Culture and Collective Argumentation*

MAX MILLER

Großglocknerstraße 5'
8130 Starnberg-Söcking
F.R.G.

ABSTRACT: What are the mechanisms underlying the reproduction and change of collective beliefs? The paper suggests that a productive and promising approach for dealing with this question can be found in ontogenetic and cross-cultural studies on 'collective argumentations and belief systems'; this is illustrated with regard to moral beliefs: After a short discussion of the rationality/relativity issue in cultural anthropology some basic elements of a conceptual framework for the empirical study of collective argumentations are outlined. A few empirical case studies are summarized; the results deliver some empirical evidence to the assumption that as the 'logic of collective argumentations' develops in children and adolescents there will be different and increasingly more complex constraints on the kinds of basic moral beliefs that can be collectively accepted. Most importantly, as children approach adolescence they may have acquired a 'logic of argumentation' which makes possible a collectively valid distinction between the 'is' and the 'ought' of some disputed particular moral issue. A comparison with a land litigation among Trobriands (Papua New Guinea) shows that the 'logic of argumentation' and the corresponding basic moral beliefs of Trobriands very much resemble the 'logic of argumentation' and moral rationality standards of (German) adolescents.

KEY WORDS: Collective argumentation, moral dilemmas, child development, litigation, cross-cultural studies, social interaction.

0. INTRODUCTION: RATIONALITY AND RELATIVITY

Sometimes beliefs of other people seem to us to be irrational. But, what does this mean? Take for example the seemingly innocent and apparently straightforward pursueable classification of plants. In 1825, Lorenz Oken, a German botanist, published his 'Lehrbuch der Naturgeschichte' ('Treatise on the History of Nature') in which he presented a vigorously and comprehensively worked out classificatory system of plants (cf. also Enzensberger's comments, 1965).

Oken classified all plants into two provinces, the 'Stocker' and the 'Bluster' (perhaps translateable as 'stocker' and 'blossomer'), and subclassified these according to a rigid mathematical theory of combination into 4 'Gaue' ('regions'), 13 'Klassen' ('classes'), 26 'Stufen' ('stages'), 52 'Ordnungen' ('orders'), 169 'Zünfte' ('guilds'), 676 'Sippschaften' ('clans') and 2197 'Arten' ('species'). The key for an understanding of this classificatory system is the number 13 which for Lorenz Oken seemed to possess some kind of explanatory magic power. For example, 13 classes

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yield 13 × 13 guilds and 13 × 13 × 13 species. Even Oken's nomenclature for all the different plants corresponds, down to the last detail, to the bizzare logic of his system. This nomenclature proved to be a real challenge to Oken's creativity. Of course, he solved this task by proceeding from 13 basic terms; for Oken these terms corresponded to 13 vegetable organs on the permutation of which he based his theory of the evolution of nature. The 13 basic terms designated the 13 'classes'. All possible double compound terms designated the 169 'guilds'. Now he could have proceeded by using all tripple compound terms for designating the 2197 'species'. This, however, seemed to offend Oken's linguistic intuitions. Double compound terms like 'Zellendroßler' or 'Laubgröpser' seemed to him to sound alright but not tripple compound terms like 'Drosselzellengröpser' and 'Gröpslaubzeller'. So he simplified his nomenclature by using besides systematically derived compound terms also new simple terms for 'guilds' and by proceeding from these new simple terms for deriving the terms for all the different 'species'.

One can understand and even admire the complex and uncompromisingly consequent systematics of Oken's classifications and still find his system irrational or even insane. But what makes this system of beliefs appear to be so irrational?

Oken's classificatory system possesses a cognitive structure which by itself would not justify this appearance of irrationality; quite on the contrary, for many members of our scientific subculture the structure of Oken's system would rather approach very closely to an ideal we should strive for in doing our scientific work. There are basic beliefs, derived beliefs, rules of derivation or inference, and there is an overall coherency between any beliefs, basic or derived, in Oken's system. A complex network of relations connects any one of the 2197 'species' with any other one; and this complex network is generated by using only a small set of basic beliefs or axioms and a small set of rules of inference. These rules of inference include rules of formal logic and mathematics and linguistic rules, and they specify unequivocally how to get from any element within the complex network of relations to any other one.

Obviously one cannot object to the logical and linguistic structure of Oken's system of beliefs. But this marvellous piece of abstract poetry simply does not fit our empirical observations. However, for Oken who conceived himself as a natural scientist his classificatory and evolutionary system was a very precise account of how the vegetable kingdom presented itself to his eyes. But his perceptions seem to have been distorted by his basic beliefs. It is Oken's basic beliefs, above all his obsession concerning the explanatory power of the number 13, which seem to be blatantly irrational.

Many people living in our culture believe that the number 13 possesses

some magic quality; and there is a kind of belief perseverance which resists any empirical refutation. But within our scientific subculture this belief is usually discounted as mere superstition. In Oken's case there is no independent empirical evidence that would justify the assumption that nature so perfectly obeys to the number 13. And at least in our time an acceptance of Oken's system would imply that a vast amount of available counterevidence has been neglected.

Within our scientific culture the question whether Oken worked out a rational or an irrational classificatory and evolutionary system of plants seems to be decidable. However, the standard of rationality underlying this decision constitutes just another basic belief or set of basic beliefs. Why should we accept these basic beliefs?

