the better should we be able to predict the structure of his peace thinking. More precisely, there are three types of information we should like to have about the peace thinker: social background variables (exactly where in the social structure is he located) personality variables - and variables characterizing the situation and the social structure in which he operates (if it is a nation, what kind of nation is it - if it is, say, an international organization, what kind, etc.). This is what we refer to as pragmatics the relation between thinking and thinker, so as to be able to account for variations in peace thinking among the peace thinkers of the world, past and present.

If we now leave social reality with its human inhabitants in general and peace thinkers in particular we come to the last corner in the triangle: the peace thinking itself. It also has structure, which we refer to as its syntax. Like a language or any other human cultural product it can be analyzed without paying attention to the social structure of the personalities of which it has been produced. Criteria of philological and philosophical, not to mention logical analysis can be applied to it to reveal its internal structure. This applies to the structure of the peace thinking of a particular person or a particular group, and to the structure of grosser collections of

peace thought, such as the peace thinking of a nation or of an epoch, or the total peace thinking of mankind for that matter.

This brings us to the final leg of the triangle, linking the peace thinking with its subject matter, with the social reality. We have referred to this as the semantic relation, and the problems are 1. whether the peace thinking can at all be related to social reality (in terms of whether it corresponds to it or not), which we refer to as the problem of testability, and 2. if it is testable whether it is tenable. The type of peace thinking that is testable is usually referred to as peace research, and the rest may perhaps be called peace philosophy.

That completes the triangle. One could now map out important cycles in this triangle, including all or some of the corners. Thus, there is the model of rational man he looks at social reality, compares facts with values and finds a mismatch between them, this stimulates his peace thinking which he gives a scientific form so as to test it on social reality, he continues until his peace thinking has become tenable and can be dignified with such terms as propositions and theories, then he uses this peace thinking to change social reality. There is nothing wrong with this model as long as it is not regarded as the only model that can be extracted from the triangle. It should be contrasted with some other models.

Thus, there is what one might call the political smoke-screen model, where political activity is camouflaged as peace activity. Persons centrally located in the decisionmaking machinery may engage in a lot of manipulation of social reality and refer to what they do in terms taken from peace thinking. We shall see later that peace thinking renders itself easily to this kind of manipulation: it can serve, deliberately or not as a smoke-screen for a very huge variety of political activity (which we define as activity geared to the change of social reality).

Then, there is what one might call the peace philosophy model, where the social reality is not involved at all. The focus is on the relation between thinkers and their thoughts, where the structure of the thought is analyzed (by more modern schools of philosophical analysis), the relation between the thoughts and the background and personality of the thinker explored (by more traditional schools of philosophical analysis), and great attention is paid to the dialogues between the peace thinkers. Questions of testability and tenability recede into the background or disappear completely; the focus is on syntactic and pragmatic aspects.

Then, there is what one might call the peace research model. In this model the personality and social background of the thinkers are disregarded or rather: much is done to make them appear less important. Research is supposed to be "objective" - which is another way of saying that it should be independent of the idiosyncracies of the peace thinker and of the characteristics of the situation stimulating his thinking. This is approached by substituting instruments and other non-human devices (calculators, etc.) for the thinkers themselves; or by some system of balance whereby the biases

of one researcher are (believed to be) checked by means of the biases of another. In peace research this may take the form of interdisciplinary and international research teams and institutes, for instance. The whole attention is focussed on the relation between thinking and reality: is it testable? is it tenable? Thus, peace research emerges as a new scientific discipline, essentially within the social sciences.

And there is the pragmatic model, which is essentially the same as the political smokescreen model but viewed from another angle. Peace thinking is seen not in terms of whether it is tenable or not or in terms of its internal structure, but in terms of its effects on the peace thinkers, and more particularly on their relation to social reality. It is a political strategy. If the peace thinking makes people act in certain ways, then it is considered good if these ways are accepted, bad if they are not. In the smoke-screen model peace thinking is used as a rationalization, in the pragmatic model it is used as a stimulus. Thus, if one is in favor of large military establishments, then peace thinking to the effect that peace can only be obtained by means of balance of power policies (with their well-known tendency towards built-in arms races) is usually considered good peace thinking. Or, if one is in favor of weak military establishments, then peace thinking of a more pacifist variety is usually hailed welcome, regardless of its other properties. Testability and tenability, based on data from the past, may be added to the model, as one additional technique when people shall be persuaded to pursue certain policies in the future. The strategy is to use the past as a guideline for the future - interpreted as "rationality" by some and as "built-in conservatism" by others. Both points of view are rather superficial, however.

In the total picture the first model, that of rational man, is probably the least important, and even the peace research model is a relative newcomer on the scene. The other two models dominate the scene, or at least so it seems. What to do with reality stands out as the prevailing concern, not whether our insights are "scientific" as usually defined; or who think what, why, when, where.

Let us then use the triangle to distinguish more clearly between three types of thinking about peace thinking.

First of all, one may take as point of departure the social reality we are facing and ask what kind of ideas one might possibly have given the way in which social reality is structured. In other words, one would try to enter the world with an image and a method and try to construct a typology of peace thinking from that. The social scientist would do precisely this, he would in his image and methodology build on generations' work and carry with him a number of explicit and implicit assumptions.

Secondly, one might take as point of departure the peace thinkers as such, discuss their social background and personal experience, and try to relate their peace thinking to themselves. Especially important would the relation between them be; their debates, their patterns of influencing each other in interaction, by direct and

indirect communication. The historian would do this, the whole tradition of belles lettres research is centered on this approach.

Then, one might look at the peace thinking itself, as a product of human culture, and study its structure without asking how it relates to reality or to the peace thinkers. Its internal consistency and assumptions, how the parts are linked, together in theories etc. would be the major foci of research. The structurally oriented "culturologist" would do this, the whole tradition of modern literature research, for instance, is built on this approach.

We shall to some extent do all three, but our main concern will be with the last approach, with the top corner of the triangle, peace thinking itself, particularly with its syntax. The rest will only be dealt with parenthetically; we shall not enter into detailed discussions of the semantic or pragmatic relations, nor to mention the other important relations extracted from the triangle. This will, no doubt, seem unsatisfactory to many readers. But the pragmatic relations will be the subject of another monograph - except for some ideas about the topic that will be developed here - and the semantic relations are the subject matter of peace research as a whole. For if there is anything peace research is concerned with, it is precisely, as mentioned, the testing of peace thinking on social reality.

But in so doing peace research will necessarily have to deal with the whole triangle. For if peace thinking is concerned with conditions of peace, and it obviously is, then relations between groups of peace thinkers, and relations between thinkers and their ideas, so that one knows the ideas of those who have the ability and willingness to act on social reality, obviously matter. Peace research is meaningless unless it includes peace thinking in general and peace research in particular in its subject matter. Peace research must do research on peace research, and include among conditions of peace the distribution of different types of peace thinking in the social structure. As often pointed out by Röling, peace research is not only concerned with exploring conditions of peace, but also with research on how such findings may become bases of political action. Now, it may be objected that this is only another way of saying that the structure of thinking among the human agents of political action are among the conditions of peace and hence to be included anyway - but it is so easily forgotten that it should be pointed out explicitly.

Thus, peace research will have to deal with the whole triangle, but with its point of gravity on the relationship between peace thinking and social reality. The study of peace thinking which is presented here under the title of Theories of peace has its point of gravity in the top corner, with some explorations of the relation to the peace thinkers themselves and to social reality. We turn now to the structure of peace thinking.

2.2. The structure of peace thinking

We shall then penetrate into the triangle at the point of our concern, the top corner, and look at some ways in which the structure of peace thinking may be discussed. We shall define peace thinking as follows:

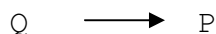
By "peace thinking" we mean formulations with the following three properties:

1. A set of autotelic values or ends, P , are defined. One of them, P , is referred to as "peace"?
2. A set of heterotelic values or means, q , are defined.
3. Ends and means are connected by a relation, \longrightarrow , called the condition-consequence relation.

However, much thinking about peace does not really consider the conditions of peace, but is only concerned with the exploration of the concept of peace, We shall refer to that kind of peace thinking as "degenerated", to use a concept borrowed from mathematics (as when a line "degenerates" into a point). In fact, we shall actually often have to make use of some very simple mathematics to explore what we have referred to as "syntax" or the structure of peace thinking, since mathematics is the science dealing with structures in general. This is already reflected in the definition of "peace thinking" as given above.

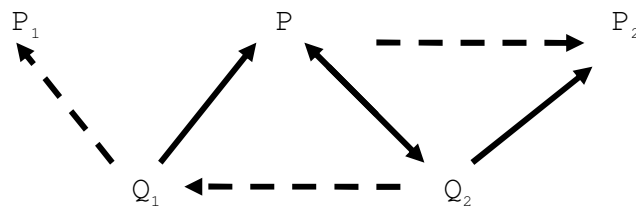
Thus, peace thinking relates together elements, out of which one is "peace". Let us refer to "peace" by the symbol P , and to the means as $Q_1, Q_2, \dots Q$ - the set of the Q 's is then Q . The simplest kind of (non-degenerate) peace-thinking can be symbolized as follows:

Figure 2.2.1. A simplistic peace theory.



where the arrow stands for the relation of "condition", or to be more precise, for "sufficient condition". In words: if we have Q , the condition (for instance "balance of power"), then we shall also get P (peace), as the consequence.

The idea is simple: Si vis pacem, para bellum realize Q and you shall also get P . This is the structure of the proverbial one-factor theory, usually considered rather simplistic, and should be compared with an example involving higher levels of sophistication, as expressed in this scheme:

Figure 2.2.2. A more sophisticated peace theory.

Of course, much more complicated schemes can be imagined, but this one illustrates the ideas well. We are dealing with two means and three ends. Q_1 and Q_2 both facilitate P - if only in a probabilistic way and with a time-lag. Q_2 has the fortunate characteristic that it stands in a positive Feed-back relation to peace: the more peace, the more and the more peace again (an example might be the identification of Q_2 with "positive interaction" between former enemies). But then the trouble starts: the more Q_2 the less Q_1 (this negative relation is symbolized by broken arrows), which might be a good additional factor to gamble on in the struggle to realize P . On the other hand, Q_1 has a negative effect on P_1 which also stands high on the list of goals to be realized in the culture. Q_2 is preferable here, for it facilitates the realization of P_2 - but P_2 is impeded by an increase in peaceful relations. So, where does one strike the balance, what is the optimum point according to this structure?

Anyone who has dealt with politics in practice in some way or another will recognize that the sophisticated model is closer to social reality than the simplistic one. And anyone who has been engaged in the persuasion of other people to engage them in action, or in writing programs, manifestos etc. will probably believe that the simplistic model is closer to the way people in general think, or at least is easier to propagate. In other words, under a wide variety of conditions peace thinking will have a structure which only very imperfectly mirrors social reality. This is certainly not very novel, it is implicit in most efforts to characterize peace thinking - whether it is as sloppy, lousy or simply as "simplistic".

With this as a point of departure let us then turn to the task of developing more systematically a list of dimensions that can be used when peace thinking is to be discussed. For each dimension there will be one simplistic and one "sophisticated" version. These terms should not be taken too seriously; they are intended as indications of levels of complexity in thinking, and not as indications that the sophisticated is necessarily more correct, valid, true than the simplistic (although generally this is probably so). We shall first give the dimensions in survey form, and then relatively extensive comments:

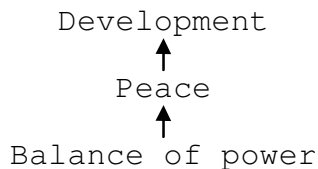
Table 2.2.1.
Survey of dimensions for analyzing the structure of peace thinking -
or of goal-thinking in general.

| No. | Dimension | Simplistic Version | Sophisticated Version |
|-----|---------------------------------|----------------------------|-------------------------|
| 1 | Relation between ends and means | Only ends, P | Also means, Q |
| 2 | The set of ends | P, peace alone | Also other ends |
| 3 | The set of means | Only one, Q | More than one |
| 4 | Degree of connectedness | Not all elements connected | All elements connected |
| 5 | Direction of relation | Only conditions of P | Also consequences of P |
| 6 | Sign of relation | Only positive relations | Also negative relations |
| 7 | Strength of relation | Only deterministic | Also probabilistic |
| 8 | Immediacy of relation | Only immediate | Also with time-lag |
| 9 | Shape of relation | Only monotone | Also non-monotone |
| 10 | Ramification | Linear | Also ramified |
| 11 | No. of steps | Only one | More than one |
| 12 | Feedback | No feedbacks | Also with feedbacks |
| 13 | Cycles | No cycles | Also with cycles |

This may look complicated, but is actually quite simple, and covers many aspects of the structure of thinking relating means and in general.

The first three dimensions are concerned with the sets of elements, the ends and the means, and does not involve the condition relation at all. The most simplistic version is the one mentioned above as the simplest of them all: only ends and only "peace", which amounts to elaborations of the idea of "peace". Next in line is the single factor theory relating one means and one end. The more sophisticated versions would include more elements, both means and ends, such as "balance of power" or "development of poor nations". These two examples are chosen so as to illustrate dimension no. 2: only very few thinkers, we assume, would consider balance of power an autotelic value, i.e. a goal in its own right; they would regard it as a condition of peace which in turn would be seen as an autotelic value. But not so with the element of "development": it is also seen as an autotelic value by many, i.e. as a value worthy of being pursued in its own right, regardless of whether it leads to peace or not.

The next six dimensions introduce increasingly more complicated aspects of the condition relation itself. The first problem is whether the condition relation is introduced at all; if it is not, the peace thinking is degenerate, if it is we may just as well assume that the condition relation connects all elements. That is, we do not assume that the thinking takes a stand on all possible pairs of elements and pronounces itself as to what is a condition of what, only that no element is isolated. Thus, one peace theory might look like this

Figure 2.2.3. A connected peace theory.

stating that balance of power will lead to peace, which then will facilitate development. The theory is well known, and the mental jump from peace to development is often carried out by means of the idea of utilizing funds released from military budgets by disarmament. But there is no direct link between "development" and "balance of power" - we only assume that they are connected (in this case via "peace"). Incidentally, such a link could be worked out by postulating that "development" would lead to a desire for more balance of power policies (for instance by having the nations that are developing by means of this policy join alliances to preserve newly gained autonomy), in which case we would get a feed-back cycle worked into the structure of the thinking.

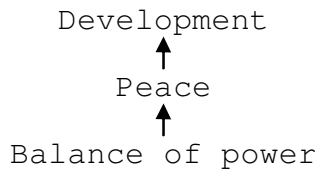
In general, we shall assume in the sophisticated version that no elements, means or ends, are completely isolated, for if there were isolated elements, then we would simply eliminate them from the thinking - since they have not been made use of. Thus, expressions of the type "one should also consider the role of the developing nations in this connection" should be regarded as simplistic since there is no specification as to how this elements enters, it is only as if it were added to assuage the bad conscience of the thinker who has been too lazy to make the effort to work it into his system, or as if it were added to stimulate his memory when he makes his next attempt.

The next dimension, the direction of the relation, distinguishes between the kind, of thinking that only looks for conditions of peace, and the kind of thinking that also would explore the consequences of peace. Of course, one may do either: regard P as the point to which all arrows should lead, or as the point from which all arrows should lead. The simplistic version would buy only one of these perspectives, particularly the former; the sophisticated version would mix them, which immediately places P at a more "normal" vantage point, from which a more balanced view of P can be obtained. P may be the center, but not the pinnacle of the reasoning. The example above is one case of such thinking, with three ends and two means.

This becomes particularly clear when the next dimension, the sign of the relation is considered, and negative relations are introduced. By a "negative relation" we mean one where conditions impeding the realization of a value (heterotelic or autotelic) are considered, whereas a "positive relation" is one where conditions facilitating the realization of a value are considered.

The importance of this kind of thinking can be appreciated if one considers this theory:

Figure 2.2.4. A peace theory with negative relations.



where we use the broken arrow for negative relations. Here the idea would be, for instance, that with disarmament there would be peace and with peace less demand for strategically important raw materials, which in turn would lead to less development. The structure is important because it introduces ambivalences: on the one hand, peace is good, on the other hand it may impede the realization of something else which also is good. If from the beginning this "something else", i.e., an other autotelic value, is excluded from the analysis, then there is no problem for there would be no way in which the ambivalence could be identified. In sophisticated thinking the inclusion of the less applaudable consequences of peace is indispensable.

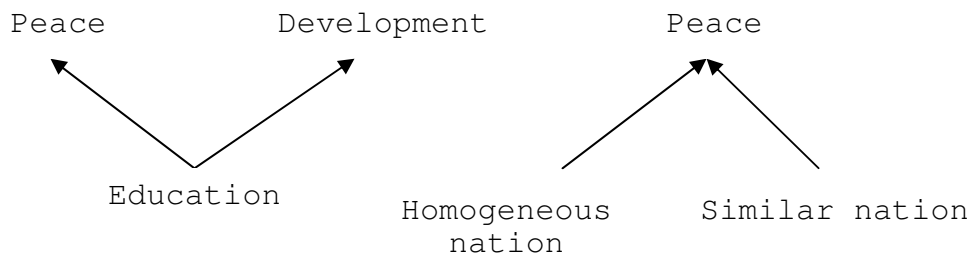
The next two dimensions, strength and immediacy, introduce some doubts about the arrows whether they are of the positive or negative varieties. The simplest would be the deterministic relation without time-lag; where the realization of Q would lead, immediately, to the realization of P - as when one turns the wheel in an adequately assembled car. But then the probabilistic element enters: the realization of P is less than guaranteed, it is only seen as more probable than it would have been with Q absent (otherwise the relation would have to be classified as zero or negative). And then there is the time-element: P will come (deterministic version) or may come (probabilistic version), but only after some time. Both kinds of steering mechanisms are known from hazardous cars - in both cases one would say that something is wrong with the coupling. We have no particular symbols for these two types of relationships. However, one simple technique would be to write the size of the Q,P correlation coefficient above the Q, P arrow as a measure of how probabilistic the relation is (with 1.0 for the deterministic case).

The next dimension (no. 9, shape of relation) is concerned with a very important aspect of the relation between Q and P: whether it is monotone or non-monotone. In the monotone case, which is characteristic of simplistic thinking, the assumption is that the more we have of Q, the more peace will we get - for the entire interval of Q variation. There may, of course, be some plateaus, but never decreases as in the non-monotone case. A typical non-monotone relation would postulate an increase in P up to a certain value of Q and then a decrease. We shall see that many peace theories, if elaborated in the light of scientific findings, seem to be of this kind, and this circumstance makes them considerably less amenable as

slogans and political platforms in general.

In the last four dimensions we are no longer discussing the nature of the relation between the single Q and the single P, but develop ways of looking at the entire structure of relations in the set of means and ends. The first aspect to be dealt with is the crucial dimension (no. 10) of linear vs. ramified thinking. The examples given above have all been clear cases of linear thinking: A leads to B which leads to C, and so on. But then there are the two basic types of ramified structures:

Figure 2.2.5. The two types of ramified structures.



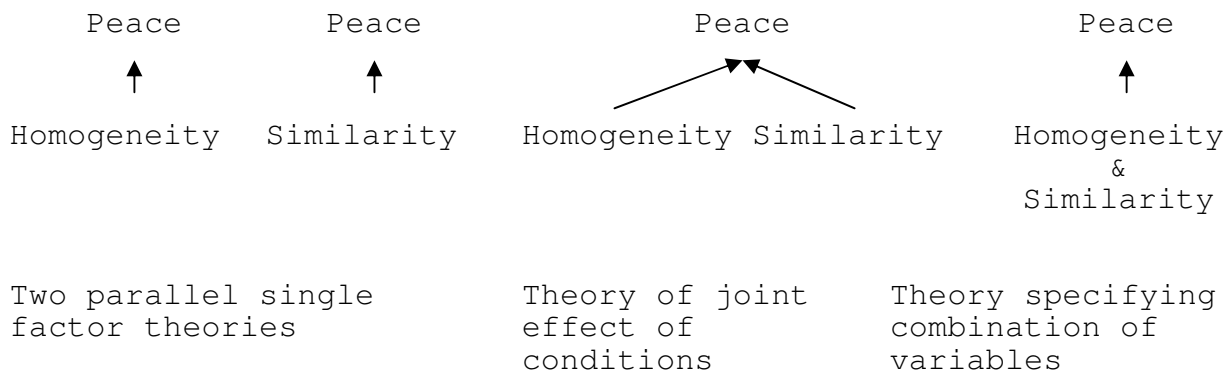
In the first type, to the left, two consequences of one condition are explored; and in the second type, to the right, two conditions of the same consequence are posited. This actually corresponds to two well known procedures in statistical analysis: in the first case the analyst has picked one independent variable and explores its relations with a number of dependent variables, in the second case he has picked a dependent variable and tries to account for it in terms of a number of independent variables.

Since the arrow stands for "sufficient condition" the first case is unproblematic. The theory would simply be that by raising the level of education one gets not only development but also peace; presumably on the assumption that educated man cannot be belligerent or traditional. Education is a sufficient condition for either in the standard sense that if education is realized, then one cannot have non-peace or non-development.

But the second case is more problematic since there are two or rather three interpretations: the factors (homogeneity within nations, and similarity between nations) are sufficient conditions for peace, one at the time; the two factors are sufficient conditions together and combinations of specified values of the two constitute a sufficient condition. The last two interpretations are rather similar, the point being that to arrive at peace one has to work on all the factors indicated as conditions. If any one of them is held to be sufficient in its own right, then we actually have a set of parallel single factor theories and there is no need for any ramified structure. On the other hand, if the factors are only held to be sufficient in some kind of combination, then the ramified symbol could be used. In this case the relation is to be interpreted as probabilistic, as contingent, and the other conditions are supposed

to increase the probability if they are combined in the right fashion. Thus, there is room for these three interpretations and symbols when several conditions are related to the same consequence:

Figure 2.2.6. The three interpretations when two conditions are related to one consequence.



This will be elaborated further in a subsequent section, suffice it only to say here that the major consequence of ramified structures is that they permit us to extend thinking from single-factor to multifactor theories. Whenever a ramified structure is encountered, of the second type in Figure 2.2.6., then the theory is simply that everything posited as conditions for the same consequence must somehow be combined to yield the consequence. If there is no assumption, explicit or implicit, about such combinations, then one should present the theory as a set of unrelated single factor theories.

The next dimension is concerned with the number of steps. A peace thinking structure can simply be evaluated according to the length of the longest chain found inside it. Thus, in the beginning of this section we gave examples involving only one step, then involving two steps, and - if we include the comments in the text - involving three steps. The typical way in which this can clearly be seen to be a transition from simplistic to sophisticated thinking is via the insertion of "stepping stones" in the chain of thoughts. Thus, one person says: "cultural cooperation leads to peaceful relations". The other person asks: "Why is that so?" Simplistic thinking is easily revealed by the first person answering: "But this is evident, it simply is like that". More sophisticated reasoning would show up by the introduction of a stepping-stone in the middle: "because cultural cooperation leads to increased tolerance, and increased tolerance to more peaceful relations". Thus, a theory is extended from a one-step to a two-step theory.

The last three dimensions on the list are concerned with cycles of different kinds. When the relation is a condition-consequence relation, then the meaning of a cycle is that one factor somehow has

an effect on other factors. We shall distinguish between three types of cycles,

cycles involving one variable, called loops (dimension 12)
 cycles involving two variables, called feedbacks (dimension 13)
 cycles involving more than two variables (dimension 14)

Let us for a moment imagine that we only are dealing with positive relations. A loop would then be interpreted as indicative of a self-reinforcing variable, a two-variable cycle as a simple positive feedback relation and a three or more variable cycle as one more reinforcing element in the structure. We have classified all these ideas as sophisticated because they are only rarely considered. Usually a variable is taken for granted and its consequences are traced, but on the other variables. The consequences of a variable on itself, directly or indirectly via one or more other variables are less frequently explored.

The one-variable cycle, or loop, is interesting as an idea but actually a case of simplistic thinking. A person may say "peace is self-reinforcing", which is a clear case of a one-step theory. By inserting a factor like "satisfaction" one might construct a theory to the effect that "the more peace, the more satisfaction: and the more satisfaction the more peace" (on the assumption that only frustrated people are belligerent). Or somebody else might say "peace is self-defeating", as a simplistic way of saying "the more peace the less effort to obtain peace; and the less effort, the less peace". Nevertheless, even though loops are one-step theories they introduce an element of sophistication of high significance for any theorizing about social systems.

This is even more true for the more complex cycles where effects are traced back to a factor via any number of steps. Needless to say, the introduction of negative relations complicates the models even further, for instance by introducing negative feedback relations.

That completes the list of dimensions. The total picture can now be appreciated by reading Table 2.2.1. vertically instead of horizontally. The left hand column gives the extreme in simplicity, the right hand column the extreme in sophistication. The left hand column is simply the single-factor theory with a deterministic, monotone relation without time-lag; relatively similar to what is found in political slogans. The right hand column corresponds to a high level of sophistication, in fact very much higher than what is ordinarily found in even the best of contemporary social science research. Peace research can be regarded as an effort to move thinking from the simplistic to the sophisticated. But there are few cases where more than one type of sophistication, sophistication along one dimension so to speak, is handled at the time. And this holds a fortiori for the essayistic literature. Not that one cannot find many authors who include cautions to the effect that "in reality matters are more complicated than we have presented them here", but as long as it remains at that level of generality with no accompanying effort to work out in detail how the "complicated relations" are "In reality" this

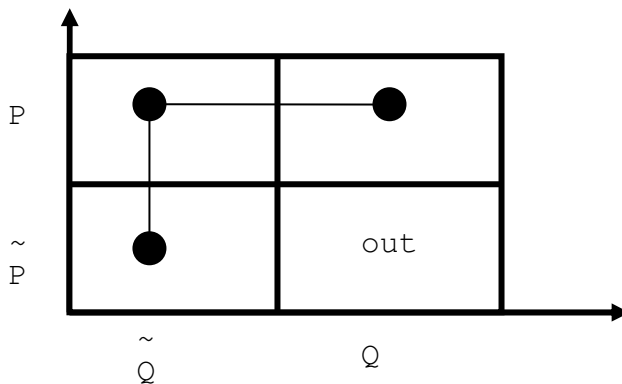
is not a sign of sophistication, only a sign of (usually justified) dissatisfaction with extreme simplicity.

2.3. Some further explorations of the condition-consequence relation.

Goal-oriented thinking, of which peace thinking is a special case, is inextricably linked to the ideas of conditions and consequences. We have used these terms very frequently in the preceding sections, and shall here deal with them in a slightly more technical manner. More precisely, we want to explore more fully the ideas behind dimensions 5-9 in Table 2.2.1. In so doing we shall not enter into the complexity of the discussions about the meaning of causal relations, but deal with the relation between the condition and the consequence essentially as a correlation over time. There are still many unclear points.

We say that Q is a condition, or more precisely a sufficient condition of P when Q leads to P and not to non- P . In other words, in the table below where all four combinations are indicated one of them, Q with non- P , is by definition impossible:

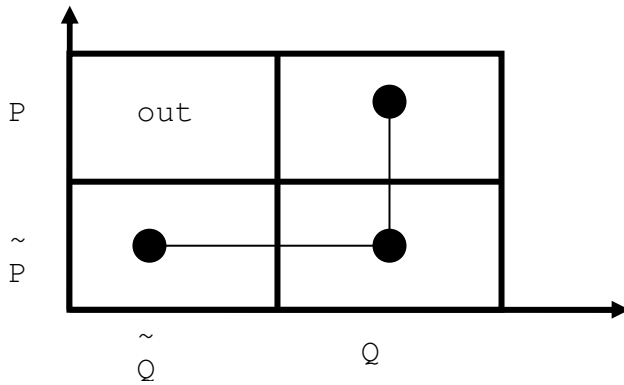
Figure 2.3.1. Q is a sufficient condition of P .



Q is sufficient condition of P , $Q \rightarrow P$

This case is clear, and so is the case where Q is a necessary condition of P : in this case it is the combination of P with non- Q which is out, for "necessary" means precisely that it is necessary for Q to be present if P is to be present:

Figure 2.3.2. Q is necessary condition of P .

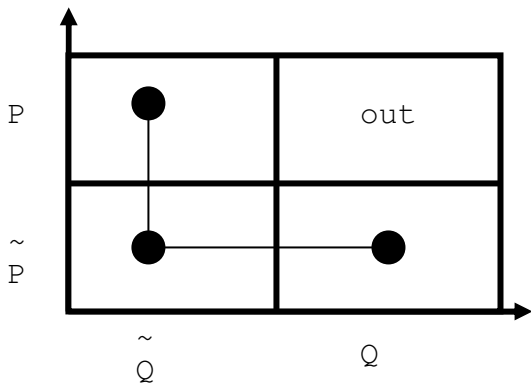


Q is a necessary condition of P , $Q \leftarrow P$ or $P \leftarrow Q \rightarrow$

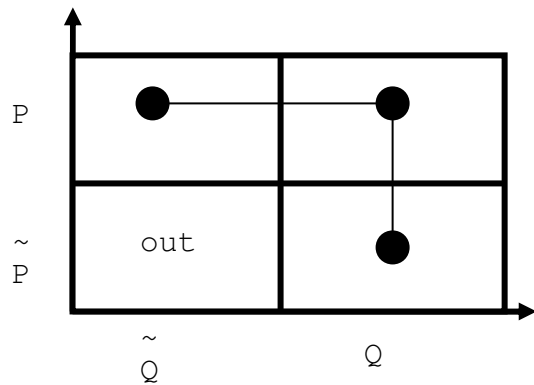
If we compare the two tables it is immediately seen that in the latter case P is a sufficient condition of Q . In order to avoid the terms sufficient and necessary we shall prefer, in this case, to say that Q is a consequence of P . This brings in the direction of the relations relative to P : if it is towards P , then Q is called a condition - if it is away from P , Q is referred to as a consequence.

One may now speculate: what if we excluded one of the other cells in the table? In that case the tables would look like:

Figure 2.3.3. Negative conditions.



Q is a condition of $\sim P$
 P is a condition of $\sim Q$
 Which we write as $Q \dashrightarrow P$.



$\sim P$ is a condition of Q
 $\sim Q$ is a condition of P
 Which we write as $P \dashrightarrow Q$

In other words, we prefer to use broken arrows to indicate "negative relations" so that we can keep P and Q in their positive form. Let us now summarize all this in a table with definitions:

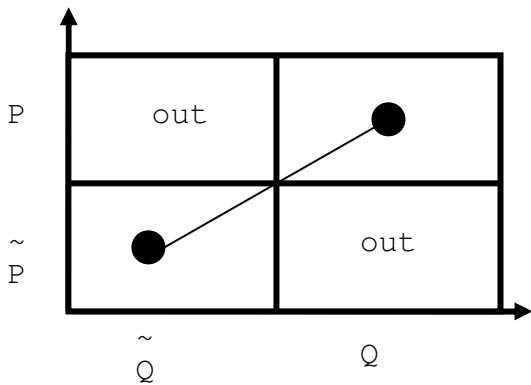
Table 2.3.1. A survey of the four relations between Q and P(eace).

| | | | | |
|-----------------------|--------------------------|---|-----------------------|--|
| $Q \rightarrow P$ | "the more Q, the more P" | Q is a <u>condition</u> of P | Q and $\sim P$ | $\sim P \rightarrow \sim Q$ |
| $P \rightarrow Q$ | "the more P, the more Q" | Q is a <u>consequence</u> of P | P and $\sim Q$ | $\sim Q \rightarrow \sim P$ |
| $Q \dashrightarrow P$ | "the more Q, the less P" | Q is a <u>negative condition</u> of P | Q and P | $Q \rightarrow \sim P \mid P \rightarrow \sim Q$ |
| $P \dashrightarrow Q$ | "the more P, the less Q" | Q is a <u>negative consequence</u> of P | $\sim P$ and $\sim Q$ | $\sim P \rightarrow Q \mid \sim Q \rightarrow P$ |

By now we have introduced direction and sign of the relation between Q and P, and thereby split the idea of condition into four different concepts - all of them useful for discussions of this kind. In so doing we have introduced words and symbols that render the terms "necessary" and as well as the symbol of negation unnecessary - but, of course, at the expense of introducing them in other forms. Logically, the next question now would be: what happens if we exclude two of the combinations in the fourfold-table instead of only one of them?

It would look as if in this case the two cells excluded would have to be located on a diagonal; for if they were not it would only be tantamount to saying that one of the factors P or Q could only be present or only absent, which would make discussion in terms of variation meaningless. This yields two possibilities:

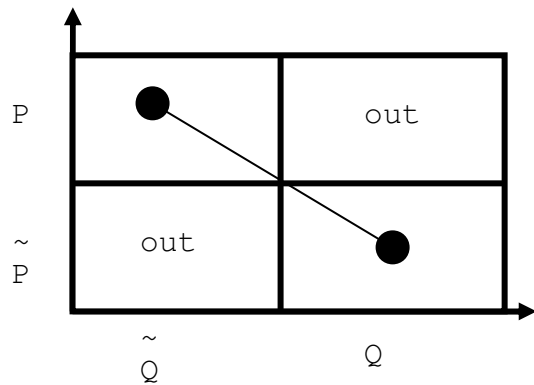
Figure 2.3.4. Double conditions.



(Q is a necessary and a sufficient condition of P)

Q is both a condition and a consequence of P

$$O \rightleftarrows P \text{ or } O \rightleftarrows P$$



(Q is a necessary and a sufficient condition of ~P)

Q is both a condition and a consequence of P

$$O \rightleftarrows P \text{ or } O \rightleftarrows P$$

We have added the formulations in parentheses since they appear in most text-books. In the first case the idea is that P and Q either appear together or not, one cannot have one without the other; in the second case that if one has one, then one cannot have the other. In the first case we have not only a peace-condition but a peace-criterion; in the second case a non-peace criterion. In the first case Q conditions P which in turns conditions Q and so on, which is a clear case of positive feedback for the two processes reinforce each other. But in the second case the two processes also reinforce each other so there we also have positive feedback; only that in the first case there is escalation, in the second case de-escalation because the factors are and decreased - increased/respectively. On the other hand, which direction of a variable should be called increase and which one should be referred to as decrease is a matter of taste.

But there are still four possibilities left if we are to exclude two combinations at the time. If we examine them, just using the definitions given in the tables above, we see that two of them are negative feedback relations

$$Q \rightleftarrows - P \qquad Q \rightleftarrows P$$

where what is built up one way is torn down the other way. It is quite reasonable to interpret this in terms of stability, i.e. that one of the factors (and, consequently, both of them) is accorded only one value; absence or presence. Then there are the two combinations

$$P \rightleftarrows Q \qquad P \rightleftarrows Q$$

which only take on any kind of meaning provided one of the factors (and, consequently, both of them) is accorded only one value. This

exhausts all possibilities, for it would be completely meaningless to exclude three combinations, not to mention all four. Thus, in addition to direction and sign we have also introduced the idea of feed back, negative and positive. But there are still ways of loosening up the concept of condition as introduced originally.

As it stands it is an either-or concept: either Q is present or absent; either P follows or not. There are two ways of specifying this word "follows" and both have been used implicitly: it has been assumed that P always follows from Q when Q has been present, and that P immediately follows from Q. We can now loosen up these ideas by introducing the idea that P sometimes does not follow from Q, and that there is a time-lag between the presence of Q and the presence of P (and similarly for the other three relations in Table 2.3.1.).

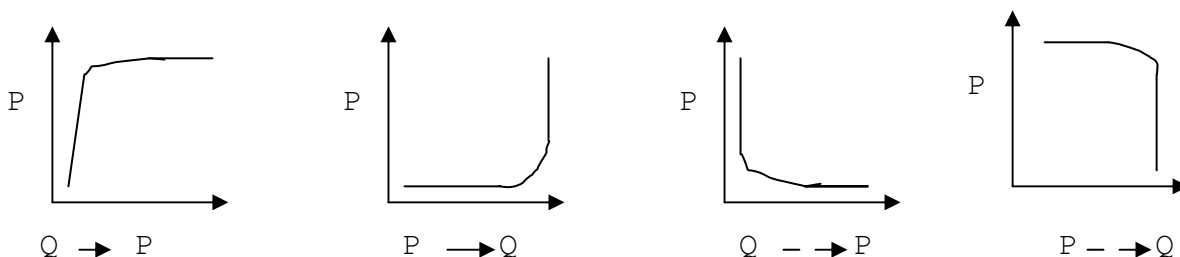
Thus, for the first one would introduce the idea of probabilities, and for all four relations in Table 2.3.1. permit low probabilities in the definition, instead of talking in absolute terms about excluded combinations (probability zero). And for the second idea of time-lag one would simply have to introduce the idea of "delayed response". Combined these two ideas make the whole thought-model more realistic: instead of P always follows from Q immediately there is now a chance that P will not follow at all, and there is the possibility that one will have to wait some time for P to materialize. There is still the vagueness as to "low probability" and "some time". As a matter of fact, all one would request from that conditional probability that corresponds to the excluded combination in Table 2.3.1. would be that it should be less than the corresponding probability when the condition is absent since one should interpret "Q is a condition of P merely to mean that "when Q is present, then P is more likely to happen (and non-P less likely to happen) than when Q is not present". However, if the probability for P with Q present is very close to the probability for P with Q absent then there would not be much gain in terms of basis for action - the two factors would simply be uncorrelated and to work for Q as a condition for peace would be a ritual.

The other expression, "some time", will probably have to be evaluated relative to the life-span of the system, of the individuals manning it, of the period, decision-makers remain in power etc.; it will probably have to remain vague.

Finally, let us take up one more aspect of the relation between Q and P; the generalization of Q and P to variables and the form of the functional relationship between them. So far Q and P have been discussed as dichotomies, as factors that are either present or absent. This is useful, but not satisfactory in the long run. For with the idea of time-lag follows the idea of a process extended in time, and even if the transition from Q to Q and from P to P may be discontinuous, there seem to be few examples of such processes. In general it is more realistic to talk about gradual transitions, and to conceive of Q and P as something that may be present or absent in degrees. In other words, we assume that they are both variables, at least at the ordinal level, and the argument above can be translated into the problem of specifying the functional relationship between

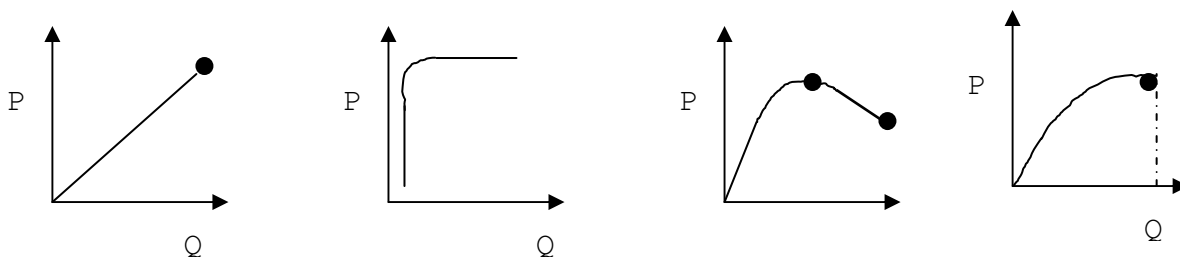
them. Clearly, the four relations of Table 2.3.1. are compatible with these four curves:

Figure 2.3.4. The four basic types of functional relationships.



The curves each stay away from one of the four corners; the first two are generally increasing and the last two are generally decreasing as they should. If we add the probabilistic interpretation then these curves could be interpreted as regression curves of one kind or another, and they would typically show some correlation patterns of the kinds indicated above. But - and this is the important thing: these curves must be interpreted as families of curves, since there is a great variety of functional relationships compatible with the very mild conditions laid down in connection with the four relations. The function language is much richer than the condition language and since usual verbal reasoning tends to be couched in the condition language there is the possibility that very important distinctions that would appear clearly in the function language are glossed over. Thus, consider these four functions, all compatible with the relation $Q \longrightarrow P$:

Figure 2.3.5. Four functional relations compatible with the relation $Q \longrightarrow P$:



In the first case we have a simple linear relationship: the more the condition Q is realized, the more peace, P, do we get. In the second case the gains are made very quickly and then there is a pattern of diminishing returns. In the third case the maximum gain in terms of peace is made for an intermediate value of Q, then there is a loss again: the clever thing would of course be to stop at the value of Q that renders a maximum of P. And in the fourth case this

is even more extreme: as long as Q has not attained its maximum value there is a gain in terms of peace; but when that value is attained one drops down to the state of non-peace again.

Obviously, all four are conceivable in the empirical world, which means that the condition language is not, in general, rich enough. The mathematically inclined would distinguish between peace thinking where it is implicitly assumed that the first derivative of P as a function of Q is always positive (the function is always increasing); peace thinking with plateaus where the derivative is zero; (the function is monotone) and peace thinking with negative derivatives, or even discontinuities (or other points) where the derivative is not defined. Most thinking is probably of the first kind, and even linear: it is assumed that the more one has of a peace-productive factor, the better. We shall make use of the distinction between monotone and non-monotone relationships as the basic distinction between simplistic and sophisticated thinking in this connection.

In the monotone relationship Q is all to the good, the more we have of it the more peace do we get. The end state is more peaceful than the process itself. In the non-monotone relationships illustrated above the end state is less peaceful than parts of the process. As an example may serve the case of diminishing dissimilarity between nations in terms of living standard: the process itself may create a sensation that justice is being done that is in itself peace-building; but once it has been achieved the enthusiasm may peter out. Or: as long as a disarmament process leads to a release of funds and to lower taxes it creates a vested interest in peace that in itself is peace-building; but when there is nothing more to disarm, this factor also tapers off. We suggest that many fallacies in peace thinking have this structure.

In the examples considered above there is an assumption that the curves should never be convex downwards since that would lead us to curves of the type where Q is said to be the consequence of P , not the condition of P (the second derivative of Q will have to be negative, at most zero, not positive). In the function language this distinction is less important. One would think more of how the time lag is and refer to the variable that increases last (has a delay) as the dependent variable, and then make distinctions in terms of monotone and non-monotone relations; and, indeed, in terms of overall decreasing relations. However, we shall use the condition language as much as possible because this is the language most commonly used in connection with peace thinking and in connection with applied social science in general.

2.4. Some further explorations of the total structure of means-ends thinking

Let us then move to the third group of dimensions, and start with no. 10, linear vs. ramified.

When a social scientist sees a statement or a diagram to the effect that one condition Q leads to something, P, he immediately becomes suspicious. The formulation looks like what is known as a "single-factor theory" in one language or, scornfully, as "bivariate analysis" in another. He will start suspecting the author of the statement of rather simplistic thinking, because if P is anything complex, like "peace", then there seem to be so few cases in social science where one has been able to capture meaningfully one Q that can be said to "lead to" P. Usually one will have to add so many conditions that the statement becomes rather diluted.

To clarify this let us make the distinction between single factor theories, multiple single factor theories, and multi-factor theories, as expressed in various language below

Table 2.4.1. Three levels of complexity expressed in four languages.

| <u>Theory</u> | <u>Survey</u> | <u>Functional</u> | <u>Graph</u> |
|--|-----------------------------|--|--------------|
| <u>Single Factor Theory</u> | Bivariate Analysis | $P=P(Q)$ | |
| <u>Multiple Single Factor Theories</u> | Parallel Bivariate Analyses | $P=P_1(Q_1)$ $P=P_2(Q_2)$ $P=P_n(Q_n)$ | |
| <u>Multi-Factor Theory</u> | Multi-variate Analyses | $P=(Q_1, Q_2, \dots, Q_n)$ | |

At the first level one factor or variable is related to peace or the variable "peace non-peace". In statistical language this is tantamount to saying that there is a bivariate correlation between Q and

P, and it is then expressed as a simple function with one argument and as a simple graph.

Then it may be felt that this is unsatisfactory, that other factors play a role. One procedure now is to elaborate multiple single factor theories, which essentially are catalogues or inventories of single factor theories (the present monograph, except for some sections, being an example). By so doing one pays attention to two important factors methodologically speaking: that the problem is more complicated than expressed by the single factor theory, and that although each factor may be sufficient in itself to bring about peace (as many theorists using "balance of power" as their Q would maintain) they are not necessary (peace can also be obtained in other ways). In the survey language this would take the form of parallel bivariate analyses, resulting in lists of statements of the type "urbanization is important for peacefulness", "industrialization is important for peacefulness", "political system is important for peacefulness", etc. Functionally this would be tantamount to a list of functions with one argument each, and the graph would look like a set of unconnected graphs of the first type mentioned, Q P

At the third level there is some type of integration. By this we mean that peace is seen as a consequence of several factors operating together. As is well-known from statistical analyses there are now two possibilities: the conditions $Q_1, Q_2 \dots Q_n$ interact with each other or they do not. In the first case the impact any one of them has on P depends on the value of the other(s) - in the latter case it does not. If it does not, each factor has its effect on peace regardless of the other factors. But this is not the same as saying that we are back to the case of parallel single factor theories, For now we know, that the factors do not interact, formerly one had only an inventory of factors known to be related to peace one at a time with no insight into how they combine. Thus, it may well be that low level of industrialization and low level of urbanization contribute independently to peacefulness, but it may also be that the level of peacefulness increases dramatically when both factors are present simultaneously (positive interaction) or that they cancel each other out (negative interaction). It should be noted that at the present stage of peace thinking multi-factor theories virtually do not exist; except within limited ranges where choice of conditions is concerned.

When a person says "to obtain peace we have to do $Q_1, Q_2, \dots Q_n$ " - at what level is he then operating, is it a multiple single theory or a multi-factor theory? It depends on whether his proposition is based upon some thinking about the interaction between $Q_1, Q_2, \dots Q_n$ or is merely a list of factors. If one says "nations should disarm and we should have a strong UN peace-keeping force" then this may be interpreted either way. The multi-factor interpretation could be to the effect that a UN peace-keeping force would be particularly peace productive if it coincided with the reduction of national power - which is a statement about positive interaction between the factors. In such a case the idea would be to pick that combination of the factors that yields the highest joint probability of peace. But this combination, then, can be seen as one condition, if one so wants. The fact that it is formulated as a long phrase where separate conditions

are connected by the word "and" should not deceive anybody, that is merely a semantic artefact. All one has to do is to invent a new word for that particular combination - and one is back to a single factor theory again. But this time the condition Q has been specified in the sense that other conditions have been added to it. It no longer is "cooperation" as such, but "cooperation on equal terms, functional for either party and over a long time period".

Thus, one cannot identify "single factor theory" with simplistic thinking; for it is in the nature of science to lump together semantically factors that have been proved (empirically or theoretically) to belong together and make out of a multi-factor theory a single factor theory. It is the single-factor theory with unspecified conditions that is simplistic; and the sophisticated version would consist of using either a multi-factor approach or a set of specified conditions. To distinguish between them diagrammatically we shall use the ramified graph for the multi-factor approach, and the combined conditions graph for the specified approach. They are actually identical, there is only a difference in emphasis in the sense that the first deals with the conditions as variables where the latter has picked out that set of values that is particularly peace-productive. Thus, although the diagram is linear it is really a ramified structure in disguise.