Cultural and cognitive relativists say that we cannot help but to conform our basic beliefs to what is accepted as collectively valid within our sociocultural context. For example, Barnes and Bloor (1983, p. 27) say: "For the relativist there is no sense attached to the idea that some standards or beliefs are *really* rational as distinct from merely locally accepted as such". And Mary Hesse (1980, p. 45) has taken the view that there is no sense of rationality beyond the point where "the relevant local consensus" ceases.

Does this mean that numerologies are as good for describing and explaining nature as our scientific methodologies if they are commonly accepted by people belonging to different subcultures of our society or to cultures of different societies? Was Oken only irrational because he presented his classificatory and evolutionary system of plants within our scientific subculture, and is it rational to accept that the number 13 is a mirror image of cosmic and human order if one found some group of Neo-Pythagoreans? Is the belief that fowl excrement is a cure for ringworm and that burnt skull of red bush-monkey is an effective treatment for epilepsy as rational as our Western medicine simply if one was a member of the Azande and thus acquainted with Azande ecology and analogical mode of reasoning (cf. Evans-Prichard 1937)? And how could a significant moral difference be made between the Melanesians of San Cristobal who killed the first-born child as a device for population regulation (cf. Keesing 1981, p. 163) and the Nazi-Germans who killed the Jews as a device for population purification, if it is only the relevant local consensus which counts?

Undoubtedly, cultural and cognitive relativism maintains a humanitarian concern. One of its particular incentives has been to undermine the view of early anthropologists that "primitives think like children"; and its general goal has been to eliminate any value judgements from comparative studies of different cultures, because these value judgements seem to be inextricably bound to an ethnocentric bias. And this bias may indeed lead

to a potentially dreadful ideological mode of reasoning. However, the conviction that what may count as a good reason is radically context-dependent misses a very important point.

What is collectively accepted within different social groups or cultures may, indeed, vary with the natural environment, with some peripheral differences in the human equipment with which we perceive (cf. e.g. Campbell et al. 1966), with the social and economic structures that have developed up to a certain time point, or with some all-embracing context defining a certain collective form of life. But, whatever is collectively accepted within some social group can still be questioned, disputed, affirmed, developed, formalised and contemplated by the members belonging to this group. It can be taught to the rising generation, and it can be an object of pervasive changes. These changes may be called forth by external or ecological factors, but even then they require collective interpretations. Hence, collective systems of beliefs seem to presuppose principles and rules underlying the formation of states of collective acceptance. It is these principles and rules and their mode of application and not simply a factual local consensus which for the relativist himself will uncover what his last criterion actually means.

Cultural and cognitive relativism thus becomes amenable to at least three kinds of an empirical inquiry. First of all, one may ask what the principles and rules are which are followed by members of any social group if they try to reach a consensus on some point of controversy. Secondly, one may ask whether beneath all the contextually determined differences in the formation of collective beliefs there is a hard core of human cognitive rationality common to all cultures. Thirdly, if structural differences can be observed there could still be an equal potential of all cultures and races to develop this basic rationality within all the different domains of discourse; hence, one may ask what the mechanisms are that have blocked a corresponding evolution.

In short, cross-cultural studies of the mechanisms underlying the reproduction and change of collective beliefs and belief systems seem to be a promising way in order to advance our understanding of the 'sameness' of and the 'difference' between different cultures, and they could perhaps supply us with interesting and instructive data that shed new light on the rationality/relativity debate which has accompanied cultural anthropology from its very beginning.

To pick up a big scientific issue which so far has not been studied very extensively in an empirical way and to provide comprehensive, clear-cut and elegant answers without compelling empirical evidence this would require scientists who argue in the unbending spirit of Lorenz Oken. In the following a much more modest and strenuous path will be taken. Emphasis will be laid on the question, how this big scientific issue could be broken down into smaller research problems, which methods could

be used for dealing with these problems, and on which though quite preliminary theoretical and empirical findings a somewhat more comprehensive research programm could be based. In other words, I am not so much interested in spelling out some big research program; given our present state of knowledge on the questions raised in this introduction, it seems to be advisable to begin with rather elementary research on principles and rules that underlie the formation of states of collective acceptance, to investigate how these principles and rules develop in children, adolescents, and adults, whether and how this determines the kind of beliefs that are collectively accepted, and, most importantly, whether and to what extent cross-cultural research uncovers a universality in the ontogenesis of these principles and rules.

My point of departure is given by the assumption that a theoretical and empirical study of *collective argumentations* is central to the study of the mechanisms underlying the reproduction and change of collective beliefs. In any collective argumentation the participants will at least try to find collectively valid statements on the basis of which one of the possible answers to a disputed question can be converted into a collectively valid statement. Collective argumentations constitute a fundamental interpersonal method for the formation of collective beliefs.

In the following, some basic elements of a conceptual framework for the empirical study of collective argumentations will be outlined, and the discussion will then focus on 'moral argumentations'. Drawing on some research background concerning the development of language, discourse abilities and problem solving behavior within cognitive and social-cognitive task domains I will very shortly trace the development of moral argumentations from very young children to adolescents all of them living in the sociocultural context of Germany. A comparison will be made with a land litigation among Trobriands that has been observed by Hutchins (1980). The conclusion will be that there is some empirical evidence for the assumption that as the form of collective argumentations develops there will be different and increasingly more complex constraints on what type of basic moral beliefs can be collectively accepted, and that the Trobriands' collective argumentation fits quite neatly into this developmental order.