As to the number of steps there is nothing to be added to what has already been said in the preceding section. Obviously, a multi-step, multi-factor theory would diagrammatically look like a pyramid with several levels, where the sub-conditions under each condition together would constitute a sufficient condition. Actually, the two-step type of thinking is particularly frequent since it is so closely linked to the general format for theory-formation: the conclusion, Q is a condition of P, is "deduced" from the two premisses "Q is the condition of Q*" "and" "Q* is the condition of P". Thus, the general structure is $Q \longrightarrow Q^* \longrightarrow P$ which is a two-step chain. Only rarely does one encounter more complex types of thinking.

Finally, let us look at the theory of cycles in a more general perspective. Imagine we have a total of m ends and n means which means m+n elements, variables or factors altogether. There is only one condition: one of them, one of the P's shall be "peace". Peace thinking consists in identifying these elements, and then in tying them together by means of condition-consequence relations. How many such relations can there be, altogether? The answer is very simple:

| | |
|--|-------------------------|
| In order to connect (weakly) all elements: | $m + n - 1$ |
| In order to connect strongly all elements: | $1/2(m + n)(m + n - 1)$ |
| Add to this the feedback cycles: | $1/2(m + n)(m + n - 1)$ |
| Add to this the loops: | $m + n$ |
| Which would give us: | $(m + n)^2$ |

or simply one relation from each element to each element, including relations both ways and relations from an element to itself. However, this calculation disregards the importance of the multivariate perspective implicit in the ramified structure, whereas it includes all the cycle perspective given in the last three dimensions in Table

23.1. Thus, in a sense one might say that sophistication consists, at least partly, in completion: the simplistic idea is not necessarily wrong, only very incomplete since it leaves unanswered the problem of how many of the pairs of elements are related. And this points to an ambiguity in the diagrams: the meaning of the zero or empty relations. There are two interpretations, that "there is no relation" in the sense of complete independence, and that the relation is unknown. In future versions of these diagrams efforts should be made to find suitable symbols so that one can discriminate between the two interpretations.

2.5. The relation to peace thinkers.

This now raises the interesting problem: under what conditions would one expect simplistic thinking to arise, and under what conditions would one expect sophisticated thinking? Which peace thinkers would, under what conditions, produce what type of thinking? As mentioned, this is not central to this presentation, but something should be said. Thus, as guidelines we shall present four broad classes of theories.

First of all there is the idea that this is related to situational factors. More specifically: under conditions of stress there is a general tendency for sophisticated thinking not to develop at all or to be reduced to simplistic thinking. The stress may be due to frustration, conflict, time-pressure or other sources of scarcity, but the result is more or less the same. To the extent the peace thinking shall serve as a guide for action, to that extent will it have to be simplified to be compatible with the psychological and social needs that seem to develop when human beings are in stress. Sophisticated thinking involves a high degree of uncertainty: there are other values to consider; peace is seen as something that may have consequences, not only as being itself a consequence; these consequences may even be negative and the conditions of peace may themselves have negative consequences; relations may be far from certain; there may be a considerable time-lag involved; it may be difficult to locate the value of the condition variable that gives maximum peace; the road to peace may have to pass through a number of intermediary steps; one may have to engage in several parallel action programs simultaneously to arrive at the goal; and there may be complex cycles and feed-backs to consider. Everything said here may paralyze action, it may induce in the decision-maker a feeling of powerlessness relative to the complexity of social reality. In periods with less stress he may have the time to work this out somehow. He may for instance start several programs in a parallel or serial fashion and wait for the effects, evaluate them and change his programs in the light of the evaluation. In periods of stress he is expected to make not only the correct decision but also a quick decision, and this will have to be rationalized by means of simplistic thinking. Or more correctly, he may extract from his more sophisticated model one simplistic "atom", and act according to it as if it were the complete structure of his peace thinking. For the simplistic peace thinking promises precisely what he is supposed to deliver: the clear-cut action which definitely and immediately yields the desired result, peace. Since most people seem to feel a need for some kind of consistency between action and thought.

and conditions do not permit the adjustment of the actions to sophisticated thoughts, then there is this possibility of adjusting thoughts to the actions by making them simplistic.

Secondly, there is the idea that this is related to the kind of formal training the person has received. One may be trained in com-

plex thinking about peace or any other aspect of social reality, and one may be systematically trained in simplistic thinking. Obviously, there would be nothing so directly relevant as the training in peace theory or theories itself, but such training, in a systematic manner, so far does not exist. Rather, what exists is more or less segmental, usually centered around the set of conditions of peace the institution in question is supposed to take care of. Thus, military establishments would give the type of peace training that would emphasize military conditions; foreign ministries would give the types relating to diplomatic activity, and so on. However, there is the distinct possibility that some insight in peace theory together with general training in sophisticated thinking may combine into sophisticated peace thinking - because the person has the thought model that he can fill gradually as he gains experience within the field. We know of no tests of this assumption, and are in general relatively skeptical about transfer theories, unless there is something in the social structure that forces or facilitates the transfer.

Thirdly, there is the idea that this is related to the social position of the individual. The center of a society, it is claimed, will more readily develop sophisticated thinking in our sense, and the periphery much more readily the more simplistic type of thinking. There are many reasons for this. The higher educational level of the center makes them see more aspects of a situation, more elements and more relations between them. The broader social experience from participation in more groups, organizations and more complex positions in status networks makes them less easy prey to simplistic thinking about how social values can be obtained. Moreover, the deprived nature of the position of the periphery makes them more inclined to develop simplistic thinking because it promises more and more quickly; it gives an action program that can more easily serve as an ideology for the deprived. And correspondingly with the possessors of the goods the society has to offer: they have a corresponding vested interest in models of social reality that do not lead to easily implemented action programs, but rather to action-paralyzing doubts. Complication may be turned into a political strategy. Thus, we would expect systematic over-selection of sophisticated thinking in the center and. systematic overselection of simplistic thinking in the periphery.

Fourthly, there is the idea that this is related to the personality of the individual. One may focus on such an obvious factor as the individual's ability to handle complex models which essentially will have to be of a symbolic nature; and this ability is - if not identical with - at least very closely related to intelligence as measured by psychologists. Or one may focus on such factors as dogmatism or authoritarianism as developed by different traditions of psychological research. Both of them have something to contribute in this connection, and both of them lead to relatively clear predictions in terms of sophisticated vs. simplistic peace thinking.

One could now add to this and develop some ideas about how untrained people in the periphery with a dogmatic inclination would

react in situations of stress - but we know little about the interaction effects of these variables. There is probably positive interaction between them for at least some ranges of variation and this is probably also built into the social structure in the sense the people with a bent for simplistic thinking will be preferred as leaders in situations of stress.

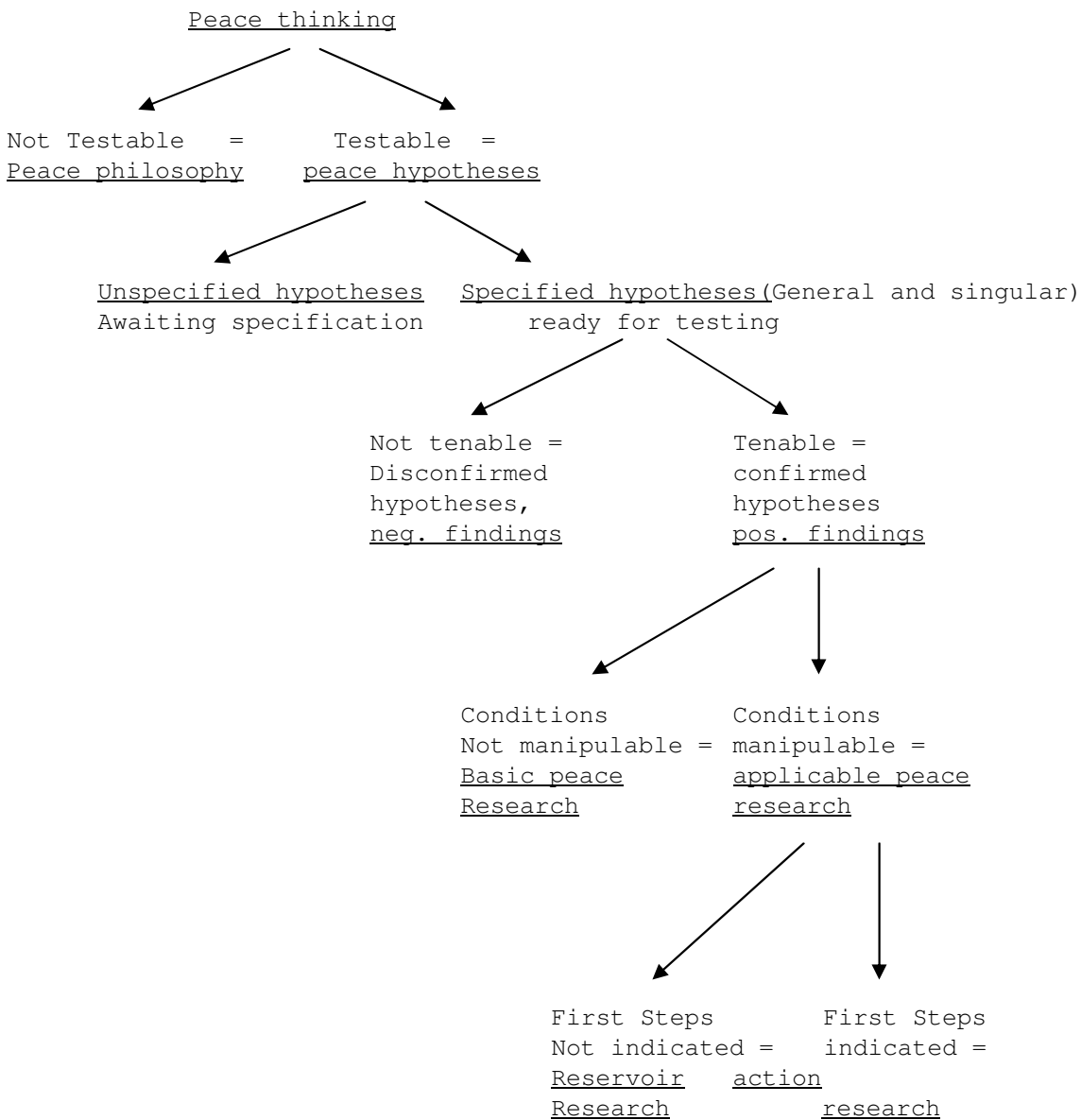
It should be emphasized that "scientific thinking", whatever that is, should not necessarily be identified with sophisticated thinking as we have defined it. The inclination of the scientist is often to find the sweeping and the elegant formula, and even to buy a relatively simplistic hypothesis at the expense of some disconfirmation. The highly complicated and sophisticated model of reality will usually be seen as unsatisfactory for aesthetic reasons, and even if no data are collected, purely theoretical efforts will be made to arrive at super-constructs that permit what the researcher defines as more formulations (at the end of the present monograph an example of this will be given). Thus, one should be careful lest one falls in the trap of announcing "scientific attitude" in general as the universal medicine against simplistic thinking. It would probably be more correct to appoint the researcher (rather than the scientist), the technician, the skilled professional to roles of that kind, since it is in their job that they shall stay closer to the complexities of the empirical world. Their task is not to arrive at aesthetic and elegant results in theory-formation, but to practice and apply scientific findings, and if they are evaluated on the merits of their work, on the basis of their achievements, then they will have to arrive at models (explicit or not) that reflect adequately the complexity of social reality. But then it should also be added that we do not believe that social reality is intrinsically of such a kind that sophisticated rather than simplistic thinking will always reflect it better. We can only say that at the time being our concepts and techniques of research seem to lead us in that direction.

2.6. The relation to social reality.

So far we have not related peace thinking to social reality at all since the problems of testability and tenability have not been touched in any way. For sake of completeness, however, we shall add some words about this aspect here.

Here is a continuation of the typology of peace thinking, this time with a focus not on the structure of the thinking but on its relation to social reality itself:

Figure 2.6.1. Different relations between peace thinking and social reality.



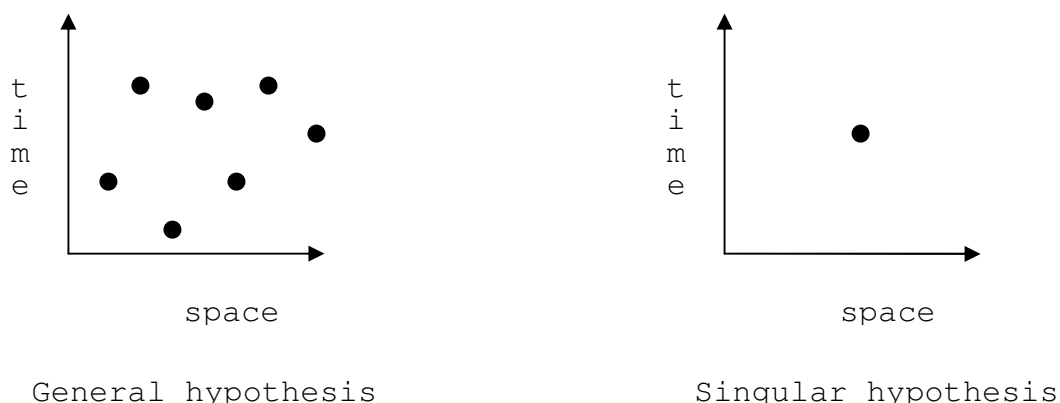
Clearly, if we always are on the right hand side of these dilemmas, then the net result is a ready-made program of peace action. But short of this there are also a number of interesting products of peace thinking, all of them well known in practice.

To start with the beginning: the first distinction is made between peace thinking that is testable or not. Without going into any detail where this difficult question is concerned, let us just say that this is the problem of whether there exist states in this world that can be reported in an intersubjective manner and that would lead to a confirmation or a disconfirmation of the peace thinking involved. Thus, it is difficult to conceive of states of this world that would change the confirmation level of the thesis "the more we

please God, the more peace will we be given". We shall refer to the non-testable residue of peace thinking as peace philosophy.

The testable part would consist of thinking phrased in terms that are operationalizable. At this point, however, a distinction can be made between unspecified and specified hypotheses. The latter is an hypothesis which is specified so much that it can be tested directly by confrontation with data from specific situations, i.e. from one point, or several points, in time and space, depending on whether the hypothesis is about a singular case or is general, i.e. about a set of singular cases. Thus, one may develop general hypotheses about the effects of economic boycotts in the population in the target country, and then specify the hypothesis to Italy in 1935, Cuba in 1960, Rhodesia in 1966, etc. In other words: the singular hypothesis is specified completely, both in space and in time. A general hypothesis, then, is one from which more than one singular hypothesis can be derived by complete time- and space-specification. Thus, the distinction can be illustrated by means of this diagram:

Figure 2.6.2. The distinction between general and singular hypotheses.



The former plays a particular role in the generalizing social sciences, the latter in the singularizing social sciences (such as anthropology and history according to the academic tradition in some countries). Testing of singular hypotheses is often referred to as case studies.

To test a general hypothesis is to test a set of singular hypotheses, each relating to one time-space point, or one "situation". The general hypothesis as such cannot be tested in any other way; it can be derived from other general hypotheses but not be tested. Two special cases are of particular interest in this connection.

First of all, there is the case where time = now, space unspecified. In this case hypotheses are related to contemporary situations and the peace thinking applies directly to current events. Current situations are examined for their characteristics, these in turn are checked against the hypotheses, and relevant hypotheses are selected and tested as the situation unfolds itself. In this way

peace thinking has a direct bearing on contemporary situations.

Secondly, there is the case where time = future, often with space specified. Since general hypotheses are time-space independent and only are specified in terms of some situational characteristics they speak about the future as well - insofar as there will be situations in the future exhibiting these situational characteristics. Since applied peace research will have to be geared towards the future (one cannot undo the past), only singular hypotheses that are derived from general hypotheses can be useful in this context. At this point special interest would focus on positive peace research findings that include manipulable conditions, so that one can use them as a program for a "peace machine", so to speak. As a special case here comes the type of peace thinking which is presented as a chain of conditions with first steps indicated, the idea being that these first steps can be taken from the situation in which one is located, from here and now. Peace thinking may well be phrased in terms of manipulable variables, but not include first steps that can lead to the situation in which those conditions can be manipulated. Thus, one may reason that "UN right of taxation of everything extracted under the sea-floor" will give "more possibilities for UN to finance development assistance and peace-keeping operations", which in turn will give "more national and individual identification with the UN", which in turn will lead to "more legitimate authority to the UN", which under the assumption that the UN is "peaceful" will lead to "more peaceful relations". This chain has a great deal of face validity and the basic condition is manipulable. But important steps are missing between here-now and there-then-how does one persuade nation-states to give over such rights to an inter-governmental organization, to mention but one example?

At this point one may wonder what conditions that are not manipulable will look like. An example would be to hinge peace on the idea of a subdivision of the nation-states of today into, say, about one thousand nations all together. This would be so much against the trend towards bigger units with various structures as to be if not outside at least on the fringes of the manipulable. The same applies to such ideas as "psychoanalyzing mankind".

Thus, peace thinking can be seen as a procession of ideas with different relations to social reality. At one extreme there is the non-testable peace philosophy, which may later on crystallize into something more closely linked to reality. At the other extreme there is the peace program, specified and tested, with a chain of actions indicated. Between the two there are first of all unspecified hypotheses that constitute some kind of reservoir, awaiting final specification. Specification should then be regarded as a process: one starts with formulations of the "cooperation leads to more peaceful relations", then one introduces more conditions (such as "provided the cooperation takes place under conditions of complete equality") and finally one specifies so much that one is down to one particular point in time and space, to a "case" or a situation. Of course, one would usually not believe that one such point could furnish enough evidence to confirm or disconfirm a general

hypothesis; such an hypothesis would have to be tested at more points (replication). Then, the negative findings are sorted out and one proceeds with such problems as manipulability and program indications typical of applied sciences. Altogether the diagram represents a typology of relations between peace thinking and social reality, and also a program of scientific activity.

But then it should be added that there is, in principle, a link back again to the peace thinking at the top of the diagram: program research is translated into action (to implement the program), this may lead to social experience which can be checked against the predictions derived from the peace thinking and serve as a positive or negative feed-back to any point in the chain leading from peace thinking to program research. For this feed-back to be effective close links will have to exist between the peace thinker or peace researcher and the peace actor; but that problem leads us outside the scope of this presentation.

It should be noticed that the presentation of the relation between thinking and reality in this section does not assume any particular point of view when it comes to the crucial problems of how thinking is arrived at, and how hypotheses are tested. There is room in this scheme for applications of hypothetical-deductive methods and systems of confirmation developed in various positivistic schools of social science research, and there is room for quite other approaches. One may arrive at the hypotheses by deductions from first principles or by inductions based on intuitions that in turn are based on glimpses of social reality, and so on. Our own preference is along the first line mentioned above, but we have tried to make the scheme neutral where this is concerned.

3. A TYPOLOGY OF MEANS TO OBTAIN PEACE

3.1. The selection of conditions of peace, Q.

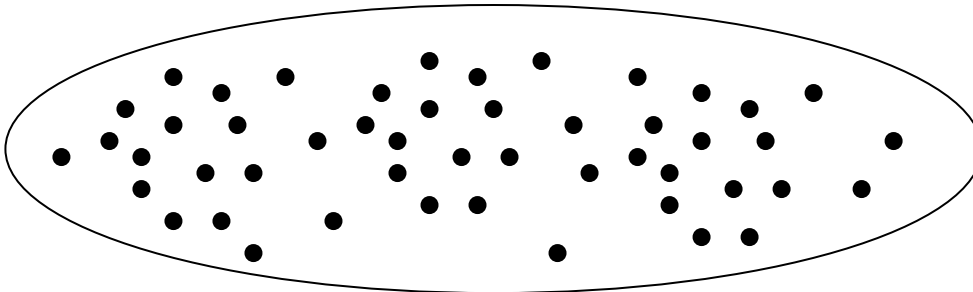
So far we have only dealt with purely formal aspects of peace thinking. The schemes developed involve only one non-formal idea: the idea of peace itself - and it is clearly seen that if we substituted some other important value (such as happiness, somatic health, mental health, justice, development, self-realization, pluralism, democracy, non-exploitation, non-alienation or what not) for peace, then the scheme could just as well be used for analysis of thinking about that value. The scheme can be used for any kind of means-ends thinking, in short.

To give substance to the thinking about peace thinking meaning has to be given to at least one condition, Q, and the relation it has to P has to be specified to some extent. As Q can serve, of course, any state of social reality - we see no basis for excluding a priori anything from what can be considered conditions of peace. For if we excluded anything that would itself be a theory of peace, a negative one - and it would enter in the collection.

The task now is to arrive at a systematic basis for the selection of such factors, Q. Many such lists exist, but they are usually arrived at in an unsatisfactory manner, either by chronology of publication of products of peace thinking or some other principle relating to the peace thinkers rather than to the substance, or as a completely unstructured list. Without claiming that our effort is much better, it is at least an effort.

Peace, however one defines it, is a state of affairs in the world of human beings in which we live so to study its conditions we have to have an image of what that world looks like. But that image should as mentioned, be as free of assumptions as possible, so that no perspectives are automatically excluded or included. This is probably an almost impossible task, as can best be pointed out by authors who feel that their perspectives on peace have been filtered away or been distorted by some preconceptions built into the conceptual scheme. However, one can come more or less close to the goal, and one way of approaching it is again by means of some very simple mathematico-logical concepts: element, relation and level.

Let us start with an image of the world as simply a set of human beings, 3.3 billion of them:

Figure 3.1.1. set of individuals.

This is a set of elements, but with no structure. The image is clearly too simple. If used to describe thinking about peace it can only be used to capture the type of thinking that sees the conditions of peace as a characteristic of single human beings. Thus, the idea that "peace obtains when all human beings have been converted to one or another of the world's monotheistic religions"; or that "peace obtains when all of them have been psychoanalyzed", can both be located within this framework. But the idea that "peace obtains when all have the same ideology, regardless which"; or that "peace obtains when there is no difference in standard of living or in educational opportunity" cannot be located within this model. For these ideas refer to relations between human beings, not to properties of the individuals. Thus, the point is not that individuals are rich (and satisfied) or poor (and humble) - but that they are equal (and hence free of envy), regardless of which level they are equal at.

To capture such ideas we have to introduce relations in the set of elements, so as to be able to say something about pairs of individuals ("they are of same age, sex, race"), triples of individuals ("one is located between the other two in terms of income") and n-tuples of individuals in general ("they are all interacting with each other").

There are two types of relations used in the social sciences, we might call them comparative and interactive, respectively.

In the first type individuals are simply compared to find out whether they have the same property or are different (sex, age, race, income) - and in some cases who has more or who has less. By means of such relations individuals can be classified together in equivalence classes because they are the same in one way or another; and they can be ordered, partially or completely, according to who has more and who has less of something - for instance of social prestige.

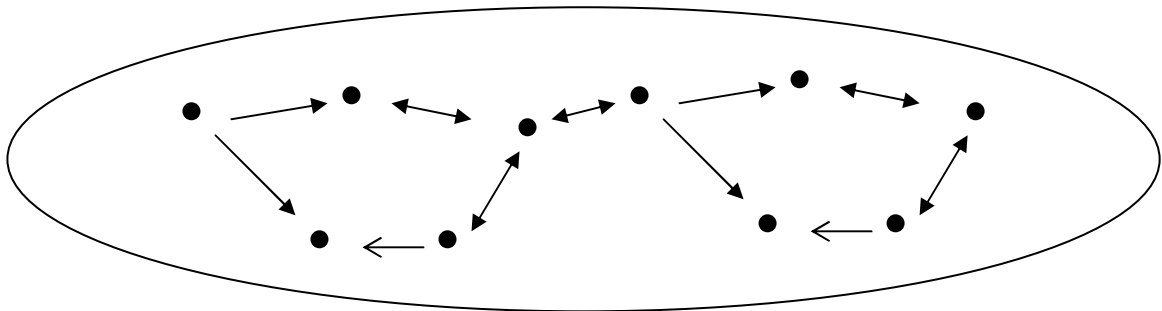
In the second type individuals are related to each other by interacting with each other, i.e. by exchanging some kind of value. The most general type is simply the relation of interaction itself, relating any number of individuals to each other. But then the interaction may be specified according to the type of value exchanged

and one gets trade relations, diplomatic relations, belligerent relations - or the more systematic distinction between positive relations where positive value is exchanged and negative relations where negative value is exchanged. Other basic distinctions are communication relations, rank relations and owner relations. All such relations connect elements.

An element that is not connected by, for instance, the communication relation (e.g. airline communications) so that it is outside the communication network, is called isolated. If we now disregard isolated elements one should distinguish between relations that connect individuals strongly by connecting everybody with everybody else (as in a group where everybody talks with everybody else), and weakly where everybody is connected. to somebody, but not to everybody.

By means of the relations we are now able to give structure to the set of elements introduced above. It may now look like this:

Figure 3.1.2. The world as a set-of related individuals.



This may be a communication network where one element is isolated, and the arrows indicate the direction of communication; a double-arrow that communication is in both directions. A useful distinction here is between symmetric relations, which read both ways so to speak as when there is always communication both ways, and asymmetric relations where this is not the case (as above, several arrows are not double-arrows). A set of elements together with its sets of relations can be referred to as a structure; and the more relations that are included (not only communication, also rank, power, and some comparative relations) the richer can the structure be said to be. Since social life is complicated, thinking about social reality will by necessity have to be thinking about relatively rich structures, covering many different types of relations.

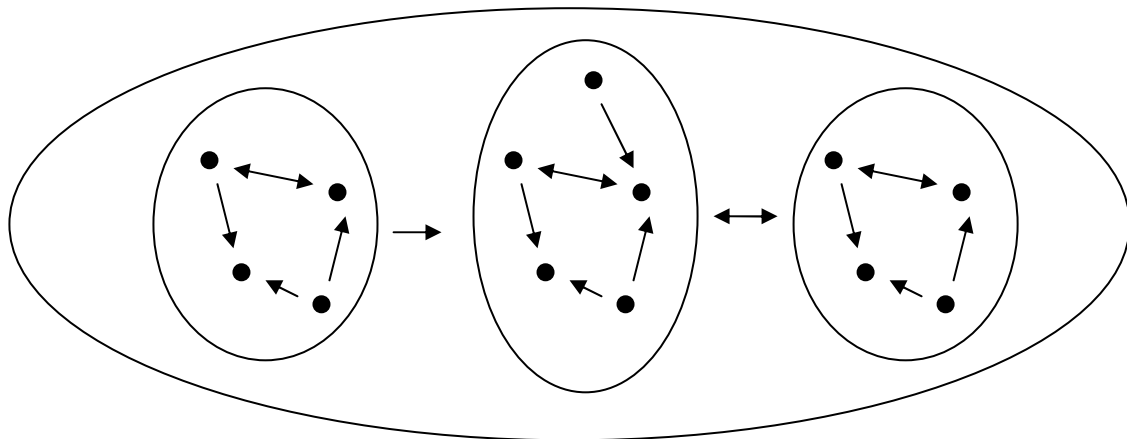
Still, this is not complex enough. We can now handle fairly well the level of individuals, but where are the nations - rather important in any thinking about peace - for instance? They can be introduced by means of the third notion, that of level. We have mentioned above that individuals can be classified together by means of an equivalence relation - for instance membership in the same group. In that group there will be some kind of structure in terms of

comparative and interactive relations. If the interaction relations connect the individuals strongly, then the group is usually referred to as a primary group, if it is only weakly connected then it is referred to as a secondary group - and if there is no interaction relation at all so that the group is merely a class of individuals not interacting with each other qua members (such as all people with pimples), then one may refer to it as a tertiary group.

But such groupings, primary, secondary or tertiary, are not enough to constitute a new level in social organization. The new level emerges the moment such groups "acquire a life of their own", or in more technical terms: when they become actors, and are identified as such by members and non-members. At this point the group is capable of participating in exchanges of values. The staff members of an organization present in a cafeteria may constitute a weakly or even strongly connected group but that group is not for that reason an actor. The staff association is; it may, for instance, rebuke the cafeteria owner for his lousy coffee. Exactly where this transition point is located needs not trouble us here. It is an empirical fact that there are actors that are groups of individuals, with more or less complex structures. Let us refer to this grouping together of individuals to form an actor as $G(I)$, G for group(ing), I for individual.

We are now up to this level of complexity in our image:

Figure 3.1.3. The world as a set of related groups of related individuals.



That is, not only have we introduced two different levels of acting, the level of individuals and the level of groups, but we have also introduced relations in the set of groups. Obviously, we are now approaching a level of complexity that is more realistic: we can now characterize both individual and group actors, and both where their properties and the relations between them are concerned. But there are two obvious questions to be answered: We know who are the indi-

viduals, they are human beings, but which are these groups? And when we have formed groups of the first order, why not go on and form groups of the second order as well, or of higher orders?

As to the first question it is obvious that thinking about peace thinking is best served today by identifying the groups as nations, since the international wars are most consequential because of the machinery of destruction possessed by nations. Nations consist of individuals tied together in complex structures, and they are clearly actors - at the international level, of course. But this leaves us with the problem of other groupings, intra-nationally and transnationally to be dealt with later.

As to the second question it is obvious that the answer is yes. Thus, nations can be grouped together by principles of vicinity or affinity into what is usually referred to as "regions", and it is well known that such regional groupings, often called alliances, are rather important actors at the international level; whether they have permanent secretariats or not. And if one looks inside nations one also discovers groups that behave as actors. For instance, many nations are based on the interaction between (electoral) districts and hence can be seen as second order groups, other nations are more based on interaction between occupational groups. And this leads us to the following scheme:

Table 3.1.1.
Five levels of human organization.

| | | |
|---------|---|---|
| Level 0 | Individuals | |
| Level 1 | Groups of individuals with same occupation, status, value-orientation or residence. | |
| Level 2 | Groups of such groups within <u>same</u> nation but with different occupation, status, value-orientation or residence | Groups of such groups from different nations but with same occupation status or value-orientation |
| Level 3 | Groups of nations which is an IGO (international governmental organization, regional or functional) | Groups of INGO`s which is a super-INGO (such as the international social science council) |
| Level 4 | Groups of IGOs | Groups of super-INGOs |

and then we are already close to the World itself, as a social system. The point is that this brings out a variety of perspectives on how the world can be organized: as a set of nations or as a set of INGOs, depending on whether one uses a territorial base or some other base. From that point on one may have nations join in IGOs and this gives two perspectives of the top IGO: as an organization of nations such as the UN today, or, one level higher, as an organization of IGOs - which would be the more corporate solution. Then one could go back to the INGOs and build the world on them, which would introduce the corporate element right from the beginning. And then one could

imagine all kinds of mixtures of these schemes, as well as other schemes.

We have now exhausted the mathematical-logical concepts we needed: the elements are connected by relations into groups that may or may not become actors, but if they do then a new level is introduced and at that level there are new relations to consider, new groupings, new actors and so on. The question is: how much of this do we need, to think fruitfully about peace thinking. Once it is developed, as it has been here, it is all at our disposal, but that does not mean that it has all to be included in the basic outline.

Obviously; we need the distinction between properties and relations, between efforts to characterize the element and the effort to characterize pairs, triples, n-tuples of them. We need the distinction between the level of individuals and the level of groups - but which groups, and how many levels? To simplify we have to make a choice and the most reasonable choice seems to be to pick the nation as the most salient group and to restrict the number of levels to that of the individual, the person, that of the nation and that of the world as a whole (levels 0, 2 and 4, left hand column of the scheme above). But: all the time keeping in mind the other distinctions made, so that they can be worked into the scheme as one moves ahead. Using these distinctions, we get:

Table 3.2.1. Types of peace thinking.

| | | Thinking based on | |
|------------|-----------------|-------------------|------------------|
| | | <u>Properties</u> | <u>relations</u> |
| | <u>Personal</u> | intra-personal | inter-personal |
| Focused on | <u>National</u> | Intra-national | inter-national |
| | <u>Global</u> | Intra-global | inter-global |

This scheme can also be simplified. First of all, the inter-global is not yet meaningful, although it may in some years if and when we get independence movements among the colonizers of the moon and some of the planets. Secondly, since there is only one globe in which we are interested and we are using nations as our basic first order grouping, "intra-global" might be better referred to as supra-national.

And: since intra-personal, inter-personal and intra-national all of them are special cases of thinking below the level of national actors - since there is no transition to the level where nations start acting with each other - they can be lumped together under the heading sub-national. And that gives us the following simplified, scheme.

Table 3.1.3. The basic types of peace thinking.

1. SUB-NATIONAL
 1. The Sane individuals world
 2. The Interpersonal harmony world
 3. The Sane society world
2. INTER-NATIONAL
3. SUPRA-NATIONAL

We hope to show that this is a useful way of slicing the total pie of peace thinking so as to facilitate thinking about it - to bring its structure out in the open. But just as the geologist loses something when he makes his probe and the biologist something when he makes his cuts, we lose something. We have compressed some levels with the danger of losing important distinctions, and we have cut the pie at the point where group-formations in terms of nations, i.e. based on territorial contiguity, appear. Both are distortions that somehow will structure our thinking, so they will have to be corrected in the process of developing these ideas further.

But as it stands it has the virtue of simplicity. The conditions of peace, according to the peace thinkers, are located within the nations, with three important subcases, between the nations, and in the structure of supra-national actors. The distinction between international and supra-national is fundamental, since it refers to the distinction between two levels in the technical sense introduced above. In short, the three levels are the levels where national actors are not considered, where they and only they are considered, and where supranational actors are considered.

It is now obvious that categories II and III in Table 3.1.3. will have to be subdivided further before a useful instrument is arrived at. In doing so, we shall make as much use of the very limited mathematical-logical apparatus developed as possible; since it can be shown to yield some quite fruitful subdivisions.

Thus, at the inter-national level the point of departure is a set of elements, here called nations. This means that peace thinking at this level will have to be directed to the structure induced by the various relations at this level. To be systematic about this, one would have to start with the simplest possible structures and then gradually proceed to the more complicated ones.

The simplest structural characteristic of a set is its "cardinality", or simply the number of elements. It may be referred to as a relation, since two elements have "two-ness" together, etc. Then we have the equivalence relations, interaction relations, ranking relations of various kinds, and power relations of various kinds. This all follows from the general considerations above, but from this point on it is clear that peace thinking cannot be based on such general notions alone but will have to introduce more specific

substantive concepts. After all, this is not general system theory, but the theory of international relations. Moreover, one could also introduce into the picture the idea of having other types of groupings than nations, as mentioned above.

At this point a peculiarity about peace thinking should be anticipated. It has already been mentioned that the thinking as a whole is highly inchoate and contradictory, and this applies particularly to the international part of it. To mention only one example: it is easy to find people who feel that peace is best promoted by a minimum of interdependence, and to find those who feel that it is best promoted by a maximum of interdependence. One can find those who believe in polarization, and the believers in depolarization. In general one finds two major classes of peace thinking: those who believe in dissociative patterns whereby nations interact little and the world is split one way or another and associative patterns whereby nations interact much and the world is more united. However, we shall give more precise definitions of these crucial terms in the next section.

If we now combine the insights we get from the general mathematical introduction with some particular insights from the theory of social systems in general and international systems in particular and the dissociative/associative distinction referred to above, we get this typology:

Table 3.1.4 The basic types of international peace thinking.

| | <u>Relation</u> | <u>Subtype</u> | <u>Dissociative</u> | <u>Associative</u> |
|----------|-------------------|------------------------------|---------------------------------------|--------------------------------------|
| A | Numerical | | 4.The Many nations world | 5. The few nations world |
| B | Equivalence | Homogeneity | 6.The Homogeneous nations world | 7.The Heterogeneous Nations world |
| C | Equivalence | Similarity | 8.The Dissimilar Nations world | 9.The Similar nations world. |
| D | Interaction | Interdependence | 10. The Minimum interdependence world | 11.The Maximum interdependence world |
| E | Interaction | Polarization | 12. The Polarized world | 13.The Depolarized world |
| F | Ranking | Interaction Rank-dependent | 14. The Feudal systems world | 15. The Mixed systems world |
| G | Ranking | Interaction Rank-independent | 16. The class systems world | 17. The Classless world |
| <u>H</u> | Coercive power | Military Power models | 18. The Balance of power world | 19. The Power monopoly world |
| <u>I</u> | Coercive power | Power control models | 20. The Arms control world | 21. The Disarmed world |
| <u>J</u> | Normative power | Rule of law models | 22. The Treaty world | 23. The Convention world |
| <u>K</u> | Normative power | Non-violence models | 24. The negative | 25. The Positive non- |
| <u>L</u> | Utilitarian Power | Sanction models | 26. The Negative Sanctions world | 27. The Positive Sanctions world |
| <u>M</u> | Other Groupings | | 28. The INGO world | 29. The Mixed world |

We have started the numbering at 4 since the first three peaceful worlds have already been mentioned in Table 3.1.3. they are all sub-national.

Finally, there are the supranational types of peace thinking. As mentioned the basic idea is the introduction of supranational actors. However, this immediately leads to two questions: are only some nations included, or are all? Do nations preserve their national sovereignty, or do they yield this sovereignty to the supranational organization? Needless to say, there are many gradation in the answer to these questions, but we shall content ourselves with simple dichotomies so as to arrive at this table.

Table 3.1.4. A survey of supranational structures.

| | Some nations admitted | All nations admitted |
|------------------------------------|---------------------------------|--|
| High level of national autonomy | Regional associ- ation world | International governmental organization world |
| Low level of national autonomy | Superstate world | The world state |

In this Table we have the four major solutions so far advocated to the problem of supranational development. Still preserving relatively high levels of national autonomy we get the two formulas of "regionalism" and "functionalism" - where "region" is to be interpreted both in the sense of vicinity and the sense of affinity, and "function" can be interpreted in any sense. We assume that they are handled by International governmental organizations -IGOs. Moving to low levels of national autonomy we get the formulas of superstates and the world state itself.

But this is not enough, for there are also other groupings in the world, as mentioned in Table 3.1.1. In order not to bias the typology unnecessarily much in favor of the nation basis of organization we have to introduce other possibilities. Thus, we get these possibilities;

Table 3.1.5. The basic types of supranational peace thinking.

| | | |
|---------------------------------------|---------------------------------------|---------------------|
| A. High level of national Autonomy | 30. The Regional association world | 31. The IGO world |
| B. Low level of national Autonomy | 32. The Superstate World | 33. The World State |
| C. Other Groupings | 34. The Super-INGO world | 35. The Mixed World |

Thus, we have developed a systematic list of 35 peaceful worlds to be explored in some detail in the second part of this monograph. They could have been referred to as "conditions" or "factors" or "models", but we have preferred the more fancy term "world". This has been done to stimulate imagination. Just as the physicist gains important insights by imagining the world differently (without gravity, for instance) the social theorist in general and the peace theorist in particular may benefit from efforts to imagine worlds where one type of factors has been changed dramatically. Some of these worlds are quite easily imaginable and play important roles in current ideological debates, for which reason they should be spelt

out in more detail. At this point it may be objected that as long as we want to present peace thinking in according to a list of 35 specified factors, at the time, then we build simplistic thinking into the presentation. This is correct. However, the intention is only to regard these 35 "worlds" as the building-blocs out of which more complicated, or "sophisticated" theories can be made. We may be right in our hunch that the bulk of what passes for peace thinking is of one or another of the 35 varieties (with subtypes); but there are certainly also more complex models in circulation, for instance associated with the names of particular authors. Thus, one may make a distinction between

peace theory atoms; which are identical with simplistic peace thinking, of the $Q \rightarrow P$ type, and

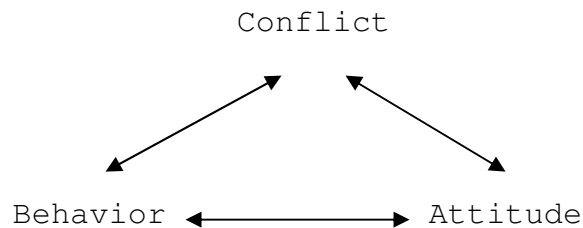
peace theory molecules; which are based on combinations of peace theory atoms so as to contribute to sophisticated peace thinking.

As can be seen from the definitions of the simplistic vs. the sophisticated we do not quite get sophisticated peace thinking by chaining together peace theory atoms in the sense defined above. For one thing, there is no place in the simplistic thinking for other auto-telic values - nor is there any place for negative, non-monotone, probabilistic or time-lagged relations. But the peace theory molecule is a solid step in that direction by bringing in more conditions in a parallel or a serial fashion; and the other aspects of sophisticated peace thinking can then more easily be introduced because the structure is richer in ideas.

3.2 Some further explorations of the dissociative-associative axis.

In the preceding section, both for the international and for the supranational models a distinction was made between dissociative and associative models, a distinction which has to be clarified. To do this we shall make a choice when it comes to how non-peace should be conceived of, and link it to the idea of conflict. As has been elaborated elsewhere thinking in this field seems to be facilitated by the conflict-behavior-attitude triangle:

Figure 3.2.1. The conflict-behavior-attitude triangle.



We define "conflict" as the incompatibility of goal-states - so that one actor's pursuit of some value comes in the way of some other actor's pursuit of the same or a different value (the actors may actually be the same actor, who then is in the situation where "he cannot have the cake and eat it too"). The dimension of "behavior" of interest here is positive vs. negative behavior, defined as behavior, with the consequence (intended or not) of being constructive to others (gratifying them) or being destructive to others (depriving them of value). In between one would have the category of neutral behavior. Correspondingly, there is the dimension of attitude which one could call positive vs. negative attitude, defined as attitude with constructive vs. destructive intentions (wishes, desires, ideas) towards others. Here too there is a category of neutral attitudes. We then use attitude so as to include both evaluations and cognitions. The extremes of attitude are referred to as love and hatred, the extreme of behavior on the negative side as violence including homicide, genocide, etc. (there seems to be no special term on the positive side - perhaps rather typical).

Peace as we have defined it is concerned with the absence of destructive behavior, particularly of more extreme types of violence. The thesis, elaborated, elsewhere, is now that such behavior may originate at any point in the triangle - and, consequently, will have to be "treated" at any point in the triangle. Thus, it may start with a conflict which then is translated into destructive behavior directed against the antagonist in the conflict, or against somebody else (displaced aggression), even against oneself. Or it may start in the conflict corner, then lead on to negative attitudes which in turn

are released as negative behavior; Or - it may start as a negative attitude completely unrelated to any conflict, and be released as negative behavior, and it may start as negative behavior, start with itself in other words, caused by a frustration that cannot be traced back to any conflict, for instance. But it should also be added that there is a tendency to generalize in this triangle: just as negative attitude may lead to negative behavior may negative behavior lead to negative attitude (as a justification of the behavior), and with this feedback cycle established a next step will be to infer a conflict - because one finds oneself behaving and feeling towards other actors as if there were a conflict. Nevertheless, it is meaningful to talk in terms of where in the triangle the whole process can be said to have originated when the release of destructive behavior towards somebody is observed.

So far we have used the triangle mainly to facilitate thinking about the origin or genesis of non-peaceful behavior. However, it can just as well be used to think about the dynamics of non-peaceful behavior. As indicated, once that behavior is started it can be reinforced both by the admixture of destructive sentiment and by the perception of conflicts. The latter point, however, is actually superfluous, for destructive behavior will almost by definition lead to conflicts since one partly destroys what to the other party is valuable. Destructive attitudes may also lead to conflict if the attitude is communicated or suspected, since attitudes dear to one party may be anathema to another. However, most people and groups are probably less sensitive to other people's or groups' destructive sentiment than to their destructive behavior - one simple reason being that emotions and thoughts after all may more easily be hidden. The moment they appear as verbal behavior - which we classify as behavior - this changes and verbal violence may often be seen as equally or more destructive than non-verbal violence.

Thus, as the double arrows in the triangle indicate, feed-back cycles yielding constant reinforcement can be initiated whereby the conflict, the behavior and/or the attitude feeds upon itself and escalates into well-known patterns. Since the struggle for peace by our definition is the struggle for the absence or at least reduction of group violence or destructive behavior, peace should be approachable at all three corners of the triangle; with the intention of getting at its causes and/or of controlling its dynamics, by stopping the vicious cycle of destructive behavior unresolved conflicts destructive attitude and/or possibly even starting a virtuous cycle of constructive behavior unresolved→conflicts destructive→attitude. This now leads, by immediate implication, to a very simple typology of approaches to peace or to "conflict management" as it is also often called:

Table 3.2.1. Strategies for approaches to peace or conflict management.

| <u>Point of attack</u> | <u>Negative approach</u> | <u>Positive approach</u> |
|------------------------|-------------------------------------|--|
| CONFLICT | avoiding conflicts | resolving conflicts |
| BEHAVIOR | impeding destructive behavior | facilitating constructive behavior |
| ATTITUDE | impeding destructive attitude | facilitating positive attitude |

Looked at horizontally this little table gives rather trivial indications as to how to proceed if the source of destructive behavior has been located. Read vertically, the Table is less trivial; because it contains in a very simple form the general structure of the major line of division in peace thinking in general we are exploring.

Both lines of thinking can be taken at their face value as equally sincere attempts to arrive at a more peaceful world, but the approaches are completely different. We shall refer to them as the dissociative and associative approaches respectively, and define them as follows:

Dissociative approaches to peace problems: try to reduce interaction, and contact between antagonists, and to keep away from each other

Associative approaches to peace problems: try to increase interaction, and contact between antagonists, and to keep close to each other

We shall see that this distinction really runs like a line through peace thinking, that for each associative idea there is a dissociative counterpart in peace thinking - usually both of them well known and easily recognizable. The basic idea is usually quite simple: the dissociative approach has as its premise that the best one can do is to keep antagonists apart and let them cultivate their own existence; the associative approach is similarly based on the idea that only in close togetherness is there a sufficient bulwark against disruptive tendencies.

These approaches cannot be directly identified with what is called the negative and the positive approaches above. By means of dissociative strategies antagonists are kept apart so that one may avoid many types of conflicts, impede them in attempts to destroy each other, and impede some types of negative attitudes from developing. But in the modern ages, and in other ages as well, negative attitudes can easily arise across a communication gap; missiles can pass and armies be launched across any distance, and conflicts may

arise or something may be perceived as a conflict regardless of distance. The mere fact that the other party exists may be sufficient as a basis for a conflict. ("there is not room for both of us on this planet"). Hence, the dissociative approach does not guarantee a successful negative approach to peace, but can be seen as an approximation.

Correspondingly with associative approaches: they are usually based on the idea of facilitating constructive attitude and behavior by means of contact and then to resolve the conflicts that no doubt will arise from the contact in a spirit of cooperation. In so doing the idea in general is that destructive behavior and attitude will be avoided. To the extent that this is carried out well, associative strategies may be said to be based on the positive approach, but there is no simple relationship between the two since negative approaches may also be involved. One may rather put it as follows: by means of dissociative strategies one renounces (almost) completely on the positive approach and hopes to build on the negative approach by keeping a distance; by means of associative, strategies one tries to build peace on the positive approach by keeping close contact, and will in addition have to engage in the negative approach because of the conflicts, behavior and attitude that arise from the close contact. Thus, the dissociative strategy may turn out to be based on:neither, the associative approach on both.

3.3 Some further explorations of the relation between means and ends.

We now assume that "peace" is to be understood in the specific sense relating to absence of violence, as indicated in 1.3. - and proceed to the question: given the list of 35 classes of conditions leading to peace according to some thinkers, and our still quite undifferentiated conception of non-peace in spite of the preceding section - how do we cope with this essentially 35:1 relationship, to put it that way? The parallel with medical research is important here. One can conceive of medical research as the definition of a set of states of non-health of the human body, called illnesses (pathological states); the definition of a set of operations called treatments and, the mapping of illnesses on treatments, and vice versa. This is general medical science; casuistic medical science deals with one patient, uses a set of manifest indicators called "symptoms" (in a process called "diagnosis") to infer the latent characteristic referred to as "illness", then prescribes the treatment indicated for that illness. The therapy is called off when the symptoms have disappeared and/or the patient is declared healthy, or non-curable.

A very interesting point here is the formal relation between illnesses and treatments. Let us say that we have m of the former and n of the latter; m would then be the degree of specificity of "illness theory" and n the degree of specificity of "treatment theory." Much of medical history can now be analyzed. in terms of increasing m and n .

Imagine that $m = n = 1$. In that case no discriminations are made: people are healthy or non-healthy, and in the latter case there is one treatment to be prescribed (e.g., a religious ritual, such as prayer). On the other hand, there is the case $m = n$: for each illness one treatment. This formula is probably attractive to the human mind trained in discursive thinking: if one can differentiate between illnesses it is because they are different, hence the causal mechanisms removing them must also be different, hence at least a search for corresponding differentiations in treatments.

Then there are the cases $m < n$ and $m > n$. In the first case, there are more treatments than diseases. Thus, there will always be dosages that are not mapped on pathological states simply because it is so easy to discriminate between dosages. But the other case is more interesting: one has a limited repertory of treatments and maps them on groups of illnesses. This is the case of the country doctor with limited equipment located in a district infested with all kinds of diseases; the former is the case of the modern city hospital in a district so successful in preventive medicine that there is only a very limited spectrum of diseases to handle. -

But this is empirical, we are more concerned with the structure of thinking. Thus, one can easily imagine a state of medical thinking where discriminations between, say, plague, colds and broken bones are made; yet, there is only one treatment available for them all

(the religious one or some operation aiming at the balance of "liquids" in the body). Careful research then leads to a corresponding discrimination in the set of treatments. It is more difficult to think of the opposite extreme where disease appears as undifferentiated, yet a repertory of treatments are available - for we are so geared to thinking that the treatments have emerged because they correspond to particular diseases.

Yet the latter is very much the situation the peace researcher in particular and peace thinking in general is facing. Non-peace, or war and conditions leading to war, are usually seen as rather undifferentiated concepts - yet, the number of cures suggested is extremely high (as will be indicated in the next chapter of this book). Or else it is seen as so specific that it becomes casuistic: the conditions in Vietnam, the relations between the two Germanies, etc. Since medical science probably has been able to make progress precisely because it has found a middle range of specificity, between talking about "illness in general", as an undifferentiated concept, and "Mr. Smith's illness here and now", it is quite likely that the same applies to peace research and peace thinking. Classes of non-peace, types of non-peace, in short a typology of non-peace will have to be developed much further, so that all the treatments (peace proposals) can be studied relative to that typology. Otherwise one will too easily fall into a very simple trap of prescribing a cure held to be peaceproductive simply because the factor it is based on is missing in the system, not because of a good causal theory. He who believes in interdependence will prescribe that, he who believes in balance of power will try to introduce this - regardless of the merits of the case.

4. THE SPECIAL THEORIES OF PEACE

4.1. Introduction

We now come to the main part of this monograph on theories of peace: the next section, where the thirty-five single-factor theories will be presented. However, before that it might be worth while to start with some notes on how this will be done.

First of all, it is obvious that for any one theory there is almost no limit to how deeply one can penetrate. Following the logic of means-ends thinking, or the lack of logic of such thinking, one can pursue conditions and consequences in all directions so as to arrive at very complicate structures. The specialized literature will often do this, and in, some cases we shall have occasion to refer the reader to such literature. But, needless to say, the specialist will very often be less than satisfied with the cursory treatment given to the type of peace thinking that he has specialized in - whether it has been qua peace thinking or in some other context. The purpose of this study is not to penetrate to the research front at any single point, but to give a systematic survey of the intellectual battle-field with which the peace researcher has to contend, so to speak. And some of the most frequently found models are for that reason given a less thorough treatment since so much literature already exist on them.

Secondly, there is a certain line behind the presentation of each single model, theory or world, just as there is a line behind their order of presentation. More precisely, apart from the first three: they are presented in pairs. Each pair spans a certain dimension, and is preceded by a discussion of that dimension. Then, the dissociative theory in the pair is selected and usually started with a typology. Then follow some words about the method, i.e. some ideas about how the theory should be put into operation, so as to make it more comprehensible and more related to practical policies. And then comes the theory, according to proponents of the model or according to our ideas as to how such thinkers might have reasoned. Thus, it is quite clear that our intention is much more to span the field of what to us appears as conceivable, potential peace models than to analyze factual occurrences of peace thinking. We have been more concerned with theories of peace than with empirical frequencies in the distribution of peace thinking.

The second theory in the pair, the associative one, is then presented according to the same scheme: first a typology, then the method, and finally the theory. This second theory is then often put forward as an antidote, as an argument against the theory presented in connection with the dissociative theory. Since we always present the associative theory last this means that the associative theory is given the last word, so to speak, and to compensate to some extent for that some possible answers from the protagonists of the dissociative theory are also presented. Thus, the presentation will to some extent take the form of a dialogue, but not always.

Thirdly, in line with what we have already said: we shall not make too many efforts to arrive at a judgment as to which theory is more valid. There are several ways in which one could have done this: by reference to authorities in the field (a method we would not accept as scientific), by some kind of theoretical validation through effort to explore, analytically, all kinds of consequences and conditions (which we shall do to some extent, but as mentioned only a short distance since this is not our basic task) and by means of empirical methods. Many scientists would regard studies about how these theories have operated in the past as the final arbiter and make their choice on that basis. We do not subscribe to that idea because of two assumptions that certainly are far from acceptable in general: that the future will be like the past in all relevant respects, and that social science invariances are like straitjackets, in other words the doctrine, of sociological determinism. This being said it is obvious that empirical regularities based on data from the past (and what else could they be based on) will always serve as a guide so as to understand better tendencies and inclinations. But regardless of what position one might take on this important problem, the presentation of empirical evidence is outside the scope of the present monograph, our task is to explore the structure of factual and potential peace thinking.

After some reading of these theories the reader will easily feel somewhat lost, or feel that the presentation becomes repetitive. We have tried to do two things to save him from either or both of these predicaments. First of all, in Appendix 1 the reader will find the typology of peace thinking in a very schematic form, first as a simple juxta-position of Tables 3.1.3,4 and 6, and then as an effort to spell out these Tables, including what we have called "typology", "method" and "theory's". As to the second predicament there is repetitiveness, particularly in what is called "theory", since there is only a limited number of theories or "reasons" on which peace theory is built. To penetrate more deeply into this a section 4.3, "some basic assumptions in peace thinking" has been added after the section containing all the peace theories, with the aim of trying to reduce peace thinking to some basic ideas. Many of these ideas will, by the way, have to be expressed in social science parlance since that is, generally, a far more precise and much richer language than common political parlance.

Finally, a note on the possible virtue of schemes of this kind. We feel that such schemes, and even more revised versions to be developed in the future, can serve a number of purpose:

1. as a research program for a peace research institute:
there are very important holes in our knowledge about the operation, singly or combined, of most of these factors
2. as a program for a peace research conference:
these are the topics of peace, research, and most papers to a conference or articles for a journal can more or less readily be classified according to this scheme
3. as an outline for a course in peace research:
such a course would have to deal with most of these topics, and the order suggested, here would probably have the advantage of the progression from micro to macro, from the near to the more distant
4. as a guide for policy:
most decision-makers will be socialized into the utilization of a very limited spectrum of the strategies indicated in the scheme, which means that the scheme should present a richer spectrum of options. Needless to say, the decision maker would have to dissolve our elements into still more specific elements if he want a practicable policy.

Again, we would like to emphasize that all these virtues are not necessarily claimed for this particular scheme but for the idea of making such schemes.

We have consistently put references to the literature in the footnotes. This has permitted us to develop the logic of the scheme on theoretical grounds rather than in the usual stepping-stone fashion where the course of the argument is set by available quotations rather than by theory. On the other hand, this procedure certainly has the drawback that our coverage of the literature will serve more as an illustration of how people think than as a complete catalogue. But the reader will find an extended bibliography at the end.

4.2. Thirty-five theories of peace

I. The basic types of subnational peace thinking

We shall start with three models of how peace can be obtained that all have one thing in common: the international system is not introduced in any one of these models. They are essentially reductionist models in so far as problems of war and peace are reduced to the level of intra-personal and intra-national variables and systems. It is reminiscent of the type of thinking found in natural sciences, that biological phenomena should via bio-chemistry be reducible to, ultimately, nuclear physics and chemistry (and perhaps even further). Thus, the thesis is that international relations should be reducible to sociology, social psychology and/or psychology. Without taking any stand on the issue in the natural sciences it does not seem warranted in the social sciences. Each new level of social organization seems to be sui generis in the sense that it introduces something basically new that may even cancel completely the effect of lower levels. Thus, even though at the national level authoritarian personalities may be considerably more belligerent than democratic personalities, this may cancel out completely at the international level: one kind of international organization may be much more peaceful than another even though the former is peopled with authoritarians and the latter with democratic personalities (an example being world no. 19 relative to world no. 18).

We mention this by way of introduction, even though it may sound trite, to justify our relatively cursory treatment of these particular models. It may well be that a content analysis of the total world volume of peace thinking would show that the subnational models form the bulk of peace thinking, but this would be more a reflection of the circumstance that they deal with factors closer to the life experiences of most people and hence closer to what they know and what they believe to be manipulable - than a reflection of validity. Until recently only few people have had positions during a major part of the creative period of their life-cycles that have made it possible for them to survey the international system as a whole and hence to develop peace theories relating to a higher level of social organization. When they have done so, these theories have usually been of the dissociative types, since they can be seen as a kind of transition between subnational and the more truly symmetric types of models found in associative thinking.

This being said it would be an equally fatal mistake to omit these models, as is often done by students of international relations. There is little doubt that many of these factors are significant, and that they may attain even more significance in worlds that are somewhat differently structured than ours at the present. And this applies to all three: to the intra-personal models concerned with personality structure, with what is filled into the individuals, so to speak; to the inter-personal models that are concerned with how relations between individuals at the micro-level are structured and to the intra-social models that deal with the

macro-level of social relations, particularly with the relations between major groups and institutions. Needless to say, these three levels of thinking are closely connected: most theories of personality tend to see the socialization process of individuals as some kind of projection of the micro and macro levels of social relations around them on the tabula rasa of the newborn human; and most theories of social relations will take into account how they are shaped by the personalities of the role incumbents. But the distinction between these three levels nevertheless makes good sense.

1. The Sane individuals world.

Types. The number of types here is very high for the reason mentioned in the introduction: peace is an umbrella concept, it serves as the ultimate goal in very many chains of justification and rationalization. There are many ideas as to what constitutes the ideal personality, and one way of under-pinning (or rather "over-pinning") such ideas would be to claim that the particular personality type advocated also serves peaceful relations particularly well.

To reduce the number of types somewhat let us distinguish between on the one hand the kind of sane individual, and on the other hand who these sane individuals shall be. As to the first dimension one may distinguish between five major types: the person who is high on ideology; the person who has the right morality; the person with the right knowledge about peace and war; the person who has the right training in connection with conflicts, and the person who is psychologically healthy. These five are arranged here in an order of decreasing relativism - to be explored more fully under "method" below.

As to "who" this is relatively simple: some might say this should apply to all individuals, others would focus on elites, still others on top decision-makers; some would focus on individuals in all nations, others on "elite" nations (big powers?), still others on people in international organizations, with the same distinction between all and only the most important. This gives a good number of possible combinations.

Method. There are very different structures to be used, depending on which of the five ways of forming individuals are suggested.

Ideology is a question of propaganda and conversion, whether this takes place in an open market of ideologies or in a closed monopoly where all other ideologies are banned. The idea is for instance to form a particular public opinion.

Morality is in a sense a special case of this, often tied to a closed belief system, even religious, which presupposes not only conviction but the stronger form often referred to as conversion where a sudden and more complete change in orientation is involved.

Knowledge is different because the teachers will claim that they impart something objective, something that refers to facts. The method is first research, then education and learning, for the masses

or the elites, formally or informally, and the result is an increase in certain types of knowledge held to be particularly important. Usually the types of knowledge referred to can be expressed in terms of the worlds we are discussing here, any one of the thirty-five, single or combined in some kind of version.

Training is a further, elaboration of this where knowledge is not only converted into memory, but also into certain skills, something that can be done, not only memorized. The most typical examples in this connection are, of course, military and diplomatic skills.

Psychological health is still different. Here the "fact" is located in the human being himself; a state, a type of personality is singled out as healthy and contrasted with other types. There is a negative and a positive approach to this: in the negative approach certain personality traits or types are declared definitely non-healthy, mentally deviant; in the positive approach there is a focus on the personality that would be optimal in some sense. Again there is the difficulty that if "healthy" is defined, in terms of peacefulness, then the whole idea becomes a tautology, and if it is defined in terms of something else (creativity, productivity, self-realization, happiness) then the thesis that the healthy person is particularly peace-productive may simply not be true. At any rate, the effort is there to define the sane individual in terms of himself (not in terms of ideology, morality, knowledge, training imparted to him) and hence to anchor a theory of peace in something absolute. The concrete method would be psychotherapy to cure the non-healthy, and other techniques to promote positive health.

For all these types and methods the distinction must be made between the methodology applied to the masses, and the methodology applied to the elites. Only few thinkers in the field, we presume, would deem it possible or even necessary, that everybody without exception should be perfect on these five dimensions. Instead, screening techniques would be put into operation, whereby the really true believers, the morally completely converted, the most knowledgeable, the best trained and the most healthy are preferred for elite positions, and particularly for positions with access to decision-making in foreign policy. Depending on the inclination of the culture the emphasis would be on ideology/morality, knowledge/training or on psychological health - with the possibility of emphasis on all three (as for the standard selection of foreign service or peace corps type of personnel). The idea would be to end up with a world where the sane individuals would at least be overrepresented, and at least on top, of at least the most important nations and international organizations.

Theory. The theory is in a sense both self-evident and simple, and this is also its weakness: by having these types of individuals on top one will at least avoid the mistakes due to belligerent ideology, immorality, lack of knowledge, lack of training and psychological deficiencies, and possibly also facilitate the practice of more peaceful policies. Particular emphasis is often placed, in such thinking, on the elimination of psychological deviants in power

positions to whom a war might be the solution or at least the outcome of personal problems.

But foreign policies are not conducted in a vacuum, they presuppose role-partners in other countries as well as role-partners in the public at large - particularly in democratic societies. For a peace policy conducted on the basis of a new ideology, morality, type of knowledge, type of training or type of personality to be meaningful it must either be understood in its own terms by these role-partners, which usually means that they must have at least some of the same ideology, morality etc., or else work automatically, regardless of how others react to it or perceive it. The first may sound unrealistic and the second rather manipulatory - but then it may be objected that there is an element of the utopian and manipulatory in all policy proposals. And at any rate: the most serious objection seems to be that the basic assumption, that foreign policy is a function of personality characteristics of a few individuals alone, is highly dubious - although it may be tenable under some conditions of crisis where concentration of power on a couple of individuals in a couple of countries often takes place.

2. The Interpersonal harmony world

Types. There seem to be two major dimensions of ideas here; according to the type of social relations where interpersonal harmony should be introduced, and according to what is meant by interpersonal harmony. As to the former the types are simple enough: the most important micro-levels of social relations meeting the individual as he enters the world are the family, the peer group and other small groups, the school, and kinds of associations and (work) organizations. Most individuals have to enter all of these one way or the other (even if the school may not be formal and the association almost non-existent), and in modern societies he also enters them more or less in the order indicated above.

As to type of interpersonal harmony this is more a question of definition. We shall define it in the sense that is relevant for our purpose: as a type of interpersonal relation that permits conflict management. We could have said "conflict solution" but that might be to require too much, hence we prefer to mean the type of relationship where conflict attitudes, and conflict behavior do not escalate so as to injure the relations permanently, and where conflict resolution is attempted and sufficiently often with success. It is not a structure free from conflict, but precisely a structure that manages conflict. The emphasis in this conflict management can be on any one of the three (the corners in the triangle in 3.1.)

Method. How this type of structure is brought about at the micro level has been the subject of vivid debate and thinking. Let us mention some of the (usually not exclusive) theories:

1. by means of education, which would imply that certain principles are taught and learnt and then practiced. Thus, this would even imply the possibility of teaching interpersonal harmony in a family or in a school that are characterized by interpersonal disharmony,

2. by means of socialization, which must essentially be understood to mean that a certain pattern of behavior is inculcated in human beings in one or a few of the first systems they encounter, e.g. in the family and in school, and then transferred to other systems, simply by imitation.

3. by means of strongly connected interaction structures whereby everybody interacts with everybody else so that information and decisionmaking does not become the monopoly of one or a few members,

4. by means of multilateral interaction structures whereby members will meet together, not only in pairs and triples (not only the parents in one room and the children in another; the teachers in one room and the pupils in the yard), but all members facing each other (in a family meeting, in a school meeting), especially when important decisions are to be taken. Point 3 and 4 together are often referred to as a "democratic structure", but this word is so much used and abused as to become almost meaningless,

5. by means of deliberate conflict management. We have defined this concept above; the idea here is only that conflict management does not develop by itself; it is not only a question of arranging interaction and decision patterns in a certain way and then hope that conflict management will come by itself. Institutions must be set up, rules be laid down, sanctions be administered, etc.

6. by using positive sanctions more than negative sanctions, i.e. by administering rewards when a member does something right rather than by administering punishment when he does something wrong.

Theory. Peace thinkers advocating such theories would have to justify two assumptions: that these six methods, singly or combined, in fact lead to "interpersonal harmony" and that interpersonal harmony at these levels of human organization lead to international harmony in the same sense. We shall deal with the two parts of the theory in that order.

Whether by education (1), socialization (2), social engineering (3,4,5) or by means of the sanction structure, interpersonal patterns can be affected. When the structure is more democratic it may be less efficient in terms of what is being produced (knowledge, goods, decisions), but grievances and conflicts will much more easily be solved before they are permitted to accumulate and escalate; they can be attacked when they are still in an embryonic stage so to speak. A well developed interaction network and multilateral meetings will permit members to vent their feelings, frustrations and participate equally and symmetrically. In addition to this, the deliberate use of positive sanctions in connection with conflict management will make it possible to avoid "boomerang effects" whereby punished members turn against the organization, or one generation against another - so often encountered in connection with punishment. It may also be added that the systematic use of positive sanctions is possible at the micro-level because there are negative sanctions to fall back upon at the macro-level, viz., sanctions administered by the government. And

it may be added that the use of positive sanctions will tend to make the members more innovators, less ritualists - because of the rewards that will accrue to them for increasing excellence, and since they will be less concerned with efforts to avoid, often ritualistically, behavior they fear might be punished.

As to the second part of the theory there seem to be several ideas involved, all connected somehow with the concept of transfer. First of all if one member of a system has acquired an interaction pattern that corresponds to this type of relation, described above, then he may transfer it to other members, by talking and persuasion, but perhaps more significantly simply by acting, by role behavior so as to engage the others in a type of behavior that corresponds to the system with a high level of interpersonal harmony. Secondly, he may transfer it to himself when he enters a new system: having experienced a certain pattern in one system he will carry it with him to the next, and if he finds the systems to be incongruent, he may try to introduce the type of structure in the new system, too. He may find life at school so different from what he knows from the associations of which he is a member that he will try to shape the school according to the pattern he knows from the associations (or vice versa). And thirdly, one generation may transfer to the next generation, by presenting it with a kind of structure that the next generation is socialized into, the structure being like a matrix or a mold that forms the next generation where interpersonal relations are concerned. All these transfer mechanisms are stronger the higher the number of members transmitting the message, the higher the number of systems the individuals have passed through with essentially the same structure so that the pattern has been reinforced and the more comprehensive the network of such organizations so that the next generation meets with it at many points in society. Reinforcement through consistency would be the slogan.

The theory would now proceed to the international system by way of two mechanisms: first of all by pointing out that an individual trained in this type of world, the inter-personal harmony world, will bring with him a style of behavior that will serve conflict management at a higher level of social organization. The thesis would be that he who has training in conflict management at the micro level can transfer some of that training to the higher levels - this would mean the person able to handle marital conflict more than the person who has never experienced such conflict. And secondly: the idea that a sufficient number of people used to such structures will try to form the international system according to the same idea, and in doing so contribute to the realization of highly viable, peace models.

In conclusion, let us only point out again how this differs from world no. 1: the emphasis is on changes in the structure of interpersonal relations and not on changes of individuals - one does not require any change in ideology, morality, knowledge, training or personality, only a certain type of role-playing induced, by certain types of interpersonal relations and the idea that there will be a transfer effect.

3. The Sane societies world

What was said to introduce the types under world no. 1 also applies here: ideas as to what constitutes the sane society are numerous, and, using peace as an umbrella concept, each such idea may in principle lead to a peace theory. This has one important consequence: since an ideology about the ideal order usually does not exist in vacuum but is contrasted with a counter-ideology, usually held by an antagonist group, this means that societal peace theories will have a tendency to appear in pairs: the theory that societies of type X is peaceful, and the corresponding theory that societies of type non-X are peaceful. A list of such theories is given below, with very brief indications as to the content: (see next page).

We would like to make some special comments on the first two ideas on this list, since they tie in with the rest of the theory about peaceful relations in this section. The idea is very simple: theories of peaceful relations are essentially theories of relations between groups; they are only rarely so specific that they specify conditions so much that they can only apply to the case where these groups are nation-states. In other words, mutatis mutandis one would expect such theories also to shed some light on the theory of internal peace, only that the groups are now domestic groups, such as the major groupings in the economic and political life. Whenever our 35 worlds speak about nation or country or society, one should substitute the word "group", and arrive at theory of peaceful relations. As a matter of fact, many theories thus arrived at are very well known from political science, it is only to be regretted that the limits of parallelisms between theories of peace at the intra- and international levels have not been sufficiently worked out. We shall not comment more on these proposals. The validity of many of them can be studied, if not be decided, on the basis of empirical data since it is relatively easy to acquire data as to what extent a nation has realized some of the ideas and to what extent it engages in belligerent activity. However, both types of variables are problematic and it is also problematic to what extent data can be used as a criterion here. The researcher demonstrating that societies of type X are more belligerent than societies of type non-X is likely to be met with the objection "this is only because the societies had not realized X completely, truly, with full conviction etc"., so that the conditions of an experimentum crucis were not present.

II. The basic types of international peace thinking

A. NUMERICAL MODELS

The major part of the globe is today divided into nations, about 135 in number, in the sense of international law (one of the characteristics being that they can have diplomatic missions with other nations, another being sovereignty over a territory). In addition there are about 80 territories, with a total of about 50 million inhabitants, that are not sovereign or self-governing (have not yet attained national independence); most of them very small both in extension and in population.

As mentioned already, the simplest possible characteristic of this system is purely numerical: how many such national actors are there? The peace thinker who feels this may be an important variable and also feels that the present world is not peaceful enough, will have to suggest a lower or a higher number, since these are the only possibilities of change - he cannot suggest status quo. Moreover, it seems intuitively reasonable to assume that the numbers suggested as ideal will have to depart significantly from the present number for any appreciable difference in peace-building potential to emerge. A change to 120 or to 150 will hardly be seen as significant by many. This, then, leads to our distinction in such vague terms as "few nations" and "many nations", where the former has been classified as a dissociative strategy, the latter as an associative strategy.

This classification is among the more dubious ones so we would like to defend it, or at least to indicate some conditions under which it is correct. The major condition is the current communication situation which is not yet entirely able to encompass the whole world (only very few people have "significant others" all over the world, yet), but goes far beyond the limits set by small nations - at least if they are reasonably developed. This means that the big nation (and the "few nations world" would have big nations) will be relatively self-sufficient and hence much more willing and able to close itself off from the rest of the world, whereas this will be impossible for the (many) small nations. They will have to engage in some kind of associative policy in order to survive.

4. The Few nations world -

Types. There seem to be three basic types if one should speculate: a world consisting of two nations, of three nations and of several nations, where by "several" we would mean anything from four to, say, a dozen or a score nations. If we admitted into the concept of "few" much more than that the effect of this factor would probably diminish considerably.

Method. How this would have come about is not difficult to imagine: it would have to be by means of some kind of fusion of existing nations, possibly combined with the splitting of some of them, whether by voluntary integration, by conquest or by other means. Thus, the background would probably be some kind of regionalism,

whether by vicinity or affinity, which means that we shall return to this subject in connection, with worlds nos. 30 and 32 (but there the emphasis will be on the emergence of supranational institutions, not on the number factor as such). Of course, the prehistory, how the reduction in number came about, would matter in practice, but here we are only interested in the purely formal, numerical characteristic.

Theory. Why, then, should a world with a lower number of actors be more peaceful? One might reason as follows. First of all, the lower the number of nations, although the actors may be very complicated in themselves, the more surveyable will the international system become. There will be fewer transactions to keep track of because of the lower number of pairs, triples etc. of nations - which means that the same information-gathering, information-processing and information-evaluating machinery can handle much more information about, each transaction and hence have a better basis for arriving at decisions. Presumably this will produce less anxiety and give more opportunity for arriving at rational decisions. There is also the companion argument that when there is less to predict the world will become more predictable, and hence more secure because the few actors can more rationally take the precautions that are needed.

In a few nations world the single nation becomes more important since there are fewer other actors to contend with. This may be for the good and for the bad: if the nation is "evil", belligerent, then its influence will be more difficult to absorb in a corner of the system; but if it has a high peace-building potential, then its impact will make itself more felt. In other words, if one has an optimistic view of the possibility of the emergence of "peace-loving" nations and a consensus that peace is to the good so that there will be a contagion effect, then the few nations world seems reasonable. But balance of power policies will by and large be more difficult since with low N the chances of equal power decrease considerably, particularly when $N=2$ or $N=3$.

5. The Many nations world

Types. Here we might also distinguish between three types in terms of order of magnitude, the present order of magnitude being 10^2 . Our choice as to classification may appear somewhat drastic: the first type would be around 10^3 nations, the second 10^{4-6} nations and the third 10^{7-9} nations. Again, if we admitted into the concept of "many" the order of 400 instead of, say, 200 that we today seem to be heading for, then we would not expect much difference, A different order of magnitude is-needed.

Method. How this would have come about is more difficult to imagine since all processes today (except for the current proliferation of small nations generated by the drives to independence) seem to be in the direction of fewer, not more, nations. The first type above would bring the average size of a nation down to around 3 million, which is quite imaginable; but the second type would bring it down to the order of a couple of thousands (which would be like the very smallest islands and units today aspiring for independence and recognition) and the third type would bring the nation down to

the order of around 3 - the size of a family or a very small peer group. These are very different concepts of nations, and some comments would be in order.

Evidently, the general process behind this would be some kind of fission of existing nations (possibly combined with the fusion of some of them). There are examples of this in the world today: forces wanting fissions operate in so different nations as (French) Canada, USA; (the apartheid wing of the Black Power movement), Great Britain (Scotland, Wales, Isle of Man); Iraq, Iran, Turkey (the Kurds); a multiplicity of such forced in the Far East; Sudan (Azania); Nigeria (Biafra) and so on; in addition there are all the cases of territories that are disputed between states and that may lead to the setting up of a third state. Thus, the fission process is not at all inconceivable, even though the general formula seems to be in the direction of (con)federations as possible solutions when disruptive tendencies within a nation threaten to develop into fissions (India being one example, Belgium possibly becoming one more). Thus, the first order of magnitude can be attained, it is not at all inconceivable.

But to bring about the next type one would have to return not only to a magnitude that corresponds to medieval city states, but possibly even further back, to neolithic societies. And where the last type is concerned, where the family or the small group would be the decision-unit (but with a fixed territorial basis since that is in the definition of a nation), unconstrained by the influence of government even at the village level, one would have to turn to anarchist writings to find expressions of the idea. However, to make it look more familiar, the Pakistan nation (without geographical contiguity) and the pre-Israel Zionist movement (without geographical territory, contiguous or not) are useful examples to have in mind - as approximations, or indications.

Nevertheless, to justify a discussion of this at all one would have to indicate not-too-improbable conditions under which the international system nevertheless might move in the direction of the second and third orders of magnitude. There seem to be two such conditions. First of all, we would have to presuppose that the nation-state not only falls badly in disrepute, but also that it is seen as somewhat irrelevant. The nation state can fall into disrepute because it forces its citizens to force wars they do not consider legitimate (the reactions in the US against the Vietnam war being a good example), or because it permits too few people to decide and control too many aspects of the lives of too many, or for any other reason. But if the latter is the case, then there are only two ways out: to let the oligarchy on the top decide over fewer aspects, or over fewer people (with the federate solution being some kind of combination of these two solutions). The latter choice leads in the direction of proliferation of national actors, or whatever they might be called. But, and this is where the second condition enters: this will have economic consequences, so that one would either have to assume a willingness to, return to a lower level of development (as when US hippies settle on farms in defiance of Washington authority) or a higher world level of development that would permit all these

fissions (for instance a common world currency, excellent, communication facilities, and so on). In other words, this is not at all inconceivable - in our personal view it is even probable, but not in the near future.

Theory. Why, then, should a world with more nations suddenly be more peaceful? The need for information will be overwhelming, much more than any conceivable agency still in the hands of human-beings, and not left completely to computers, can process, and predictability will be very low.

The answer from this school of thought would be that this is precisely the reason. The more information to process and the more unpredictability the better, for with manageable levels of information, not to mention high level of predictability one would also have a high possibility of manipulation by "evil forces". Since in addition the "evil nation" will be aided by the fact that there are few others so that his power is considerable, the few nation solution may be highly dangerous. In the many nations situation every single nation counts less, so the evildoer will, on the average have less effect. His actions will more easily be absorbed, like the actions of a single individual in one nation in the total mass of activity that goes on - provided one nation or one individual does not loom too large.

In a world of many nations there would also be other effects. With many building-blocs it becomes easier to obtain balance if a balance of power policy is to be pursued. Moreover, again under the assumption that the distribution of size is not so heavily skewed as in the present international system (from the US to Haiti on the Western hemisphere, for instance), the emergence of supra-national organizations would be facilitated, for they would not have to be that strong in order to compete with the biggest among nations. And then there is the idea that when nations count less at the international level, because there are so many of them, then human beings count more individually within the nation, because they are not that numerous per nation. This will contribute to human dignity and self-realization, reduce alienation since they will each one of them, ceteris paribus, have fewer other human beings between themselves and the centers of power. And this may, in turn, make them less easy preys of belligerence and adventurist policies, the argument might run.

And finally: in a world of many nations a given nation will also have more possibilities of finding friends according to its taste. If we assume that communications are good so that the nation is not limited to exchanges with its neighbors (which also, by the way, would be more numerous on the average in a many nations world), then the nation becomes like a worker in a big industrial plant: he has more colleagues to pick his friends from than the artisan in the small workshop. The consequence of this is increased possibilities of adjustment: a nation which is stuck in some kind of conflict may turn its interaction potential to more congenial partners and they, may together constitute some kind of subsystem and ride off the storm together. With very few nations one would have to contend with the

few there were, and that might be a much tougher and more conflict-loaded enterprise. More particularly, nations in "rank disequilibrium" will more easily find other nations with the same rank profile (see worlds nos. 14-17) and associate with them.

B. EQUIVALENCE RELATIONS, HOMOGENEITY MODELS

In this pair of models the focus is on the property of the individual members of the nations, the inhabitants, and their properties. Let us divide these properties in two kinds: those that have to vary within a society for the society to function at all - such as, sex, age, profession, power status, etc., and on the other hand the variables that do not have to vary. Thus, for a society to be self-sufficient it must have both sexes and different age-groups, but its members can be of one race, one religion, speak one language. As to the first variables the society has no choice if it wants to maintain itself and perhaps also develop further, as to the second the society does have a choice: it can choose homogeneity or heterogeneity.

To define these terms, that are more complicated than one might be tempted to believe, it is useful to divide the second type of human characteristics into two again: those that refer to bodily traits, and those that refer to mental traits; in other words those that are transmitted genetically and those that are transmitted culturally. The complexities of this distinction need not concern us here, for we shall only use it at a fairly simple level. To give some examples:

Bodily traits, Mental traits

also called racial: also called ethnic:

| | | |
|-------------|---------------|-------------------|
| Skin color: | Religious: | Linguistic: |
| White | Christian | Indo-European |
| Non-white | Non-Christian | Not indo-European |

The question is now how such traits are distributed within and between societies. It should be emphasized that we are dealing here with international peace models so we are not concerned with homo/heterogeneity as an internal characteristic of a society - that has already to some extent been treated under world no. 3 above. We are concerned with homo/heterogeneity as a relation between nations and now turn to the definition of this concept.

6. The Homogeneous nations world

Types. In the homogeneous nations world the inhabitants of any nation would all have the same skin color, the same facial characteristics, the same religion, speak the same language, belong to the same tribe (whether it is defined in racial or ethnic terms or both); in other words, there would be homogeneity on all variables that do not have to vary for the society to function. One could now distinguish between kind of homogeneity depending on for which variables this holds true, and degree of homogeneity depending on for how many variables it holds true. But this is trivial, there is a second distinction that is much more consequential.

In the example given above there are three variables, and two values on each, that give us a total of eight combinations, from white, Christian, Indo-European to non-white, non-Christian, not Indo-European. Thus, there can be a maximum of eight different kinds of nations that are homogeneous with regard to these variables, and to degree 3. But, there can of course be more than eight nations; after all, there are many nations in the world today be longing to either of the two types mentioned above.

We shall now make the crucial distinction between:

unit homogeneity: all individuals in the nation are of the same type, but these types may also be found in other nations

system homogeneity: all individuals are of the same type, and these types are not found in any other nation.

The first type refers to the unit alone, the second type actually refers to the whole system. As mentioned, there can only be eight different types of nations that have unit homogeneity and any number of nations of any type. But there can only be two nations with system homogeneity. For if the first nation, A, has white inhabitants, then the second nation must have non-whites since all the whites are, supposed to be in nation A. If these whites in nation A are Christian, then all non-Christians will have to be in nation B, and so on. Thus there shall be no link in terms of such characteristics between the nations for system homogeneity to obtain, this is the reason why it is a property of the whole system (but it is of course also a property of the system if all its nations are homogeneous). It may be argued that this is a rather strict requirement, but the point is that much thinking only applies to this type of homogeneity even though it is intended to apply to all types of homogeneity.

Method. To obtain homogeneity in the first and less strict sense has been a major task of statesmen, particularly in recent centuries, stimulated by the thinking of Herder. There is a positive approach, that of collecting together with the same characteristic or set of characteristics within the confines of the same state, and there is the negative approach of purging, by expulsion or extermination, the territory of all those individuals that do not have these characteristics. In so doing a clearly delimited national territory is an advantage and this is where the principle of the "natural borders" enters; an island being the archetype and, the mountain state an other, but less well defined one. Once the homogeneous nation has been established low level of interaction with other nations, protected by all mechanisms of polarization, will facilitate greatly the maintenance of homogeneity. This will also include the interaction with other nations built around exactly the same characteristics, since the inhabitants there will always have one characteristic that differs: that of belonging to another nation.

The logical consequence of this strategy is system homogeneity. The negative approach makes nations unit homogeneous, but if in addition the positive approach is applied, then all individuals of

the same type(s) should be together in the same nation - and one would end up with two nations, as mentioned.

Theory. The reasons why homogeneity is held to be conducive to peace are many, but they all follow this structure:

Homogeneity internal cohesion absence of particular external conflicts.

Step no. 1 in this theory would look about as follows. For a society to function it will have to split its inhabitants not only in categories, but also in groups - in statuses according to the principles for division of labor, and in organizations according to principles of production of any kind of value (foodstuffs, manufactured goods, knowledge, decisions). With all these internal cleavages that are essential to the continued existence of any society there must be something that unifies, something that all inhabitants have in common. One such factor is given to them by virtue of being inhabitants: the national identity - hence the idea that nationals of other nations should at most be "resident aliens", preferably "nonresident aliens". But in addition to this there are all the other variables of a racial or ethnic nature: the higher the degree of homogeneity, the more like each other will the inhabitants be, and the more they are like each other, the more will they like each other, and the more cohesive will the society be. If in addition they are different from all surrounding societies on the characteristics, so that there is system homogeneity and not only unit homogeneity, the ingroup-outgroup factor should contribute even more to this cohesion. The link with peace theory can now be made in the following way:

The more heterogeneous the society, the more internal conflict that can escalate to the international level.

- a. because external aggression is used to conceal or dampen internal conflict,
- b. because the parties enlist allies of their own kind from other nations,
- c. because other nations use the conflict as a pretext to intervene to protect their own kind,
- d. because nations are stimulated to attack other nations in order to collect their own kind,
- e. because the conflict spreads by imitation or diffusion to other nations with similar structure and composition.

The idea is now that homogeneity protects against these calamities. First of all, it protects the society itself against internal cleavage, but that is irrelevant from the point of view of the international system. Secondly, it protects against escalation. Unit homogeneity would be the remedy in case a. as one way of avoiding internal cleavage. But in cases b, c, d system homogeneity would

be needed, for if some whites were involved in any conflict inside nation A, however homogeneous that nation and there were whites in surrounding nations (also homogeneous), then they might be called upon to help, intervene, try to "collect". The point is that the very fact of sharing individuals with the same trait creates a coupling, and the only way of destroying that coupling is to establish system homogeneity on that dimension. Case e. is more special. Here the idea is that internal conflicts easily spread to other nations with the same structure, whether these conflicts start in a homogeneous or heterogeneous nation. Clearly, if homogeneity should be of any help here it would have to be of the system variety, for were it only unit homogeneity, then the result could be a contagion to all other nations built around the same homogeneous group.

7. The heterogeneous nations world

Types. In the heterogeneous nations world there is variation among the inhabitants with regard to skin color, facial characteristics, religion, language, tribal belongingness etc., and even as to nationality. Citizens of other nations reside on a more permanent basis abroad, migration is frequent, and so on. Again one can make the distinction between kind of heterogeneity and degree of heterogeneity depending on for which and for how many variables the variation is found inside a given nation. But the distinction between unit and system characteristics is important also for heterogeneity. Thus we shall distinguish between:

unit heterogeneity: individuals in the nation are of different types, but these types are not found in other nations

system heterogeneity: individuals, in the nation are of different types, and these types are also found in other nations.

It looks as if we have turned the definitions upside down relative to the corresponding definitions for homogeneity, and in a sense we have - but that is only because heterogeneity is the opposite of homogeneity. The idea of system homogeneity was that the unit was homogeneous relative to the rest of the system, so that the coupling to the rest is as loose as possible. Correspondingly for system heterogeneity: the coupling is maximum. In a nation that has system homogeneity the nation has nothing that is outside itself and vice versa; in a nation with system heterogeneity everything it has is also found outside itself. Thus, a nation may consist of whites together with Lapps, which gives it unit heterogeneity - it is heterogeneous since there are two different ethnic groups present. But if the Lapps and whites are found in no other nations, then there is not system heterogeneity, for the heterogeneity does not build bridges to other nations. Other nations may also be heterogeneous so that they all share the property of heterogeneity, but there may, for the matter, be no link between them at all. Thus, if there are ten races in the world then five nations may house two each which makes them unit heterogeneous, but still not what we have called system heterogeneous. This is important just for the same reason as above: some of the thinking applies to one type, some to the other.

Method. To obtain this state of affairs all one has to do is to do the opposite of the policies in connection with the homogeneous nations. "Natural borders" should be avoided so as to facilitate the free flow of individuals, migratory movements should be encouraged. One method would be to transcend such borders and incorporate foreign peoples by conquest, usually so as to fill them into lower positions in the stratification system. Today one would rather facilitate interaction as much as possible, and protect it by means of the mechanisms of depolarization. This would also include the incorporation of nationals from other nations, for instance via an open labor and marriage market, with the multi-national state, federal or not, as one possibility. In principle this can work for any kind and degree of heterogeneity. In short: the positive approach would consist in retaining the "alien" element at home, the negative approach in encouraging one's own kind to remain abroad so as to preserve heterogeneity.

Theory. The theory here would run along the same lines as for homogeneity: first one would argue that heterogeneity, although it may lead to internal conflict also has very positive consequences in terms of domestic conflict management, and secondly one would argue that heterogeneity, although it may lead to external conflict, also has great potentials for coping with such conflicts. In other words, the argument will be (and this type of thinking is found quite frequently) that in the homogeneous case the probability of conflict may be low but if the conflict comes, then there is less in the system to absorb it - whereas conflicts may be more frequent in the heterogeneous system, but much more easily absorbed.

Internally, it would be argued, heterogeneity provides a stage for the training in tolerance and coexistence, provided, of course, that the society functions well from that point of view. People become used to living together with other kinds of people, and even if they do not like them they may learn to tolerate them (which means neither avoiding them, nor wanting them to change into something very different). Moreover, they learn to predict their pattern of behavior so as to adjust themselves to them and more easily develop patterns of coexistence. These experiences become meaningful at the international level in two ways: in ability to live with other kinds of people that one might come across so as not to cause sparks that might ignite mass conflicts, and in projecting this to relations between nations. However, the easy type of coexistence in multi-racial or multi-ethnic societies is very often due to substantial class differences, with the upper class tolerating very well the presence of the lower class that provides the basis for the life of the upper class. And when this is projected on the international level, the implicit assumption is very often that the non-white nation shall have a correspondingly subservient position.

This kind of reasoning applies to both kinds of heterogeneity, but when we consider theories relating to external conflict, then only system heterogeneity will produce the desired effect. This, it is argued that if nations A and B are in conflict and destructive attitudes and/or behavior are developing for that reason, then a link

constituted by a shared group (i.e. people in both nations having the same racial or ethnic characteristics) is potential for:

- a. split loyalties: destructive attitude and/or behavior will be dampened by the "kith and kin" factor and similar factors,
- b. channels of communication: messages that will break down misunderstandings etc. will presumably flow more easily along such links,
- c. mediation, people belonging to such linkage groups might be useful as mediators between nations,
- d. hostages, this applies particularly to citizens of one nation living in another: nation A will not attack nation B, partly for fear of hitting its own citizens living in B and partly for fear of reprisals against them.

But the condition for the first three factors to be operative is that the conflicting or split loyalties are about equally strong, otherwise members of race X in nations A and B may fall into the standard patterns of attitude of behavior required in the conflict between A and B. And if members of race X only feel their racial belongingness, then they will be regarded as traitors in both A and B - and they may also be regarded as traitors, in a more extreme case of conflict, when they split their loyalties, even if they give most of their loyalties to the nations. Thus, a more likely result will often be withdrawal and apathy among the people in such criss-crossing positions, not the three conflict dampening activities indicated above. Actually, the most likely outcome is asymmetric: members of X are considered traitors in one and loyal in the other, and that reduces their peacebuilding potential considerably.

And the hostages are also problematic: first of all, they can be reexported, as usually happens in the first days of a war or immediately prior to the war. Then they may be sacrificed because of low status or too long residence abroad, and they may themselves line up with B rather than with A because of changed rather than split loyalties.

On the other hand: the four factors are no doubt effective under a number of conditions, and further thinking would have to clarify these conditions.

C. EQUIVALENCE RELATIONS, SIMILARITY MODELS

Nations can be characterized in any number of ways, some of them have been mentioned in connection with world no. 3. In this connection the focus is entirely relational: it is not whether any single nation is of this or that variety, but whether it is similar or dissimilar to other nations. The problem is that this discussion is only meaningful if one has a typology of characteristics of nations so that peace thinking of this type can be discussed relative to this and that kind and degree of similarity or dissimilarity.

One such typology is the following one, adapted from the well known Lazarsfeld-Menzel typology of variables:

Table 4.2.1. A typology of variables characterizing nations:

1. Global variables

-Characterizing the nation as a whole, with non reference to the inhabitants.

Examples: area, location, history, position in international system, GDP, mil. Power, other types of power.

2. Analytical variables

- based on the distribution of properties in the population.

Examples: population, GNP per Capita, percentage of population having any kind of property

3. Structural variables

- based on the structure of the relations between the inhabitants.

Examples: economic structure, social structure, political structure.

Some of these variables have to do with the position of the nation in the international stratification system of nations, and similarity/dissimilarity with regard to these particular variables will be treated in detail under the headings F and G below. Some of the other variables have to do with power, and similarity/dissimilarity with regard to power will be treated extensively under heading H below (for instance balance of power). That leaves us, essentially, with a broad class of variables we can refer to as cultural and with a broad class of variables that can be referred to as structural.

Some words should be said about how this relates to the homogeneity models treated above. If we combine the two dimensions, we get four combinations, all of them quite meaningful:

Table 4.2.2. The relation between homogeneity/heterogeneity and similarity/dissimilarity between nations.

| | Homogeneity | heterogeneity |
|-------------------|---|--|
| <u>Similarity</u> | Similarity World unity between and within nations | the same kind of pluralism in all nations |
| Dissimilarity | a world of dissimilar nation-state | different kind of pluralism in all nations |

The Table is important because it points to some kind of dynamism. Thus, one may feel that the world is moving from the lower right corner towards the upper left corner. However, we do not think that is a correct description of the situation since nations in the modern sense were built around the idea of some kind of homogeneity and before they really emerged there was also a great deal of homogeneity in the units then dominating (such as city-states). Nations have various degrees of pluralism today, and are different to various degrees, and whenever one can point to a trend towards convergence there seems to be at least one other trend towards divergence and dissimilarity. This is particularly clear with regard to the variable called "level of socio-economic development". It may look as if the world becomes more homogeneous since non-industrial nations have a tendency to industrialize - but that is only because one forgets that in the meantime the industrial nations will go through the automation revolution so that the net result may well be more, not less dissimilarity.

8. The Dissimilar nations world

Types. In the dissimilar nations world nations differ on one or more of the variables singled out for attention; there is dispersion on these variables in the world set of nations. To mention some examples arising from the two types of characteristics mentioned above:

cultural dissimilarity structural dissimilarity

- | | |
|-------------|---------------------|
| 1. language | 1. economic system |
| 2. religion | 2. social system |
| 3. ideology | 3. political system |

The precise definition of all these terms is unnecessary for our purpose here. What is essential is only that these are variables in terms of which it is maintained by some peace thinkers that one

would arrive at peace if only there is sufficient dissimilarity in the world. But it makes sense to distinguish between kind and degree of dissimilarity depending on which and how many variables are involved in the dissimilarity (but degree is not simply a matter of counting).