Finally, some proposals will be made how this research approach could be extended into two further directions: (a) cross-cultural research on different types of argumentative discourse, and (b) cross-cultural research on the mechanisms that underly the development of collective argumentations and on the mechanisms that may block a transition to higher developmental stages.

1. SOME ELEMENTS OF A CONCEPTUAL FRAMEWORK FOR THE EMPIRICAL STUDY OF COLLECTIVE ARGUMENTATIONS

In collective argumentations the primary goal is to develop a joint argument which gives an answer to a disputed question. Hence, a distinction can be made between 'argument' and '(collective) argumentation' and correspondingly between 'logic of argument' and 'logic of argumentation' (for a more elaborate discussion of this distinction cf. Klein 1980 and Miller 1986a).

Arguments are abstract structures consisting of propositions; a set A of propositions p is an argument, if and only if for all $p \in A$, p is either basically (or immediately) accepted or p follows from other elements of A by certain rules, which can be called 'transition rules'. The *logic of arguments* is concerned with defining legitimate transition rules. Thus, the rules of classical deductive logic constitute a special case of legitimate transitions, i.e. transitions that always lead from true premises to true conclusions. There might be other kinds of legitimate transitions, e.g. those of some inductive logic or probabilistic transitions. Some writers tend to define the class of legitimate transitions even more widely, e.g. Toulmin (1958) with his general conception of 'rules of inference'.

Argumentations are empirically observable events located in space and time. Usually they consist of a sequence of utterances whose content may — but need not — enter the argument to be developed. In *collective argumentations* the participants usually try to have control of the argument that is going to be developed. Nevertheless, even then they must try to coordinate their utterances in such a way that a set of collectively valid statements can be found, i.e. statements accepted by the participants at least for the time being. This set of collectively valid statements can be projected onto the structure of an argument: it comprises basic propositions, derived propositions, and transitions which can be transformed into propositions. Obviously the 'pros' and the 'contras' play a fundamental role for these processes of coordination. They are the medium in which the participants carry out the argumentative struggle for those statements or propositions that need not to be questioned any more within the context of a given argumentation. Let me call this the 'basic coordination problem' of a collective argumentation.

It could be argued that there is no 'basic coordination problem' of this kind, because either people have basic collective beliefs or they don't have it and then no coordination procedures whatsoever will help them. However, this view seems to be much too simple. Usually people begin to argue without knowing yet what their basic collective beliefs will turn out to be; if they would know this from the very beginning many conflicts could scarcely have arisen. Moreover, what belongs to the domain of the

collectively valid may change as the discussion goes on: it may shrink or expand. These processes are anything but arbitrary. On the whole they depend on how the participants proceed in order to achieve a mutual understanding of what is controversial in their dispute. There is no real consent without a coordinated dissent. Hence, a solution of the basic coordination problem of collective argumentations highly depends on abstract cognitive systems for a coordination of different perspectives on ego/alter relationships.

In analogy to the 'logic of argument' one can speak of a *logic of argumentation* which is concerned with the cognitive and communicative procedures underlying a coordination of different perspectives on ego/alter relationships. Can this analogy be carried so far as to say that there are legitimate and illegitimate coordination procedures and that the logic of argumentation is concerned with defining the legitimate ones? It is this distinction which people seem to have in mind, if they try to distinguish between a rational and a merely factual consensus. However, if this distinction should make a sense at all, one needs empirical reconstructions; and an especially fruitful strategy seem to be empirical studies on the ontogenesis of the logic of argumentation.

Finally, let me shortly raise the question how this concept of a logic of argumentation relates to the apparently quite similar concept of role-taking or social perspective taking that has been discussed and worked out by a long series of cognitive and social psychologists, e.g. Piaget (1932), Mead (1934), Flavell et al. (1968), Feffer (1959, 1970) and Selman (1975, 1980). Both approaches refer to the 'double contingency' inherent in social interaction (cf. Parsons & Shils 1951, pp. 3—29 for a precise explication of this basic feature of social interactions). Ego's perspective on ego/alter relationships is contingent on alter's perspective and vice versa. There are two self-other circles that have to be coordinated. However, so far theories of role-taking or perspective taking concentrate on only one side of this double contingency. They have been interested in ego's *or* alter's abilities to take multiple roles or perspectives, and they have left open the question how this taking of multiple roles or perspectives can be coordinated between ego and alter. They have treated only half of the double contingency (cf. also Waller 1978, Luhmann 1984 and Miller 1986a). This deficiency is supposed to be overcome by the proposed concept of a logic of argumentation which is concerned with the cognitive and communicative procedures that underly a coordination of different perspectives on ego/alter relationships. There will be some empirical illustrations later on.

This rather sketchy outline of some basic elements of a conceptual framework for an empirical study of collective argumentations suggests that, if the form of a collective argumentation imposes specific constraints

on what kinds of collective beliefs can arise, it should be the logic of argumentation which deserves the greatest interest for an explanation of this relation between belief formation and belief content.

During the last years I have carried out a series of exploratory studies on the logic of argumentation as it manifests itself in the collective problem solving behavior of groups of children and adolescents ranging from 3 to 18 years of age (cf. Miller 1986 a, b, c). There were two task domains I was interested in: empirical/theoretical and moral issues. In the first case I induced groups to collectively solve problems of a balance scale, a task domain that figures very prominently in Piaget's studies and in the more recent information-processing approaches for the study of individual problem solving behavior (cf. e.g. Klahr & Siegler 1978) and thus provided a good opportunity for a comparison between individual and collective problem solving behavior. In the second case, groups discussed moral dilemmata within a quasi-experimental setting. Moreover, I gathered a long series of spontaneous argumentations on social or moral conflicts of children and adolescents. In the following I will focus on the moral argumentations, because Hutchins' (1980) analysis on a land litigation among Trobriands provides the very rare opportunity for a preliminary intercultural comparison at least within the moral domain of discourse.

Needless to say that what I will present are only fragments of, hopefully, some work in progress.

2. MORAL ARGUMENTATIONS

A short example of a failing moral discourse may serve as a starting point for exposing the two major problem spaces of moral argumentations. In Elias Canetti's novel 'Die Blendung' (1935) the sinologist Kien and his wife Therese have a dispute about an inheritance of one million gold crowns which, in fact, doesn't exist at all. However, Therese believes to have some clues for the assumption that Kien is going to make this inheritance; and Kien, who is famous for his brilliant conjectures in the reconstruction of historical texts, finds in Therese's confused and incoherent remarks decisive and strongly supporting clues for his assumption that it is Therese who is going to make this inheritance. Therese wants to invest this money in a big furnishing house. Kien wants to buy books and even more books. The disputed question is: 'who has the right to dispose of the money?'.

However, as the dispute goes on they get entangled into more and more misunderstandings. Neither the relevant facts nor the relevant moral norms or principles can be jointly identified. And the more Kien and Therese insist on their individual 'rights', the less they can realize that they

quarrel about differently presumed inheritances. The situation explodes. Then, more by chance, they realize that there is no inheritance at all. The chapter closes with the words: 'Some moments later they had understood each other for the first time.'

Obviously, there are two problem spaces of a moral argumentation, the formation of collectively valid factual beliefs and the formation of collectively valid moral beliefs; and as Kien's and Therese's dispute also shows, there can be complex interferences between finding solutions within each one of these problem spaces. It is these interferences which seem to be especially important for an understanding of the logic of moral argumentations and its ontogenesis. But, first of all, let me point out two significant differences between the two problem spaces.

If the participants of a moral argumentation try to discover the relevant collectively valid factual beliefs, there is no closed collective system of beliefs they can rely on. On principle, there could be indefinitely many factual beliefs that are relevant. However, if they try to discover the relevant collectively valid moral beliefs, there can be an at least tentatively closed collective system of beliefs they rely on. Frequently such a system can be characterized by a 'moral code' and an 'ethos' (cf. Castañeda 1974). A moral code is a system of normative rules or imperatives that is valid for a given social group, an ethos is some principle of order underlying a given moral code; for example, it can define some hierarchy between particular norms or subsystems of norms. Closed, or tentatively closed moral systems correspond to a 'group morality' as this has been described by Durkheim (1930) calling it a 'collective consciousness' in the sense of a 'mechanic solidarity' or as it has been described by Kohlberg (1981) calling it a 'conventional morality' that defines an intermediary stage of moral development.

Of course, there can also be collective systems of moral beliefs which are, in principle, open — at least in a certain way. The ethos of such a so-called postconventional moral system is constituted by a formal principle, e.g. Kant's categorical imperative or, as Rawls (1971) and Habermas (1983) have suggested, some kind of discourse principle. This formal principle is supposed to make possible a kind of 'self-reflexive' change of moral codes. However, in the following, I will confine my discussion for the most part to closed, or tentatively closed moral systems.

The second difference between the two problem spaces concerns the explicitness of beliefs. Moral argumentations that can be observed in everyday life seem to be mostly concerned with controversies about facts. Of course, not all factual beliefs are being made explicit. A very general 'locus communis', e.g. the rather basic belief that a factual statement is true, if it relies on sensual experiences, will rarely be explicitly discussed. On the other hand, all normative or moral beliefs are usually only implicitly referred to, especially if the participants rely on some closed

system of moral beliefs that is supposed to be collectively accepted. In this case, the central moral issue seems to be an application problem; i.e. the disputed question mainly concerns the situational definition of a social or moral conflict. It is with this application problem that those above-mentioned interferences between the two problem spaces enter the scene.