Method. To bring about this state of affairs there are essentially two strategies that can be applied. First of all, to avoid imitation and other types of diffusion one would have to minimize interaction between nations and protect this by means of polarization and (system) homogeneous nations. Nevertheless, there may be parallel developments in mutually isolated parts of the world. To deal with this one would have to stimulate and encourage dissimilarity by means of ideologies of pluralism and above all by means of polarization in attitudes so that all other nations are presented as something that one should try to be different from. In other words, a generally ethnocentric and xenophobic attitude should be stimulated in order to maintain dissimilarity.

Theory. There are two types of reason why this would lead to more peaceful relations: one may argue that with increasing dissimilarity there will be less total interaction, and that with increasing dissimilarity there will be more positive interaction. These two lines of thought are at least partly contradictory, but let us first state them more explicitly. The arguments may run as follows.

With increasing dissimilarity there will be less interaction for two reasons: the differences in culture will make communication and mutual identification more difficult, and the difference in structure will make interaction more difficult between nations because of the lack of "opposite numbers". But this should also be seen in the light of the methods used to bring about dissimilarity: with the excellent communication facilities of our time dissimilarity would have to be protected by means of polarization and (system) homogeneity so as to cut down on interaction, which means that the consequence we are trying to show is already present as a condition. But there can of course, be a process of escalation: low interaction makes for dissimilarity which in turn makes for less interaction, which leads to more dissimilarity, and so on.

Then there is the contrary idea that with increasing dissimilarity there will be much positive interaction, for two reasons: the differences in culture will serve as a reservoir of new experience, of pluralism and this will be a major force of mutual attraction, and the differences in structure will lead to complementarity, to symbiotic relationships precisely because the two nations will be producing different goods which they can then exchange with each other. In short, positive interaction.

At last, one should also mention a third, more negative factor. As long as nations are dissimilar they will, by definition, not be striving for exactly the same goals. That means that they may engage in conflicts of value, conflicts as to which goals nations should try to realize, but not so much into conflicts of interest since they are

not striving for the same goals. Thus, one particular source of conflict, with all its consequences in terms of destructive attitude and/or behavior is removed or at least reduced in significance, but at the expense of admitting another source of conflict.

As mentioned, this is not logically very satisfactory since the argument is both that dissimilarity cuts down on interaction and that it increases positive interaction. Both of these ideas are peace ideas, but there is the additional difficulty that the first one is dissociative (as it should be), and the second one is a clear case of associative peace thinking. However, it becomes even more complicated when the corresponding associative peace model is examined, so we shall postpone a discussion till we have a more complete picture.

9. The Similar nations world.

Types. In the similar nations world nations are like each other on one or more of the variables singled out for attention; there is no dispersion on these variables in the world set of nations. To mention some examples arising from the two types of characteristics mentioned above:

| <u>cultural similarity</u> | <u>structural similarity</u> |
|----------------------------|------------------------------|
| 1. language | 1. economic systems |
| 2. religion | 2. social systems |
| 3. ideology | 3. political systems |

For most of these types very well known schools of thinking exist. Thus, there is the idea of similarity in language, that all human beings should talk the same language or at least have one language in common, natural (English) or artificial (with Esperanto as the only serious contender). Then there is the idea of the world religion, as evidenced, when ecumenical movements justify their strivings by means of peace thinking, and when religions that try to dominate the world market alone do the same. In the ecumenical movement there are also two versions, it seems, one centering on some common denominator in Christianity, and another centering - like Gandhi did - on some common denominator in "religion in general". The latter will easily shade over into a world ideology, focussed on such concepts as "Brotherhood of Man", "peaceful coexistence", etc. Both for religious and ideological similarity one should distinguish between minimum versions (referred to as "least common denominators") and maximum versions - in the former there is an effort to hammer out a least minimum of belief acceptable to all concerned, in the latter an effort to hammer out a complete ideology and invite, lure or coerce the non-believers into joining.

When there is an increase in structural similarity it is customary to talk about "convergence". Two systems or more are said to converge the more homologous (structurally similar) they become, that is the more one position in one corresponds to one in the other

system so that the structures become virtually identical. Best known in this respect is probably the thinking that aims at showing that a convergence between the economic systems in East and West is peace-productive; and with it thinking that purports to show that this also applies to the concomitant social and political systems. Again, it makes good sense to distinguish between kind and degree of similarity, depending on which and how many variables are involved, but the latter is not a matter of simple counting.

Method. To bring all this about there are essentially two strategies, just as for the dissimilar nations world. First of all, one has to encourage imitation and other types of diffusion and for this purpose one would have to maximize interaction between nations and to protect this by means of depolarization and (system) heterogeneous nations. Again, it may happen that in spite of all this there will nevertheless be non-parallel developments; that what serves as a stimulus to imitate in one nation provokes resistance or serves as a stimulus towards a new invention in another nation. To deal with this one would have to stimulate and encourage similarity by means of ideologies of unitarianism ("monism", "singularism") and above all by means of depolarization of attitudes so that other nations are presented as something that one should try to become as like as possible. In other words, generally xenophile attitudes should be encouraged, and even attitudes relatively negative to one's own nation so that one may more easily relinquish divergent patterns (in culture or in structure) developed there.

At this point one runs across a difficulty; if all nations are to become similar to each other how shall they know towards which point they shall converge? If A and B converge and C and D converge the result may be less and not more similarity on the whole. Thus, there must somewhere in the world community be a definition of a point towards which convergence shall take place. For instance, there is the idea of convergence of smaller powers towards the big powers, and then mutual convergence of power blocks - the former by means of a policy or political, economic and/or cultural colonialism, voluntarily or involuntarily accepted, and the latter by means of a process of depolarization. And there is the idea of a world organization, such as the UNESCO in the cultural field, that sets the general goal. It is much more easy to achieve dissimilarity; for if A distances itself from B then the chance that it will in the process coincide with C is small, whereas the change that A will not become similar to C when it tries to become similar to B is very high. Thus, the two concepts are not entirely symmetrical because there are so many more ways of being dissimilar than of being similar.

Theory. Just as for the dissimilar nations world there are two major types of reasons why similarity, should lead to more peaceful relations: one may argue that with increasing similarity there will be more total interaction, and that with increasing similarity there will be more positive interaction. The arguments may run as follows.

With increasing similarity there will be more interaction for two reasons: the similarities in culture will make communication and mutual identification much more easy, and with similarity in

structure interaction between nations becomes more easy because of the presence of "opposite numbers". But this should also be seen in the light of the methods used to bring about similarity: similarity is based on such means as systematic depolarization and (system) heterogeneity so as to increase interaction, which means that again we are in the situation that the consequence we are trying to show is already present as a condition. But there can, of course, be a process of escalation: interaction begets similarity which in turn makes for more interaction, which then leads to more similarity, and so on.

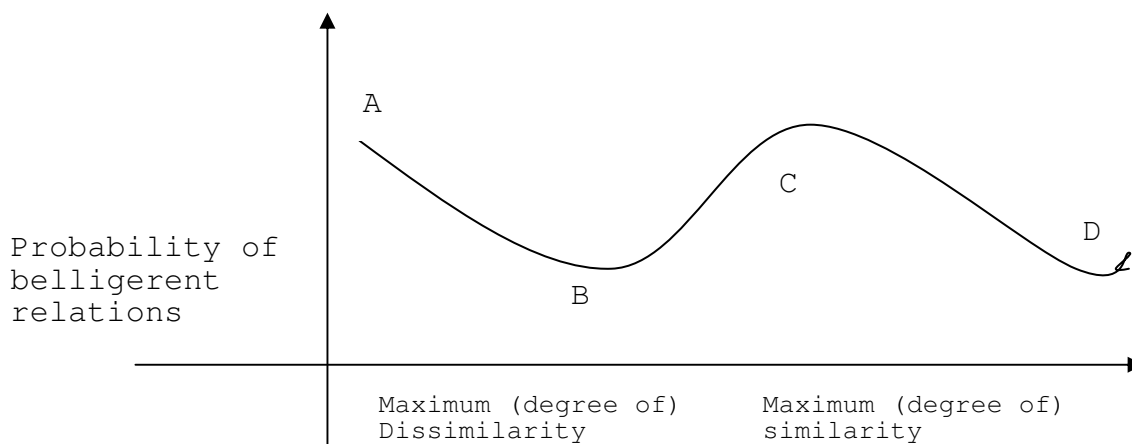
Then there is the idea that with increasing similarity there will also be more positive interaction, for the simple reasons that likes seem to attract likes, that people seem to feel most safe when they are together with people of their own kind, and for the reason that structural similarity not only facilitates interaction in general, but also makes it more positive because of increased predictability. In general, there is more empathy, one assumes that the other nation reacts more or less as one would do oneself in the same situation, and one is right in making this assumption (the difficulty with the dissimilarity model is that this assumption is nevertheless made, but in that case erroneously).

At last, one should also mention the third, more negative factor: there will be less conflict of value because of the similarity, but on the other hand, more conflict of interest because of competition for the same goals. This means that one source of conflict is removed, but at the expense of admitting another.

The trouble with all these theories in connection with the dissimilar and the similar nations worlds is that they all have some elements of plausibility, so the question is whether they can, at least to some extent, be reconciled. According to the first model chances of peace will decrease with increasing similarity, according to the second model they will increase with increasing similarity. From this one might draw two very different conclusions: that the two effects will add up to zero and cancel each other out, and that they will together produce some kind of wave-like pattern. The first conclusion is certainly the simplest one but very satisfactory, since there seems to be little doubt that the mechanisms mentioned are of some significance. Hence we would opt in favor of a wave theory, but add that the amplitude of this theoretical wave pattern should not be excessive since the mechanisms will to some extent cancel each other.

One such wave modal would look as follows:

Diagram 4.2.1. The relation between similarity and belligerence.



At A there is no empathy at all, which means that highly exploitative relations easily emerge (colonialism, subjugation in general, slavery). At B there is a basis for interaction, the nations are still very complementary but not so much that they cannot find some channels of interaction so as to establish some kind of symbiotic relationship. At C they have become so similar that conflicts of interest emerge in spite, of (or because of) the broad interaction surface, and at D empathy and identification is at a maximum and the two nations are attuned to each other, to such an extent that some kind of integration results. One may certainly argue where the points B and C are located, but it seems reasonable to assume that D is a point of highly peaceful relations, because the similarity has become identity which makes war difficult; and it also seems reasonable to argue that A is a danger point. However, here there is an assumption about communications: African kingdoms were not attacked and marauded by European powers before the art of navigation was sufficiently developed to make such contacts feasible at all.

The diagram becomes more meaningful if the points are identified at the level of inter-personal interaction: A corresponds to the murder and robbery of a complete stranger (universalistic crime) B corresponds to the relations between colleagues on a job, C to the disharmonious marital relation that may end with murder out of jealousy, and D to the perfectly integrated couple.

It should also be noticed how the diagram reconciles the conflicting theories. The dissimilarity hypothesis covers the interval B-C, and the similarity hypothesis the interval C-D (and sometimes the interval A-B) which means that they may both, in general terms, be valid. But it also means that for policy implications it is rather important to know where on the curve one is located before one makes any predictions about the consequences of increased similarity or dissimilarity.

D.INTERACTION RELATIONS, INTERDEPENDENCE MODELS

Much of what we are going to say here is very parallel to the preceding pair of peace models, based on similarity/dissimilarity. But this time the focus is not on comparisons of nations but on what goes on between them, on their pattern of interaction. Interaction, as emphasized in 3.2, can be positive or negative depending on whether positive or negative values are exchanged, and by interdependence we shall mean positive interaction. We are interested in the consequences of being low or high on interdependence, and in order to emphasize the factor involved we shall refer to the cases as minimum and maximum interdependence, respectively. That the first one is a dissociative peace model and the second one associative is obvious enough. For the purpose of discussing these models we need a typology of types of interdependence between nations. One such typology is the following one:

Table 4.2.3. A typology of interdependence between nations

| | <u>Interdependence</u> <u>As exchange</u> | <u>Interdependence</u> <u>as cooperation</u> |
|--------------------------------|--|--|
| <u>Private</u> <u>Level</u> | tourism, travel exchange of persons For work or study | work, camps, etc. friendship relations, marriage. |
| <u>Public</u> <u>Level</u> | trade relations exchange of political Information, diplomatic relations | coproduction political cooperation, diplomatic cooperation |
| | Exchange of state visits | top level cooperation |

The distinction between the private and public levels is conceptually clear although there is no sharp borderline in practice; it depends on how interaction is acted out between nations, through governmental or nongovernmental channels. We have put trade in the public sector because the diplomatic machinery usually is employed to set up trade agreements. But the distinction between exchange and cooperation requires some comments.

Cooperation is a form of exchange in so far as there is an input from both nations and an output that accrues to them, but exchange is not necessarily cooperation. For there is one important difference: in cooperation the nations joint in setting up an organization (a marriage, a work camp, a friendship relation, an enterprise for coproduction, a standing political committee) which is an entity of its own, in exchange (bilateral or multilateral) there is no such separate organization, values leave and enter each nation and they all watch that they profit from it or at least do not lose from the exchange.

Some words should be said about how this relates to the simi-

ilarity models treated above. If we combine the two dimensions, we get four combinations, all of them meaningful:

Table 4.2.4. The relation between similarity/dissimilarity and low high interdependence between nations.

| | <u>similarity</u> | <u>dissimilarity</u> |
|--------------------------------|--------------------------------|---------------------------------|
| <u>minimum interdependence</u> | separate development | maximally away from integration |
| <u>maximum interdependence</u> | maximally close to integration | symbolic relationship |

This Table also indicates some kind of dynamism, from the upper right corner towards the lower left corner. In fact, it describes two roads towards integration: two nations may start far apart, develop separately and discover that they have so much in common that they become mutually interdependent - and the case where two nations also start far apart, but then interact a lot until they become highly similar. In the world of today the first type of integration is characteristic for East-West relationships in Europe and the second type for North-South relationship between former colonial powers and their former dependencies - but both processes are, of course, far from completion.

10. The Minimum interdependence world.

Types. In the minimum interdependence world nations are low on all kinds of interaction indicated in Table 4.2.3. Private or public, of the cooperation or exchange kinds - interaction between nations A and B is low or minimum, i.e. absent. In other words, if nation B disappeared from the surface of the earth it would make little or no difference for nation A. Again, it is fruitful to distinguish between kind and degree of low interdependence, depending on which and how many of the interaction channels are (almost) closed. But just as for dissimilarity we do not think that "degree" is a matter of simple counting.

Method. The method is given by Table 4.2.3., it gives the agenda so to speak, it is just to see to it that all of this remains low if it is low to start with, and to cut it down if it is already high. The general techniques discussed under the heading of polarization will enter here, and in addition come (system) homogeneity and dissimilarity.

Theory. There is one major and quite simple reason why this should be peace-productive. When a nation does not depend on other nations, then it is self-sufficient, whether at a low or high level of development. This will tend to make the nation more concerned with internal affairs, less prone to meddle in the affairs of others more

prone to act on its own since there are no split loyalties. The theory actually boils down to this: the less interaction there is, the less is there to quarrel about, hence the more peaceful the relation. Minimum interdependence is just another word for isolation; it is like the relations between Norway and Nepal: there is no war, but there is not positive peace either. For positive peace is based on the assumption of much interdependence, with the obvious risk that this brings with it conflict and less peace in the negative sense.

Then there are all the reasons that are already implicit in the conditions of minimum interdependence: the reasons why homogeneity leads to peace, why dissimilarity leads to peace, why polarization leads to peace, and so on. We shall not repeat these reasons here, only refer to the corresponding models.

The contra arguments would take as their point of departure that when there is no interdependence, then there is probably also a very low level of empathy, and hence the possibility of an all-out aggression. Nation A has nothing to lose in attacking nation B when they are mutually isolated, precisely because it does not depend on nation B. But that brings us directly to considerations that belong to the next model.

11. The Maximum interdependence world.

Types. In the maximum interdependence world nations are high on all kinds of interaction indicated in Table 4.2.3. Private or public, of the cooperation or exchange kinds - interaction between nations A and B is high or maximum. In other words, if nation B disappeared from the surface of the earth it would make so much difference for nation A that it would virtually cease to exist, i.e. cease to exist at the level of development it had attained. Again, it is fruitful to distinguish between kind and degree of high interdependence, depending on which and how many of the interaction channels are (maximally) open. But just as for similarity, we do not think that "degree" is a matter of simple counting.

Method. The method is given by Table 4.2.3., it gives the agenda so to speak, and it is just to see to it that all this remains high if it is already high and is built up if it is low. The general techniques discussed under the heading of depolarization enter here, and in addition some (system) heterogeneity and similarity. Obviously, for all these purposes nations would make use of their bilateral diplomatic machinery.

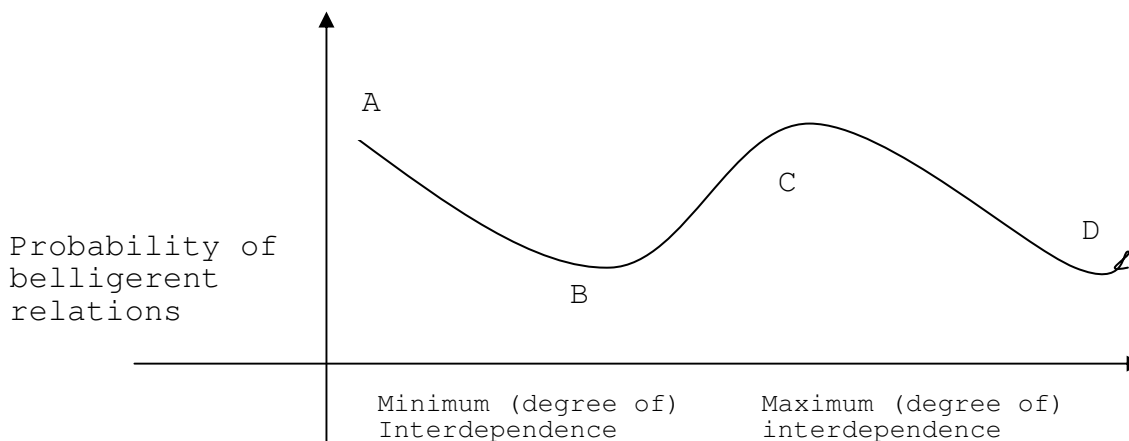
Theory. The theory is also here quite simple: it is based on the idea that when nations are so interdependent that nation A cannot hit nation B without also hitting itself, then it will refrain from the attack. Nation B will become like a part of itself, and no nation will attack itself as long as one can assume a minimum of rationality. The higher the degree of interdependence, the more true is this, in other words the higher the probability of peace. For with a higher level of interdependence there will also, in general, be a higher level of empathy and understanding due to the increase in

communication, and this will lead to an increase in the general stock of shared values. In one word: symbiosis.

The counter-argument is also obvious. The higher the interdependence, i.e. the broader the surface of contact, the higher the number of sources of conflict with all that implies, hence the more conflict-loaded the situation. Moreover, if a conflict starts at one point, in one interaction channel so to speak, then it has a tendency to spread, to generalize to the other channels, and there may even be a multiplier effect making this negative relation many times worse.

Thus, we are very much in the same situation as at the end of the preceding discussion of similarity/dissimilarity. All the theories mentioned have elements of plausibility, so the question is whether they can, at least to some extent, be reconciled. According to the first model chances of peace will decrease with increasing interdependence, according to the second model they will increase with increasing interdependence. And again one might draw two conclusions: that the two effects will add up to zero and cancel out, and that they will together produce some kind of wave-like pattern. The first conclusion is the simplest one but not very satisfactory, since there seems to be little doubt that the mechanisms mentioned are of some significance. Thus, once more we would opt in favor of a wave theory, but add that the amplitude of this theoretical wave pattern should not be excessive since the mechanisms to some extent cancel each other. One such wave model would look as follows:

Diagram 4.2.2. The relation between interdependence and belligerence.



The curve is similar to the curve posited in diagram 4.2.1., and the reasoning is also very similar - which is natural since there are few laws that are so well-established in the social sciences as the law of increasing interaction with increasing similarity. Thus, at A there is no interaction, complete mutual isolation, hence no empathy and hence a considerable risk of belligerent relations simply because nation A may not consider inhabitants of nation B as fellow

human beings (slave trade being the typical example). At B there is interaction in one or a few channels so the relationship is symbiotic, but at C one has entered the danger zone where not only conflicts may generalize due to the proliferation of interaction channels, but the similarity brought about by all this interaction may also lead to competition for the same goals (for instance for leadership in the world) that consequently become scarce; Then, at D the relationship is so interlocked that the arguments in connection with maximum interdependence gain in validity. Typically, at this level the interdependence will be of the cooperation rather than the exchange kind.

The comparison between nation interdependence and individual interdependence becomes very meaningful in this context: at A we have the relation between complete strangers (as in a war), at B between a professional and a client, at C between two (not too good) friends, and at D the relationship in a perfectly symbiotic relation. But even if this is parallel to the similarity/dissimilarity relationships it is not identical with it: there the reasoning was based, on the number of characteristic two nations have in common, here it is based on the number of interaction channels existing between them. But the two types of reasoning are heavily related: in the first case we often argue that similarity leads to interaction and in the second case that interaction leads to similarity.

It should also be noticed that the diagram reconciles the two conflicting theories based on minimum and maximum interdependence, respectively. The minimum interdependence hypothesis covers the interval B-C, and the maximum interdependence hypothesis the interval C-D (and sometimes the interval A-B), which means that they may both, in general terms, be valid. But again the implications of this for the policy maker are rather important: he may believe that he is on the C-D section of the curve and is working for peace, whereas he is on the B-C section and gets exactly the opposite result of that he intends. This is, as a matter of fact, a quite frequent condition in social affairs: the policy maker believes he is working with a linear relationship, whereas the relationship may be U-shaped, A-shaped, or, as in this case, S-shaped. In other words, both here and above we are dealing with a typical case of the problem that was discussed as dimension no. 9 in Table 2.2.1.

In conclusion sore more words on the relation between exchange and cooperation, since this probably has very much to do with the transition from point C to D on the curve in diagram 4.2.2. The peace-productive effect of cooperation seems to rest on three important elements in this connection: a certain level of built in symmetry between the two partners, a lasting organization built for the purpose and benefit to both parties, in the sense that they obtain from the cooperation something they could not equally or more easily have obtained elsewhere. If there is a basic asymmetry in the cooperation, then conflicts and (charges of) exploitation are bound to arise, if there is no lasting organization then the cooperation, like an exchange pattern, is too easily severed, and if there is no extra benefit to the parties, then the cooperation is simply artificial. But under these three conditions one might assume the

chances of strong peace building effects to be quite high.

E. INTERACTION RELATIONS, POLARIZATION MODELS

We shall now present one of the major instruments in international politics although it often passes under other names: the systematic use of polarization and depolarization. There are elements of the preceding models, such as the use of varying degrees of interdependence in these policies, and also elements of the sanction models to be presented under L below. But we have nevertheless chosen to present the polarization models in toto since they are concrete and complete programs of political action, easily recognizable as a kind, of agenda nations often follow automatically - although sometimes without recognizing that this is what they do.

Polarization and de-polarization are extreme versions of associative and dissociative peace policies, respectively. They are mirror images of each other and can best be presented together. Here is one suggestion as to the major dimensions of the processes:

Table 4.2.5. The Dimensions of polarization/depolarization

| | | Polarized System | Depolarizing system | Depolarized system |
|--------------------|--|---|--|--|
| INTERACTION SYSTEM | Negative interaction Positive Interaction | Only between blocs Only within blocs | Also within blocs Also between blocs | nowhere everywhere |
| CONFLICT SYSTEM | Intranational conflicts International Conflicts | Suppressed All aligned | Permitted Some criss Cross | No difference Perfect criss-cross |
| IDEOLOGY SYSTEM | Perception Coexistence | Black-white thinking Passive co-Existence | Shades of grey Active coexistence | All white Integration |
| MILITARY SYSTEM | Alignment alliances Deployment | All aligned in blocks or Alliances Everywhere | Neutrals permitted Neutral encouraged Frozen zones And/or empty zones | No alignment only neutrals Nowhere GCD |

In the Table we have presented a total of eight dimensions in four pairs, starting with the basic definition of a polarized system in terms of where positive - and negative interaction are located, and ending up with some well-known military concomitants. However, we have chosen to make a distinction between a depolarizing and a depolarized international system. The polarized system is well-defined, but the opposite of the polarized system - which in fact is what is found in reality, the completely polarized system is an ideal type in Weber's sense - covers a large spectrum of possibilities. We have split this spectrum into two parts: the extreme other end which we

have referred to as the depolarized system, and the range in-between. But the extreme other end of the spectrum is a rather utopian kind of world where conflict matter is evenly distributed, where borders between nations, and borders between blocs or regions are never conflict borders so that the whole system is amorphous at least where conflict is concerned. In practice, in the empirical world we shall always be dealing with degrees of polarization or depolarization, and almost always with processes rather than with stationary states - but the two extremes are nevertheless conceptually useful.

12. The Polarized world

Types. In the Table eight dimensions have been indicated, viz, polarization with regard to negative interaction, positive interaction, intranational conflicts, international conflicts, perception, coexistence types, alliance-formation and military deployment. It is quite possible to conceive of policies that would involve only one of these or any type of combination, but such policies are relatively unlikely since there is an internal logic that suggests the realization of all eight in a coordinated pattern. A typology of polarization would therefore, perhaps, rather be in terms of degree in terms of how far the system has become polarized along these dimensions, and several types of indices could easily be developed.

Method. The method is simple enough. As to

Interaction:

follow a policy of minimum interdependence (world no. 10) in relations with nations designated as enemies, add to this some negative interaction short of war;

follow a policy of maximum interdependence (world no. 11) in relations with nations designated as friends, in addition see to it that negative interaction is cut out.

Conflict System:

See to it that intranational conflicts are not expressed. See to it that other international conflicts are aligned with the conflict defining friends and enemies, in other words if the Enemy sides with one party in another conflict, then side with the other party; see to it that you never end up on the same side and also that you are always aligned with one side or the other (so that the enemy does not do so before you do.)

Ideology System:

back up these policies with ideologies where you and your friends appear as only good, the enemy nations

as only bad. Crystallize this into a system of passive coexistence thinking, that you shall "coexist" with the enemy, but nothing more.

Military System:

as a crowning achievement, make of your friends an alliance and encourage, directly or indirectly your enemies to do likewise - discourage non-aligned nations and either have them join you or push them over to the enemy. Deploy military capabilities everywhere, avoid all kinds of vacuum lest the enemy might fill it.

Concretely, all of this can be done by means of bilateral diplomacy in the first phases, later on some kind of intra-alliance suprastructure will have to emerge. We have indicated above one time order in which this can all happen, but there are many other possibilities. Thus, the process may start with a rapidly formed military alliance, and later on be backed up with the other elements; or it can start at any point for that matter. One may wonder why this is referred to as coexistence: this is because there is no war or warlike action involved, only a complete breakdown of relations and a mutual preparation for attack and defense. The systems coexist, but there is not more than that to it, the coexistence is completely passive implying no moves to improve relations.

Theory. There are many theories why this is peace productive, some of them will be taken up under the heading of the Balance or power world (no. 18) below. Here only some of the more general theories of polarization will be dealt with, i.e. the theories that deal particularly with polarization as a way of segregating nations into blocs.

First of all, there is the idea of keeping enemies apart, of reducing contact surfaces to the minimum so that friction is kept at a minimum. In doing so conflicts are not solved but they are frozen, nothing more happens, the system is caught in the flux and kept stationary until the situation has somehow changed and relations can be improved again.

Secondly, there is the idea of simplification. Conflicts are reduced to a bilateral pattern there are two blocs and all conflict material in the world is concentrated between them, there is neither conflict between nations within the blocs, nor within the nations themselves. Moreover, all international conflicts are along the same lines, always with the same parties participating. Loyalties are undivided. Information pressure is reduced since it can so easily be expressed in terms of the two blocs; whenever something bad happens it is due to the other bloc, whenever something good happens one's own bloc must somehow be behind it. Thus, polarization serves as a protection against information overload.

Thirdly, there is the idea of predictability. A really polarized system is predictable not only because it is simple, because in-

formation can easily be processed, but also because all moves have already been made. The system is brought to its logical conclusion where both parties know how to behave, viz., according to the rules of polarization. Thus, it becomes in the interest of both parties that the other party behaves likewise so that the behavior patterns become complementary, and this will usually be the case since there will be strong forces requesting reciprocity. When A breaks diplomatic relations with B, why should not also B break the relations with A; out of revengefulness, in order to show its depreciation of the act, etc. Thus, both parties join in playing together the non recognition game, as a political ritual.

Fourthly, polarization contributes to balance of power policies. Readiness for action would be the slogan, both in ideology (the personal system) and in structure (the social system). There are no split loyalties or ambiguities to deflect attention and emotion; and all this will tend to make power and the threat of power more credible, and hence serve the interests of deterrence.

And finally, there is the idea of internal development and cohesion. Due to polarization internal cohesion is increased, which means that a considerable amount of political work within blocs can be carried out. Economic and political cooperation, even integration, that would not be possible in normal periods suddenly becomes a possibility; old enemies are united and (artificially) high levels of interaction are built up. This will make the blocs so busy with internal political work that they will have less time to devote themselves to between bloc aggression, and also often be so rewarding that it serves as a reinforcement of polarization.

This theory can now be criticized on two grounds, viz, that the polarized system is not a stable state, and that it may be difficult to keep it peaceful. We shall deal with them in that order.

When polarization has come far, a high amount of artificiality is brought into the total system. Ties that used to exist between the blocs have been cut, for one condition for the use of polarization as a policy is that the world was not in a state of minimum interdependence, for then there would be nothing to polarize. This rupture of ties may be less problematic even though some people may be nostalgic about connections lost and commodities missing. Polarization is usually a process that takes some time so that there may be ample opportunities to adjust oneself to it and find substitute products.etc. Much more problematic is artificial accumulation of positive interaction within the blocs. The contact surface is increased and often more as a result of political expediency than of any functional necessity or feasibility: the conflict dictates a united front, regardless of what would have been realized under more normal conditions. This, then, is bound to lead to conflicts, both of interest and of value, and these conflicts may become more acute as time passes on. At the same time, since polarization has effectively reduced the contact with the enemy there is less conflict with him, which means that some of the parties to the alliance may feel that the whole alliance is founded on entirely false premisses, and that more would be gained from breaking out of it. And this means, or may

mean, that a process of depolarization is introduced.

Secondly, there is a large variety of arguments to the effect that it may be difficult to keep a polarized system from entering a phase of war - partly because polarization hardens the enemy (see world no. 26), partly because all the conflict-absorbing mechanisms dealt with under the heading of depolarization below are missing, and partly because of the many factors to be considered in connection with balance of power policies. We shall postpone these arguments to the discussion of worlds nos. 13 and 18.

13. The Depolarized world

Types. The remarks made in connection with the types of polarized world also apply here: there is little sense in discussing one of the eight dimensions at the time since their internal logic should force one to consider them jointly. A typology of depolarization would therefore be in terms of degree of depolarization, with a view to describing the total picture, not only one or a few components of it.

Method. To bring about depolarization all one has to do is to reverse the polarization policies. Thus, as to

Interaction: Follow a policy of increasing interdependence with former enemies, and reduce negative interaction as much as possible; Follow a policy of decreasing interdependence with former allies or friends, add to this an element of negative interaction

Conflict System: permit open expressions of international conflict. See to it that international conflicts are not aligned, side with the enemy some times, or withdraw from conflicts even if he sides with one of the parties.

Ideology System: favor ideologies that distribute guilt and other properties more evenly between the two groups. Favor an ideology of active coexistence, that the blocs shall not only coexist but also be in positive interaction

Military System: permit neutrals and even encourage them, loosen alliance ties, permit members to leave alliances. Freeze the level of military capability in certain areas, even down to the level of zero.

Again, bilateral diplomacy and also to some extent the systematic use of the intergovernmental organizations will be the instruments for these policies, but typical of depolarization is a much broader and deeper array of contacts involving private organizations and individuals in both blocs. The depolarization can start at almost any point, and a typical process would take as its point of departure internal discontent in one or both blocs as mentioned in connection with the theory of polarization.

Of particular importance is the emergence of neutrals or rather

non-aligned nations, i.e. nations that are not members of either alliance. The distinction is usually made between negative neutrals that keep passive and active neutrals that try to influence the policies of the two parties.

Theory. Many of the theories why depolarization is held to be peace productive have already been dealt with under the heading of the Maximum interdependence world (no. 11) above and shall not be repeated in detail here. But there are many others that can be discussed. We shall not discuss theories why the depolarized state as defined in Table 4.2.5. is peace productive, since this state seems to be identical with peace itself.

First of all, depolarization is a process, it is a program that leads to certain benefits to both blocs. Old contacts are reopened, which means increased circulation of values of different kinds. We assume that depolarization processes follow a process of polarization, which means that both parties have utilized their own alliance fully for what they are worth and can only gain by turning to the other side. In the process of doing so the other side will appear new, fresh; there will be a honeymoon feeling which will in itself be reinforcing. For this to happen depolarization must not stop but always be at least to some extent on the move, and must fulfill at least some of the promises.

Secondly, depolarization offers possibilities for bargaining.

This is not only true in the sense discussed under the Maximum interdependence world, but also because the point of departure, the polarized state, makes any offer attractive. Once a detente has been started will both parties, in principle, have a chance to make bids that will be quite attractive; in the beginning simple exchanges of diplomatic relations and opening of trade relations, later on bargains where one or more of the conflict issues may be part of the deal. The broader the contact surface, the more possibilities will there be, although there will also be more possibilities of opening new conflicts.

Thirdly, increased contact has the usual consequences in terms of increased -potential for communication, of split loyalties and mediation potentials, of friendship ties that are so tightly woven between the groups that armed conflicts will become more difficult to launch. This means that there will be a chance of preventing typical conflict attitudes and conflict behavior from escalating, they will be dampened by the depolarization process.

Fourthly, military disengagement may serve as an arms control measure, and decrease the provocation effect of military postures. This is particularly true as long as capabilities are reduced or withdrawn, for the move then seems to be in a more reassuring direction. As soon as they become frozen again, even if it is at a much lower level, chances are that this new level will also be perceived as threatening, at least as long as there still is distrust arising from the basic conflicts. Again, this theory or theories are certainly also open for debate, and one major objection will be that

depolarization is excellent between friends, but dangerous between enemies since it may lead to a misreading of the situation. The military capability of one or both of the parties may lose in credibility because the postures found in a depolarizing system are so different from what is found in the polarized system; this may lead to "adventurist policies" and so on. The argument seems to a large extent to be valid, for levels polarization are not only system properties, agendas for action but also ways of communicating a message of hostility or friendship, and if the message suddenly is changed then the other party may believe that this also applies to the military aspect of the message. Another objection frequently found in this connection would be that depolarization, at least if it is premature, may facilitate infiltration and subversive policies in general.

An objection of a quite different nature would be that depolarization actually presupposes a dislocation of conflict from the macro level to the micro level; in the polarized state the conflict is found between major blocs, in the depolarized state even inside the individual, in small units, here and there in a very complex system. There will be information overload, ambiguities, conflicting loyalties and all such things at the psychological level that polarization protects the individuals against. This will be further elaborated in the last chapter, particularly in section 5.6. and we shall defer further discussion.

F. RANKING RELATIONS, INTERACTION RANK-DEPENDENT

So far we have not introduced a basic and pervasive fact of social systems in general and international systems in particular: rank. But it is well known that in very many relations between nations some nations rank high and some rank low. We can simplify this to four dimensions since that is quite sufficient to illustrate the type of reasoning we are concerned with: (see next page)

More dimensions could be mentioned, for instance area and population, but these four will do for our purposes.

One could now go ahead and divide international systems according to whether there is much or little difference between the nations where these factors are concerned. This will be done for the first factor, where the system with little difference is usually referred to as a balance of power system and the system with much difference

Table 4. 2.6. A Survey of four important rank dimensions

| | | |
|---|---|--|
| <u>Military power</u> (Quantity and quality of military power) | superpowers big powers | medium powers small powers |
| <u>Political power</u> (ability to influence other nations) | big powers, veto powers (neo-) colonial powers having sphere of influence. | small powers, non-veto powers (neo-) colonies Member of sphere of influence. |
| <u>Economic power</u> (GNP, GNP/capita) | rich countries exporter of manu- factured goods and services | poor countries exporter of raw materials and agricultural products |
| <u>Cultural power</u> | World culture, World language- Exporter of culture | Not world culture, not world language importer of culture |

as a power monopoly system. These peace philosophies are so important that they will be treated in their own right, and in connection with them we shall also deal briefly with political , economic and cultural power (see worlds nos. 18 and 19). But to do this, dealing only with one such dimension at the time as is usually done in political analysis is to lose sight of a most important aspect of such systems of social actors, even if our development of this theme here leads us into peace research theory and away from what is usually referred to as ordinary peace thinking.

Looking at the list in Table 4.2.6. one is struck by the circumstance that four of the big powers in the world of today also are veto powers, former possessors of colonial empires and even today dominant powers in considerable spheres of influence and with ability to influence other nations, that they are high on GNP and also on GNP/capita, are exporters of manufactured goods rather than raw materials, that they possess world languages and world cultures, and export both. The fifth big power, China, is currently deprived of veto power but fulfills all the other conditions except GNP/capita where she is still quite low. All five have nuclear weapons. And the rest of the nations of the world are relatively speaking low on military, political and cultural power - but may still rank high on economic power.

This introduces the idea of rank-concordance: the idea that a nation high on one dimension also tends to be high on other dimensions; and a nation low on one tends to be low on the other. This is different from what one may call rank-discordance, where nations may be high on one and low on the other, in other words with little or no correlation between the ranks on the various dimensions. The world today is neither, but seems to be closer to rank-concordance than to rank-discordance, which means that the world tends to be divided in two parts; nations high on all four, and nations low on all four - with some intermediate cases.

Closely related to this is a second phenomenon: interaction tends to de-pend on rank, in the sense that the high nations interact mostly with each other, then comes interaction between high and low, and least frequent is the interaction between low-ranking nations. This is what we mean when we say that interaction is rank-dependent: the volume of interaction between two nations depends on their rank. The more rank-concordant the system, the more true does this seem to be - for if the system is rank-concordant, then there is even more rank available in the system to channel and direct the flow of interaction. This should be contrasted with systems where the interaction is rank-independent, in other words systems where interaction does not depend on the rank of the nation. We have already indicated that with rank-concordance rank-dependence seems to follow; which means that if the system is rank-concordant then special safe-guards have to be built in to reduce the high level of rank-dependence commonly found. If we now combine these two dimensions, we get four types of worlds where we have indicated by means of diagrams what the structure looks like: (see next page)

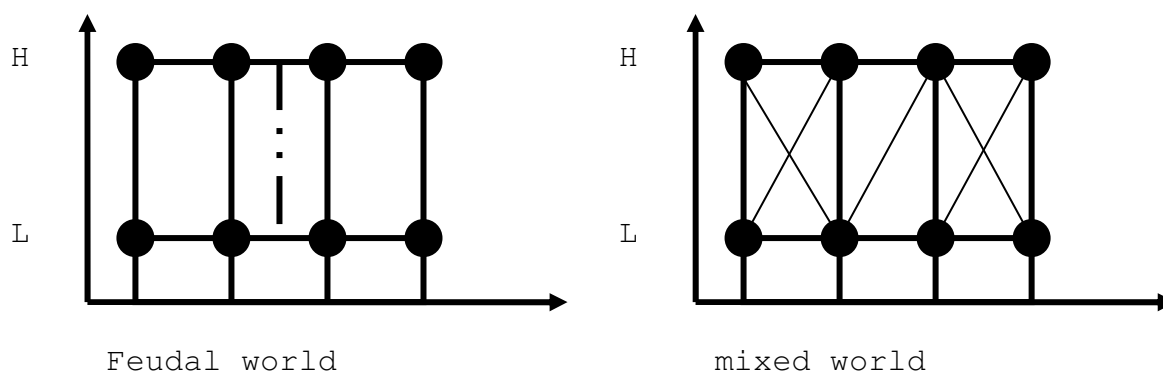
In the "feudal world" interaction is focussed on the big powers that are big on all dimensions; in the "mixed world" there is still a concentration of the interaction on certain actors but they are no longer high, or low, on everything; in the "class-divided world" there is still a distinct division into those that are high-high-high and those that are low-low-low, but the level of interaction is about the same in both classes. And finally there is the "classless world" where there is neither rank-concordance nor rank-dependence; in other words rank is somehow neutralized.

We shall now explore the implications for peace and war of

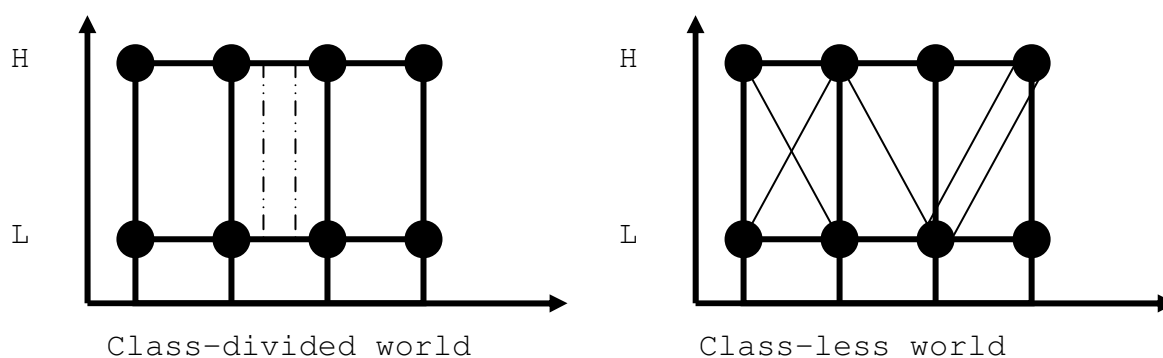
these high different ways of structuring the international system.

Table 4.2.7. Rank-concordance and rank-dependence.

Rank-dependent world



Rank-independent worlds



14. The Feudal World.

Types. Feudal systems may be divided according to the dimensions that enter in the definition of the rank-concordance, according to which dimension is the basic one, according to relative number of actors on the top and on the bottom of the system, and according to the absolute number of actors on top (whether the system is monocentric, bicentric or polycentric). Thus, in the world today there are five big powers even though the system shows some irregularities so the system is clearly polycentric; there are very many more small powers (say, 130) so the system is clearly bottom-heavy; all dimensions mentioned in Table 4.2.6. are important but the economic dimen-

sion is perhaps the basic one, since both GNP and GNP/capita and the capacity to produce manufactured goods can be converted into military and political power (but perhaps not into cultural power).

Method. This type of world seems to come about more or less by itself in the sense that it seems to represent some kind of "natural" state of affairs if the system is left to itself (by this is not meant that the system is "good" in any sense, and it should also be observed that "feudal" as used here only picks up two of the connotations of that term when applied to certain structures of land-tenure and political and economical decision-making). The reason for this is simply that a nation high on one variable can use that position also to become high on another or at least to fight for preservation of high status on other variables; and that interaction upwards in a social system usually is regarded as more rewarding. And once it has emerged, then a feudal system tends to be self-perpetuating for the reason mentioned above. The world becomes divided into spheres of influence each headed by one of the big powers and each tied together by channels of interaction focussing on that big power.

Theory. The theory why this system is peaceful might run more or less as follows. First of all, internally, in the sphere of influence, the channels of command are simple and consensual: the big power acts like an enlightened prince, the small powers are tied to him in terms of loyalty and he to them in terms of duty to protect and help. The big power coordinates all of them: if they have a wish then they should come to the big power, singly, not combined, and the big power will see to it that the wishes are maximally fulfilled. There is no rank disequilibrium or rank incongruence in the system that can be converted into aggression. Thus the system will keep peace internally, which means that a whole region may become a "security system" in the sense that no nation will attack another nation. Obviously many parallels can be found from the social organization of humans and animals to illustrate how such a system may operate successfully.

Externally the theory is more problematic. If the system is monocentric, then there is no problem (and the model would actually become an associative one), but if it is polycentric the problem of overlap in spheres of influence may become important. Much diplomatic work (e.g. the treaty of Tordesillas and of Yalta) have gone into the exact demarcation of such spheres of influence whereby big powers have divided the world with the understanding that they have monopoly of influence in their own region. For this to be stable there must only be agreement that there should be no overlap; there must be no nation or territory that does not belong and hence becomes a "vacuum". Everything now depends on how well this system works. According to the theory there is bound to be interaction between the big, and there is no guarantee that this interaction will not be negative. But if a division is hedged around with all kinds of "natural borders", then chances that divisions will be respected will of course increase.

15. The Mixed world

Types. In this world the condition of rank-concordance is removed and with it the basis for big powers that are big in an absolute sense; they can now only be big in a more limited sense, for instance on one dimension. ` One may then distinguish between different types of mixed worlds depending on what dimension is used as a criterion of ranking. Since there is still dependence of interaction on rank there is still a rank differential and with no rank concordance this case, the case of one-dimensional nations, would be typical.

Method. To bring this about a world consensus is necessary that of all the ways in which nations can be classified and ranked there is one that is much more important than all the others. In history there have perhaps been periods where such consensus has been obtained, or at least so do the nations ranking high on that dimension often believe. Military power may be one such dimension, economic power another, to be "True Believers" a third (measured, for instance, by the proportion of converted inhabitants). In general a consensus of this kind will only be possible for a limited section of the world, for a region for instance, and even then it will hardly be of long duration since the nations that rank low will sooner or later press for other definitions of rank.

Theory. The theory is essentially as for the feudal world, with three major exceptions.

First of all, the difference between high and low will be less overwhelming, since there is only, one dimension involved. This means that there will be less of a gulf between them, less distance to feel envious about, to build resentment around. The consensus about the dimension may serve as the nucleus in a culture uniting them together in the idea of ranking high on that very dimension.

Secondly, with only one dimension that really matters the very dangerous situations involving rank disequilibrium and rank incongruence will not arise. In these situations, where a nation is high on one dimension but low on another, there will be efforts to "equilibrate upwards", i.e. to adjust the low rank to the high - and if the system is closed to this kind of mobility, the result may be violent upheavals. But with only one dimension forces loading to mobility will be less dynamic.

Thirdly, with only one dimension the position in the structure, the rank of the nation, will be less ambiguous. Each dimension may have its ambiguities, but with only one dimension these ambiguities are at least not added to each other. This will clarify the picture as to who is high and who is low, and hence contribute to stability.