These interferences between finding solutions within each one of the two problem spaces arise because the selection of relevant norms from some moral system also depends on situational perceptions of a conflict, and, reversely, the selection of relevant factual descriptions of a conflict also depends on the norms one is inclined to rely on for a justification of one's own interests. This circularity in the discovery of relevant factual and normative or moral beliefs may function as a powerful heuristics. However, it blocks the formation of collectively valid beliefs within both problem spaces, if the opponents of a conflict proceed from and stay to different perspectives. Therefore, what is developed as collectively relevant factual beliefs must be 'derelated' from the normative beliefs of the individual participants, and what is developed as collectively relevant normative or moral beliefs must be 'derelated' from the factual beliefs of the individual participants. The 'is and the 'ought' of a moral issue must be based, at least in the last instance, on different criterions of collective validity. Hence, one can see again the importance of cognitive and communicative procedures for coordinating different perspectives on ego/alter relationships. Moreover, it comes out that whatever a full reconstruction of the 'rationality' of moral discourse may turn out to be, it should comprise at least a 'logic of argumentation' which is related to this distinction between 'is' and 'ought', because otherwise one could only say that the moral argumentation between Kien and Therese is just as rational as moral argumentations can be.

3. LOGIC OF ARGUMENTATION AND BASIC MORAL BELIEFS — A DEVELOPMENTAL MODEL

In the following, a very short and somewhat superficial summary of my empirical findings on the ontogenesis of moral argumentations (cf. Miller 1986 a, b, c) will be presented. This summary is related to the following three questions: (a) is there some developmental order in the ontogenesis of the 'logic of argumentation' within a developmental period that encompasses children and adolescents from 3 to 14 years of age; (b) do different 'logics of argumentation' impose different constraints on possible basic moral beliefs, i.e. on the 'ethos' or general 'moral world-view' underlying a moral system; and (c) at which developmental point is the distinction between the 'is' and the 'ought' of moral issues firmly and adequately established?

Only around the age of 14 did the groups I observed perform some kind of genuine normative or moral discourse; i.e. they tried to evaluate different social norms and to formulate hierarchies of norms. However, up to this stage children nevertheless develop moral systems, although these systems remain rather implicit in their discourse. And depending on their logic of argumentation there are significantly different moral principles underlying these systems. Let me shortly characterize five different stages:

3.1. *Stage 1: Antagonism Without Arguments and Normative Obligations*

I observed many spontaneous conflicts and fights among 3 year-olds, but never one in which both sides tried to give different reasons for their conflicting interests or opinions. At best one of mutually exclusive judgements was supported with reasons. Hence, I call this mode of argumentation an 'antagonism without arguments', since children of this age do not seem to be able to justify mutually exclusive answers to a disputed question.

A short case description may illustrate the logic of argumentation at this developmental level. This spontaneous argumentation occurred when one child accused another one of having smudged a piece of paper and when the second child rejected this accusation. In this case both children supported their opposing standpoints by appealing to the dirt on the paper. However, whereas the first child interpreted this as evidence for the accusation, the second one interpreted this as evidence for the rejection. Of course, this is the observer's interpretation. The children were completely lost and apparently could not understand that they ascribed a different relevance to the sensory experience they both shared. Children of this age can only defend or reject a claim for the empirical tenability of a statement but not yet a claim for the relevance of a statement. Tenability relates to a statement as such. Relevance relates to a statement insofar as it is expected to support some other statement; somewhat more formally, it relates to the transition between statements that constitute an argument. In moral argumentations which seem to be only concerned with facts, relevance usually relates to some implicit normative parameter underlying the transition from some factual statements to one of the possible answers to the disputed moral question.

The lack of the distinction between tenability and relevance makes it impossible to oppose different normative standpoints to each other. Therefore, there is no need for a moral point of view for evaluating and weighing opposing normative standpoints. In other words, there can be some first order normative obligations, but no genuine moral ones for children at this age.

3.2. *Stage 2: Polarization and Heteronomous Morality*

In contrast to 3 year-olds, five year-olds frequently have antagonisms with arguments. For example, in a discussion about a modified version of Kohlberg's 'Joe dilemma', where the disputed question is whether Joe's father has to pay for Joe's stay at a camp, one child said: "The father is right, because he can't keep his promise any longer, he has made an accident"; and another child retorted: "Yes, but he can buy the smaller car" (which means that he nevertheless has the money to pay for Joe's stay at the camp).

In this example, the child who retorts does not question the tenability of the statements supporting the opponent's point of view, but rather questions the relevance of these statements. In other words, the second child denies that there is a collectively valid transition from these statements to the opponent's point of view. At this developmental stage, the distinction between 'tenability' and 'relevance' seems to be firmly established. Ego and alter can use these different types of denials in order to delimit their perspectives from each other, and they can develop a coordinated understanding of the fact that they have different perspectives.

Moral argumentations, at this developmental stage, lead to a very characteristic outcome. If the participants do not simply give up, the polarization of arguments will either persist or the participants will resort to two kinds of escapes: fighting without arguments or calling upon an authority. It is the second resort which is interesting from a moral point of view. Since children, at this developmental stage, cannot resolve their polarizations with argumentative means, a decision must come from the outside. An external authority has to weigh the opposing standpoints and to pronounce some kind of obligatory 'moral truth'. In our sociocultural context it is usually the parents and the teachers who play this role. Thus, children at this developmental stage will most probably come to endorse the conception that the 'morally good' can ultimately be defined as that which these authorities think it is. Piaget and Kohlberg have called this a 'heteronomous morality'.