G. RANKING RELATIONS, INTERACTION RANK-INDEPENDENT

16. The Class-divided world

Types. This world is also distinguished from the feudal world only by one, but very important, characteristic: there is about as much interaction between the underdogs as between the topdogs in the system, even, but this will be difficult to obtain: more interaction between low and low than between low and high. The types will then depend on the basis around which the low-ranking nations come together, associate and even organize:

military as a trade-union of small powers-
dimension: not yet in existence

political as a trade union of former colonies -
dimension: Bandoeng, Beograd, Cairo conferences

economic as a trade union of poor nations -
dimension: the UNCTAD conferences

In addition one could mention the Tricontinental or OSPAAAL movement directed from Habana, but members of this organization are liberation movements rather than nations.

Method. To bring this about is not easy, in general. In practice it presupposes that the networks of communication are built out in such a way as to facilitate communication between the low-ranking nations so that they do not have to communicate via the high-ranking, or with the high-ranking present. Their interaction should not be controlled by the nations they are pitted against. It is also a question of access to sufficient resources in terms of time, money, energy, talent in organizing to change the pattern of interaction. But the net result will usually be an organization, ad hoc or institutionalized, of low-ranking nations as indicated in the examples above, often with the consequence of also uniting the high-ranking nations. (just as trade unions lead to the formation of employers' unions). In contemporary politics this is known as the "transition from the East-West to the North-South conflict", and is of course a dissociative peace model since it is built on the assumption of a basic split in the set of nations.

Theory. Clearly, such changes in the world structure are usually not brought about in order to make for peace, but for reasons of justice, of equitable relations in general, of redistribution. But a peace model can also be hitched on to such thinking, as to most other types of thinking.

One point of departure would be to deny that the feudal system is peace productive, to assert that it is bound to erupt one day and even in armed conflict. Externally it is bound to erupt, the reasoning would go, because of the precarious nature of the "entente" between top powers. And internally it is also bound to erupt because of the amount of exploitation it engenders, an exploitation that will

sooner or later be converted into open aggression against the frozen aggression represented by the exploitation itself. And when this eruption comes, there will be no criss-cross arising from rank discordance to protect the system.

Thus, a class-divided world will by its nature sooner or later destroy the feudal system and bring about a change of orientation, from the lines dividing spheres of influence, to the lines dividing the classes of nations. And with this system established the division of the world would correspond to a real problem, viz., the division between rich and poor, powerful and powerless etc., and not to the secondary problems derived from big power jealousies. In such a world there may be three outcomes, two of them leading to redistribution:

1. there may be oppression in the sense that the high-ranking nations succeed, with or without violence, in freezing the status quo where distribution of value is concerned,
2. there may be revolution, with or without violence, in the sense that the low-ranking nations are able to bring about a redistribution biased in their favor,
3. there may be evolution in the sense that there is a gradual transition to a new distribution, partly by means of bargaining techniques, and partly having by one poor nation pass the line to the rich nations after the other so that the status as low-ranking nation is simply emptied (like some types of statuses as "poor" in modern welfare states).

Only the last outcome is without violence, so the argument would have to run that the sooner, the more effectively this reorganization of the world from a feudal system to a class-divided system comes about, the more likely is the outcome, particularly if the high-ranking nations play up to it. In such a theory would also be included the role of supranational organizations as the media through which the bargaining between the two groups could take place, much like the way the government functions to regulate the bargaining between employers and employees in modern societies. But it should also be added that outcome no. 3 is much more likely if the system is on an upward slope where productivity is concerned, so that many conflicts can be solved simply by distributing more money, more commodities, more value in general to all parties. If trade unionism is combined with a decline in total output, the consequent frustration will much more easily be converted into aggression from above or from below or from both.

Types. In a classless system the actors somehow have the same rank, and there are several meanings that can be given to this idea. One way would be by abolishing all differences in rank on all dimensions, another to abolish differences on one particularly crucial dimension (as when all peoples are represented in the UN through independent governments); a third to extend equal rights to all nations in such a way that what they have in common looms larger than the rank differences between them, and a fourth would be to see to it that the nation with high rank on one dimension has low rank on an-

other dimension and vice versa, so that the total rank comes out about equal. In systems of individuals there is also the possibility of rotation, that individuals step down from high positions after a certain period; but this type of mobility is not easily introduced in the system of nations.

Method. There are several ways of bringing about such a classless world. The first type is rather difficult given the differences already existing between nations in terms of area, population, resources, location etc: since it presupposes fission of the biggest and fusion of the smallest to build more equality into international system. The second and third can come about by world legislation, liberation movements etc., and the fourth can be brought about changing the feudal world, whether via the mixed world or via the class-divided world. In the mixed world basic rank-disequilibria are already brought into the system or the system is made one-dimensional, and the rest would be to distribute interaction more equally so that rank differences are not translated into interaction differences and, consequently, into differences of opportunity. In the class-divided world there is still extreme rank-concordance (probably with the exception of the leaders), but the revolutionary or evolutionary patterns discussed in world 16 will have as their goal precisely the abolition of this rank-concordance.

Theory. This system will be more peaceful, one would argue, simply because class differences no longer exist: there is equal opportunity and equal access for all nations. Hence, one type of grievance is taken out of the system, which in turn means that one source of war has disappeared - although possibly at the cost of breaking the way for new types since the class system necessarily kept smaller nations at bay and left the war arena above all to the big. Thus, in such a world one would expect what today is euphemistically called "local wars" to flourish, due among other reasons to the number of rank disequilibria and rank incongruencies that have now been brought into the system.

Nevertheless, it is assumed that the balance in terms of peacefulness will be positive. The reasons given in connection with world no.5 are important here: the idea that nations become more free to associate with other nations of their liking and form groups of nations with built-in harmony rather than built-in tension as will easily be the case in a feudal order.

H. COERCIVE POWER, POWER DISTRIBUTION MODELS.

Under this heading we shall deal with some of the most well-known peace models existing today and in the past; even centuries back in time, not to say millennia. That a theory is old is no guarantee that it is valid, but certainly no guarantee that it is invalid either. There is hardly any theory that has accumulated so much literature as the balance of, power theory, for which reason we shall limit our comments to what we feel are the most essential aspects of this type of thinking.

The basic idea is that the world has N nations and a total amount of coercive power, say P , at its disposal - the problem is how to distribute that power on the N nations so as to obtain a system with maximum chances of peace. It should be noticed at once that this type of problem is not only found in connection with military power, but also, for instance, in connection with political power and with economic resources. And the answers are usually conditioned by one very simple principle of human thought: the tendency to find the simple Gestalt, the simple formula, rather than means-ends thinking based on some combination of theoretical analysis and empirical data. For this general distribution problem has only two solutions that are simple and for that reason particularly attractive: the uniform distribution and the point distribution in the first case P is divided equally on the N nations, in the latter case P is given to only one nation and the others get nothing. To spell out the three examples we have used:

Table 4.2.8. Distributions of different types of power

| | <u>Uniform distribution</u> | <u>Point distribution</u> |
|---------------------------|-----------------------------|---------------------------|
| <u>Economic resources</u> | justice | monopoly |
| <u>Political power</u> | democracy | dictatorship |
| <u>Military power</u> | balance of power | power monopoly |

All other distributions are problematic because they imply complex formulas that do not have the immediate power of conviction. Thus, why should one nation have $4/8$, one $3/8$ and one $1/8$ of the total reservoir of coercive power, by what kind of complex philosophy should one justify that? One suggestion might be that power should be commensurate with some other measures of the nation, for instance proportionate to the population, but then the nation that is three times as big where population is concerned would also be three times as powerful (as it would be if military force were directly proportional to the human resources). After all, this idea is found in economic life where it is commonly assumed that extra achievement shall be rewarded with extra access to economic resources in one form or the other. In political life achievement is also very often rewarded in terms of more access to the sources of power, so the idea of proportionality is very widespread, as one formula of "justice".

But the "just" distribution, i.e. the rank-equilibrated distribution, is not necessarily the most peace productive distribution. In a sense it is a positive sign that the idea of proportional right to

military power has not also been glorified as a peace philosophy, as could easily have been the case. Peace thinkers in this field seem rather to have started from the other end, so to speak, and to have ended up with the two answers indicated in the Table, and these are the answers we shall look into. It should be mentioned, however, that the ideas behind balance of power and power monopoly thinking do not presuppose that the power applied is military power or force. The models are applicable also to other ways of coercing other nations, e.g. by means of political power or economic power. The threat to isolate a nation, or to boycott it economically may be used much in the same way as military force, and the distinction between uniform distribution and point distributions is still valid. But the case of military power is most often found in this type of thinking even though it is probably much less important statistically speaking than the other two source of influence.

18. The Balance of power world.

Types. A balance of power system involves N nations and a certain amount P of power, the typology will have to be based on these two elements. First of all, there is the distinction between balance of power between nations and between groups of nations - alliances or blocs; if nations were more similar in size the latter might not be so necessary.

Secondly, there is the distinction between balance of power systems that comprise the whole world or only a part of the world. And thirdly there is the distinction between

bipolar systems - involving two (groups of) nations
tripolar systems - involving three (groups of) nations and
multipolar systems - involving several (groups of) nations.

By far most important is the bipolar system, since it is a direct military expression of the logic behind the polarized world (no. 12). If such systems are to comprise more than a tiny section of the world there will by necessity have to be alliance-formation to obtain anything resembling a balance, and building-blocs of different sizes are needed to satisfy the balance equation.

As to the exact nature of the balance, here are some distinctions that are useful:

1. balance in the sense of equality, and balance in the sense of superiority
2. balance that is stable or balance that is moving, i.e.
 by adjusting arms levels
 by adjusting membership in the alliances
3. balance that is automatic or balance that is deliberate
4. balance based on minor utility losses (balance of power) or balance based on major utility losses (balance of terror)

Method. To obtain such systems diplomacy is the machinery that is used for alliance-formation, armament for power adjustments. Agreements need not be explicit, however, they can also be tacit. And there is the very fundamental idea in balance of power thinking that there will be automatic adjustments in the system, that nations will see what serves their interests best and align themselves in such a way as to preserve the balance. However, since balance is a relation a basic prerequisite for balance of power policies is information about the other side, whether this is obtained by means of open information, observation of military maneuvers, espionage etc.

Theory. The basic theory in this field is the idea of combining deterrence with defense, by convincing the potential enemy that the utility loss he would suffer if he attacked would outweigh his possible gains and by convincing him that his forces would be made incapable of carrying out their intentions. These two ideas correspond by and large to offensive strategies, e.g. bombing of the enemy's heartland, and defensive strategies, i.e. the destruction of his forces. However, the latter is usually thought of as active defense and should be distinguished from passive defense, whereby one tries to make one's own values invulnerable to enemy attack. The latter has both military and civilian aspects; to the extent that civilian values are protected by passive defense (i.e. defense that is not in itself dangerous to the enemy) it is usually referred to as civil defense. But most of this defense is hardware oriented for a "software oriented" version of passive, civil defense see worlds nos. 22 and 23, the negative and positive nonviolence worlds, below.

Thus, balance of power theory is based on a double philosophy: a system is set up that is supposed to deter in the sense that the potential attacker renounces on his evil intentions when confronted with the offensive and defensive capabilities he will have to overcome, convincing him that "an attack will not pay". On the other hand, if an attack nevertheless comes, then there will be power available to meet that attack. In other words, one hopes with the same instruments, military capabilities and alliance-formation, to obtain two different goals: deterrence and defence. This multi-purpose philosophy, in addition to the simplicity of the system for distributing power has no doubt contributed greatly to the popularity of this type of thinking through the centuries.

In such a world stability can be obtained, at least for a shorter period, by means of balance of power, and this period can then be used to build out more lasting peace productive systems. Balance of power is usually seen more as a means than as an end by its proponents. This relation can be expressed in one formula, a sort of additivity theorem: if all nations take care of their national security alone or by means of alliance-formation so as to see to it that attack on them does not pay, then the net result will be international security - as by Adam Smith's invisible hand in market economies.

But other virtues than international stability and peace are also claimed, for the balance of power theory. Thus, it can be contrasted with the power monopoly theory to be developed in the sub-

sequent model, where one nation has a dominant position. Balance of power systems can be seen as a defense against overwhelming dominance from one or a few nations, as the safeguarding by military means of a polycentric or at least bicentric as opposed to a monocentric world, permitting more freedom of action to a greater number of nations.

The contra-arguments against balance of power thinking are at least equally numerous - as one would expect when a theory has been in the public eye for such a long period. Basically, they are variations over the same theme, that the balance will not be stable.

First of all, there is the difficulty inherent in the idea that nations should somehow have the same amount of power, yet they vary so tremendously in their power potential. To give to all nations the same power would be to force them into some kind of disequilibrium; some nations would get more and others less power than they might feel would be appropriate. The obvious answer to this is alliance-formation, but alliances may bring into the system new conflicts and problems, and there may be systems consisting of just two neighbor states where there are no possibilities of alliances. In such cases the conditions of balance of power philosophies would not be fulfilled.

Secondly, both parties will probably aim for superiority rather than balance, i.e. for balance in the accountant sense, not in the sense found in mechanics. There are many reasons: they might fear that they have underestimated the enemy's power and want to be on the safe side, they might feel that he is particularly wicked or audacious and in need of particularly strong deterrence, or that he may one day have a technological breakthrough so that he would get the upper hand unless one's own side had a position of superiority to start with. Clearly, if both parties aim for superiority the result will be an arms race, unless one or both have a misreading of the other party's power.

Thirdly, even if balance has been obtained it is unlikely to be kept stable because, of the machineries, the "military-industrial complexes" that have been put into motion, and all the vested interests, all the plans that have to be fulfilled.

Fourthly, underlying the whole concept of balance of power is the idea of rationality, that human beings act from a simple utility calculus. This underestimates the possibility of psychopathological reactions, particularly under the stress of crisis, or even normal reactions "to get out of a corner". Nations may go to war without even the illusion of winning it, simply as a reactions as an effort to do something.

And then there is the objection, very general, that the whole concept is based on threat, which means fear and hence on dissociative, destructive relations - and ultimately on the use of violence. In other words, the objection that even though the system of threat might work as a deterrent, the kind of world it implies is very far from the ideal, cooperative, harmonious world implicit in the concept of positive peace - it can never lead to more than negative peace.

19. The Power monopoly world

Types. A power monopoly system also involves N nations and a certain amount, P , of power, and the typology will have to be based on these elements. First of all there is the distinction between power monopoly systems that comprise the whole world and systems that comprise only part of the world. In the latter case the remaining parts of the world would be left to their own devices, with no regulatory system of this particular kind.

Secondly, there is the distinction between:

autarchic systems

- where one nation has monopoly

dyarchic systems

- where two nations have duopoly

oligarchic systems

- where several nations, often referred to as a concert, have oligopoly

This distinction is less important, however, for it is assumed that the two or more nations in dyarchies or oligarchies act cooperatively not in competition. If the latter is true, then one is back to the balance of power systems, with regional power monopoly, as the effort to balance a Pax Americana with a Pax Sovietica. In other words, the ideals simply that one, two or a group of nations exercise power monopoly, in the whole world or part of the world, like the Pax Romana.

Method. The major distinction would be as to how the power monopoly was established: did the nation(s) take the power, or was power given by some legitimate transfer process? In the first case power monopoly is the result of ordinary conquest, as when an imperialist power established power monopoly in its colonial empire. In the second case the system is more like a division of labor system with the power monopoly nation(s) exercising something corresponding to police functions at the international level. Whether the formula is "by the grace of God", by formal delegation of power from the other nations or some other device for transfer of power is less important.

Theory. The basic idea here would be that power is dangerous and is best wielded when kept in one place. Just as there is division of labor in the world community of nations with regard to primary commodities (raw materials), secondary commodities (manufactured goods) and tertiary commodities (services), there may be division of labor with regard to power. Durkheim's arguments about organic rather than mechanic solidarity arising from division of labor would then be applied. A comparison with domestic systems could be made, pointing out that nations seem to be much more stable when the means of coercive power are not pitted against each other in more or less successful systems of balance ("wild west", pioneer communities) but

are transferred to particular persons who make the controlled, exercise of power their profession. Moreover, if this power monopoly is given to the otherwise most powerful nation(s) in the system, then a certain rank congruence will be established, and this will be in the interest of general stability.

The objection is, of course, that even if the transfer of power to one or a few power-wielders is legitimate, there is nevertheless not only a danger but even the likelihood that other types of influence will also flow along this military power gradient. In other words, the dominant power(s) will use and even abuse their dominant position also to dominate the other nations politically, economically and culturally. This may be unobjectionable if the set of nations where the power monopoly is operating is highly homogeneous and interdependent so that the system established from the top of the power pyramid is generally acceptable. In that case what happens can best be described as some type of integration. But this is rarely the case, for if it were the case then the nations would probably already have coalesced in one way or the other (like the many German states). Hence the net result will easily be an accumulation of resentment in the system, and sooner or later effort to topple the "protector". To this again it may be objected that one could pursue the parallel from domestic police forces further and observe that power is there usually given to quite ordinary men. Hence, the power monopoly in a set of nations might be given to small nations rather than to big - but this is hardly possible unless there is a strong suprastructure with checks and balances. For one thing, it would build a powerful rank incongruence into the system, and this might in itself produce far more conflicts than it is supposed to solve.

I. COERCIVE POWER, POWER CONTROL MODELS

Wars are fought by soldiers and with weapons, and wars tend to become increasingly disastrous, hence there is no wonder that a major part of peace thinking has been directed against the means of coercive power, against the military establishments themselves. In the preceding models the focus was on the distribution of power on the set of nation states; here the focus is on power itself, on its control and possible limitation.

It is important to distinguish clearly between these two models since there are very different ideas underlying them. In the Arms control world the idea is precisely to control the use of arms in a sense to be specified below; in the Disarmament world the idea is not only to control but to limit military capabilities, possibly down to zero. In order to discuss these models one needs an image, some kind of list of what military capabilities consist in, and we have chosen the following:

Typology of Control and Disarmament foci

| <u>Arms-centered</u> | <u>Manpower-centered</u> | <u>Target-centered</u> |
|-----------------------------|--|-----------------------------------|
| 1. budget allocation | 1. budget allocation | 1. excluding civilians as targets |
| 2. research and development | 2. propaganda | 2. protecting prisoners |
| 3. raw materials | 3. recruitment | 3. protecting wounded |
| 4. production | 4. training | 4. protecting cultural objects |
| 5. testing | 5. armies | |
| 6. Stocks | a. by nations freezing/Reducing the forces | |
| 7. Transfer | | |
| 8. Deployment | b. by individuals refusing/ withdrawing from the forces | |
| 9. (first) use | | |

- a. all arms
- b. extreme arms, (dum-dum, ABC weapons, etc.)

The list is certainly not complete, but may nevertheless be used in the following to focus the attention on some of the crucial issues. We have classified the arms control approach as dissociative since the idea is essentially to continue balance of power policies, with the removal of some of the danger elements; and we have

classified the disarmament approach as associative since the (long term) goal is the elimination of force and threats of force from the international system, thus at least removing one important obstacle against systematic use of other associative policies.

20. The Arms control world

Types. In the arms control world the idea is that wars can come about for many reasons and these reasons should be divided into two categories, called legitimate/illegitimate or valid/invalid. This is the most fundamental idea: there are legitimate or valid, ways in which wars come about and there are illegitimate or invalid ways.

Consequently, the basis for a typology would be a list of illegitimate ways in which a war could start. The elements most prominent in the debate have been:

1. by technical failure
2. by human failure
3. by escalation of a local war
4. by (surprise attack)

The fourth type stands in a category by itself: the attack and hence the war is an expression of a deliberate, conscious wish. Nevertheless the idea has been that one could do much to eliminate this type of origin of war simply by regulating the machinery of force. But apart from this the idea is clear: a war is illegitimate or invalid unless it is deliberate, not something one or even both of the parties are dragged into against their own will.

The targets in the typology above do not easily enter here, but arms control measures are typically directed against failures in the arms systems (called technical failures) and failures in the manpower system (called human failures). As to the former the list in the typology is applicable: there can be failures at any point. Sudden increases in budget allocations, or the launching of a new R&D program may trigger an unwanted response from the other party; a sudden increase in the import of certain strategic raw materials like wise, the same with a stepping up in the production process, not to mention the testing. At any or all of these points something may go wrong; a bomb may explode and create uncertainty as to why and how it exploded. As a general formula: all sudden, discontinuous changes that deviate from a stable "peace pattern" and are even remotely reminiscent of the type of activities one would expect in the earliest phases of a war are to be avoided. The same applies to the use of weapons: only weapons that communicate intentions clearly and do not carry unnecessary provocation effects should be used.

As to arms control measures directed against failures in the manpower system they are usually centered around screening procedures

to filter away people who might have nervous break-downs, irrational reactions, etc. One would be particularly on guard against people who might be interested, in action that might trigger, start or escalate a war as a solution to some kind of personal problem. However, it looks as if such screening techniques are most easily applied against personnel of lower ranks: when a private or even an NCO initiates aggression as a clear manifestation of personality difficulties then it is human failure; if the same takes place higher up, with very high-ranking officers or the head of government or head of state, then it is legitimate war. But however that is, even a partial removal or control of some of war is seen as a contribution to peace.

In a category by itself comes the idea of preventing local wars from escalating. This can be based on controls both of arms systems and manpower-systems, so that there are sufficient controls in both of them to resist any temptation to escalate. A local war will then serve as a warning for these controls to be made operative.

Method. There are essentially two types of method here: the unilateral approach whereby a nation undertakes a program of arms control within its sphere of influence and entirely at its own discretion, and a bilateral or even multilateral approach where this is done in tacit or open understanding with other nations. There is a wide spectrum of possibilities as to communication of such measures and ways of reciprocating, from the more unofficial contacts in Pugwash conferences etc. to open discussion and even agreements on collateral measures in connection with disarmament negotiations. Mechanical, technical safeguards and/or recruitment safeguards can be implemented using any level of (tacit), communication between the parties. At a high level of communication the parties may even agree to have control measures, such as mutual inspection or joint manning of warning systems.

Particularly important in this connection is communication about communication. Since arms control is based on the idea of eliminating some causes of wars because they do not lead to genuine wars, it is important to be able to communicate intentions behind, what might otherwise be interpreted as a warlike posture. Thus, if a rocket gets astray because of a technical failure this should be communicated together with some evidence that the "technical failure" was not a design to cover a genuine war operation. This may not necessarily lead to a hot line between nuclear powers or between all powers for that matter, but to facilitation of espionage, of the activities of military attaches, in short of all kinds of activities that could communicate non-aggressive intentions.

Theory. We have already given the essential parts of the theory behind these ideas: that there are two kinds of war, in short, and that the tremendous difficulties in getting rid of genuine wars should not make one blind to the possibilities of reducing the likelihood of wars that are not even wanted by any of the parties. Ultimately this may lead, to a substantial reduction in all warfare, since the proportion of not wanted wars to the total amount of wars may be higher than we know, and if it is true that wars breed wars, then the elimination of one kind of wars would be like an investment

with high dividends. Also, many of the arms control measures are not too dissimilar from disarmament measures and may consequently pave the way for the important transition from control of military capability to freezing and reduction, and eventually to elimination. They may also have a face-saving function: if a disarmament conference does not lead to any disarmament, it may at least lead to some arms control. But there are also many objections to this theory.

First of all, there is the old idea that far from removing wars such measures may embellish wars because of the implicit acceptance of wars as somehow legitimate if they are not "by mistake". It may be claimed that all wars are by mistake, that all of them show human failure even if there is no precise psychodiagnostic term for the failure.

Secondly, there is the strategic argument that even if it is important to be on guard against wars that are not genuine, it is also important to be on guard against genuine wars that are masked as not genuine wars. A nation may first fire a rocket, then claim over the hot line that it was by mistake so that the other party relaxes, and then start the real war. The obvious contra-argument would be that it might have been better to have started the real war right away without first sensitizing the enemy to a danger.

There is also another strategic argument that perhaps is more significant. As long as the possibility of war by mistake or failure exists there is an uncertainty element that the enemy will have to take into account in his calculations. He will know that if he stimulates the military machinery too much then internal stresses and strains may accumulate and lead to "failures", and the risk of such "failures" may have a certain deterrence effect. If he knows that such mistakes have been engineered away, then he may be tempted to go further in brinkmanship, simply because he trusts the rationality of the antagonist, and this may lead to a more dangerous situation than would otherwise have been the case.

Then there is the idea that arms control is one more way of fostering an immense technocracy dealing with the execution and regulation of violence, and hence one more way of creating vested interests in the maintenance of that machinery.

21. The Disarmament world

Types. In discussing this world the point of departure is quite different, it is not located in factors causing wars, but in the belligerent activities themselves. One could imagine a true Hobbesian state of affairs, a bellum omnium contra omnes, where "everybody would use all possible means at one's disposal against everybody" - with the difference from Hobbes that we would presume a highly polarized point of departure so the war would actually be between everybody in one camp and everybody in the other camp. Since we are discussing international systems this is the only model that seems to be of sufficient interest.

Contrast this with the opposite model, the pax omnium cum omnibus, where everybody would abstain from such activities against everybody - and the positive peace version of this where people might even go further and engage in positive action with everybody else. The latter needs not concern us here, however, since the Disarmament world is essentially a model for the realization of negative peace only, although its proponents would also emphasize its role in facilitating the emergence of positive peace. The basic point in the disarmament world is the gradual limitation of possibilities, by subtracting from the image of total war given above one element after the other, with total reduction down to zero as the ultimate goal. Instead of "everybody using all possible means of violence against everybody" one would try, via "somebody using some means of violence against somebody" to arrive at the state with "nobody using no means of violence against nobody".

Since a war presupposes three factors, arms, manpower and targets, we are brought back to the typology above. In principle disarmament is usually concerned with the first two but the target-centered approach should also be included since it is one more approach to arms limitation. Armament can be limited at various stages, as indicated, so can the manpower and there are several types of targets that can be removed from the spectrum of war. One can try to limit the arms by allocating less money, by introducing limitations at the R&D level, at the raw materials level, at the production stage, at the testing stage, when the arms are in stocks, when they are being transferred, when they are deployed, and finally, when they are used. All these approaches are currently being explored in connection with nuclear arms. Correspondingly with the manpower centered techniques: one can allocate less money, try to limit propaganda to participate, limit the basis of recruitment (by giving the right to fight only to soldiers, who should be males only, physically able, aged 18-55 or something similar to that). And then there is the third approach: the idea of withdrawing targets, by stipulating that wars should be only against soldiers, that once they are out of battle, wounded or as POWs, the treatment should not be too harsh; and by stipulating that certain objects should be exempt from warfare.

For all these foci of disarmament there is another distinction to be made: between "freezing" of military potential (including acceptable targets) and "reduction" of military potential (including targets).

Freezing is, of course, the more modest of the two. One can freeze the number of nuclear powers (known as "non-proliferation"), freeze the quality of nuclear arms by outlawing testing (known as test-ban), freeze the deployment (known as stable zones or atom-free zones), freeze the quantity of nuclear arms by prohibition on further production (known as "cut-off"), etc.; all of them efforts to maintain, at least, the status quo and see to it that the matter does not become worse in the sense that there is an increase in available arms in case of an open conflict. But to refer to this as "disarmament" is perhaps wrong, even if they constitute the only real results of so-called disarmament negotiations.

Reduction is the more ambitious method, since it actually does involve destruction or at least conversion of military capabilities, and reduction of the range of targets. To use the list in the preceding paragraph: to reduce the number of nuclear powers means that one or more of them will have to give up weapons acquired with great difficulty; to reduce the quality of the arms would be to renounce on one or more types, for instance fusion bombs in an effort to go back to pre H-bomb days; to implement reductions in the deployment would be to thin out, eventually to zero, zones where nuclear weapons have already been deployed; to reduce the quantity would mean the destruction or at least conversion of highly expensive weapons, and so on. To reverse a policy is more difficult than to stop a policy from developing further - and this is particularly true if even destruction of arms is involved, not only the conversion of "swords into ploughshares".

Method. The methods used to bring about disarmament, whether of the freezing or reduction varieties, are as mentioned above, quite similar to methods used in connection with arms control measures. But disarmament has a longer history than arms control which is a more recent innovation motivated by the catastrophic implication of a mistake in the handling of nuclear arms. Hence, more methods have been used in the field of disarmament, and the following distinctions seem crucial:

| | | | | |
|--------------------------------|--|---|---|----------------------|
| <u>No. of nations Involved</u> | unilateral initiative | bilateral initiative | multilateral initiative | universal initiative |
| <u>Codification</u> | declaration | treaty | convention | law of war |
| <u>Controls</u> | self-control 1. by special Groups 2. by the people | control by others, <u>horizontal</u> 1. by adversary 2. by third parties | control by others, <u>vertical</u> 1. by supranational control 2. by professionals | |
| <u>Sanctions</u> | none | by abrogation | by special measures | |
| <u>Mode</u> | <u>Absolutism:</u> All kinds of arms, All nations at once | | <u>Gradualism:</u> some kinds of arms, some nations gradually | |
| <u>Source of Initiative</u> | <u>private level</u> | | <u>public level</u> | |

The unilateral possibility exists theoretically, and would amount to a declaration (to keep the decision secret would also be a possibility, but meaningless if the idea is to serve as an example for others, and the declaration would probably include something about the control, for instance that there would be a system of self-control (by special groups or by people in general) in that nation making it a crime for any citizen to counteract the moves towards freezing or reduction, or by inviting other nations or international

organizations to inspect.

More significant are the bilateral and multilateral and particularly the universal efforts. The concrete method would typically be bilateral or multilateral or universal diplomacy, with a view to the negotiation of ratifiable agreements that can form the basis for a process of disarmament, in either sense of the word. (freezing or reduction). But this jump from the unilateral to the three multilateral forms overlooks the very important possibility in-between: mutual unilateralism, whereby either party performs some step in the direction of disarmament according to its own declaration with the expressed wish that the other party follows suit, but without requesting it as a condition. This may then start a process, even a process of downward escalation based on tacit understanding rather than explicit agreement.

The major trend, however, is in the direction of explicit agreement, with the additional stipulations that there should be some measure of control and that balance should be maintained (in other words that the present world no. 21 actually presupposes world no. 18). An agreement then raises the problem of control and, eventually of sanctions, and most disarmament negotiations try to approach these problems. Self-control is usually rejected since disarmament negotiations are only likely to take place in an atmosphere of at least some distrust (if there were no distrust in the system, then there would probably not be enough incentive to have such negotiations). Control by others can then take two forms: by calling in other nations, the adversary or some kind of balanced or neutral group (the adversary may claim that he is the only one who knows enough about cheating to be able to detect it in others), or by using some agency "above" the level of nations; an intergovernmental organization endowed with some kind of supranational authority, or a group of professional inspectors, properly trained, who would probably have to be connected with some kind of intergovernmental agency. Many possibilities have been discussed and many more will probably be presented in the future. This also leads to the problem of sanctions, with abrogation as some kind of minimal sanction and the whole range of negative sanctions discussed in world no. 26 as a maximum possibility. Symptomatically there has been very little talk of using positive sanctions to reward nations that conform to the treaties rather than (or at least as a supplement to) negative sanctions against nations that break the treaties.

There is considerable disagreement as to the speed and scope of disarmament processes, as indicated under the major headings of "absolutism" and "gradualism", with absolutists perhaps favoring more unilateral initiatives (because of the impatience with multilateralism) and with multilateralists being forced to have a more gradualist view (because of the difficulties with the negotiations, the many compromises, the risks they feel would be the consequence of more absolutist approaches).

And then there is the final and important problem of where these initiatives should come from. So far the implicit assumption has been that they would come from governments, since governments by definition have the monopoly over ultimate power within their

territory and hence over military power. But there is an important pacifist countertrend asserting that arms do not fight by themselves, men are needed both to produce them and to use them and if these men refuse to do so, then that would also bring about disarmament. In other words, in addition to declarations of or negotiations between governments there is the possibility of individual initiative, refusing to participate in military preparations or activities, on an individual or collective, political or moral, etc. basis.

Theory. The theory with regard to complete disarmament is simple: if the machinery for war could be eliminated, then there would be no wars - which is unobjectionable. Actually, one would only need to eliminate one of the three elements needed to make a war: either the arms, or the manpower behind them or the targets. Thus, if all targets were successfully outlawed then one would not have to bother with the other two. Most approaches have, however, been directed towards the arms - with the obvious objection that men would still have their fists to fight with even if all military hardware were removed from the surface of the earth.

The theory with regard to partial disarmament is different. The idea here is above all the idea of the contagion effect: that the elimination of one cog in the machinery will somehow constitute a platform from which one could work for an extension of the area exempt from participation, and that there would be a process of imitation in other areas. Thus, if private soldiers of a particular political or religious conviction became conscientious objectors, then others might follow suit; if dum-dum bullets are outlawed then this is only a first step towards outlawing all bullets; if cultural monuments are exempted as targets of artillery and air bombardment and rockets then the next step would be to include all cities in the exemption area, and so on. In other words, the laws of war are not ends in themselves (although they also have important humanitarian consequences), they serve to initiate chain reactions and to lay down the principle of a limit, that the Hobbesian state of affairs should and must be avoided, that homo res sacra hominibus - so that there will at least be some basis for mobilizing resentment and sanctions against the nation that breaks these laws. If there were no such laws, then everything would be permitted, and there would be no common basis on which morality could be expressed.

One could imagine, just for the perspective it gives on the whole process, a last stage before the ultimate abolition of all warfare, a stage where one person from either side (for instance the heads of state) would fight each other using one form of violence only (for instance fencing) - in other words the reduction of warfare to a duel. All other combatants, all other arms, all other targets would have been eliminated; only a highly ritualized procedure for decision-making in conflicts would have been left. We mention this because there is much evidence to indicate that what today is known as warfare did in fact develop the other way, by escalating ritualized warfare into modern, organized, technological warfare and in the direction of total war with no or very few limitations on participants, arms and targets.

The objections are numerous. Thus, to the first theory the objection is usually that it is completely unrealistic in the world of today, that it presupposes some other world (for instance a world that is highly associative and very high on entropy, see the argument in section 5.5. below). If all steps could be taken, then the result would be as desired, but it is unrealistic to assume that all steps can be taken. And correspondingly for the theory with regard to partial disarmament: here the single step may be completely realistic and many steps have in fact been carried out, but it is unrealistic to assume that there will be a contagion effect so that disarmament will spread from a partial little island to the whole sea of destructive capability. Some special cases of this argument could be put forward. Thus, for partial measures to spread there must be a relatively strong coupling in the system. But nations are relatively weakly coupled units, so that if one government undertakes unilateral disarmament others may find it interesting and decide that the nation makes a bad ally and also possibly a bad enemy since it will not fight (or an easy target for the same reason); they will not necessarily follow suit. The same with individual or collective conscientious objection within a nation: citizens in different nations are even more weakly coupled than governments of different nations - in general - which means that such action will have relatively little direct impact on citizens in the other nation. This would be much less true if the citizens were in fact strongly coupled, for instance by means of international nongovernmental organizations, made for this purpose (such as the War Resisters' International) or for any other purpose (such as the international labor movement).

This argument about the weak coupling and low level of diffusion applies a fortiori between non-human elements: to postulate a diffusion from laws outlawing one type of bullets to other types, or outlawing one type of targets to other targets is almost to presuppose that these were human actors imitating each other. The contagion, if it takes place at all, is via so many elements (a new disarmament conference, consensus about the value of past legislation, consensus about new agreements, ratification, etc.) that it will hardly be felt, and certainly not automatically.

Then there is the argument that such legislation at the international level also accepts war, but merely tries to embellish it; the argument already mentioned in connection with arms control. The argument could be extended, particularly in connection with efforts to freeze manpower and arms levels and would then read about as follows: instead of really doing something that would affect the war potential in the future, people are deluded, they are led to believe that something is being done whereas in reality energy and initiative that could have been used against wars have been deviated into less fruitful and even harmful channels. For at this point there are two schools of thought; one claiming that such partial measures are of no use, the other claiming that they are directly harmful, counter-productive. One type of reasoning here would be to consider the underlying assumption behind most suggestions for disarmament: the legalist paradigm, where changes in the international system are seen as the result of the establishment of legally valid norms, a

detection machinery to discover deviants, an adjudication process whereby evidence is evaluated, the deviant is tried and if found guilty sentenced to suffer sanctions; sanctions are then put into operation and this is supposed to have consequences both in terms of individual prevention and general prevention. Finally, there should be an institution that validates the whole process (like the Supreme Court in domestic law).

Against this paradigm, which is taken from domestic law, the major objection would be that international systems are essentially different from national systems because vertical authority is so weak, because the number of actors (the nation states) is so low, and because some of them (the big powers) loom so large relative to the small, relative to the total system and relative to any foreseeable vertical superstructure. To pretend that this is not the case, and particularly to pretend that such systems can be developed if one starts with the laws (instead of starting with authority) can only lead to dangerous misunderstandings. More particularly, the habits of the sovereign nations, particularly the nation states, make them highly sensitive to matters of national prestige and what they consider national security so that they will always seek agreements with a very high number of escape clauses. This makes the establishment of treaties difficult, particularly because of the axioms of balance and control mentioned above. In addition to this control processes may be directly counter-productive, they may serve as a stimulus to large scale cheating and evasion that would otherwise not have been initiated. And negative sanctions may harden the deviant as will be indicated in the discussion of world no. 25.

To this it may be objected that even if these objections are valid in the present world where the international system is predominant and the supranational system is weak it may be less true in a future world where the balance between the two is different, and experiences gained may nevertheless be useful. Moreover, there may be other mechanisms that still may facilitate a legal order in the field of armament and a gradual transition towards disarmament. Thus, above the paradigm of criminal law has been used, a paradigm that presupposes vertical authority. But there is also the paradigm of civil law with emphasis on the mutual interest of both parties in abiding, and with (the threat of) abrogation as a (mild) sanction. And even more important: there may be changes in the horizontal, international structure itself that may facilitate disarmament. Of particular importance here, in our own view, would be an increase in associative relations and entropy of the total system, as already mentioned.

J. NORMATIVE POWER, NON-VIOLENCE MODELS

In the two preceding pairs of peace models - whether the emphasis has been on the distribution of power or the control of power - the focus was always on military power. Military power is based on two ideas: to incapacitate the enemy and to punish the enemy, both by imparting to him so much physical damage that he is 1. less able to carry out his intentions, 2. inclined to feel that the losses outweigh the possible gains from a victory. There are two modes of doing this: at the psychological level, as deterrence, and at the physical level, as defense. This has been dealt with above, we only need this very brief reminder in order to contrast it with the nonviolent approach.

This approach is also based on the distinction between deterrence and defence; the idea that the preparation for defence may deter the attack, and that if the attack nevertheless should come, then the defense will nevertheless be effective. But there is no assumption that this can be obtained by imparting physical damage to the enemy. On the contrary: non-violence is like a game where the rules exclude certain moves. We shall not enter into the complexities of defining violence, only assume that non-violence excludes the direct use of violence in the sense of physical damage of enemy bodies or property. The question is: what, then, is left if one wants to exercise influence, even power?

The answer is first of all that one can nevertheless try to incapacitate or punish the enemy, but with non-physical, non-violent means. And then there is a completely different approach, also based on non-violence: instead of trying incapacitation and punishment for the bad things that the enemy does, his negative actions, one would try facilitation and reward of the positive or even neutral actions. We shall refer to the first as negative non-violence and to the latter as positive non-violence. The former is a dissociative approach since there is an effort to create a distance between oneself and the enemy, the latter is an associative approach where there is a conscious effort to construct ties with the enemy. To facilitate the discussion of non-violence a survey of non-violent techniques of influence is given in this Table:

Table 4.2.8. A survey of non-violent techniques of influence.

| | <u>Positive forms</u> | <u>Negative forms</u> |
|--------------------------------------|---|--|
| 1. structuring of enemy action-space | protest, demonstrations | point out what is desired |
| 2. physical dimension | sabotage, strikes escape, migration | facilitate cooperation constructive work |
| 3. sanctions | boycott, ostracism | immediate reward for positive actions contact, membership |
| 4. amplification | enemy-inflicted suffering | enemy-inflicted gratification |
| 5. role-playing | non-cooperation passive civil disobedience | direct action active civil disobedience |

Thus, in this Table nonviolence is divided into five major branches, each with a negative and a positive version or aspect. We shall make some brief comments on them, and to some extent relate them to their violent counterparts.

First of all, there is the idea of nonviolent techniques of indicating what is evil and what is good. When military defense is used for demarcation of a frontier, in the sense that a ritual fight is given as a response to a heavily superior force invading one's territory - not with the hope of incapacitating or punishing him - but merely in order to demonstrate to him that what he does is considered wrong (and thereby to lay a basis for resumption of the war later on). In the nonviolent versions there would probably not be the same emphasis on defense against territorial transgression, but more emphasis on defence of human rights, etc. When these are infringed, there would be protests and demonstrations (in the negative version) - when they are upheld there would be indications of agreement (in the positive version). The latter is, in human affairs in general, probably less frequent: it seems somehow to be more easy to demonstrate when something is considered wrong than when something is considered good.

Secondly, there is the dimension of incapacitation. In the violent approach this is done by imparting damage to the enemy. Since this is excluded in the nonviolent approach there must be some other way of preventing the enemy from reaching his goal - and the nonviolent answer, negative version, would consist in denying him the goal. If he wants a factory, then the answer is not to destroy the enemy, but to remove from the factory the minimum part that causes maximum inoperability of the factory - in other words, to direct the damage against oneself, but in such a way that the enemy is impeded in his plans and so as to create minimum damage. If the enemy has genocidal intentions, then migration is one answer. This is the negative approach, then there is the positive approach which would consist in an effort to facilitate positive cooperation with the enemy so as to direct his activities into more constructive channels.

Thirdly, there is the dimension of punishment or sanctions in general, which in nonviolent strategy, just as in violent strategy, is heavily related to the dimension of incapacitation. In the negative version the enemy will be met with boycott, exclusion, ostracism as a response to his evil acts, in the positive version with rewards, membership inclusion, contact. The latter would not only be used as a response to the possible good deeds committed by the enemy but also as a general approach, human being to human being: while refusing to cooperate with him when he encroaches on one's own rights, one may nevertheless reward him in other contexts, as a private person, when his acts are more neutral, etc. It is the difference between refusing to build airfields for the occupant and refusing to talk friendly with him, invite him home for dinner, etc.

Fourthly, there is a strategy which is more particularly non-violent, here referred to as amplification. By that is meant a way of defending oneself by making the enemy responsible for even more

suffering than he intended if he does something wrong, and making him reap even more gratification than intended if he does something good. Thus, if the population declares that it will arrange a mass fast, unto death if necessary, if the enemy abolishes a certain number of human rights, and at the same time make it obvious that this response is automatic, that there will be no way of recalling the order - then the enemy can be seen as responsible for the mass fast. His evil act is amplified in its consequences, he shows suffering and gets interest on it, so to speak. The assumption is, of course, that the amplification is sufficient for him to see the consequences clearly, that this will become too much for him so that he will refrain from further evil action, or even be deterred from the beginning. And then there is the corresponding positive version where one tries to channel enemy actions into more constructive directions by promising an interest on any positive investment: if he moves out of the country, for instance, then there will be increased cooperation (even relative to pre-war level), to the benefit of both parties, etc.

Fifth, there is the strategy we refer to as role-playing. The idea here is also simple: the attacked party tries to induce a certain behavior in the aggressor by playing a certain role. Thus, if one wants him or wishes him away, the obvious strategy is to act as if he is not there, i.e. to continue as if status quo ante still obtained. This would be the negative version of this type of non-violence, but there is also a positive version: to act so that the actions are realizations of what the attacked group wants. If the attacker forbids public meetings, then hold a public meeting! Clearly, this approach is closely related with nos. 1 and 3 above. After this presentation, let us then turn to some details in connection with the presentation of the two worlds.

22. The Negative nonviolence world.

These have been discussed above; we are thinking in terms of the five major types presented in Table 4.2.8., under the heading of negative forms.

Method. The methods whereby this type of defence may be introduced should be distinguished from the types of defence themselves. Thus, one obvious aspect of the methodology would involve training of the population through courses, maneuvers, simulation exercises, etc. Another would be a law to make nonviolent defense in case of an attack an obligation of the population or at least of the civilian part of the population, combined with a system of reward, punishment and restitution. Still another would be to make the defense credible by inviting foreign powers to inspect the maneuvers - provided this will inspire a belief in credibility. And finally, there is the idea of making the population less vulnerable to reprisals by having secret food reservoirs, secret communication networks that can be made operative during an occupation, etc.

In a category for itself come all the cooperative moves toward any potential attacker that would be made prior to an attack, but still form an important part of any strategy of nonviolence. For the

content of such moves, the Depolarized world (no. 13) should be consulted.

Theory. The theory of nonviolence, as mentioned in the introduction, is partly based on the deterrence effect of a credible non-violent defense, partly on the defense effect arising from the low utility gain, or even the utility loss that would incur to the aggressor. Through dimensions 2,3 and 5 he will be denied what he is after, through dimensions 1 and 5 he will be informed as to the wrongs he commits, and, if his empathy level is sufficiently high due to all the depolarizing attempts prior to the conflict, he will undergo a "change of heart" as a result of his own actions. The non-violent party's suffering becomes more than he can stand. There can be no war for the nonviolent party refuses to play the role of a belligerent. To this theory should be added that the protagonists of nonviolence also feels that nonviolence not only has virtues violence does not have but in addition does not have its major vices: the provocation effect, the escalation effect and the revanche effect. Military preparation, however defensive, has a tendency to provoke as is well known (but perhaps insufficiently understood); when a military engagement starts it has a tendency to escalate (since both parties try to outdo the other, partly in order to win, partly because of the inflatory effect of violence, and partly out of revenge) and even if it ends in the victory of one side, the other side will think in terms of revanche (even when or if it signs a peace treaty). To this could now be added three types of objections - there are many others, but these are particularly important.

Thus, it may be objected that if this strategy works, then it will probably to a large extent be because of a surprise effect: a traditional military army expects a traditional defense, finds something very different and does not quite know what to do. But next time it will know better: it will have studied counterstrategies and developed them to perfection.

Such counterstrategies could be of the suppressive kinds, and there is little reason to doubt that methods exist whereby any population may be forced to capitulate (the contra-argument being that so extreme methods will only be used under very extreme circumstances and a basic condition for nonviolent defense would be to prevent such circumstances from arising). But there could also be efforts to win over part of the population, or simply to go around the population by exploiting the parts of the territory that are of interest, for strategic or economic reasons, and leave the rest to the "natives". Moreover, one could try to provoke the nonviolent party into violence, and since it is difficult to see how a whole population can be kept nonviolent under duress, violent responses from the nonviolent party can probably be relied upon to emerge, sooner or later.

The third objection is of a different type, leading up to positive nonviolence. The objection would be that it is not true that negative nonviolence does not have provocation, escalation and/or revenge effects. Preparation for nonviolent defense, and it will have to be prepared, presupposes the definition of a potential enemy and hence a negative attitude to at least a part of the surroundings.

Once started, nonviolence and violence may easily escalate together, and if the nonviolent group should win it is quite possible that the economic, social and psychological damage wrought might lead to revanchist ideas. Moreover, it may also be said that negative nonviolence, whatever its merits, is nevertheless dissociative, that it expresses cleavages and fissions in mankind rather than bonds, ties and fusions.