3.3. *Stage 3: Neutralization and Subjective Utility*

Children of about 6-10 years of age try to resolve polarizations by neutralizing the implicit normative parameter(s) of the opponent's argument. For this, especially the older ones use quite complex communicative techniques. Here is a more simple example:

In a spontaneous and heated dispute with the disputed question: 'who may have this book?', Robert (5 years) justifies his claim by saying: "Timmy has stolen this book from me." Timmi (6 years) retorts: "I want to look at this book". The argumentation goes beyond this polarization

of standpoints when Timmi changes his strategy. He doesn't any longer deny that he has taken away a book and he doesn't deny that this, in general, would be relevant. However he denies an important pragmatic presupposition of the statement 'Timmi has stolen the book.', simply by saying: "That was a different book." In the empirical world of discourse presupposed by Timmi there are two books where in the empirical world of discourse that has been presupposed by Robert there is only one book.

Children, at this developmental stage try to relate the tenability and normative relevance of factual statements in such a way to pragmatic presuppositions that the opponent's normative parameter(s) can be neutralized and thus may get devaluated. The rationale of this logic of argumentation consists in neutralizing as many of the opponent's arguments as possible and in finding arguments for own's own standpoint which cannot be neutralized by the opponent. The children count the 'pluses' and the 'minuses' of their 'argumentation score'. However, these neutralisations involve a continuous change of situational definitions as the argumentation goes on. The development of a relevant and collectively valid set of factual beliefs is systematically blocked, because neutralizations precisely require to undermine the opponent's factual beliefs by changing pragmatic presuppositions. There can be a subjective coordination of different ego/alter relationships, but no collectively accepted coordination.

The comparison of different 'argumentation scores' does not have a moral quality from the outset. But it can find a corresponding moral interpretation in a naive moral utilitarianism that is related to a subjective principle of utility. If one can neutralize all or at least most of the opponent's normative parameters, this means that the opponent cannot have lost anything or very much, if oneself wins the case. But, of course, these utility considerations can look very differently from the different perspectives of the persons involved.

3.4. *Stage 4: Joint Factual Beliefs and Objective Utility*

Neutralisations exhibit pretty well the circularity in the discovery of relevant factual and normative beliefs that has been discussed previously. Hence, the question, how the discovery of relevant factual beliefs and the discovery of relevant normative beliefs can be 'derelated' from each other, can be also posed as an ontogenetic question which concerns a certain developmental phase.

In the argumentations of 10—11 year-olds neutralizations become very complex, especially if the participants refer to possible courses of action which may have been taken by the opponent in order to prevent a conflict of interests from the outset. Within these hypothetical discussions, any factual description of a conflict only seems to be one of many possible

factual descriptions; and each opponent tries to delimit the domain of the possible in such a way that a situational definition of the conflict can be derived which doesn't entail the opponent's factual beliefs and thus makes possible a neutralization of the opponent's normative parameter(s). If I can rely on my data basis, only groups of children being 11 years and older are capable of using a logic of argumentation that supplies some initial communicative techniques for a collectively valid distinction between the 'is' and the 'ought' of some particular moral issue.

This technique essentially consists in trying to find a set of factual beliefs which holds for any of the possible factual descriptions that have been suggested, and in demonstrating that this jointly accepted set of factual beliefs only entails one of the competing situational definitions.

For example, in a discussion of rather intelligent 11 year-olds about the 'Joe dilemma' the competing situational definitions boil down to the question whether Joe's father has the money to pay for Joe's stay at a camp or not. One side argues that Joe's father has to buy a new car which he needs for occupational reasons and for the family's summer vacation, so he doesn't have the money for Joe's stay at a camp. Now, the other side does not simply deny that a new car is needed as, for example, groups of younger children have done. Instead, these factual premises are accepted; however, it is retorted that Joe's father has promised to pay for the camp and that it is important for Joe to go there. Now, the first side counters that this may be true, but that Joe's father simply doesn't have the money for the camp. Still, a set of collectively valid factual beliefs has been developed: Joe's father needs a car for occupational and vacational reasons; and Joe has been promised the camp and it is important for him to go there. Now, the second side formulates a hypothesis on a possible state of affairs which is compatible with the jointly accepted factual beliefs but, nevertheless, demonstrates that Joe's father has the money to pay for the camp. If Joe doesn't take part in the family's vacation, Joe's father can save more money than he would need in order to pay for the camp. This is supported by some quite realistic calculations. Therefore, Joe's father can pay for the camp. There is no way for the other side to deny this possible state of affairs which is compatible with their own factual beliefs. Hence, to deny that Joe's father can pay for the camp would imply a set of inconsistent factual beliefs. This is pointed out with relish by the opposite side which finally wins the case.

One can see that for these children, approaching adolescence, a situational definition of a conflict can be shown to be collectively valid if it is compatible with jointly accepted factual beliefs. In this case, the opponent can be forced to accept this situational definition, if there is no alternative situational definition which can be shown to be collectively valid as well. This logic of argumentation clearly enables the participants of an argumentation to 'derelate' what is developed as a set of collectively relevant factual beliefs from the normative beliefs of the individual

participants. The resulting neutralisation of the opponent's normative parameter(s) can be based on joint factual beliefs.

Concerning the basic moral beliefs of children at this developmental stage one can observe that utility considerations are now based on an objective principle of utility; whereby 'objective' means that only utility considerations that proceed from joint factual beliefs can be morally justified.