23. The Positive nonviolence world.

Types. These have been discussed above: we are thinking in terms of the five major types presented in Table 4.2.8., under the heading of positive forms.

Method. The methods would to a large extent be similar to the methods discussed in connection with the preceding world. But there is one basic difference. Negative nonviolence, when practiced in a normally functioning society, is disruptive and a sign of disorganization; whereas positive nonviolence is highly associative and may contribute to social growth. This means that it can be practiced in daily social intercourse - it is positive social behavior utilized as a method of defense.

Theory. The theory here would be based on change of heart more than on deterrence and defense in the usual sense of utility loss. The attacker will receive no stimulus for violence, not even the stimulus offered by the irritation due to negative nonviolence. As a consequence he will have difficulties carrying out his intentions he becomes "psychologically undermined", so to speak. The condition is, of course, that the social distance between the two parties is not so high that empathy becomes too low to permit any positive response to suffering inflicted or to accepting and even loving attitudes.

The objection to this type of approach would probably first of all be based, on the idea that this is "against human nature". Aggression breeds aggression (because of the frustration involved), and this aggression must have an outlet - with negative nonviolence as at least a possibility of violence is rejected, but with positive nonviolence as too contrary to basic psychological needs. It would at most become a strategy, a technique, a pretense without real content, and that would deprive it of its possible moral impact.

We shall stop the argumentation at this point since the chain of arguments easily becomes extremely long - and only add that negative and positive nonviolence do not exclude each other. Thus, one could well imagine some kind of a "mix" whereby negative nonviolence is used against him as a private person: one refuses to obey his orders, but treats him nicely as an individual person. The obvious counterstrategy against this, again, would of course be for the same occupant to forbid fraternization, but then fraternization seems to be rather impossible to stop - and so on.

K. NORMATIVE POWER, RULE OF LAW MODELS

We are now approaching one of the most important sets of peace models: the rule of law world(s). But this is not the only place where we shall deal with them. Let us distinguish between the following types of legal systems:

Table 4.2.9. A typology of legal systems for nations.

| | formulation of rules | Institutionalization Of controls | | |
|------------------------------------|---|--|-----------|--|
| Horizontal (international) systems | The Treaty world (24) The Convention world(25) | The Negative sanctions world (26) The Positive sanctions world (27) | | |
| Vertical (supranational) systems | All supranational worlds | | | |
| | | Regional | Universal | |
| | Functional | (30) | (31) | |
| | Federal | (32) | (33) | |

Thus, one basic distinction is between the formulation of rules, and efforts to back up rules by means of sanctions, and this distinction is closely linked to the other distinction between horizontal and vertical systems. In I the horizontal systems there is no authority, the rules are agreed upon between the parties and the sanctions are also horizontal. There is no supreme authority - the basic relation is that of a dyad, not the triad that emerges when there are two parties and in addition an authority. In the vertical models we assume that such a party exists, regardless of its level of permanence, its power to enforce sanctions, etc. In the terms of domestic law this means that the vertical system is better for criminal law whereas the horizontal system may be sufficient for civil law - but this is no absolute relation. In the horizontal system there may also be punishment (as will be discussed in world 26), and the vertical system may provide expertise and authority highly functional for adjudication in civil law cases. However, there would be little reason not to agree with the generally held thesis that the weakness of international criminal law is strongly related to the weakness of the supranational structure.

Evidently, the weakest possible legal system would be horizontal and based on the formulation (codification) of the rules of law only, not even backed up by sanctions (except if one includes unilateral abrogation of a treaty as a sanction). This is the system that will be discussed here, and the basic typology is simply in terms of how many nations agree to the formulation of the rule. One simple typology would be as follows:

Table 4.2.10. A typology of horizontal systems for formulating rules of law.

| <u>Structure</u> | <u>No. of nations participating in the formulation</u> | <u>Term for rule of law</u> |
|------------------|--|-----------------------------|
| Unilateral | one | declaration |
| Bilateral | two | treaty |
| Multilateral | several | convention |
| Universal | all | law |

In all cases norms for international behavior are laid down, i.e. rules indicating what is prescribed and what is proscribed behavior under certain situations. One nation can do this alone: it can declare in advance that under such and such conditions the nation shall do this and that. Others may choose to believe in this, and they may choose not to believe. But this is an extreme case, just as the "law" is extreme - it is like domestic law where laws apply to everybody without exception, they are not binding agreements existing only in pairs, triples, n-tuples of persons (at least until they are broken and/or abrogated). It seems that universal laws, among nations just as among individuals, has some kind of suprastructure as a precondition. For that reason we shall rather postpone the discussion of universal laws till we come to the supranational models. That leaves us, basically, with the distinction between treaties and conventions, between bilateral and multilateral rules.

24. The Treaty world.

Types. All treaties would have a bilateral structure in common, and a typology would evidently have to be based on the relations between the two nations, and the content of the treaty. But such typologies have a tendency to become rather trite. One may of course distinguish between symmetric and asymmetric treaties depending on whether or not the terms are "equal" - but how would one define that term? The terms of a treaty may appear grossly unequal today, as when one looks at how various nations acquired land from other societies - but they may nevertheless have been regarded as equal when the treaty was originally set up.

As to the content of a treaty one important distinction is between treaties that regulate relations between nations, treaties that regulate relations between one of the nations and nationals from the other nation, and treaties that regulate relations between nationals from the two nations. The last two kinds can be seen as extension of domestic law, but since there are two different legal systems involved there is always a problem of coordination, adjustment, compromise etc. And then treaties may also be divided according to whether the content is predominantly concerned with positive interaction in the political, economic, social or cultural fields, or with such issues as non-intervention, non-aggression, conduct of war, etc.

Method. The method here is simple enough: "to negotiate rati-

fiable treaties" has to a large extent been a major task of bilateral diplomacy, although it should be emphasized that this "treaty-orientation" of diplomacy is not identical with diplomacy, it can also be regarded as one component of diplomacy, or as one phase in the evolution of diplomatic systems.

Theory. There are two types of theories here, one applying to rules of law in general, and the other to bilateral systems of law or treaties. We shall deal with them in this order.

Here is a collection of arguments why rules of law are peace-productive:

1. Rules give a basis for mutual prediction, which narrows the range of one's own response and makes (preparation for) extreme responses less likely, and this mutual predictability is hedged around with a mutual interest in that predictability.
2. Rules give the parties a language, a set of terms, a common way of looking at things, a shared frame of reference, and all of this will tend to facilitate communication and, consequently, the search for solutions to conflicts.
3. Rules usually define issues and establish an agenda for how to deal with a conflict, so that when a conflict arises there will usually be a high level of agreement as to how to proceed.
4. All of this will tend to de-emotionalize issues because procedures, actions to be taken are so well codified in advance that the parties are merely carrying out a ritual, there is less of the agony connected with ad hoc decision-making.
5. Issues will also be depoliticized, because rules will focus attention on the past (what was done in similar situations in the past), in other words on facts and not only on values - and since science has established a set of procedures for arriving at consensus about facts this will deemphasize the value-aspect of the issue (which is, of course, the political issue).

All these arguments sound plausible, and to those who object that treaties often are broken the obvious answer will be that they work as long as they work, and how long they work and how often they are broken is an empirical question - just as it is an empirical question under which conditions they are adhered to or broken. It is assumed that when nations enter agreements it is because they both find it to be in their interests to abide by the agreement - so the situation can often be analyzed very much like the Prisoners' Dilemma game. This means that there is a basic assumption of trust involved and an assumption that both parties feel that cooperative choices (i.e. abiding with the treaty) would pay off better than the non-cooperative choices. And this explains why treaties tend to last: they are self-rewarding, at least as long as they are symmetric.

The contra-arguments against these general arguments in favor of rules could run something like this. First of all, there is never

any guarantee that the two parties have a symmetric perception of the situation. One of them may enter with the idea of lulling the other into believing that it will stick to the terms of the treaty, using this respite to prepare aggression, or in other ways reap the harvest of the other party's naivete. This situation is well known from the analysis of Prisoners' Dilemma games. The logical conclusion of this type of thinking is the kind of peace philosophy described in the depolarized world.

Secondly, there is a set of arguments: that would relate to law in general, regardless of whether the other party is to be trusted or not. It can be argued that laws are norms not to be broken, and hence a way of freezing a certain level of interaction. It is based on the past, a crystallization of' past experiences, and since laws are difficult to change they may freeze a status quo which may be unjust to one of the parties, irrational in view of later developments, etc. The result of this may easily be more and not less conflict, particularly when there are dislocations in power relations or other types of rank relations and the laws are seen as ways of protecting old privileges.

The contra-argument against this argument is, of course, that rules of law are not necessarily-static, they can be subject to tests of adequacy and be changed - but then a procedure for adjustments should be worked into the treaty from the beginning.

The second type of theory would seek to justify the idea of bilateral agreements, and might run as follows. Nations are sovereign free to make their arrangements with any other nation. If nation A regulates its affairs with B and C bilaterally, B with A and C and C with A and B, then the result will be three bilateral treaties; each of them an expression of the relationship existing in that particular pair. The system will have a maximum of flexibility since it can adjust to the exigencies of every single pair, it will not force any nation into an artificial relationship. Moreover, since only two (the minimum number) nations are involved each time, the treaties can be made very specific, whereas increasing number of signatories (increasing "domain") usually dilutes the content and the number (the "scope") of the treaties.

In other words, the idea is that if all nations seek to regulate their relationships with all other nations, one at the time, as well as possible, then all these strivings will somehow add up to the best possible regulation of the total system. Thus, this is one more case of the additivity theses, the idea that if all nations do their best on their own, then there will be "an invisible hand" that automatically steers the system towards an optimum point. But in order to discuss this further we have to turn to the next peace model.

25. The Convention world

Types. All conventions would have a multilateral structure so a typology would evidently have to be based on the number of signa-

tories, on the relations between the nations, and the content of the treaty. As to the latter two what we have already said about types under treaties seems applicable also in this context.

Method. To arrive at a multilateral treaty bilateral diplomacy may be sufficient, but some multilateral element may be highly helpful. Nation A, wanting to set up a convention, can launch the initiative via the local embassies of all the nations it wants included, but since the connection is usually based on some concept of symmetry between the signatories there will probably sooner or later arise a need for a multilateral meeting at some level. For such a purpose an IGO (or even an INGO for the preparatory stages) would be useful, which means that one has already entered the supranational field. Thus, the convention world is really a borderline case between the international and the supranational peace model.

Theory. As to the part of the theory that concerns the function of legal systems in general we shall only refer to what has already been mentioned in connection with the treaty world. The arguments in connection with Prisoner's Dilemma games become more involved, but substantially the same; the rest is unchanged. There all difference lies, of course, in the transition from two to any number of signatories, and in the additivity thesis in connection with bilateral treaties. The argument in favor of conventions might run as follows.

It may be true that conventions will be somewhat diluted in their content since they have to adjust to the law of the least common denominator, but the gain in domain by far outweighs this loss in scope. When a topic is discussed multilaterally then, at least theoretically, there will be less of a chance for a domineering power, a big power, to impose its terms on the others by taking them one at the time. Thus, bilateral treaties are highly compatible with an interaction pattern that looks like a spider's web: in the middle is the spider, the big power, and the bilateral treaties connect it with the smaller powers on the periphery. It may be objected that nothing prevents these smaller powers from having bilateral treaties, but they usually have less interaction to build a treaty around and less resources to build a treaty with (thus, they may not even have efficient bilateral diplomatic relations). With a convention the pattern looks more like a wheel, all nations participate equally, there may be group formation to balance effectively the dominant power foci, and the net result will be more egalitarian. To turn it around, if nations were more equal in size and power then the bilateral method would be less objectionable, but with the tremendous differences there are, the treaty system will easily lead to tensions that might be reduced by means of the convention method.

One can also argue against the additivity thesis by pointing out that relations in the international system are not only bilateral, they are also at time trilateral, multilateral. This is particularly clear in trade, where multilateral trading opens up for entirely new possibilities and extends economic systems, since there is no longer a need to have balance in each bilateral relationship. But to establish a multilateral trade relation a multilateral convention

would be useful since it ties the n-tuple of nations together in a binding agreement where every nation is responsible to all the others - not only to one other nation as would have been the case if only treaties were made use of. And this is, of course, the reason why we classify conventions as more associative than treaties. Treaties make for small legal systems, weakly connected with each other, conventions can tie together the whole world.

L. UTILITARIAN POWER, SANCTION MODELS

The whole idea behind utilitarian power is to try to influence other nations to do the "right" thing, in this context to engage in peaceful and abstain from belligerent activities. To obtain this one nation would adjust its own reaction to others action according to the old models of sanctions. In other words, if the action is depreciated, then negative sanctions should be administered, if the action is appreciated, then the response should be in terms of positive sanctions. The norms according to which actions are evaluated as good or bad may be the laws of international society, which would then link the sanction models to the rule of law models.

This is, of course, a very general principle behind almost any type of interaction between social actors, whether individual or collective. Response is adjusted to stimulus, and in such a way as to increase the probability - in the view of the actor - of a favorable reaction, towards the "good", or at least away from the "bad". Every day, in every little bit of interaction between two human beings there are elements of punishment and reward meted out by either party to the other as a guideline for him to follow - always on the assumption that he will be motivated to avoid punishment and to pursue reward. Sometimes the punishment may consist in absence of reward - as when the underachiever in an organization does not get any promotion (but is not demoted either), sometimes the reward may consist in absence of punishment, as in a concentration camp. But the principle is the same: one actor has at his disposal a value differential that he can administer to the other actor, whether there is a predominance of the stick or of the carrot strategies.

This raises a number of problems when applied to nations, and in connection with peace. Thus, as nations are collectivities and hence more complex than a single individual, can one assume that sanctions will have similar effects? Moreover, nations would use sanctions in connection with other goals they are pursuing, for instance economic interests. Will this not create a spill-over effect when sanctions are suddenly applied to problems of peace and war and what will be the impact of that effect? And there are other problems to be explored below.

25. The Negative sanctions world

Types. Since we are dealing with international models the assumption here is that the sanctions are directed from one nation to another nation; that they act as sender and receiver, respectively of the sanctions. However, the sender and/or the receiver may also be groups of nations, in which case the model slides into the models discussed in part III, supranational models. The criterion would actually be whether the sender or receiver groups existed prior to the events that caused the sanctions or not, in other words whether the groups were institutionalized or organized ad hoc, for the purpose of the sanctions. But in order to develop the methodology further, one would have to look at the method.

Method. The distinction here would be in terms of kind of sanction: the UN charter distinguishes between diplomatic sanctions, communication sanctions and economic sanctions - all of them non-military (if military sanctions were permitted, then this would not be a peace theory according to our strict definition). But many more types can be imagined, for the general formula behind negative sanction would be to reduce positive interaction and increase negative interaction, which means that any type of interaction can be used, it can always be made more negative or less positive.

But this means that negative sanctions form a special case of polarization, or rather that polarization is an all-out application of the principle of negative sanction. The differences are important, however, otherwise we would have treated this as a special case of polarization. First of all, a negative sanction is more directive than polarization, in the sense that it is used as a response to a particular stimulus - with information to the receiver about which particular stimulus caused resentment. Secondly, a negative sanction is more specific, some interaction channels are selected and used for sanctioning whereas the remaining interaction context may remain as before. Thirdly, sanctions are linked to established norms so that their application was predictable, like punishment in a domestic penal system. But as to which interaction channels are used the answer can only be that any one is possible, and a relatively complete list is given in connection with the discussion of polarization.

However, one should mention that nations have particular techniques in the field of economic relations. Generally speaking, the terms of competition may vary, there are most-favored-nation clauses that may or may not be used, trade preferences of various kinds, tariffs that can be used to discriminate - in short all kinds of differential treatment. But just as negative sanctions may shade over into polarization they may also, on the other side, shade over into bargaining techniques and it is quite difficult to draw the borderline. In bargaining the parties expose their ranges of future interaction so as to arrive at an exchange pattern acceptable to either party. This is also the idea behind sanctions, however, so the only difference one might point to would be that in the bargaining situation nations are establishing new norms for their interaction, whereas in the sanction situation one of them is of the opinion that the other nation has departed (seriously) from an old, already existing norm.

Theory. The theory here is very simple: just as the theory for punishment in domestic law. First of all there is the idea of general prevention, that the threat of negative sanctions will deter potential deviants. Secondly, there is the idea of individual prevention, that the deviant against whom sanctions are directed will be effectively cured for such tendencies in the future. And this is, in turn, based on the assumption of rational utility calculation, that potential and actual deviants will find that the losses incurred by the sanctions outweigh any gains they might get from the deviant act, i.e. from breaking the norms of international society. More particularly, there is the idea that negative sanctions will split

the receiver into two or more fractions, and that the opposition will topple the "evil" government.

There is no doubt that a wide variety of conditions exist under which this theory would be valid. But for all efforts to regulate the behavior of others by some kind of punishment there is always the dilemma that on the one hand sanctions are often more effective as long as they are only used as a threat and not put into practice, whereas on the other hand a threat that is never made effective loses in credibility. Although we are not in general concerned with relations between peace thinking and reality, some of the difficulties with this theory should be pointed out because of their importance in understanding the thinking behind the associative alternative, the advocacy of positive sanctions.

The first difficulty has to do with negative sanctions and punishment in general: they easily harden the receiver, and make him more impenetrable to the norms of the community. On a more subtle level of analysis it may be argued that negative sanctions are built around prescriptions and that this will in turn tend to make him a ritualistic performer of acts that are not prescribed, rather than an innovator of new, positively sanctioned, actions. The general rule becomes that of avoidance rather than achievement, because the sanctions lead him away from something, not towards ever increasing levels of achievement. The most one can obtain is negative peace, not positive peace, by this method.

Secondly, there are difficulties that are due to the collective nature of the actors. Nations are collectivities, and since they have territorial autonomy, sanctions will have to be directed against the nation as a whole, it is difficult to differentiate and direct them against a specific person or group of persons. This has a double consequence: many people will feel unjustly hit and will easily rally around their leaders, and the leaders, in turn, can direct the impact of the sanctions inside the society they control, more or less where they want. But they can also decide to share the burden, and the result of all this will very easily be integration and not a split into opposing fractions.

Thirdly, there is an important difficulty that arises from the fact that such sanctions work horizontally, from nation(s) to nation(s), not vertically from a higher source of authority (the judiciary, the state, the supranational authority), and consequently are easily seen less as an expression of justice and more as a part of the general foreign policy of the sender of sanctions. Since, as we have pointed out, negative sanctions are also used as a general bargaining technique to promote quite different goals (than peace), the receiver(s) will suspect that the sender(s) has ulterior motives. And in this the receiver will probably very often be quite right. Vertical sanctions may of course also be linked to ulterior motives, but such sources of sanctions are usually exempt from that kind of suspicion, so the moral impact of the sanction is not so easily circumvented.

27. The Positive sanctions world

Types. The structure of the positive sanctions is just the same as for negative sanctions: there are senders and there are receivers, and they may be nations or groups of nations.

Method. At this point we can also refer to the method for administering negative sanctions: positive sanctions would be everything in reverse. Instead of breaking or reducing diplomatic relations, one would establish or enlarge them; instead of reducing communications (of goods, persons, messages) one would increase them; instead of hampering or closing down trade relations one would facilitate them or at least open them up. In other words: the general formula behind positive sanctions would be to increase positive interaction and reduce negative interaction, which means that any type of interaction can be used, for it can always be made more positive and less negative.

But this means that positive sanctions form a special case of depolarization, or rather that depolarization is an all-out application of the principle of positive sanction. But just as for the relation between negative sanctions and polarization there are three important differences: positive sanctions are more directive than polarization, they are used as a response to a particular stimulus; they are more specific in the sense that only some interaction channels are used for sanctioning whereas the remaining interaction context remains as before; and sanctions are linked to established norms so that their application is predictable. At this point we cannot refer to rewards in the domestic system for they are very rare, legal systems are based on punishment much more than on reward because public laws seem to be proscriptive rather than prescriptive. But in the more private sphere, prescriptions backed up with rewards abound, in family life, in groups, in organizations and associations etc.

Since most individuals concerned with international decision making are recruited from the public rather than the private sphere, one would imagine that they are more trained, in general, in backing up proscriptive norms than in backing up prescriptions, which in turn would have as a consequence that there is more resourcefulness available when it comes to inventing punishment than inventing rewards - in the international system. But apart from reversing all course one highly important category made available to the nation that wants to engage in positive sanctions: technical assistance.

Theory. The theory here is very simple: just as the theory for rewards in general. First of all there is the idea that the promise of positive sanctions will have a general encouragement effect, it will create an atmosphere where increasing achievement becomes the rule, not merely the avoidance of deviance. Secondly, there is the idea of individual encouragement, that the over-achiever who actually receives the reward will be doubly encouraged to further achievement behavior, in casu in peaceful behavior. This is all based on the assumption of rational utility calculation, that potential and actual deviants will find that the gains incurred from the rewards that

accrue to them if they behave outweigh the gains they might get from the deviant act. More particularly, there is the idea that positive sanctions will integrate the receiver in a joint effort to achieve more, and (hence) obtain more positive sanctions.

Again there is no doubt that this theory is also valid under a wide variety of conditions, and that it, like the negative sanctions model, in fact works every day in relations between nations. Often the stick and the carrot policies are combined so that it may be (almost) impossible for the social scientist to disentangle their effects. But it is also easily seen that there are difficulties in the application of this model of positive sanctions.

First of all, it favors the sender nation with most resources. This is also true for the negative sanctions, the more it can punish, or reward (both in terms of capacity and credibility), the more influence potential may it have. This means that the sanction models will tend to favor peace concepts held by nations rich in punishment and/or reward resources, for instance favor stability concepts with these nations as centers. But this is a fortiori true for the positive sanctions model, for the international system seems more easily to run out of reward resources than punishment resources. Even a small nation can punish a little, but it takes a rich and very resourceful nation to sustain a reward system (for instance in terms of technical assistance) over a longer period. Inflation effects seem more prominent at the positive end of the sanctions scale than at the negative end.

The difficulties encountered in connection with negative sanctions and due to the collective nature of a nation seem less important here: rewards (for instance favored treatment in trade) will accrue to the whole nation, even though leaders can try to monopolize some of it for themselves. Just as negative sanctions can integrate a nation one could imagine that positive sanctions will split a nation. But if they do, in a sense so much the better since the leaders are the target of the sanctions more than anybody else. But the other difficulty is also present in this context: nations also have other goals than peace and they use positive sanctions, for instance technical assistance, to influence, say, UN voting patterns in their own favor. This will color the whole context, there will be a feeling that positive sanctions are used to make "clever boys" out of naughty nations. More systematically expressed: peace is a system characteristic, it applies to the behavior of a nation relative to the entire system - not only relative to one particular sender of sanctions. It is multilateral rather than bilateral, to put it that way.

But however this may be, it is clear that positive sanctions will always have one advantage relative to negative sanctions: they are constructive, they lead to the exchange of positive rather than of negative value. They make for fusion rather than fission, for integration rather than isolation - in short, they are associative and dissociative, and facilitate positive peace and not only negative peace.

M. OTHER GROUPINGS

We turn to the dimension anticipated in 3.1, the idea that individuals can be organized at the international level in other units than nations. In Table 3.1.1. we have referred to such groupings as INGOs, international non-governmental organizations, since they are characterized by having as members individuals from different nations, but (since they must have something in common that defines the organization) with the same occupation, status or value-orientation. No doubt, in the future still other groupings will emerge, even today there are many INGOs that do not have national chapters but recruit their members directly to an international secretariat.

The question now is what the effect of such foci of organization would be, and this will be discussed under two headings: INGOs alone, and INGOs together with other foci of organization, in casu nations.

28. The INGO world

Types. For a typology of INGOs, the reader should be referred to the studies published or in progress on INGOs. But some simple ideas can be indicated here: INGOs can be divided in terms of size of membership, but the extension of the recruitment basis (number of nations, number of regions, number of conflict groups represented) is usually considered more important in this connection. Then there are all the differences in terms of internal organization or relations with the environment, and finally, there is the crucial dimension of purpose is the INGO built around an occupation (the medical profession), a status (worker) or a value-orientation (pacifist). But this kind of typologizing is less important here for the general idea is clear: an INGO is an organization that ties together, strongly or loosely, individuals in a manner that transcends national borders - the INGO is transnational. Hence, it has become another focus of identification for individuals, it is not a question of the individual dividing his loyalties between two or more nations (this is cross-national loyalty) or of projecting it onto a supranational organization (that is supra-national loyalty), but of a completely different kind, of loyalty.

Method. To create an INGO all that is needed is a sense of togetherness among individuals from more than one nation, and the external conditions in terms of freedom of communication across borders; if not of the members, at least of their messages. This phenomenon has had a tremendous increase in the last century, particularly in the last generation, of course linked to the equally tremendous increase in communication potential within and between nations.

Theory. Why, then, should a reorganization of the human beings in this world lead to more peaceful relations? Would it not be just another way of chopping up mankind in units that could eventually go to war against each other - so that it would be workers against professionals, whites against non-whites, sociologists against historians, with Protestants against Catholics fresh in our minds, or

Hindus against Muslims, Buddhists against Catholics if more recent examples are needed? Would this be any better than nation A against nation B? There are at least three ways of answering in the affirmative.

First of all, INGOs are basically different from nations in as much as there is no territorial basis, no territory that the INGO points at and says "this is mine" (except an occasional office-building) Territories have the highly unattractive property from a conflict-theoretical point of view that they provide a basis for a zero-sum game: nation A's gain will have, to be nation A's loss, as long as there are no new territories to be conquered, and the conflict itself does not generate mere territory (as the competition among business firms may generate more wealth to distribute). This means that at least one type of conflict which easily leads to both negative attitude and negative behavior in a process of escalation (see 3.2, and figure 3.2.1.) is out. And territories are also good for the planning and execution of such conflicts, people can hide behind their territories because they have "sovereignty" over them and prepare themselves. When people are mixed together, and that is the assumption in connection with INGOs, then they will more easily find out about each other and hence more easily be dissuaded. This has some implications for weapons technology to be discussed more in detail later (section 5.5.). The weapons we have today are to a large extent based on explosions, and an explosion is based on the assumption that a certain area is relatively free from friends, and (preferably) relatively heavily packed with enemies or things that are valuable to the enemy. In other words there is a territorial assumption which is satisfied when nation-states are at war, but less easily so when INGOs are at war, On the other hand there are other weapons than those that are based on explosions.

Secondly, there is another aspect of geography. A nation is located at a fixed place, and so are its neighbors. It may well be that many of these neighbors are not the neighbors the nation would have chosen if it had an option - but geography does not permit that option. Geography can undergo some changes, rivers can be turned, dams be built, but to move a nation as such has so far been considered impossible. The net consequence of this is that nations do not have the possibility people have when they get "stuck", when frustrations and conflicts abound and they see no way of solving them: they can move. Nations have to stay where they are and make the best of the situation. But not INGOs: if their members are discontent with their neighbors they can move, and this may be a very important mechanism of conflict resolution. The result of such moves may well, in the long run, be heavy geographical concentrations of certain INGOs (world 6 in other words) which leads to new problems, but in the meantime many conflicts may have been solved by migratory adjustments.

Thirdly, there is a basic difference between INGO membership and nation membership, called citizenship: one can be a member of zero, one, two, any number of INGOs, whereas one can be a member of one and only one nation - and much international energy goes into the maintenance of this condition. However, if nations were to disappear

and INGOs to come in their place, then it might be reasonable to assume that all individuals would have to have membership - belongingness - somewhere, which means that the category zero is out. The possibility of multiple memberships, however, would work like cross-national loyalties in providing the world with bridges of communication and mediation potentials. But more important in this connection seems to be another aspect of INGO membership: the ease with which one can leave and enter an INGO relative to how difficult it is to renounce and acquire citizenships. A function of this might well be that INGOs would have to vie more for the loyalty and allegiance of their members than nations for their members, and the result might be that it would be more difficult to ask INGO-members to go to war since they could simply resign. But then there are INGOs that are more like orders commanding the same loyalty "unto death" as nations, and there is no a priori reason to assume that people might not also resign from an INGO because it does not ask them to go to war against another INGO.

If these answers are not persuasive, the INGO protagonist will have another type of arguments that he could use: simply that INGOs are in many respects like nations, so peace policies suggested for nations are mutatis mutandis peace policies for INGOs. Subnational peace thinking becomes sub-INGO peace thinking, and supranational peace thinking becomes supra-INGO peace thinking (one of these models will actually be treated explicitly as model no.35, paired with model no. 36). Above all: international models can be translated into inter-INGO models, one can ask exactly the same questions about numbers, homogeneity, similarity, interdependence, polarization, rank-dependent and rank-independent interaction, military power, power control, rule of law nonviolence, and sanctions for INGOs as for nations. A moment's reflection will show that all these questions are meaningful for INGOs. As long as interaction between them is meaningful, and it is, so is diplomacy (which is actually already developing as when one INGO has a representative or at least an observer on the board of an other INGO), violence and nonviolence, and so on. In another context we have argued that it may very well be that we are moving into an INGO-dominated world so that human history in a sense will have to be rewritten with INGOs as actors.

But more than a moment's reflection is required to see whether this will make one or more of the peace theories more plausible, i.e. whether it makes a difference when the actors change from nations to INGOs. We think it does, and it can be formulated as one bold proposition:

When the actors are nations, dissociative peace policies are more plausible, when the actors are INGOs, associative peace policies are more plausible.

The reasoning behind this proposition is as follows.

The division of mankind into nation-states is already an example of dissociative policy, for a nation is a device to direct interaction inward and reduce interaction across frontiers. So are INGOs, but with the important difference that in nations this

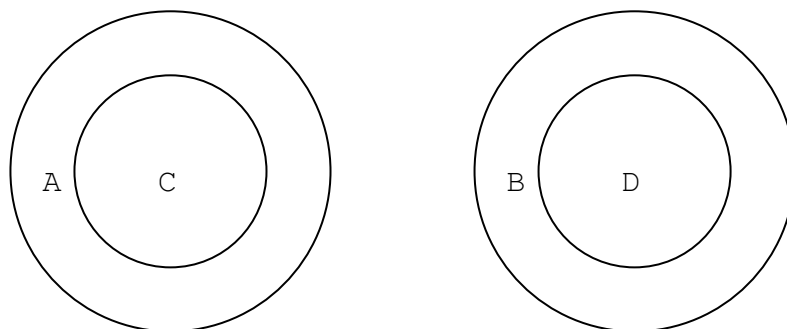
regulation of interaction is hedged around with territorial proximity. In other words, as long as territorial proximity makes a difference at all in accounting for differences in interaction rates will organizations based on territorial proximity be more dissociative than other organizations. Members of one INGO will interact with other members by means of post, telegraph, telephone, travel - but also with their neighbors - at least as long as telecommunication with co-members is not at least equally feasible as a chat across the garden fence but the consequence of this is that nations are more compatible with dissociative policies, just as INGOs are more compatible with associative policies. Dissociative policies would all be made more difficult because they are so much more easily performed when there is a clear territorial basis where homogenization, positive interaction, power accumulation etc. can go on unimpeded by others. But - this may also change in a world where communication is so effective that territory becomes inessential, and in that world the proposition above would no longer be valid.

Types. Ingos do not presuppose the "withering away" of the nation states, present day experience shows convincingly that they can coexist with them. When we talk about the mixed world in this context this is precisely the type of world we have in mind: on the one hand there are national foci of identification, on the other hand INGO foci, or in more general terms: there are territorial and non-territorial (social) foci of identification. The types of mixed worlds will then depend on the types of territory and the types of organizations, they may be nations and any or all of the various INGO types discussed above, and they may be districts and any or all of the corresponding national organizations depending on the level of analysis.

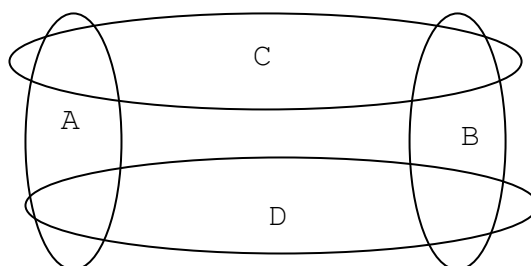
Method. The methods needed for obtaining this are simple: as mentioned above, it is a question of trans-national communication and loyalty, while at the same time preserving nations.

Theory. The theory here would be based on the assumption that even if a world organization in terms of INGOs may be more peaceful than an organization in terms of nations, there is no guarantee. True enough, there is no longer any territorial basis to fight over, but precisely for that reason there may be even more reason to fight. Territorial proximity will lead to increased contact and even if increased contact generally leads to mutual acceptance, it may also lead to friction if too disparate groups have too large contact surface. The consequence of this may be increased conflict and flare-ups that can be very disagreeable even if they are kept local by the intricate web of criss-crossing INGO.

But then there is no guarantee that the INGOs will in fact be criss-crossing. People may be members of more than one, but if INGOs A and B are potential antagonists and INGOs C and U also, then the membership may be like this:



And not like this



That means that there is the need for an organizational oasis that will guarantee criss-cross, and this basis exists in the nation-state system since INGOs by definition criss-cross them. If in addition multiple citizenship were possible, then even more possibilities of criss-cross will be in the total system. Thus, in a mixed world one could use the nation-state to protect people against too much heterogeneity too close and use the INGO system to bring heterogeneity into the total system at a higher level. There would still be the disadvantages of territory, but national allegiance would be so broken down because of the trans-national loyalties that it would be considerably less of a threat.

To this it may be argued that the theory only makes sense if national and INGO loyalties really balance each other, if they are really approximately equal in attraction power and the distribution of individuals is so as to produce maximum criss-cross. But this is a very precarious balance indeed. If nation X has a little bit more members than it should from INGO A, and nation Y a little bit more from INGO B, then INGO A may very quickly be identified as a tool in the service of nation X and INGO B similarly for nation Y. Such statements have a tendency to become self-fulfilling, as is well known, and the result may not only be a break-down of the mixed world but a much more dangerous world of nations, not unmitigated by INGOs,

but reinforced by INGOs. An open problem, therefore, is to identify mechanisms that can maintain this kind of precarious balance between the loyalties so that alignment and polarization do not too easily take place.

29. The basic types of supranational peace thinking.

In the whole field of peace thinking the idea of some kind of unification of nations plays a dominant role, on par with such ideas as balance of power, power monopoly and the personal and societal models of peace. The literature is overwhelming and the tradition of thinking spans centuries, so all we shall do is to try to indicate some of the major axes for a discussion of this type of theories.

The point of departure is, of course, that since nations are parties to wars it might be a good idea to abolish nations - just as it might be a good idea to abolish arms since they are used in war (world no. 21) or to refuse to use arms (also world no. 21) on the assumption that somebody will have to use them. The second point of departure is the idea that since nations, at least the more successful ones, are security communities in the sense that the probability of inter-group or inter-individual violence is relatively low, then some of the structure of the successful nation states where relations between groups and individuals are concerned might be copied at the international level.

These ideas seem to be common for all types of peace thinking in this field, but the variety of proposals is considerable and we need some simple axes to orient ourselves in the complexity. Thus, the following three dividing lines seem to be simple points of departure:

| | | |
|-----------------------------------|-------------------------------------|-------------------------------|
| <u>As to membership:</u> | only <u>some</u> nations admissible | <u>all</u> nations admissible |
| | <u>regional</u> | Universal |
| <u>As to autonomy:</u> | <u>High level</u> of autonomy | <u>low level</u> of autonomy |
| <u>As to unit of unification:</u> | nations | other groupings |

Let us for a moment disregard the last distinction and combine the first two:

Table 4.2.11. A typology of unification proposals for nations.

| | <u>Regional proposals</u> | <u>Universal proposals</u> |
|--|---|---|
| With high levels of autonomy for members | The Regional Association world (no. 30) | The Intergovernmental organization world (no. 31) |
| With low levels of autonomy for nations | The Superstate world (no. 32) | The World state (no. 33) |

In textbooks etc. one often sees a reference to three types of unification, referred to as the functional, the federal and world government approaches respectively. "Functional" is then very often presented as opposed to regional. These terms have a clear relation to Table 4.2.11: "world government" is the same as what is here called "world state" - but we prefer the latter since a government can also be federal if the level of autonomy for the members is high. "Functional" is the same as our "intergovernmental organization world", or IGO world for short, but we prefer this term since any form for integration can be functional or deal with "functions" in one way or another. "Regional" is also too vague to be used in general since it is not clear whether it refers to high or low levels of autonomy, and the same actually applies to "federal" although in that case one is clearly closer to worlds nos 30 and 31 than to worlds nos 32 and 33.

There are also some other distinctions that are commonly found. in this field but are not rendered in Table 4.2.11 - which actually is based on Table 3.1.5, only that the words "dissociative" and "associative" are not made use of here. But it is obvious that when admission is limited, to "regional" then the solution is by definition dissociative. Some nations are cut off and it always raises the question: if they are not admissible, does this define them merely as non-members, or also as anti-members?

Let us look at a word-pair successfully and frequently employed by several theorists in this field: domain and scope. How can they be located in this framework? Domain is simple, it is rendered in Table 4.2.11 in a dichotomous form, using the regional-universal distinction. And scope is actually implied in the other dimension, low vs. high autonomy for members. For the scope of an integrative attempt, of an effort towards unification, has to do with the proportion of functions dealt with at the supranational level. If this proportion is low the meaning is simply that most functions are left for the constituent actors, the member nations, to take care of - in other words that they have a high level of autonomy. Thus, scope of the integration and autonomy can be defined, so that they become inversely related. For instance, in a socialist society a higher proportion of economic functions are dealt with and decided upon at the supra-individual or rather supra-organizational level, i.e. by the state. This leaves less latitude to the components, hence an illustration of the inverse relation between scope and autonomy. But latitude should then not be identified with freedom or general welfare: by organizing decision-making this way it is of course possible that welfare increases, just as it is possible that it decreases.

However, it can certainly be objected that the high vs. low autonomy dimension is extremely complicated and involves a number of complex legal and sociological subdivisions. For instance, what about decisions that are binding vs. decisions that are subject to ratification? This seems to be a projection on the legal scene of the general autonomy dimension, with the first alternative corresponding to low autonomy and the second to high autonomy.

Essentially, in an integrated system of high autonomy the original units are still discernible and have a portion of the total scope they can take care of. In a system of low autonomy, or rather zero autonomy, these member units have disappeared completely, and the authority is exercised directly over individuals -or organizations and associations. The original territorial units have disappeared. Thus, a new state, a superstate, has been formed. If the original units are still discernible and have a certain autonomy one may perhaps speak of a federation, and if these units have a very high level of autonomy, then the term confederation is frequently used. Thus, we are essentially making use of all the following dimensions:

Table 4.2.1a. Several components of the autonomy dimension.

| <u>In terms of autonomy</u> | <u>In terms of scope</u> | <u>In terms of decisions</u> | <u>Terms</u> |
|------------------------------------|-------------------------------------|-------------------------------------|------------------------------|
| high level for members | much of the scope left to members | decisions subject to ratification | confederation |
| low level for members | little of the scope left to members | decisions binding, no ratification | federation |
| zero level for members | none of the scope left to members | no member units | state, direct to individuals |

It may be objected that this is a trichotomy, and, we have given a dichotomy in Table 4.2.11. Where are the cuts? Actually, we doubt that precise points can be indicated, but "low autonomy" in Table 4.2.11 evidently includes "zero autonomy" here and also much of what here is called "low autonomy".

With these words of, hopefully, clarification we now turn to the peace theories related to those world models.

A. HIGH LEVEL OF NATIONAL AUTONOMY

We start with these models since they are closest to what happens in the world of today, and continue in the tradition from the survey of basic type of international peace thinking: the models are presented in pairs, first a dissociative model, then an associative model, based on the same fundamental idea. The Regional Association world

Types. There are obviously two dimensions of' the typology here, according to how the region is defined, and according to what the association is built around. As to the former a distinction could be made between three basic forms of integration and these can also be found in connection with the other three models of supranational cooperation/integration/unification:

1. Territorial regions - this is the principle of vicinity or contiguity: some kind of integration takes place between neighbors and the membership criterion is simply location. Of course, borderlines have to be drawn somewhere, and much of the success of the regional association relative to the rest of the world depends on their ability to have the borderlines coincide with "natural" borders. Thus, a region is often defined, as something surrounded by the ocean - in other words as a continent.

2. Organizational regions - this is a region defined by some kind of interdependence based on division of labor. It has a tendency to become vertical or hierarchical, and the archetype is the colonial empire with its "mother country".

3. Associational regions - this is a region defined by some kind of identification based on similarity, by affinity. It has a tendency to become horizontal or egalitarian and the archetype is the international organization as it is commonly known today.

The second typology is based on functions: what does this regional association do? The commonly found division in military, economic, political and cultural cooperation is sufficient for our purpose here. Of course, there are many subdivisions. In the field of military cooperation there is a distinction between a collective security system and an alliance with standing forces; in the field of economic cooperation there is a distinction between a free trade area and a common market; in the field of political cooperation a distinction between shared foreign policy and shared domestic policy; and in the field of cultural cooperation a distinction between cultural exchange and cultural cooperation. All distinctions or pairs have to do with degree of permanence and institution-building: a permanent alliance, a common market, coordination of domestic policy and cultural cooperation require more in terms of supranational institution-building. Hence, this is actually a third dimension of the typology: how much is required in terms of new institutions, secretariats, international civil servants etc.

Method. Since we usually assume that these regional associations comprise more than two nations the methods used are

essentially the same as for world no. 25, the Convention world. A regional association can usually be seen as an institution spun around a network of multilateral conventions, and much bilateral and multilateral diplomacy are needed to arrive at a regional association.

Theory. There are many theories why this arrangement is peace productive, and they can be divided into two categories. First come the theories that locate the peace-productive effects inside the association itself, then the theories that locate them in the relation between the association and the rest of the world. As to the former the basic element is the contagion effect; contagion in space and contagion in time. Thus, if the regional association unifies old enemies (France and Germany in the EEC being the best known example), then the association is supposed to serve as an example in appeasement of old enemies, an example that may possible spread, to other regions. If they have been able to do it, why not also we?

Then there are all the training arguments, the arguments that see the regional association as a first step towards more advanced forms of integration. The region is seen as an example in superstate formation, or in the formation of universal intergovernmental association, providing the citizens with attitudinal training for supranational decision-making and loyalties, and providing functionaries etc. with training in cooperation. Structures are created that may later on be extended or copied; attitudes are formed, that may later on, by the principle of concentric circles, be widened and deepened. But characteristic of all these theories is the basic idea that the regional federation or association as such is not productive in any direct way, only indirectly as the first step towards more peace productive forms. However, there are also theories that maintain that the regional association is peace productive in and by itself. Thus, the balance of power world (no. 18) is based on the idea of regional association of the military type, usually hierarchical rather than egalitarian, since they tend to be grouped around a big power (thus, it is an organization rather than an association).

But there are also other examples. For instance, by means of regional associations nation states may be extended so that the political system coincides better with new economic systems brought about by widening circles of interdependence, and with new social systems brought about by widening circles of identification. As long as these three systems, political, economic and social do not coincide, it may be argued, there will be different types of conflicts: people will feel that other nations penetrate into their own and they will identify outside their own nation. The conflicts deriving from this may even take violence forms, and may through escalation lead to bigger conflicts. Hence, the regional association is a way of putting the region in order, a way of contributing to peace in the world by pacifying at least a part of it.

The argument against this is, of course, that it all depends on the extent to which a regional association also creates a front

against the rest of the world or parts of it. The rest will probably be divided into non-members and anti-members, and the relation to the anti-members becomes a critical element. To them the regional association may appear as a provocation, and create and reinforce new enemies, not only appease old enemies. The tendency will be for regional associations to build around enemies that are so old as enemies that the enmity has more or less disappeared anyhow, and to be built around a shared fear of new enemies. And this is probably a fortiori true the more extended the scope of the regional association.

31. The IGO world

Types. This is the associative counterpart of the regional association and is essentially a world association. Today it is found in a high number of international governmental associations that are almost universal, if not in practice, at least in principle. Many typologies can be made, and the typologies developed for the regional associations can all be applied. Particularly important is the difference between vertical and horizontal integration: to what extent is the IGO dominated by one or a few nations, and to what extent is it truly egalitarian? The structural basis for hierarchical IGOs is, of course, above all the extreme dissimilarity between nations in the world, so that if inputs into the should be equal, then they would have to be equal to what the smallest nation can afford and the IGO would probably never get off the ground, and if the inputs shall be proportionate, then differences between nations are easily reflected in differences in location of secretariat, of nationality and allegiance of the staff in the secretariat, of dues paid to the organization, etc. This would give an important lever for the exercise of power.

Methods. The methods here are sufficiently similar to the methods in connection with regional association, with one major exception. Since one cannot draw on the motivation to create a regional association against something the challenge has to come from something else. One such challenge will be a war that is just over and the pledge never to let it happen again; another challenge the threat of a war that may come and an effort to forestall it. But in the first case the war must be sufficiently far away to permit the reintegration of defeated enemies, and in the latter case sufficiently far into the future so that the polarization is not yet enough developed to prevent the formulation of anything that can be referred to as universal. In other words, the motivation for a universal organization will often be located in the past and in the future, and even in the not-too-close past and future, and not have the immediacy dictated by a crisis in the present. Of course, there may be functional needs in the present, and if they are sudden, then the sense of urgency may be the same. Nevertheless, in general there seem to be few forces or factors in the world that so easily lead to integration and unification as a sudden military threat, and the latter does not lead to universal integration.

But it is clear that one IGO can beget another, simply by vir-

tue of imitation from one functional field to another. This contagion effect is nothing mystical: it is just an expression of how a model is copied by the same nations that look for a way of duplicating in one field what they know to be successful in another.

Theory. The theories as to why universal associations are peace productive are not so different from the corresponding theories for regional associations. Thus, for regional associations there was the idea of imitation from one domain to another: "if they have done so why cannot we do it, and why should it not be possible for all of us to do it?" Similarly, for universal associations there is the idea of imitation from one function to another: "if this works in field X why not also in field Y" Thus a chain effect may be started with sufficient carry-over effect to roll up the whole world in a network of IGOs, one for each possible function, and even combination of functions, that can be imagined.

But this explains growth rather than peace. The peace theory in this connection is based on interdependence: the idea that peace pays, that the nations can derive so much benefit from their membership that they will refrain from engaging in the type of action that may disrupt the IGO; belligerent activities being one important case. This can, of course, also be obtained by means of the other peace-world models where interdependence enters, but perhaps less easily so since the IGO framework makes up for a very high number of bilateral relations.

Then there is another theory based on the idea of transfer of authority. If an IGO derives legitimacy from the way in which it administers functional cooperation, then it is argued that this legitimacy will be like a reservoir from which authority may be drawn in case of a crisis. In other words, of the three compliance mechanisms mentioned in connection with the Superstate world below, it is not assumed that the IGO world will rank high on normative or coercive power, but on utilitarian power. More specifically, it is assumed that when and if a maximum of IGOs are integrated into a world authority system that may still be high on national autonomy then there will be a transfer of legitimacy earned by the functional organizations to the organization that has a more direct concern with peace-making. This, of course, is one of the many models underlying the concept of the UN which is also an IGO.