3.5. Formulating Normative Hierarchies and Conventional Morality

Collective argumentations of 14 year-olds go in a significant way beyond this development of joint factual beliefs. For example, in a very heated discussion about the 'Joe dilemma' a group of 14 year-olds does not only manage to settle the question how the relevant facts can be jointly identified; they also pass over to normative issues. After some controversies, the group suggests that the bad financial status of Joe's father is a problem that concerns the whole familiy, which means that Joe cannot simply and exclusively pursue his own private interests even though these may be normatively legitimate.

If questions of fact can be jointly answered, genuine normative and moral discourse can begin. At this developmental stage, hierarchies of norms can be explicitly suggested and used for a conflict resolution. However, these hierarchies still seem to be confined to a concrete morality or group morality. Different hierarchies are not yet proposed and discussed. Thus, the problem of how a joint normative world of discourse can be established (if normative controversies arise) does not yet appear. In this sense, it is a conventional morality.

The preceding summary suggests that the logic of moral argumentations significantly changes as one proceeds from one developmental level to the next higher one and that this constrains the kind of basic moral beliefs that can be collectively accepted. Moreover, there is a developmental order in approaching that criterion of rationality which has been presumed previously to constitute at least a very important component of any full reconstruction (if possible at all) of the rationality of moral discourse, i.e. the criterion for a collectively valid distinction between the 'is' and the 'ought' of any particular moral issue. This criterion presupposes a certain logic of argumentation which in our sociocultural context seems to have been aquired at least by many adolescents.

Is this rationality criterion culturally specific? Are there cultures whose members try to settle their conflicts without following any logic of argumentation or whose members acquire more or less different logics of argumentation in a developmental order that is more or less different from our's? How are states of collective acceptance achieved in different cul-

tures within different domains of discourse, and how does this constrain the kind of basic beliefs that can be accepted?

So far, these questions have not been dealt with in cross-cultural research on cognitive development — research which, for the most part, has been concerned with cognitive operations of a 'Piagetian' type and the corresponding empirical and theoretical task domains (cf. e.g. Laboratory of Comparative Human Cognition 1982). And there seem to be not very many anthropological field studies which focus very explicitly on discourse processes among people living in non-Western, traditional, pre-scientific, non-literate and non-industrial societies and cultures. This gives a special meaning to Hutchins' (1980) detailed case study of a land litigation among Trobriand Islanders living in Papua New Guinea. And a comparison between this land litigation and collective moral argumentations among German adolescents makes possible to catch a first glimpse on the topic 'argumentation and rationality' from an intercultural perspective.

4. A LAND LITIGATION AMONG TROBRIANDS

Some legal anthropologists have reported that tribal men relate their legal or moral disputes largely to facts and only rarely to norms (cf. Wesel 1985). Fallers (1969) even talks about an overall 'fact-mindedness' among the people living in the precolonial kingdom of Bosaga in Uganda. Pospisil (1971) reported that of 176 disputes among Kapauku Papuas only 87 did at all conform to normative rules. And also Hutchins' (1980) case study of a land litigation among Trobriands shows that the dispute, as far as it was carried out explicitly, only concerned facts. However, the previous discussion has shown that such a preoccupation with facts can be based on different and, eventually, quite complicated processes of argumentation. In the following, I will focus on the question whether the Trobriands' argumentation conforms to a logic of argumentation which makes possible a collectively valid distinction between the 'is' and the 'ought' regarding the particular legal or moral issue.

However, first of all, a short summary of Hutchins' case study seems to be appropriate.

Hutchins has been mostly interested in a reconstruction of the system of beliefs which implicitly underlies land litigations among Trobriands. That is, he was not primarily interested in what the Trobriands said to one another, but in what they did not say, what was taken for granted. Using computer based formal systems he reconstructed a kind of 'cultural grammar' consisting of 16 propositions which are interconnected by a network of logical relations. Proceeding from this 'cultural grammar' he seems to have been very successful in making the very truncated and cryptic conversations among the Trobriands comprehensible to a Western

observer. Moreover, he supplied a vast amount of empirical evidence for the descriptive adequacy of this cultural grammar.

Hutchins' cultural grammar constitutes a closed system of normative beliefs which regulates how land may be passed over from hand to hand and from one generation to the next. This rather complex system cannot be fully described here. Only those aspects which are absolutely necessary for understanding the process of the reported collective argumentation will be shortly characterized.

The Trobriands distinguish between ownership, use rights and allocation rights (cf. Hutchins loc. cit., p. 19ff.).

Ownership

Every parcel of land is uniquely associated with a 'dala', i.e. a particular matrilineal subclan. This ownership is immutable and nontransferable (except a dala doesn't have any descendants). However, to own land does not necessarily mean to garden it.

Use Rights

Use rights are the right to garden a parcel of land oneself or to allow others to garden it. Use rights can be transferred to members of the own or to members of a different dala. However, having use rights does not necessarily imply having the right to transfer those use rights to another person.

Allocation Rights

Allocation rights are a kind of meta-right, i.e. the right to transfer use and allocation rights. Ideally, allocation rights never leave the 'owning' dala.