B. LOW LEVEL OF NATIONAL AUTONOMY

We now turn to the models where the nation-states have disappeared, or at least nearly so. Again, there is one regional version, here referred to as the superstate, and one universal version, referred to as the world state.

31. The Superstate world.

Types. As to typology it seems obvious that the typology used for the high autonomy models cannot be used. Thus, in the superstate the member nations have disappeared so one cannot make any distinction between vertical or horizontal types of integration. Moreover, even though regional associations do not presuppose contiguity, state-formation still seems to do so, even in the rapidly shrinking world in which we live today. Thus, the superstate will have to grow out of a regional association that is based on territorial integration, whether the integration also is horizontal or vertical. In the latter case the method is usually simple conquest, where the conquered territory may or may not be absorbed completely into the conqueror.

And as to functions a state, even a superstate, will usually be assumed to take care of all these functions one way or another; since there are no longer subunits with a relatively high level of autonomy there would nowhere else be a unit that could handle the functions not taken care of by the superstate. And this means that there, is less basis for a typology: a superstate is a big state, brought about through the unification of smaller states.

But qua state something can be said about it of particular importance in connection with peace theory. There is always the problem of how the state makes people comply, and three general answers seem to be available: by normative or ideological means, by coercive or legalistic means and by utilitarian or structural means. All this also applies to the regional association but less so: less is required of the members because of the limited scope and high autonomy. In the superstate much more is required and the problem of compliance is crucial for the type of impact superstate formation may have on peace and war problems.

The three major mechanisms can be spelt out in some detail as follows.

First, the normative approach. By means of common ideology, common religion, common language, common culture and in general common symbols a basis for communication and mutual predictability is laid, but also a basis for division since there will be a consensus as to what constitutes a basis for division. Thus, the importance of a forum where ideological differences can be expressed and a market where they can be put to a vote - all within a common framework of consensus.

Second, the coercive approach. We have combined it with the legalistic since they have much in common: coercion without the

predictability supplied by means of law is terror, and law without the coercion supplied by means of sanctions is ideology. There seem to be seven steps in what one may call the legalistic paradigm: the formulation of laws; the ratification of laws by an appropriate body; the use of the laws as a standard so as to register behavior as "right" "indifferent" or "wrong"; the adjudication in case the conclusion is "wrong", the conviction in case this conclusion is verified: the sentence and administration of sanctions; and finally the validation of the whole procedure by an appropriate body such as a Supreme Court.

Third, there is the utilitarian approach: to make individuals comply, simply because it pays for them to comply, by virtue of the implicit contract set up with the state. This can be done by means of the welfare state principle: from individuals according to ability, to individuals according to needs, whereby individuals may be taxed (according to how much they have) and the resources collected be redistributed (according to objective needs). But the point about this utilitarian approach is not so much the tie constructed between state and citizens by virtue of welfare state principles as how this tie can be used in times of crisis. The idea would be that a well-functioning utilitarian relationship becomes like a reservoir that can be drawn upon to exercise legitimate authority, without much resort to coercion, as argued in connection with world no. 31 above.

Method. Since formation of superstates is a very rare phenomenon (more frequent is the disintegration of states) it is difficult to make any extensive typology of methods whereby this is brought about. Conquest has been mentioned; another method would be unification in situations of extreme external peril or internal crisis. At any rate, a superstate is hardly ever formed through the meticulous work of institutionalized diplomacy, but through the brilliance of particular peoples or statesmen. It is a discontinuous element in a long process, not like the formation of an association which can rather be regarded as the crowning achievement in a long succession of diplomatic events.

Theory. Just as the theories concerning regional associations would see the regional association as a first step towards either the IGO world or the superstate world, theories about the peaceful effects of the superstate world would see the superstate world as the first step towards the world state or world government. Mutatis mutandis, the same arguments would be used but with one difference: the superstate would not be seen as a preparation for further limitation of autonomy since the autonomy is already at a minimum, but for further extension of the domain. In other words, the superstate will be seen as a preparation for a universal state.

But there would also be an additional argument, discriminating between the regional association and the superstate. The argument would be that since the regional association also can be vertical the potential for internal unrest and violent conflict is much higher than in a presumably more well-integrated or more easily controlled superstate. This means that there is less danger of escalation from local conflict if regionalization is based on state-

formation rather than on associations. But then the superstate may be vertical in its integration of provinces, or classes, or other subunits - so this difference may turn out to be rather academic. The objections to the theories about the peace-building effects of the regional associations are, of course, a fortiori valid in connection with the superstate. It is argued that a world of superstates will be a world where more wars are located between states than within states. - But this is not at all true for the world, of today, most wars are inter-national wars, and this may be just as true or even more true in a world of superstates where even more differences and cleavages would be built into the states, and even be provoked by efforts to build superstates prematurely. But even if it were true, it is difficult to see that this would help much: ceteris paribus, the bigger the state the bigger the war. The net result might be fewer wars but also much more devastating wars.

33. The World state.

Types. Of course, there are many models here depending on how complete the eradication of the member nations has been. Thus, the world federation can be seen as an extension of the present system of interlocking functional and universal organizations, or as an extension of the regional superstate. This means that the typologies developed in connection with the superstate are still valid. It is equally interesting to know how the world state legitimized its claims for compliance from the individual members. And that brings us straight to methods.

Method. In general there seem to be three ways of thinking with regard to how a world state may eventually be brought about. The three do not exclude each other, but it is nevertheless useful to deal with them singly rather than combined. First, there is the method based on normative compliance: to spread an ideology of universal brotherhood, religion-based or not, and use this as foundation for a world state. Second, there is the idea of building a coercive machinery, based on the legalist model mentioned in connection with the preceding model, the Superstate world. Special attention is usually paid to the problem of suitable extension of the present machinery for peace-keeping under the United Nations to a universal force capable of counteracting effectively any possible threat.

Third, there is the idea of building a world government around utilitarian compliance by gradual extension of the services offered by IGOs to a point where the peoples of the world receive so high a share of their need-satisfaction from universal (re)sources that the final step can be made.

As mentioned, the ideologist, legalist and functional approaches do not exclude each other but can be very meaningfully combined into a more molecular theory of world state building.

Theory. In a world state politics would be Weltinnenpolitik, and conflicts would be domestic conflicts. By itself this does not

mean that much has been gained. One will have to give reasons why domestic systems should be more peaceful than international systems. Today's world does not make this a trivial proposition, to say the least. Hence the idea must be that one somehow feels and hopes that a world state could be similar to the domestically peaceful nation-states - such as the Scandinavian welfare states that are generally used as examples in this connection.

But these states have a type of internal homogeneity that a world state would never have, at least not in the foreseeable future. Hence, much more theory is needed for the world state must somehow be supposed to function better than, for instance India, China and Brazil today - unless one says that the level of internal unrest in these countries is acceptable. And few would accept these levels as compatible with any reasonable idea of peace.

C. OTHER GROUPINGS

We now leave the field of nations and return to the idea developed in 3,1, the idea that individuals can be organized at the international level in other units than nations. This was also developed in worlds nos. 28 and 29, the INGO world and the Mixed world, and we shall now develop the topic further, but one level higher up, so to speak.

The general idea is that what we did for nations in the preceding worlds, nos. 30 - 33 - in other words, integrating them in different ways - can also be done for INGOs. INGOs are then conceived of as associations basically of two types: as associations of people having the same status (workers, students, young people, women, Negroes) and as associations of people having the same value-orientation. INGOs may be joined to form super-INGOs and we now turn our attention to them.

34. The Super-INGO world

Types. The typology of super-INGOs can of course be based on the types of INGOs, but we prefer a typology that is more sui generis. The problem is: how was the super-INGO formed, and one simple typology would be to use the four types developed for the integration of nations. Thus, one would ask in terms of domain and scope: are all INGOs included, or only some INGOs, and do the constituent INGOs have high or low autonomy, i.e. does the super-structure handle relatively little or relatively much of the total scope to be handled? This yields four types of super-INGOs.

Obviously, the problem of domain in connection with super-INGOs is usually defined in terms of functions. A super-INGO such as the International Social Science Council may for some purposes integrate the affairs of international social science associations. Another super-INGO, a United World Proletariat, might coordinate the activities of all kinds of underdog unions. And so on, there is in principle no limit. Just as nations may restrict membership to regions, INGOs may restrict membership to some kind of functional region. And this integration may leave more or less autonomy to the separate INGOs, for instance in terms of whether they shall have separate secretariats or not. At one extreme would be a number of super-INGOs coordinating functionally similar INGOs in a relatively loose way; at the other extreme one universal Super-INGO for all possible purposes, with the secretariat. It is easily seen that this is less meaningful than for nations: nations are built around a territory and the world territory is limited, whereas INGOs are built around functions and their number is legion, or unlimited.

Method. The way of creating super-INGOs out of INGOs would obviously have many parallels to the ways of creating unions and associations out of nations. Thus, some kind of diplomatic machinery will have to be used, but that at once raises the problem that this machinery is relatively weak. Nations have a pattern of bilateral diplomacy, INGOs will have to create the same. And this is in fact

starting: the bigger INGOs already have a pattern of exchange of council members, even of members of the executive board; and they will probably relatively soon start with residential diplomacy whereby there will be a representative of INGO X working in the secretariat of INGO Y. Correspondingly one could imagine multilateral diplomacy starting with ad hoc conferences between related INGOs, and then gradually institutionalizing such conferences. The result then, would obviously become a super-INGO.

Theory. The theory would essentially be just the same as for corresponding efforts for nations; mutatis mutandis. These would be ways of avoiding the crystallization of INGOs as now conflict groups, directed against each other. By means of integration channels of communication are established, grievances can be discovered at an early stage and something can be done about them, the multilateral patterns of exchange established by means of super-INGOs give more possibilities for creative conflict resolutions and so on.

35. The Mixed world.

Types. This mixed world has many characteristics in common with world no. 29, but again at one level higher up. Thus, we assume that the INGOs have been structured into super-INGOs that may or may not overlap - for just as nations may participate in more than one INGO, regionally or universally defined, INGOs may be members in more than one super-INGO. This means that the basic question is what super-INGOs are mixed with, and the logical answer would obviously be in terms of super-nations, i.e. with any one of the formulas developed in worlds nos. 30 - 33. Thus, one has essentially four formulas for the integration of INGOs and four formulas for the integration of nations, yielding a total of sixteen combinations that do not all exclude each other.

Method. Essentially, this is a question of working on two fronts simultaneously: both integrating nations to sew them better together, and integrating INGOs for the same purpose. But this only leads to the coexistence of two systems or structures, two ways of organizing humanity so to speak. What about the relation between them? Here all kinds of formulas could be imagined. Thus, a union of nations, of any of the four kinds, may have a decision-making body with two chambers, one made up of representatives from member nations and the other of representatives of super-INGOs - since direct INGO representation would lead to too high numbers too quickly. And one could also imagine, at the world level a forum of IGOs meeting a forum of super-INGOs, thus giving humanity a double chance of deciding over itself, by virtue both of its geographical and social belongingness.

Theory. Why should this structure be particularly peace productive? The arguments would run more or less as follows. First of all, with this double structure, which could be amplified, by combining IGOs and super-INGOs into mixed organizations, and then using them as building blocs, the total amount of criss-cross and of

multilateralism is considerable. Thus there will be relatively few clear alignments and very many possibilities of solving conflicts through all kinds of multilateral deals and institutionalized, conflict resolution.

Second, this double structure would be more responsive to changing needs. In a world with rapidly developing communication world interaction will be handled more and more by non-territorial actors since territorial integration will lose more and more of its significance as distances become less and less important. But this trend may be reversed, not in the sense that innovations may be undone, but in the sense that there may be social changes, crises and polarization cutting down communication, which is absolutely essential for true INGOs, not to mention super-INGOs, to exist and grow. This would throw the world back on the national basis again, and the IGOs may then be good to have to cushion the effect. However, to analyze in a more satisfactory way the nature of a world as complicated as this more concepts are needed and an effort in that direction will be made in chapter 5.

4.3. Some basic assumptions in peace thinking.

Thirty-five models of peace have now been presented, and the thesis from the introduction, that peace thinking as a total tends to be confused, vague and contradictory, has probably been confirmed. By this we do not mean that the peace thinking of any single author is necessarily confused, only that the total field leaves much to be desired. It may be objected that this is due to the way we have been cutting up the totality of peace thinking, presenting it in such a fragmented manner that nothing will look coherent. But this is exactly the point: it is possible today to pick out from the totality of peace thinking all these elements or atoms as we have called them and they look, at least superficially, rather contradictory.

We shall now try and have a closer look at them. They are thirty-five in number, a number that no doubt could have been increased considerably. This manifold of peace thinking has been structured by slicing it two ways. It could also have been systematized, in other ways, but we feel that the two axes we have used are sufficiently basic to yield relatively fruitful distinctions, even though these two axes only subdivide the 35 into five major groups. The axes are like principles used to orient oneself in a foreign city, located on hills. The first one is like a river dividing the city in two, the second like a division into the higher, middle and lower ranges of the city - provided the city is climbing hills on either side of the river. In short, the principles serve the purpose of orienting oneself, well knowing that the views and conclusions might be different had other axes been chosen.

We have commented, relatively extensively on the tripartite distinction between subnational, international and supranational peace thinking before, and turn now again to the dissociative-associative axis since it seems to be even more fundamental. In the preceding section the peace models have been presented in pairs (apart from the subnational models) and we have argued within each pair, positing the dissociative and the associative models against each other. This dialectical form of presentation has its advantages in facilitating argumentation pro et contra but also its disadvantages: it leaves out the kind of perspective on peace thinking that derives from looking at the peaceful worlds vertically. We shall now do this, leaving out the subnational peace models as less interesting in this connection.

The first striking factor is how strongly the dissociative models are connected and how strongly the associative models are connected. By this we mean two different things. First of all, the tendency to favor dissociative models, or to favor associative models, seems to be generalizable and so much so that people probably to some extent can be divided into "dissociationists" and "associationists". We do not have data for this, as yet, so this is a hunch, an hypothesis, but we think a reasonable one. The models in one column meet and coexist in some minds, those in another column in other minds.

But the second interpretation is more significant: the dissociative models seems to support each other, and so do the associative models. A dissociative world, a real molecule in peace theory would look as follows:

few nations, each of them homogeneous and different from the others, dissimilar in as many respects as possible, with very little interaction between them, even some negative interaction, dominated by big powers, divided, into rich and poor nations, kept in "stability" by means of balance of power, with the means of power under control, with some preparation for negative non-violence, with ample use of bilateral treaties, and negative sanctions, and with close and similar nations forming regional associations and even superstates.

Contrast this with the corresponding molecule for the truly associative world:

many nations, all of them heterogeneous, but similar to each other in their heterogeneity, as interdependent as possible, with positive interaction in all directions, with little rank-concordance and also little rank-dependence, with a power monopoly extended all over the system, with progress towards disarmament, with preparation for positive non-violence, all of this spun together by means of multilateral treaties, efforts to use positive sanctions, to crystallize the conventions into universal IGOs, and with steps towards the formation of a world state.

We have left out the peace models based on "other groupings" (nos 28, 29, 34 and 35) since they do not quite belong in this connection. There is a world of difference between these two conceptions of the world, and this difference is very often referred to making a distinction between "realist" (i.e. dissociative) and "idealist" (i.e. associative) peace thinking. The two schools are systems of thinking, for both in thinking and in fact do the diverse elements within each camp support each other. Thus, it is obvious that polarization works best when there is homogeneity within and heterogeneity between dissimilarity and little interdependence, use of negative non-violence and sanctions but above all balance of power strategies (although under control, otherwise it would not be a peace model); and regional associations and superstates are nothing but ways of crystallizing all these relations further. The basic idea is a world consisting of "we" and "they", whether this is given an international or supernational organizational expression. And similarly for the associative models: they support each other since they are all built around a theme of unity, around breakdown of sharp borderlines and a system of either disarmament, or power monopoly, the latter either under one big nation or under some IGO or world state. There may still be nations in an associative world but there is so much mutual interpenetration that the borders become thoroughly porous.

What can one say, what is more correct, the realist or idealist conception of the peaceful world? We shall start answering by noticing that the question is wrong: it has been given a much too

general formulation. Thus, the problem is not what is correct or valid, but under which conditions is one of the peace strategies likely to be more correct than the other? In other words, there are unspecified assumptions about the general state of the world that should be made as explicit possible to understand better how these two conceptions of the peaceful world relate to each other.

These conditions should be stated in terms of other factors already included in the peace models. And the basic factor underlying the distinction between dissociative and associative models seems to be the extension of the various systems in which a social actor is located. To put it simply:

Table 4.3.1. Factors favoring dissociative or associative peace models

| | <u>Favoring dissociative models</u> | <u>Favoring associative models</u> |
|--|-------------------------------------|------------------------------------|
| <u>transportation system</u> | slow, low capacity | quick, high capacity |
| <u>communication system</u> | slow, low capacity | quick, high capacity |
| interdependence (technical-economic system) | limited | extensive |
| <u>identification (Socio-cultural System)</u> | limited | extensive |

The terms inside the Table are not very helpful, but nevertheless meaningful if they are read vertically.

Thus, it is asserted here that in a world with slow and inefficient means of transportation and communication, with a low degree of interdependence and with identification patterns that stop at the border the stage is set, so to speak, for dissociative peace models. Both from an attitudinal point of view and from the point of view of structure will the dissociative models fall most easily. To impose associative models on a world of this kind would be unrealistic, or "idealistic" if one prefers that expression, for there is little or no structural basis for doing so.

Correspondingly, to keep a world which corresponds best to the second part of the Table in a network of dissociative peace models is to keep it in a strait-jacket. The dissociative models do not correspond to the reality of the situation: transportation, communication, interdependence and identification bring nations and peoples so close to each other that the structures brought about by polarization will be utterly artificial, and relatively soon meet

with counteraction tendencies. In a world low on all these factors polarization is already built into the structures in a world high on them depolarization is similarly built into the structure. Hence the thesis is simply that there is a structural basis that favors associative peace making, and that efforts to build peace by means of peace models that do not correspond at all to the structural basis are doomed to fail. From this one should draw four conclusions.

First, that time is working in favor of associative models, since means of transportation/communication constantly change and become quicker and more efficient. This, in turn, facilitates economic penetration so that economic systems extend far beyond the borders of the nation-state from which they emerge, mix and blend with each other and form a highly complicated interlocking network - often referred to as le defi. Of course, there can be setbacks in this development, but by and large it seems reasonable to assume that associative peace models will gain and dissociative peace models lose in significance as time passes on.

Second, and this is closely related to the first point: time has come further in some parts of the world than in others, making associative peace models more adequate in some parts of the world, than in other parts. Although coexisting in chronological time, social time makes some regions more and others less ripe for extensive application of associative peace-making - for instance the developed, region stretching around the world from the Bering strait to the Bering strait. Again, there will be ups and downs, but in general terms it seems safe to predict that this will be the development. That means, however, that a part of the world becomes pacified, much like what has happened in the interior of many nations, long before other parts arid also long before the relation between that part of the world and the other parts has been liberated from its dependence on dissociative peace models. This will create highly problematic situations and probably increase rather than decrease the hegemony of the rich part of the world over the poor, since the associative peace strategies are not only more economical but also more constructive and positive in the sense of stimulating cooperation etc.; simply because they are cooperation.

Third, increased speed and efficiency for transportation and communication also means increased action radius for weapons carriers. This makes for a particularly difficult combination to handle. A heavily polarized world with long-range weapons (like ICBM) is a world that facilitates push-button warfare since the enemy is purified by the process of polarization, he is not mixed up with one's friends. Less effective weaponry would only lead to border skirmishes and mutual invasions, but modern weaponry makes war from heartland to heartland possible. The idea behind associative peacemaking, then, is the idea of eliminating the conditions under which such weapons are more likely to be used and introduce conditions (all the associative strategies) under which they are considerably less likely to be used. Since modern weapons are global, peace-building also has to be global so that each attack becomes an attack on oneself and hence something one would prefer to

abstain from.

Fourth, it should now be possible to make some guesses as to who are dissociationists and who are associationists. They would generally be people belonging to social orders that correspond to the first and the second column of Table 4.3.1 respectively. In other words, we would expect the dissociationists to belong more to early industrial society, perhaps also to traditional society, and the associationist to belong to late industrial and early post-industrial or neo-modern society. We are then thinking of their professional belongingness more than of their attitudes and travel experiences etc. Again, this is only a hunch, but a hypothesis which it might be worth while to explore further. It means that the adherents of the associationist policies will tend to be located, higher up in the tertiary sector and perhaps also in the secondary sector, whereas the primary sector will mainly recruit adherents to dissociative policies and more so the lower the position within that sector. For associational policies do not correspond to their life experience, their social condition - whereas it does for the people in the contrary position in society, the people high up in the tertiary sector.

And thus one could continue. There are probably structural conditions that could be said to favor subnational, international and supranational peace thinking also, and structures favoring any one of the thirteen pairs of international models and three pairs of the supranational models. Knowing more about such conditions one may also work them into prediction models for the international system to study how they may change the odds in key countries for or against a peace plan. But all this requires a firmer type of thinking than we have provided so far, so we prefer to leave the topic at this point and turn to a type of conceptualization that in our mind enables one to unravel more clearly the structure of peace thinking and to lay the assumptions more bare.

5. ENTROPY AND THE GENERAL THEORY OF PEACE

5.1. Introduction.

Any systematic search for theories of peace is bound to uncover a high number of rather contradictory looking ideas, and one effort to systematize such ideas in 35 main classes of peace thinking is found in this work. The idea behind this chapter is to use this typology of peace thinking as a basis for some further explorations by asking: is there any key, any common concept that seems to play a basic role in the thinking about peace - and how can this best be expressed?

At this point a caveat would seem appropriate: any idea about peace is bound to be a simplification, any one of only 35 types even more so, and when the ambition is to try to express peace theory by means of one basic concept the reader has a right to be more than skeptical. Is it at all possible to say anything meaningful about the conditions of peace using only one variable? For instance, in the sense that the higher the value of that variable, the higher the likelihood of peace in the system?

We hope to show that the answer to this question is partly affirmative. By this we do not mean that everything ever said and thought about peace can be put meaningfully under one conceptual umbrella, but that there is one overriding idea that has sufficient conceptual richness and flexibility to cover much or even most of what today looks as the most viable type of thinking in the field. Needless to say, this use of sweeping concepts of that kind will carry with it certain simplifications. But this is in the nature of all science: one has to abstract from the confusing reality until a pattern emerges, then one has to catch this pattern in a verbal and/or mathematical formula so that one can operate with this pattern alone, detached from reality, until new ideas about reality emerge; ideas that can then be tested with empirical data or at least compared with other propositions in the field.

5.2. The concept of entropy.

The concept or idea that will be used here is the idea of entropy. As tentative synonyms expressions like "degree of disorder in the System"¹, "uncertainty of knowledge"², "distributions with maximum unpredictability" could be used, but it should be noted that these expressions only stand for thigh entropy "Low entropy", then, would be approximately expressed by means of such terms as "degree of order in the system", "structure", "distribution with maximum predictability", "certainty of knowledge", etc. For entropy is a variable that can be used to characterize systems, or more particularly the distributions of properties in a system.

The system has high entropy if the distribution is of such a kind that it permits low predictability of the property for any

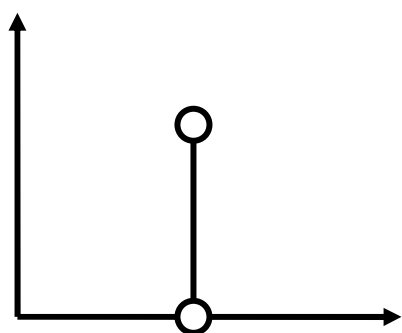
given element; low if the predictability is high. Example: the molecules of the air in a room have among other properties the properties of position and momentum. If they are all in one point, in one corner of the room, predictability, order etc. are at a maximum and entropy, hence, at a minimum; if they are all evenly dispersed on the positional coordinates (often referred to as a "random distribution") so that for any given molecule there is an equal probability of any position in the room, then predictability, order etc. are at a minimum and entropy, hence, at a maximum. Incidentally, in the latter case the "energy of a system has ceased to be available energy".³

In information theory this is utilized, as is well known, and entropy is there known under the name of "information".⁴ Two distributions stand out as the extremes:

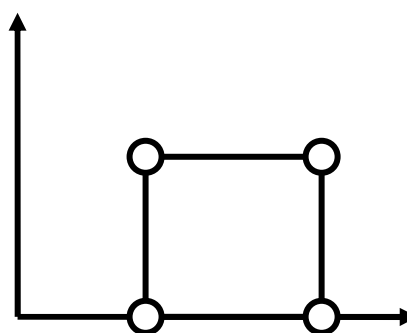
Table 5.1. The extreme types of distributions.

*Minimum entropy =
Minimum uncertainty =
Minimum information*

*Maximum entropy =
maximum uncertainty =
maximum information*



The point distribution



The uniform distribution

The horizontal axis here represents the property variable. The unit be a signal (and the property whether it is line or dot, green or red, lit or non-lit, etc.). The vertical axis is the frequency of occurrence. The variable can, of course, have more than two values - for instance 26 for number of letters in the alphabet - and it may be ordinal scale or interval scale or have any structure for that matter. In information theory a very simple formula is used to express the degree of order or predictability in the distribution:

Information:
$$H = \sum_{i=1}^R P_i \log_2 P_i$$

where r is the number of points on the horizontal axis and p_i relative frequency in point i . This is, essentially, a measure of entropy and similar to the formula found in thermodynamics. It is zero for the point distribution and maximum ($\log_2 r$) for the uniform distribution. However, we are not convinced that one will have to accept this formula. It is the concept of disorder and messiness

etc. we want to exploit; another matter is how this can be most adequately expressed mathematically and even though this formula may prove to be a wise choice it may also be that future research will lead in other directions.⁵

Another example, slightly more complicated and more relevant to peace theory: Imagine that the horizontal axis stands for degree of guilt or vice, from minimum, zero, to a maximum here interpreted as total. The units to be distributed are obviously the parties to a conflict, for instance two nations A and B; but the idea can also be applied to more complex systems with m parties or actors. Guilt-distribution in a conflict can now be expressed pictorially as a distribution using these elements, and the two distributions singled out for special attention in this context are highly meaningful. In the minimum entropy distribution there would be an equal distribution of guilt, the parties are seen as essentially symmetric, neither is worse or better than the other - but are, for instance, components in a badly functioning system. In the maximum entropy distribution one would have the standard distribution of guilt usually carried out by parties to a conflict with all guilt on one party and none to the other. The magnitude of the guilt attributed is expressed by the location on the horizontal axis, so that the distribution can mirror adequately a great variety of perceptions. Thus, a perception can be evaluated in terms of the total amount of guilt distributed, reflecting different levels of guilt-orientation; and in terms of entropy in the distribution. Some people may be very low on guilt-orientation and, for instance, focus more on the distribution of certificates of virtue - but the two basic distribution models would still be applicable.

We have used this example to make one point: the distributions of minimum and maximum entropy are, conceptually speaking, the easiest distributions to handle. If the model of black-white is rejected, then the fifty-fifty model is often the next to come up for discussion. In the fields of international studies and peace research these two distributions are well known: they may be said to represent pictorially the classical tradition in international studies where the world is often described in nation-centric terms (from the point of view of one's own nation, that is); as against the peace researcher's plea for a more symmetric description. The second model is somewhat, but not much, more sophisticated, since it also represents one of the simplest gestalts possible. The model lays peace research open to the accusation that it has a built-in symmetry in its way of dealing with any pairs of parties to a conflict, regardless of whether the conflict is between David and Goliath or between two Davids or between two Goliaths.

Thus, the human mind is probably attracted by these two extremes, and this should serve as a kind of warning against over-acceptance of them just because they represent gestalts that are easily handled conceptually. In the case above, for instance, one would like to have more objective principles for the distribution of guilt than the mechanical use of the distributions with minimum or with maximum entropy respectively.

5.3. Actor entropy and interaction entropy.

What, then, does this have to do with the peace models, the peaceful worlds? To explore this, the peace models have to be put on a form where they are expressed as distributions. A distribution presupposes units to distribute as well as something to distribute them on, and we shall see that a very high number of peace models can be expressed simply by means of two types of distributions:

Actor entropy: based on the distribution of actors on positions

Interaction entropy: based on the distribution of links on pairs of actors

From the point of view of social science these two distributions are as fundamental as anything can be. A social structure consists of positions, but it gains meaning only when the distribution of actors is known. Thus, if the system has two positions, "high class" and "low class", then it makes a lot of difference whether the distribution has low entropy (5% in the high position, 95% in the low) or high entropy (45% in the high position, 55% in the low). But a social structure gains life only when there is also interaction between the actors. We shall, usually, refer to interaction between two actors as a link, and the question is how these links are distributed.

Thus, in a system high on actor entropy and high on interaction entropy actors are distributed fairly evenly on the positions and the links fairly evenly between them, whereas a systems low on both kinds of entropy would be a system where the actors tend to pile up in one or a few positions and the links to concentrate on a few pairs of actors. The system can also be high on one kind of entropy and low on the other: all combinations are possible. Thus, one system high on actor entropy and low on interaction entropy is what we in another context have called a mixed system; whereas a system low on actor entropy and high on interaction entropy is what in that context is referred to as a class system.

In this connection one should also mention a very simple distribution variable that is not covered by the concept of entropy: the number, m , of actors (say, nations); and the number, n , of links. If the number of nations increases we have argued above that the likelihood of peace will also, ceteris paribus, increase, but since the number is not a distribution property, only a property of the set of units to be distributed, this is not captured by the entropy concept. And the same applies to the number of links: if the number increases between the same actors, the interaction relation becomes less specific, more "diffuse" as the sociologist would say; and the result is probably also in general peace productive. However this is not captured by the entropy formula either, and for the same reason.

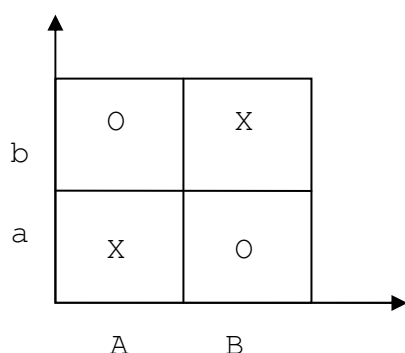
5.4 Entropy and peace thinking.

We shall now put these ideas to a test by checking to what extent they render in an adequate way the basic ideas behind types of peace thinking presented in the typology (see Appendix 1). This requires a transformation of verbal prose to the language of distributions, and we shall see that in most cases this comes rather easily. We shall, however, limit ourselves to a consideration of the inter-nation and supranational peace models since the subnational models are of less interest in this connection. And, as mentioned above, we also have to skip the numerical models (nos. 4 and 5). But from then on most of the ideas receive a relatively clear translation in terms of actor or interaction entropy.

a. Homogeneity vs. heterogeneity. Imagine that we have two nations, A and B and two groups of people (races, ethnic groups, etc.), a and b. In that case we would get:

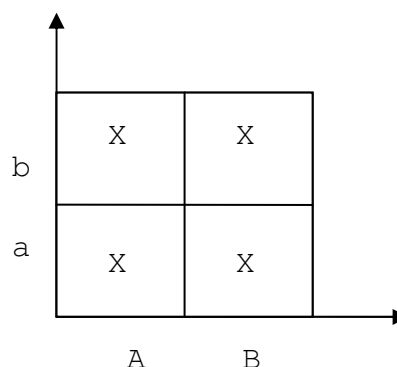
Table 5.4.1. Homogeneity vs. heterogeneity as distributions.

Low entropy distribution



The homogeneous nations world

High entropy distribution



The heterogeneous nations world

In the first case all people of type a live in nation A and all people of type b in nation B - the "0" stand for an empty combination and the "X" for a combination where units are found empirically. In the second case there are units, people, in all four combinations; both types are found in both nations. What we here refer to as a "combination" is called a "position" in the general definition of actor entropy above, and the actor is in this case a person, an individual. However, the model is international since it affects in a very direct way relations between nations, between A and B in our case.

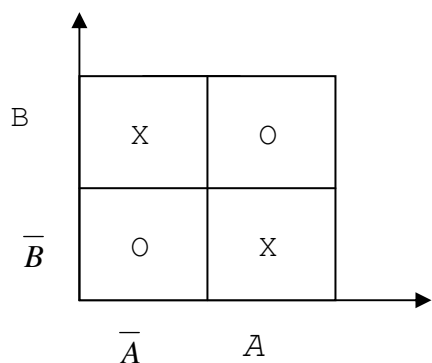
We have used the terms "low" and "high" and not "minimum" or "maximum", for the simple reason that these two expressions stand for distributions that are less interesting. We would obtain minimum entropy if all individuals were concentrated in one cell; for in-

stance if all were of type a living in nation A. But in that case there would no longer be an international system. Correspondingly we would get maximum entropy if there were equally many in all four combinations. This is not uninteresting, and there are good reasons to believe that such a system would be particularly stable under some conditions. But as a political goal or doctrine it sounds strange. What one might ask for if one believes in heterogeneity would be a transition from lower to higher states of entropy, not from minimum to maximum. Thus interpreted, the idea is well rendered in this distribution language. But one could also avoid this difficulty simply by requiring that no nation or groups should be empty so that at least one diagonal has to be filled.

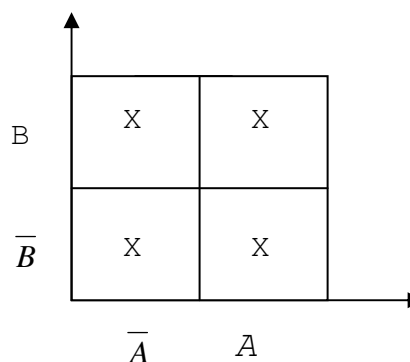
b. Undivided vs. divided loyalty. Heterogeneity is based on the idea of some kind of criss-cross, in that case between belongingness to a nation and belongingness to another group. If that other group is also a nation we arrive at the general problem of loyalty. If the two nations are A and B then let A and B stand for Loyalty to them and A* and B* for non-loyalty. (which does not mean the same as being treacherous) We get

Table 5.4.2. Loyalty expressed as distributions.

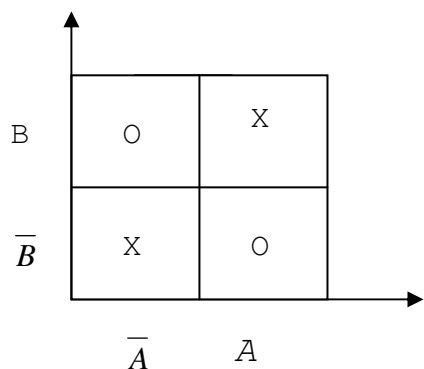
Low entropy distributions High entropy distributions



National loyalties



All types of loyalty



Cross national loyalties, trans-, supra-, and subnational loyalties

Again, the point is that the high entropy distribution is based on a mixture of all possible types; and the low entropy distributions only on a few. The classical model, with loyalty divided between nations so that each human being gives loyalty to one and only one nation is seen as one special case of a low entropy distribution. Another special case is the cross-national loyalty where an individual divides his loyalty between two nations; and the case where the individual gives loyalty to neither. Since we assume for each individual that there is a need for some kind of attachment, this can only mean that his loyalty has gone somewhere else, and there are three cases of particular importance:

I. subnational loyalty: the individual identifies with a group at a lower level than the nation, which means the national, non-governmental level

II. transnational loyalty: the individual identifies with a group which transcends the nation without standing above it, which means the international non-governmental level

III. supranational loyalty: the individual identifies with a group of nations, which means the inter-national governmental level, whether of the regional, functional or federal varieties.

The scheme given in the table above does not discriminate between these three types of loyalty, since it lumps together all loyalties that are non-national in their character.

The important point now is that the high entropy distributions presuppose the simultaneous presence of all four loyalty configurations. If only national identifications are present we are clearly back to a structure where loyalties can easily be released into belligerent action. But this is also the case, in a long term perspective, if the world were divided into people with cross-national loyalties on the one hand and people with sub-, trans- and supra-national loyalties on the other. For so much of the theory about the peace-building effect of such loyalties is based on the idea that the loyalties are building bridges between people with unmitigated national identification, so that there is a criss-cross effect. It is often forgotten that for a criss-cross effect to emerge there must be something to criss-cross between; there must be banks and not only bridges, otherwise the bridges may enter into conflicts between themselves. Cross-national loyalties are only meaningful as conflict-dampeners in a world of national loyalties; if there are no people with clear national loyalties then the cross-national people are simply people with some kind of double citizenship. And it is easily imagined how such people could be pitted against the denationalized types, whether they are of the sub-, trans- or supranational varieties. In other words, the entropy function focusses our attention on a point of considerable theoretical and

practical significance.

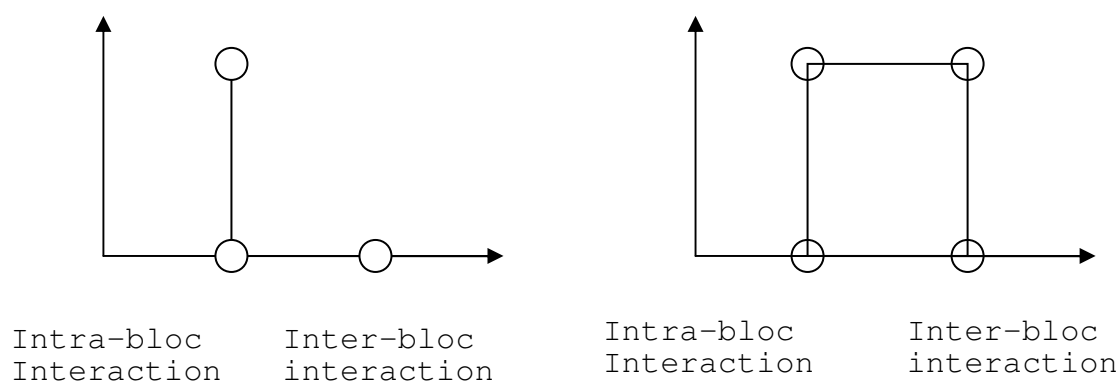
Then, what if the distribution is concentrated in one cell only, would this not lead to a particularly peaceful relationship? If all individuals had cross-national identifications, or all of them transnational identifications? No, because there is no assumption to the effect that only one type of cross-national etc. identification is possible; the people identifying with A&B may very well be at odds with the people identifying with C&D, etc. And those identifying with $INGO_1$ may have their difficulties with those identifying with $INGO_2$ after all - this was the structure of the religious wars pestering Europe for some centuries.

c. Interaction proliferation. The basic idea here is that positive interaction has a binding effect, provided it is distributed widely and not accumulating too much, at certain points in the structure. This is the idea underlying the similarity world (with the proposition that likeness leads to interaction), the maximum interdependence world and the depolarized world. In entropy terms it can be expressed as follows:

Imagine we have m actors which means $\binom{m}{2}$ pairs of actors, dyads, and n links to distribute, where the link is a unit of interaction. The argument is simply that the low entropy distributions, where the links would be concentrated on some pairs and absent from others do not cement the structure sufficiently whereas the high entropy distributions with a more even pattern do. The whole idea can be simplified into the most essential pattern if we use the theory of depolarization as follows:

Table 5.4.3. Degree of polarization as a distribution.

Low entropy distributions High entropy distributions



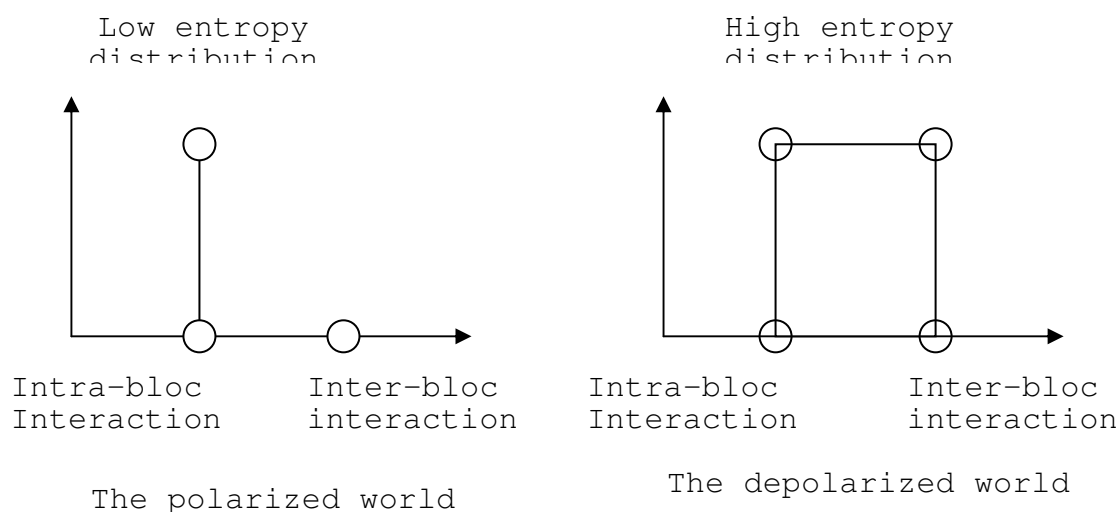
The Polarized world

The Depolarized world

Here we have assumed that the total system has a more or less constant number, n , of positive interaction links to distribute, whether the system is in the polarized or depolarized state (a more complete description would include the negative interaction links; they would be concentrated on inter-bloc interaction in the polarized state and more evenly in the depolarized state). Again, the focus is not necessarily on the extreme types of distribution, but on transitions from states of lower to states of higher entropy - which is precisely the transition we would refer to as depolarization, or "interaction proliferation" as we have called it above

d. Criss-cross between nations. This is another aspect of the idea of depolarization: that conflicts between nations are no longer aligned in the sense that the conflict groupings are the same from one conflict to the next. Thus, the positions in this connection are the combinations of positions taken in conflicts, and the actors are the national actors. We get:

Table 5.4.4. Degree of Criss-cross as a distribution



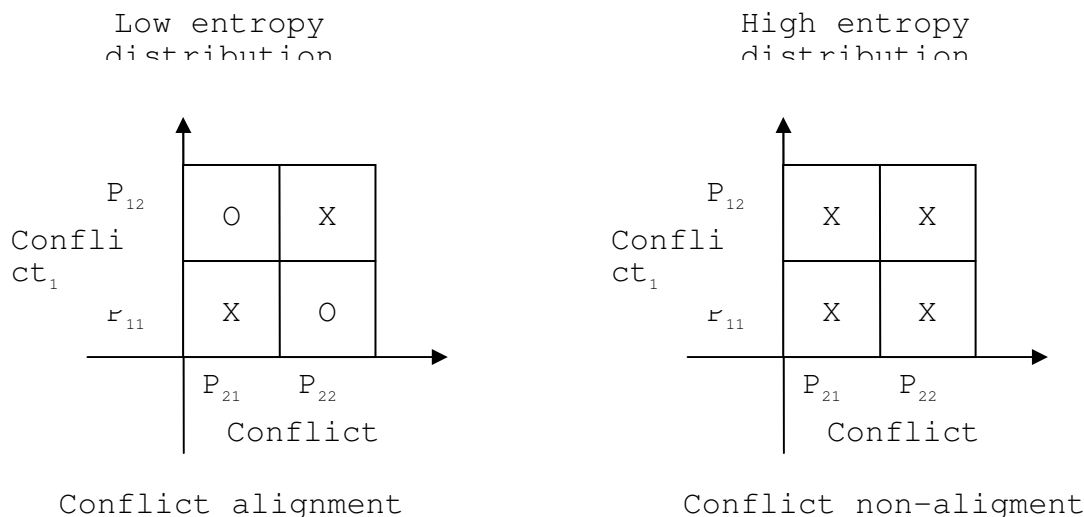
Where P_{11} and P_{12} are the parties in conflict₁, and P_{21} and P_{22} the parties in conflict₂. In the first the actors are aligned, in the second case they are non-aligned.

In another connection we have developed the idea that the criss-cross effect actually takes on its maximum value when the distribution is completely uniform, i.e. when there are equally many actors in all four positions (but this is only a sufficient, not a necessary condition for criss-cross to be at a maximum). On the other hand, if the distribution of actors is concentrated on one point there is both minimum entropy and a situation of non-conflict, since there is only one party in each conflict, which is meaningless. But this is only a special case of the general idea

that there should be no empty cell in the marginal distributions. Hence, the entropy idea seems again to render quite well the thinking in this particular field.

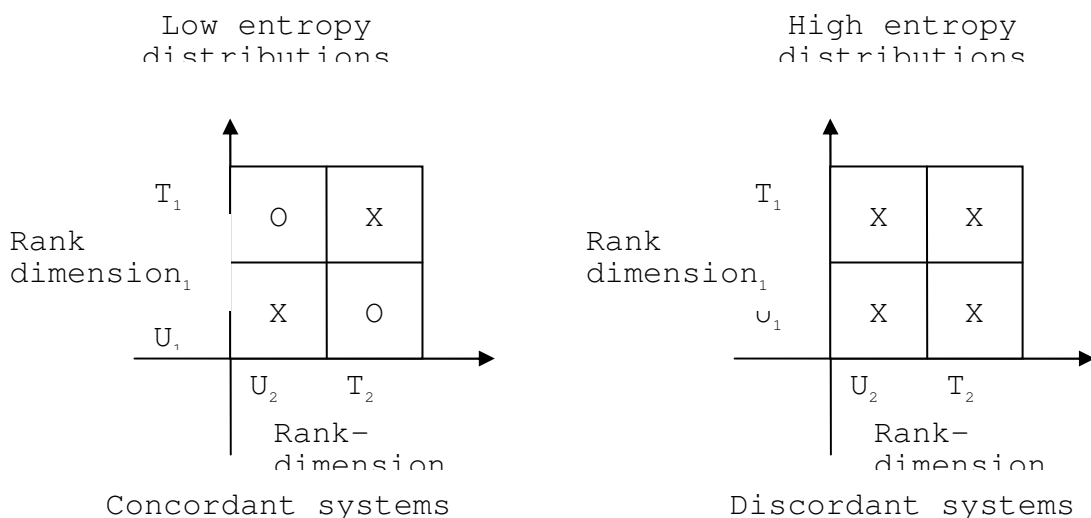
e. Discordance vs. concordance. Here the idea is very similar, to the case outlined above, but the conflicts are of a special kind about rank, between "topdogs" (T) and "underdogs" (u). We assume that there are two such rank-dimensions, and get:

Table 5.4.4. Degree of Criss-cross as a distribution



Discordance vs. concordance. Here the idea is similar to the case outlined above, but the conflicts are of a special kind, about rank, between "topdogs" (T) and "underdogs" (U). We assume that there are two such rank-dimensions, and get table 5.4.5.

Table 5.4.5. Degree of discordance as a distribution

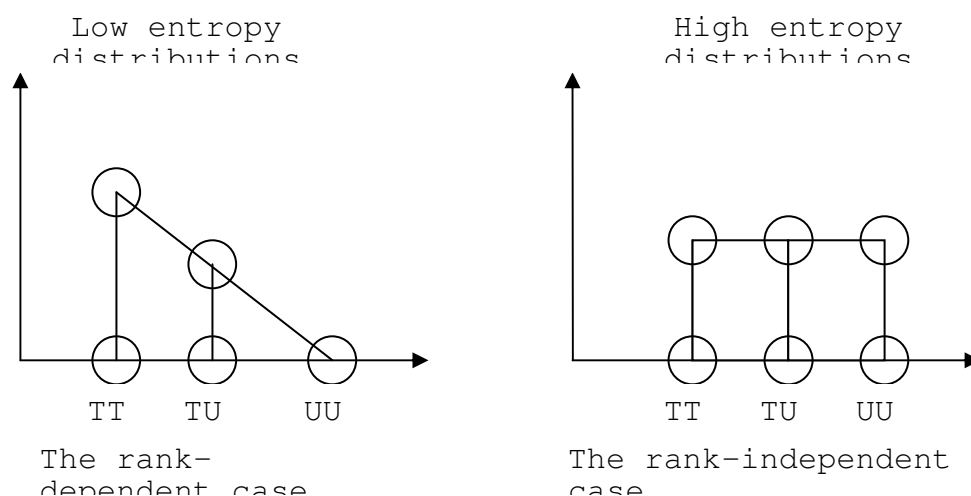


In the low entropy case there are no actors in disequilibrated positions, i.e. actors with TU, or UT combinations. The system is divided into equilibrated topdogs (TT) and equilibrated underdogs (UU), with no actors that can bridge the gap between them. In the high entropy case these actors are present and make for much more complicated systems, with a criss-cross effect that may protect against major break-downs of the system, but also with a lot of local conflict potential originating in the disequilibrated positions and in the relations between rank-incongruent pairs of actors.

Thus, again the entropy idea carries quite well the burden of theoretical thinking, and this also applies to

f. Rank-dependent vs. rank-independent. Here there is a question of interaction-entropy, not of actor-entropy. A number, r , of links is to be distributed on a set of pairs of actors, and since the actors are ranked into T and U, the pairs are TT, TU, and UU. We get:

Table 5.4.6. Rank-dependence as a distribution.



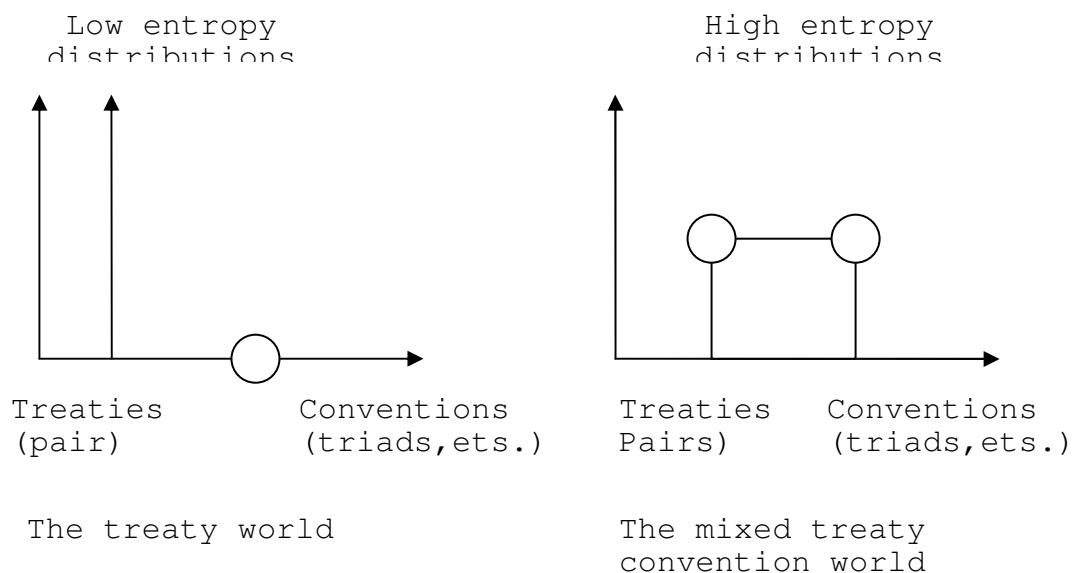
In the first case the distribution is heavily skewed; there is much more interaction between topdogs than between topdogs and underdogs, and much more interaction between them again than between the underdogs. This seems to be an Iron Law of Social Systems, that interaction rates both positive and negative) follow the rank of the pairs of actors. There is also an extreme case, a point distribution corresponding to minimum entropy, where all interaction that takes place is between topdogs; but that case is of more theoretical than practical interest (but a point distribution with all interaction concentrated on the TU or UU combinations would be theoretically almost meaningless).

In the second case there is an equal distribution; interaction no longer depends on rank. In that case one may suspect that the

rank itself is abolished, but there are also institutional arrangements that may uphold a structure of this kind.

g. Treaties vs. conventions. Treaties and conventions are norms and hence ways of structuring interaction, which means that they are relevant for the interaction entropy the system. The difference is that whereas treaties only structure interaction in pairs, conventions structure interaction in m-tuples where m is any number higher than 2 and lower than the total number of nations. Thus, if we have m nations then there are $\binom{m}{2}$ pairs $\binom{m}{3}$ triads and so on up to $\binom{m}{m} = 1$ m-tuples. In the latter and limiting case we would get a universal convention. This gives a total of $2^m - (M + 1)$ possible combinations to which treaties and conventions can be allocated. In the low entropy case only the possibility of treaties is utilized; in the high entropy case the other possibilities are also made use of:

Table 5.4.7. Treaties vs. conventions as a problem of distribution



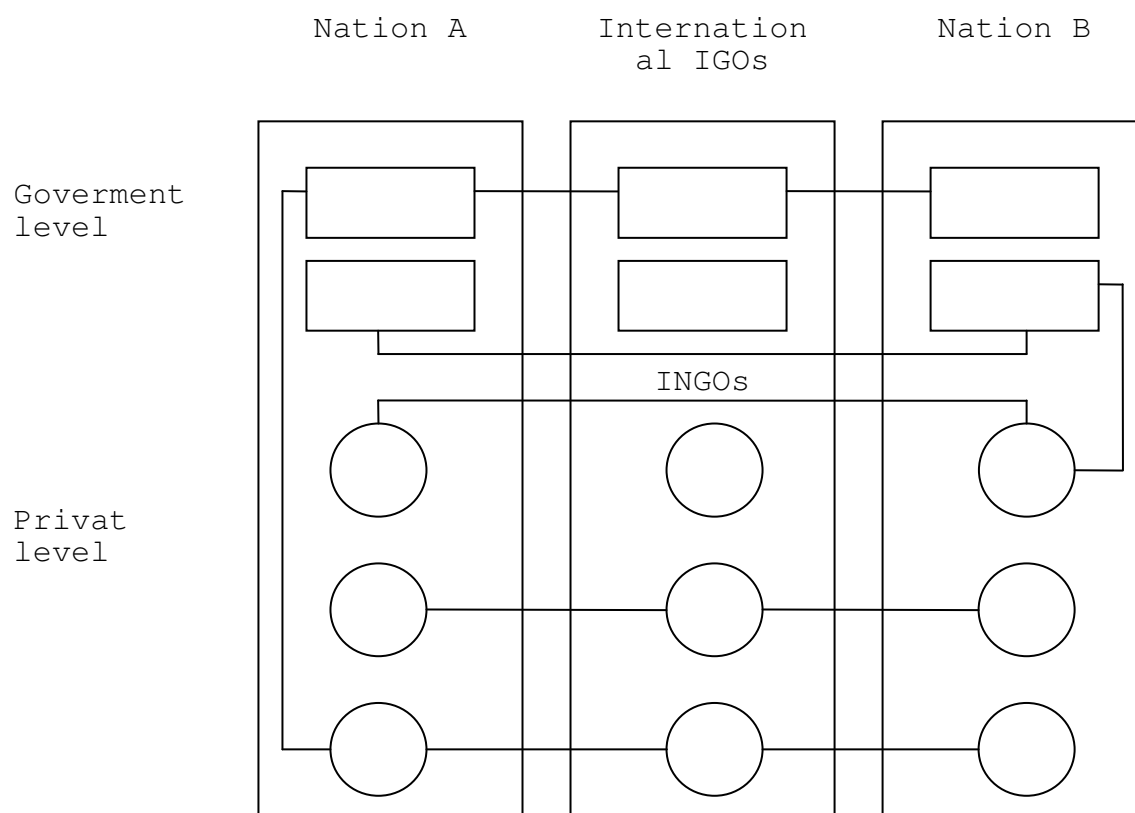
This case can now be used to illustrate two aspects of the entropy approach that on the surface look problematic. First or all, the high entropy case here is not identical with the associative model, for the point in the associative model was to substitute conventions for treaties so as to include more nations in any agreement, whereas the high entropy models uses both. Thus, this is another example of how the high entropy models lead us to richer

conceptions of the world, more mixed, more "messy" worlds so to speak. Secondly, the idea of introducing m-tuples may look like a trick since the introduction of a new category always will make a distinction between low entropy and high entropy distributions possible. However, this extension of the concept of interaction entropy is easily defended.

Thus, it is also highly meaningful in connection with what we referred to as interaction-proliferation above. In that connection only the extension of interaction from intra-bloc to inter-bloc was discussed, but one could equally well have extended the discussion to include multilateral and not only bilateral interaction, i.e. inter-action in dyads. And vice versa: in connection with treaties it is highly meaningful to study whether these treaties are intra-bloc only or also inter-bloc. And here the high entropy case would require treaties to be distributed between the intra-bloc and inter-bloc cases. A concentration on intra-bloc treaties would be a case of low entropy, and it would not be associative either.

h. The INGO world vs. the mixed system. Basically this is a question of loyalties, and as such it is discussed under b above. In a world where all loyalties are national, and directed towards one nation only, the entropy is low. But the same would apply to a world where national identification has disappeared completely and there is only, say, INGO identification. There is nothing in INGO identification as such that would make it a perfect protector against mass violence, except the possibility of multiple membership and withdrawal from participation. But there will always be some INGOs that mutually exclude each other, for instance ideological ones, and loyalties invested in them can only be diluted by criss-crossing the INGOs with, say, nations. And that brings us to the analysis under b, and also under a, above. However, let us use this example to show that this is not only a question of actor entropy, but also of interaction entropy. In the Table below relations between nations and IGOs/INGOs are indicated:

The figure gives something of the complexity of the modern world. There are two nations, A and B, divided into governmental (public) and non-governmental (private) sectors which again are subdivided - the former, say, into ministries and the latter into, say, professional associations or value-oriented organizations. Then there is an inter-national sector where governmental organizations meet, the IGOs, and where the national organizations meet, the INGOs. One can now distinguish between several schools of thought as to how the world ought to be organized with one thing in common: low entropy.

Table 5.4.8. Relations between nations and IGOs/INGOs.

1. Isolationism: interaction should be concentrated within nations
Strong public sector: concentration on governmental actors, private actors often interact via them.
Strong private sector: concentration on private actors, governmental actors often interact via them

2. Bilateralism: direct interaction between pairs of nations
Public version: directly between governments, by using bilateral diplomacy or "opposite number" contacts
Private version: directly between, private persons or organizations.

3. Multilateralism: interaction between more nations
Public version: between governments in IGOs with various degrees of institutionalization.
Private version: between private organizations and persons in INGOs, with various degrees of institutionalization

4. Internationalism: interaction between international organizations
Public version: between IGOs
Private version, between INGOs.

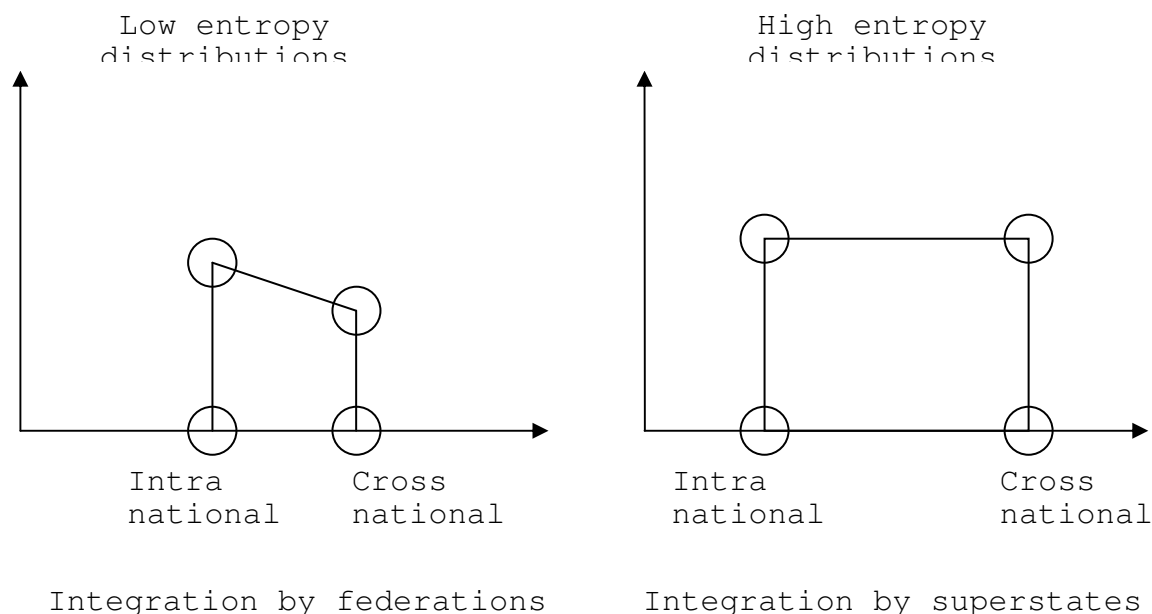
These are the major types; in addition one could imagine more mixed types. These schools of thought all depend on whether they think the emphasis should be given to the national or to the international sectors, to the governmental or to the private sectors.

If one analyzes the schools in terms of actors and distribution of interaction links the patterns stand out clearly with their concentration on certain links of interaction. And there would be, we imagine, a general tendency towards a pendular pattern between the schools. For instance, imagine there is emphasis on the nation as actor and also much non-peace. From this correlation a causal relationship will be inferred by many: emphasis on national actors lead to non-peace. From this one might deduce that peace would lead to international actors (if "lead to" is interpreted as an implication), but instead a second fallacy appears: it is deduced that international actors lead to peace. Thus, the pendulum moves towards emphasis on international actors, till it is realized that does not necessarily lead to peace either. A similar pendulum can be seen in the relationship between the emphasis on governmental and private actors - when one has been connected for a sufficiently long period with non-peace the idea "let us try the other" will easily gain recognition because of the general tendency towards polarized thinking, thinking in terms of opposites.

This line of thinking should then be contrasted with high entropy ideologies - which usually go under the general term of "pluralism" - whereby no particular preference for one type or some types of interaction would be expressed. Rather the idea would be to go in for the coexistence of all types - to have maximum disorder, maximum "messiness" in the total system. According to this kind of thinking there would be very many ways of arriving at decisions and information, and in general, the more the better. All channels would be open and represent possibilities of communication and conflict resolution.

i. Regional vs. universal. This is the first and basic dilemma for the emergence of supranational patterns, the dilemma of domain. Its relation to entropy is obvious: if we look at all possible dyads of national actors in the world, (), then any regional integration will tend to lead to relatively skewed distributions of the links of interaction, and any more universal pattern of integration to a more uniform distribution of the links of interaction. Hence, the regional case is the case of low entropy and the universal case the case of high entropy, where entropy is taken in the sense of interaction entropy.

j. High vs. low level of national autonomy. In the case of high level of national autonomy, the nation still serves as a protective shield around individuals, directing his interaction potential towards his compatriots rather than to others. In the case of low level of autonomy this shield is reduced, and his chances of cross-national interaction correspondingly increased. Thus, we get:

Table 5.4.9. Degree of national autonomy and entropy.

Of course, it would be foolhardy to pretend that this is all there is to this distinction. The distinction has components that cannot be expressed in terms of distribution, i.e. in terms of actor entropy or interaction entropy. But this is an important aspect, and in line with our general perspective.

Then, there is the idea of building a world on super-INGOs, and the corresponding idea of mixing super-INGOs in various ways with supra-national actors. However, this discussion is entirely parallel to the discussion under h above of how a world based on both INGO and national actors will give a variety of possibilities not found in a world based on only one of them. There is no need to repeat the structure of this argument at one level higher up of complexity.

There is now no difficulty seeing where this kind of thinking leads us. To the extent one accepts associative peace policies as better in the long run than the dissociative policies, to that extent will a system at high levels of entropy be more peaceful than the system at low levels of entropy. By this is not meant that the system is stable, that there is no dynamism. On the contrary, we shall see that precisely the high entropy system is the system that permits more change at the local level. But these changes are less likely to be of the devastating kind that are associated with large-scale group violence, i.e. with war.

The typical example is the East-West system. During the cold

war it reached a state of, almost perfect dissociation in almost all the senses discussed above. In other words, it was a system with very low level of entropy. But within blocs the entropy was relatively high because of the integrative tendencies that emerged. Then came the detente, and with the détente a considerable increase in the East-West entropy. But this increase was accompanied by a corresponding decrease within the blocs because of the new conflict lines that emerged when the cold war was called off, so to speak. The polarization of the cold war era is of course not reappearing within the blocs, but there are signs that conflicts that were subdued in the polarized system are manifesting themselves in the more depolarized context.

Thus, the general formula is: Increase the world entropy, i.e., increase the disorder, the messiness, the randomness, the unpredictability - avoid the clear-cut, the simplistic blue-print, the highly predictable, the excessive order. Or in other words, if somebody tries to form the world according to one clear blue-print, then initiate a contra-blueprint that will see to it that the level of total order is not excessive.

5.5. The non-distributive peace factors

To this scheme one may object that even though many of the peace theories can be phrased in terms of distributions of actors and links, and hence expressed in terms of entropy, this is not the case for all of them. More particularly, what happened to the theories proclaiming the peace-building effects of

1. The Sane individuals world
2. The Interpersonal harmony world
3. The Sane societies world
5. The Many nations world
19. The Power monopoly world
21. The Disarmed world
23. The Positive non-violence world
27. The Positive sanctions world

Of course, with a little bit of imagination there is no difficulty in phrasing almost everything in terms of distributions of some kind of unit on some kind of variable, but this would make the principle of increased entropy highly tautological. Thus, if nations are distributed on an axis of power, then the balance of power world is clearly an approximation to a point distribution, with all (groups of) nations (approximately) equal in power; and the power monopoly world would put one nation on the point of maximum power and all the rest on the point of zero power. Thus, the balance of power world would be low and the power monopoly world high on entropy. But distributions could also be made with the opposite conclusion.

Even though these peace recipes cannot be formulated in actor and interaction entropy terms, entropy in our sense may nevertheless be relevant for them. Thus, we venture the following general proposition:

The higher the entropy of the system, the higher the likelihood that the. Non-distributive peace-building factors may be peace productive.

The reasoning behind this proposition is as follows. In a high entropy system the world is more complicated, more "messy" as we have expressed it. The possibilities at any point in the system are more numerous; the range of interaction-patterns and chains of interaction much broader. Conflicts are absorbed locally; they may be numerous indeed but their consequences are slight. There is a generally high level of trust, or if not of direct trust at least a feeling that the system works, that there will be no major discontinuities in the near future.

In this setting it is reasonable to assume that interaction, of the positive variety, will proliferate; not only in the sense that there will be interaction in more dyads but also in the sense that interaction will be more diffuse, cover more aspects of the actors. In short, the interaction networks will tend to be complete

and rich; they will look more like the networks found in a primary group and less like the networks found in a secondary group - which would correspond to the state of affairs found in low entropy systems.

In the primary group much is possible that is not so easily carried out in secondary relations. The small hints, the countless types of bargains, all the compromises, the horse-trading and the cyclical ways of compensating for real or imagined grievances - are more easily carried out in high entropy than in low entropy settings. The degree of empathy is higher, the range of contact larger - and all this means that the actors can steer each other with more and with finer ties, with silent indications rather than with loud shouting. Above all, the basic underlying social fabric is such that if one wants to sanction, then

1. even slight indication of negative sanctions may be sufficient, for when relations are generally good there is not the same :inflation in negative acts,
2. on the other hand, there is a certain inflation in positive acts which means that positive sanctions have to be more advanced in quality and quantity.

The parallel here is, of course, with a marital couple operating at a high level of love relationship. The interaction is already so positive, and expected by both parties to be positive for the future, that a slight negative indication may have tremendous effect, whereas positive sanctions can be easily located in the general interaction network and have to be fairly advanced. For positive sanctions are already built into the structure; the structure is frozen around an overabundance of positive sanctions so to speak. The net result of all this is that the techniques of positive sanctions and positive non-violence are more compatible with high entropy than with low entropy systems. In the latter negative sanctions and its concomitant, negative non-violence, come more easily; and since the atmosphere in a system based on dissociative policies is already so loaded with negative interaction between blocs, the negative measures have to be fairly strong to be noticed at all. Thus, as we have already pointed out several times: dissociative policies reinforce each other and so do associative policies.

We can now move up the list of peace factors not included in the entropic theory. Thus, it seems reasonable to assume that in a high entropy system disarmament would come more easily, for one very simple reason. If we look at the arms of mass destruction used today, they are mainly based on the effect of explosives. In other words, they function in geographical space, destroying everything within a radius given by the destructive power of the system employed. For such weapons to be used, however, the assumption is that the geographical space or territory, in which they work is not contaminated by one's own kind, that there are (almost) only enemies there. For this to happen a ground work of dissociative policies is a precondition, and a perception in terms of black and white that

blots out neutrals and innocents from one's thinking. However, even this is not so easily obtained, for which reason the explosion has to take place further away from oneself the bigger the radius of destruction. This leads to long distance weapons carriers, not only to protect one's own heartland from the destruction, but also to avoid destruction in more "contaminated" border areas.

Thus, in a high entropy system of the kinds we have discussed weapons based on explosions would be largely meaningless. Moreover, conflicts will tend to be solved locally, as mentioned, and the net result will be the "withering away of arms" (we use this phrase because of doubts that weapons will disappear by disarmament agreements, it seems more likely that they will either be used or forgotten, bypassed, be disregarded - wither away"). However, against this reasoning there is a rather important contra-argument: what about the invention of new kinds of weapons, more compatible with the structure of high entropy systems?

It is easily seen how such weapons systems will have to be constructed. They will have to be social rather than geographical since foes and friends will live with no clear geographical pattern. Weapons will have to seek the enemies according to other criteria than where in the geography they are located, in other words. And this may mean that cloak-and-dagger techniques will become more relevant, as well as general sabotage, commando and guerilla type operations that are characterized by being more selective as to target, more refined in their direction, and above all more adaptable to work under conditions of close enemy control and supervision. Thus, if one should extrapolate just a little bit from the weapons technology currently used by the US in their Vietnam war one could imagine members of group A placing homing devices on the bodies or clothes of their adversaries, the members of group B, so that any number of mini-rockets would be attracted to the correct bodies and concentrate the killing effect on the socially correct targets, regardless of territorial location.

A world of this kind would to many seem even worse than dissociative, low entropy system with "clean" killing. Apart from the circumstance that any such value judgment probably is based on the inertia of habit more than on anything else, anybody might agree that not much would be won if this were the only consequence of an increase in entropy: a change in weapons technology from a territorial base to a social base as to choice of targets, from inter-national to intra-national war strategies. The question is how likely such a development would be under the conditions of high entropy.

No systematic investigation of this has been done, to our knowledge. But even though there is no doubt that civil wars have taken place in areas with a high level of mixture of different groups of people, it seems that other types of entropy have been at a low level at the same time. Thus, there has been little criss-cross, little rank discordance, much dependence of interaction on rank, etc. And this seems to be an important perspective: if the system has low entropy on all or most variables except the

geographical one, then one would expect something to go wrong simply because of the increased likelihood of friction and open conflict when contact possibilities are numerous. Thus, it should be emphasized that when we are talking about high entropy, then we mean high entropy on all or most of the dimensions used above.

Under such conditions of total entropy the use of, or even development of, new weapons systems does seem less likely, for the many reasons indicated above. On the other hand, it does not seem so far-fetched to imagine that we may enter a transition period where increased entropy in a world otherwise dominated by dissociative policies may lead to an emergence of such weapons systems (as has already been the case, as witnessed by the increased importance of guerilla warfare) that will disappear when the system is built out on one or more dimensions. The history of the emergence of nation states seems to indicate the existence of such phases when the closeness becomes too overwhelming because it is not based on a corresponding integration along other dimensions.

As to the other peace factors our comments can be made rather briefly. In a high entropy system a Power monopoly world would be much more likely than a Balance of power world, because of the many dissociative assumptions in the latter. In a system of trust the delegation of power to units that exercise a monopoly seems much more likely - this is, after all, what happens in the nation state when the citizens move around more or less disarmed and the means of physical coercion are concentrated in one group, the police. Needless to say, the power-holders would have to base their monopoly on some kind of legitimation, which would also emerge more easily in the high entropy world because of less fear that a power monopoly may serve partisan interests.

In this world more nations might emerge, since the Few nations world can be seen as an expression of large-scale dissociative policies. But these nations may be different from the nations we are used to, perhaps more like INGOs. Thus, it is not inconceivable that in even the relatively near future the old rule "each individual is the citizen of one and only nation" is relaxed so that people can become members of more nations than one and withdraw from all of them if they so want. Moreover, nations may be less based on territorial contiguity, more on likeness and liking. In short, the only thing reminiscent of the past may be the word "nation" - all the factors that belonged to an age of extremely slow communication relative to ours may decrease quickly in significance. In such a world the subnational peace factors will become more prominent, since they were filtered away by the nation state and kept within the confines of that system. Sane social structures may have more of a carry-over effect in a high entropy than in a low entropy system, simply because of the interaction proliferation; and this applies also to the interpersonal harmony and the sane individuals worlds.

5.6. The dynamics of entropy.

Let us now bring in time and ask the crucial question: can any long time tendency be posited, using entropy as the basic variable? Does the world move towards higher or lower entropy in general? We shall try to show that any such uni-directional theory is bound to fail because of the strong forces operating both at the high entropy and the low entropy levels, tending to push the systems back when they have moved too far out on either extreme. In other words, we shall argue that there are considerable merits to a pendulum theory, where social systems are seen as oscillating between states of low and high entropy.

The basic idea in a theory of this kind would be the dialectical principle that every system has in it the seeds of its own destruction, and the more extreme the system is in terms of entropy, the closer it is to the minimum or maximum points, the more destructive the seeds. One basic reason for this lies in the problem of levels: at the system level there is a unity that does not correspond to the plurality of individuals: human beings are extremely diversified, both between themselves and for the same individual over time; or even at the same point in time for that matter. The system either has high entropy or low entropy, to put it in the terms of the present argument; whereas individuals may differ highly in their capacity or ability to live in either state - again, both between themselves and within the same individual. Another set of reasons lies in the system itself, with no reference to the level of individuals. Low entropy states make moves possible that are not possible in states of high entropy and vice versa, and this will make for dissatisfaction because of the functions that are not fulfilled.

In other words, we shall assume that both under high entropy and under low entropy there will be strong forces pointing in the opposite direction, just as there will be forces of inertia that contribute to keeping the system where it is. An effort to systematize these forces is given below:

Table 5.6.1 A survey of push and pull forces, in systems of low and high entropy, and at the personal and social levels.

| | <u>Person level</u> | | <u>Social level</u> | |
|-----------------------------|---|--|---|---|
| | <u>pull factors</u> | <u>push factors</u> | <u>Pull factors</u> | <u>push factors</u> |
| <u>Low entropy systems</u> | wish for consonance, simplicity, homophily | too much micro-stability, uniformity repetition | facilitates control for, "good" purposes, stability | facilitates control for "bad" purposes dangerous macro-conflict |
| <u>High entropy systems</u> | wish for variety, new experience micro-dynamism | too much dissonance, information overload, ambivalence | Conflicts solved locally facilitates micro-changes | too much micro-conflict impedes macro-changes |

The Table presents some of the dilemmas expressed or contained in the entropy variable.

At the level of the individual person the low entropy system offers much of what is stressed in contemporary psychology. The individual is located in a setting of homogeneity, his loyalties are clear and undivided, interaction is concentrated so he knows where to turn, there are not too many choices to be made. The individual is protected; he lives in a world of consonance, simplicity and homophily. But then, our argument will run, with these needs satisfied he will tend to forget about them and turn to the complementary needs. His problem will be how to bring change and variety into the system, and for this purpose he will seek and explore new avenues of life experience, and this will make him open new channels of interaction with partners different from himself and hence make him different from what he once was. In other words, entropy will start increasing. He will get new experiences because of the variety introduced, and these new experiences will lead to a micro-dynamism, dynamics at the local level that he did not experience before.

But, with these needs satisfied the less applaudable aspects of life in a high entropy system will become more clear. The individual interaction and information than before, but because there is more is not necessarily exposed to more diversity in the interaction-partners he receives more diversified information that cannot be processed so readily as when it is all of the same kind. Moreover, he is exposed to dissonance and ambivalence because of the amount of heterogeneity and criss-cross in general that has been built into the system. Result: intra-personal conflicts and information overload that will create a tendency to move towards low entropy states again.

From the point of view of the system the matter is relatively similar. In the low entropy state, based on all kinds of dissociative policies, there is the possibility of avoiding macro-conflicts, but also the possibility that they may come and be disastrous because of the structure of a system that has been exposed to dissociative policies. A system in the state of low entropy is also a system with large units that can be moved since there is more order, less messiness; but if it can be moved and controlled, then this may be for good as well as for bad purposes.

The good purposes and consequences will serve as a temptation, the bad purposes and consequences as a warning signal against the low entropy system. The net result will be a move towards higher levels of entropy when the system is in low state - in an effort to avoid the evils and an often naive belief that the benefits of the low entropy system will nevertheless remain. And in this high entropy state conflicts can be solved locally much more easily in the way outlined in the preceding section, changes at the local level can be made, but at the same time the system will have great inertia against major changes simply because of its lack of order, its complexity, its "messiness".

The net result of this is a pendulum movement between states of high and low entropy. This pendulum movement is highly meaningful, and from the discussion of the low vs. high entropy states the meaning in the terms of conflict can easily be appreciated. Thus, there is a relation expressed by this table:

Table 5.6.2. Relation between entropy and conflict.

| | <u>Micro-</u> <u>conflict</u> | <u>Macro-</u> <u>conflict</u> |
|---------------------------|--|--|
| <u>High entropy state</u> | very frequent, but solved locally, effects of minor signifi- cance | very unlikely, the structure does not permit their development |
| <u>Low entropy state</u> | much less frequent, the structure does not permit them. | unlikely in the short run if policies are skillful, likely in the long run and disastrous in their effects |

Put in one sentence: In the low entropy state the conflicts are found at the macro levels, with conflicts between blocs headed by superpowers as the extreme case; in the high entropy case conflicts are found at the micro level, with conflicts within the individuals (in terms of split loyalties cognitive dissonance etc.) as the extreme case. Thus, as the pendulum moves from low entropy states to high entropy states, the conflicts are transformed from the macro to the micro levels, from being between blocs to being within individuals; and when the pendulum moves back again the

individuals are relieved of their conflicts and the conflict material is put back between the blocs again.

It would, of course, be foolhardy to pretend that the total sum of conflict in the world is constant, that conflict is some kind of material that can be located at the macro or at the micro levels: depending on the level of entropy. We know too much about structures that abound in conflicts at all possible levels and those that seem to be (almost) devoid of conflict at any level - at least apparently, to venture such an axiom. However, let us nevertheless postulate a constancy of this kind, and assume that the exceptions are only apparent, that closer scrutiny would bring out the constancy. In that case we can use an analogy from thermodynamics that we have been implicitly drawing upon most of the time, comparing the level of conflict with the level of energy. When the system is in a state of low entropy, then the units are distributed in such a way that major conflicts may result - corresponding to high levels of energy. The system is "built up", so to speak. And when the system is high in entropy then the system is "built down", in the sense that the distribution does not permit large-scale conflict - there is a low level of energy. Thus, there is an inverse relationship between social system entropy and social system energy - where the energy can be used for good as well as for bad purposes. Our fear of the consequences of the bad purposes would make the peace theorist focus his attention on the high entropy systems - but he should be aware of the fact that such systems will have less macro-energy at their disposal, that the energy will be stored in small, local units so to speak, so that the changes will tend more to be micro-changes. And this means that those who feel that there are still some macro-changes to be carried out will feel that time has not yet come for major entropy increases, that first there must be a basic dissociative split that can be used for a major transformation, and then, afterwards, time, will be ripe.

For in the state, of low entropy the system is highly energetic: the dissociative state or affairs permits a release of the units into action of a more revolutionary kind. The point is that the more order there is available in the entropic sense, the more disorder can it create - in the political sense. With high entropy the system is in the low energy state and less drastic changes can take place. The dynamics is at the micro level and much higher than in the low entropy state: there is macro stability and micro dynamism, as against micro stability and (the potential of) macro-dynamism in the low entropy state.

At this point one may wonder whether, in fact, Man is doomed ride on this entropy pendulum through history, so to speak. If there are strong forces in either direction, why could he not stabilize at a point of compromise, at some medium level of entropy? The reason for this is simple: because it satisfies none of the needs in Table 5.6.1., and there will clear indications as to how the system could move so as to be more satisfactory - and these indications would be, precisely, in the direction of maximum or minimum entropy. Thus, a compromise point would not have any built-in stability; even less than the more extreme values that would at least appear as

satisfactory as long as people remember the kind or urges that moved them into the state.

But there is another answer to the same question that makes more sense from a social science point of view. Some people, some systems will operate better at a high level of entropy, others better at a low level of entropy. So why not mix them? Thus, one could easily imagine a system which has high entropy at the global level, but with decreasing entropy the closer one comes to some individuals. Some individuals may exist in low entropy pockets, so to speak, enclosed in an ocean of high entropy; others may carry on in high entropy pockets in low entropy surroundings. An example of the former would be the monastery in modern, pluralistic society: an example of the latter the "third camp"ers in the fifties, in the cold war period. Such combinations are possible, they imply strains on individuals and systems, but they can work and they can provide social structures with a choice of entropy levels which may be highly meaningful in terms of pluralist values.

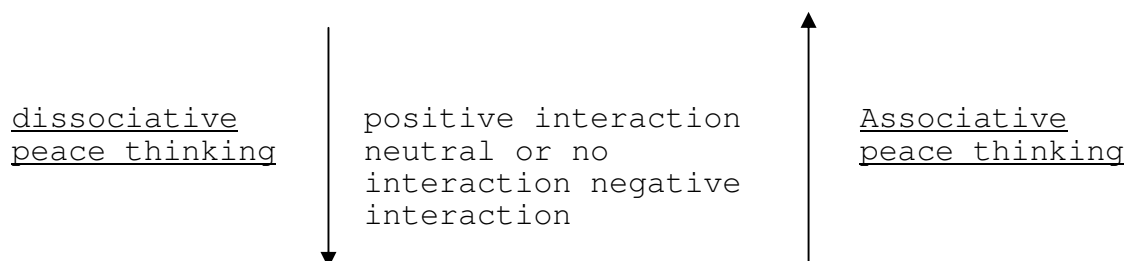
The question then is whether our thinking cannot be extended to a second level of entropy where the system is divided into cells and the entropy level measured for each point and compared. If it is the same, regardless of whether it is high or low, then the system is low in second order entropy; if it is different and particularly if it is highly different, then the system is high in terms of second order entropy. It might be interesting to explore more fully this variable in terms of its conflict and peace building properties - but that would bring us too far in this connection.

The perspective is nevertheless important, however. It opens for the possibility of measuring both entropy of the macro system and entropy at the local level, entropy of the micro system so to speak. In the section on "Entropy and peace thinking" above a number of different dimensions were made use of to discuss different types of entropy. Thus, there are both the ideas of entropy at different levels of human organization and entropy of different dimensions. An advanced theory of peace would take this into consideration and try to develop measures of changes in the total amount of entropy available. The mathematical form of this measure of disorder is then particularly useful, since logarithms would "reduce" the multiplication involved when variety is to be calculated to simple addition.

5.7. Conclusion

In conclusion some words should be said about the relation between the two major axes in our presentation of peace thinking, the distinction between dissociative and associative policies on the one hand, and between high entropy and low entropy systems on the other. It may look from what we have said so far as if high entropy systems must, by necessity, be associative, involving positive interaction distributed in as disorderly a pattern as possible. This is not the case, the entropy concepts are equally applicable to reasoning about negative interaction and associative peace policies in general. To take an example: in most international conflicts a distinction is made between the "leaders" and the "people" and between the "military" and the "civilian" sectors in nations A and B, which gives a total of four actors in either nation. In a war, how should destructive behavior and attitude be distributed in this system? We have we have $4 \times 4 = 16$ dyads and a distinction between behavior and attitude which yields a total of 32 links. At one extreme is the system with maximum entropy with all relations filled with negative interaction. At another extreme there might be only one such negative relation: the destructive behavior between soldiers, not-including their attitudes. In practice a world so low on interaction entropy would hardly be arrived at, for some military leaders (the officers) would probably also have to engage in negative behavior and some civilian leaders (the government) would probably have to have at least some negative attitudes - and in addition some attitudinal support from the population would also usually be needed. Thus, the distribution will increase in entropy as the conflict develops - and this is a precise version of the transition from limited war to total war, the latter being the system with maximum entropy involving all sectors and both behavior and attitude.

We should now relate this to the distinction between dissociative and associative thinking. Dissociative peace thinking favors transitions from positive interaction to neutral and even to negative interaction (short of violence); associative peace thinking favors transitions from negative interaction to neutral and to positive interaction (with no limit):



Thus, the two styles are relatively symmetrically defined, but not quite since we are after all concentrating on the peaceful roads to peace - or at least on the non-war like roads to peace.

N O T E S

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1. In M. Zemansky, Heat and Thermodynamics (New York: McGraw-Hill, 1943), p. 168, the following definition is given: "- the entropy of a system or of a reservoir is a measure of the degree of molecular disorder existing in the system or reservoir." Zemansky indicates, but not to the point of demonstrating, the connection between the macro-scopic and the microscopic approaches to entropy - the latter based on statistical mechanics.

2. In Van Nostrand's Scientific Encyclopedia (New York, 1958, p. 599) the expression "in information theory, entropy is a measure of the uncertainty of our knowledge" is found.

3. Loc.cit.

4. We do not intend to make precise statements about these relations. Thus, negative entropy (negentropy) might have been used, and a clear distinction between information about the system and information about the single element could have been made. We have not felt that at the present low level of development of this thinking much precision will pay high dividends, so these complex concepts are used in a way that will hardly satisfy the physicist. For one highly inspiring effort to be more precise, see James G. Miller, "Living Systems: Basic Concepts", Behavioral Science, 1965, pp. 193-237, particularly pp. 201 ff. Also see Erwin Schrödinger, What is Life (Cambridge: University Press, 1948), particularly chapter VI, "Order, disorder and entropy".

For an effort to use entropy concepts to define dependence and, indirectly, power relations between social actors, see another paper presented at the same conference, "Towards a General Social Systems Theory of Dependence: Introduction of Entropy of Behavior", by Miroslav Soukoup, Frantisek Charvat and Jiri Kucera. They start with a measure of the entropy of the action repertoire of two actors, then couple the two actors together and use the correlation, or order, in the joint action repertoire (i.e. can b_j from actor B occur when actor A has carried out a_i) as a measure of dependence. We find this approach highly attractive and promising.

But in our own approach the system with high entropy is one in which a high proportion of the possible interaction links are in use. Interaction flows in all directions and from everybody to everybody, the system has no simple order, it is "messy". In the system with low entropy there is orderliness in the sense of high predictability as to where interaction will be found: it is concentrated, into particular channels. The typical example would contrast the disorderly, unpatterned small group where everybody talks with everybody, with the streamlined bureaucracy where there are special roads of communication:

A can interact with C, but only via B, etc.

5. Shannon and Wiener referred to the measure $H = -\sum p_i \log_2 p_i$ as a measure of uncertainty or entropy, and used it as their famous measure of information. Fazlollah M. Reza, in his An Introduction to Information theory (New York, Toronto, London: McGraw-Hill, 1961) gives an intuitive justification of this measure, and summarizes the mathematical research that has gone into proving the "uniqueness of the entropy function" (pp. 124 ff.), especially Khinchin's work. This type of research consists in finding the minimum number of justifiable axioms from which the entropy function can be derived, at least up to some multiplicative constants.

6. For one presentation of this problem, see Johan Galtung: "Peace Research: Science, or Politics in Disguise", International Spectator, 1967, pp. 1573-1603.

7. Appendix, model 15.

8. Appendix, model 16.

9. For a general presentation of the argument, see Johan Galtung, "Cooperation in Europe, Analysis and Recommendations" (Strasbourg: Council of Europe), ch. 2.

10. This problem, i.e. the problem of identifying minimum and maximum entropy, is well known from thermodynamics, but Zemansky (op.cit., p. 170) quotes Fowler and Guggenheim in saying that the idea of "absolute entropy has -- caused much confusion and been of very little assistance in the development of the subject". Relative entropy, both direction and magnitude, is what matters.

11. Johan Galtung, "Rank and Social Integration: A Multi-Dimensional Approach", in Berger, Zelditch, Anderson, Sociological Theories in Progress (Boston: Houghton Mifflin, 1966), p. 152.

12. In the low entropy distribution in Table 7, 100% of the TT links are utilized, 50% of the TU links and 0% of the UU links. As an example of a structure of this kind may serve

topdog level
underdog level

In other words, a heavily feudal type of interaction structure. If the remaining 6 TU links and all 6 UU links are opened up for interaction the net result would be a distribution with maximum entropy.

13. This type of pendulum reasoning is explored further in section 6 below on "The dynamics of entropy".

14. Thus, one might perhaps argue that the units to be distributed could be units of power (e.g., nuclear capabilities) and the horizontal axis position coordinates, i.e. nations or other power wielders. Power units could then accumulate in one position

(power monopoly) or be distributed more evenly (balance of power). The entropy language could still be used, and conclusions in terms of entropy differentials would still be possible. The same could be done for guilt in section 2.

15. Thus, in a system with very high entropy many weapons systems will be relatively inapplicable and all parties will know this. Targeting becomes less meaningful since most targets will be too contaminated. For this reason the systems will gradually appear less interesting and attractive, but withdrawal as a consequence of bilateral or multilateral agreements may nevertheless be impossible. Tacit withdrawal may be preferred to open commitment to disarmament since it is less binding.

16. Information overload has been brilliantly explored by James G. Miller and his associates at the Mental Health Research Institute of the University of Michigan, and we are drawing on their thinking. The mechanisms they point out as ways of coping with information overload are essentially mechanisms for the reduction of the entropy in the system. Thus, it might be emphasized that we have not posited any irreversible trend in social systems corresponding to the Second Law of Thermodynamics, at least not at the level of discourse which we have presented. We believe much more in the validity of the pendulum principle.

17. Evidently, this also means that there is a change of general social climate with each turn of the pendulum, favoring one type of leaders rather than another. Thus, it seems reasonable to say that low entropy systems with available energy for macro conflicts and little ambivalence will play up to the personality structure of more "authoritarian" leadership types, whereas the high entropy systems would favor the high tolerance of ambiguity presumably available in more "democratic" types. However, the way these terms are used in The Authoritarian Personality (see, for instance, the conclusion pp. 971-976) also draws on many other dimensions than tolerance of ambiguity, not all of them easily applicable within our terms of reference. But the general correlation hypothesis stated here may nevertheless be well worth exploring both empirically and theoretically.

18. Does this mean that there is a contradiction between peace and basic social change? If the former presupposes systems with high entropy in the sense we have mentioned and the latter systems with low entropy - then the basis for hypotheses about contradiction is present. But the thesis of contradiction presupposes a firm belief in the impossibility of peace in low entropy systems and the impossibility of macro change in high entropy systems. It is perhaps not so unreasonable to say that the type of peace found in low entropy systems very often has been of the "law and order" variety, there has been absence of violence because of the presence of a machinery for violence control - vertically between classes and horizontally between nations. Basic changes have often been impossible without extreme counter-violence, in the form of internal or external war. After such wars the entropy levels have usually (we assume) increased until new issues have

created new watersheds in the structure, and consequently decreases in the entropy level. This is an expression of the general pendulum principle alluded to in the text. But the problem still remains: if change seems to be irreconcilable with peace in low entropy systems, what about high entropy systems? Can major changes still be brought about, or is the general degree of "messiness" too high to permit such changes? Or, put in other terms: if the structure of peace is high entropy, does this mean that the price of peace is a subdivision of social reality into relatively small units, homogeneous within and heterogeneous between, with a maximum of interpenetration - in other words a highly pluralistic society? Where changes in small units are feasible, but changes in the macro-structure very difficult? We merely state the question, but hope to be able to indicate some thinking about possible answers on a later occasion.

A TYPOLOGY OF PEACE THINKING

I. The Basic types of subnational peace thinking

1. The Sane individuals world
2. The Interpersonal harmony world
3. The Sane societies world.

II. The basic types of international peace thinking.

| <u>Relation</u> | <u>Subtype</u> | <u>Dissociative</u> | <u>Associative</u> |
|----------------------|------------------------------|---------------------------------------|---|
| A. Numerical | | 4. The Few nations World | 5. The Many nations world |
| B. Equivalence | Homogeneity | 6. The homogeneity Nation world | 7. The Heterogeneous Nations world |
| C. Equivalence | Similarity | 8. The Dissimilar Nations world | 9. The Similar nations world. |
| D. Interaction | Interdependence | 10. The minimum interdependence world | 11. The Maximum inter dependence world. |
| E. Interaction | Polarization | 12. The polarized world. | 13. The depolarized World |
| F. Ranking | Interaction rank-Dependent | 14. The feudal world. | 15. The mixed world |
| G. Ranking | Interaction rank-Independent | 16. The class-divided world. | 17. The class-less world |
| H. Coercive power | Power distribution Models | 18. The Balance of power world | 19. The Power Monopoly world |
| I. Coercive power | Power controls models | 20. The Arms control world | 21. The Disarmed world |
| J. Normative power | Non-violence Models | 22. The Negative non- Violence world | 23. The positive non- violence world |
| K. Normative power | Rule of law models | 24. The Treaty World | 25. The Convention World |
| L. Utilitarian power | Sanction models | 26. The negative sanctions world | 27. The positive sanctions world |
| M. Other groupings | | 28. The INGO world. | 29. The Mixed world |

III The Basic types of supranational peace thinking

| | <u>Dissociative</u> | <u>Associative</u> |
|------------------------------------|------------------------------------|----------------------|
| A. High level of national autonomy | 30. The Regional Association world | 31. The IGO World |
| B. Low level of national autonomy | 32. The Superstate | 33. The World state |
| C. Other groupings. | 34. The Super-INGO world | 35. The Mixed world. |

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