Transfer of rights is accomplished by an exchange system called 'pokala'; "pokala denotes any prestation from an individual of inferior status to one of superior status in the hope, but without the promise, that something will be returned" (Hutchins loc. cit. p. 25f.). There are three major kinds of pokala corresponding to the kind of rights that are transferred and corresponding to whether members of the same or of different dalas perform such an exchange. These three kinds are called 'pokala' (now having a specific meaning), 'katuyumali', and 'katumamata'. They differ in the amount of yams, bananas, betel nut, clay pot etc. that is being offered.

Pokala

Pokala is presented, if rights to a garden plot are held by a member of the owning dala. It may be presented by a member of the same owning dala,

or by a member of a different dala. In the latter case, only use rights are transferred; allocation rights remain in the owning dala.

Katuyumali

If a member of the owning dala wants to retrieve use rights, he presents katuyumali to those of another dala who, at this time point, hold these use rights.

Katumamata

If an heir of a 'nonowner', who holds use rights, wants to take over these use rights, he presents katumamata to the owners who have the allocation rights.

This somewhat simplified and still quite complicated version of Hutchins' description of the normative components of the Trobriands' system of transferring lands may suffice as a background for the following argumentation analysis which relies on Hutchins' complete presentation and translation of the conversational data and on his detailled semantic and pragmatic interpretations.

If land litigations arise, claims for a certain parcel of land rely on one or more of a finite set of normative rules. For example, ideally A could argue as follows: if B held allocation and use rights on a certain garden, if A (belonging to the same dala) presented pokala to B, and if this pokala was accepted by B, then A can justly claim a transfer of allocation and/or use rights to him. Or, to give another example: if A has inherited use rights on a certain garden which is allocated to a different dala, if A presents katumamata to B who has the allocation rights, and if this katumamata was accepted by B, then A can justly claim a transfer or renewal of use rights. Accordingly, one has to select relevant normative rules and relevant factual descriptions in order to support one's claims. And if there are competitive claims on the same piece of land, a set of relevant and collectively valid normative and factual beliefs has to be developed by the opponents, if there should be an argumentative solution. And, again, this involves argumentative means for achieving a collectively valid distinction between the 'is' and the 'ought' of the particular controversial subject; and for the Trobriands this, above all, means that there have to be argumentative methods for developing a relevant and collectively valid situational definition of the particular conflict.

This may become a very complicated matter, because there are no written documents which certify who held certain rights on land at a particular time point. Moreover, persons who transferred land may not be alive any more when a conflict arises, and not always are there witnesses who can testify a certain transfer of land.

The land litigation that is reported and analysed by Hutchins was heard before a village court consisting of a village Local Government Council member, who is acting as bailiff in the case, and of the village chief. The litigants, Motabasi and Kailimila, belong to the same dala. The garden in dispute is named Kuluboku. In the following, only a short summary of the two litigants' presentations can be given; the focus will lie on the kinds of argumentative moves performed and how these are being coordinated by Kailimila when he reacted to Motabasi's presentation.

In order to increase the transparency and clearness of this short argumentation analysis, rather simple tree-diagrams are used. A more thorough and formal analysis is not possible within the frame of this paper. In these tree-diagrams solid and broken arrows symbolize pro- and contra-arguments. Double arrows indicate statements which are mutually exclusive or even contradictory. Notations like 'Motabasi, A + U (Kb)' are to be read as 'Motabasi holds allocation and use rights to Kuluboku'. Number indices in these notations indicate orders in which, according to the litigants, rights on Kuluboku have been transferred from hand to hand. In contrast to Motabasi's statements, Kailimila's statements are underlined.

Motabasi's Presentation

After both litigants have been admonished by the village Local Government Council member to stay to the facts as closely as possible, Motabasi is requested to begin with his presentation. Diagram [1] refers to his presentation.

There are two major arguments Motabasi presents for supporting his claim that he holds allocation and use rights to Kuluboku:

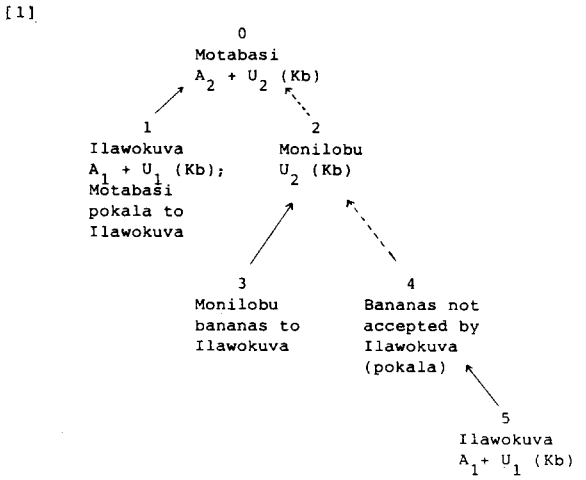

Fig. 1.

It is Ilawokuva, a sister of Motabasi, who previously held allocation and use rights on Kuluboku. Motabasi pokalaed her, and Ilawokuva transferred those rights to Motabasi (cf. nodes 0 and 1 in [1]). Ilawokuva isn't alive any more.

However, since Motabasi had previously heard from Kailimila's brothers that other people have also pokalaed to Ilawokuva, he presents a second argument in order to refute such a counterargument to his claims. The only person Motabasi has observed to have presented pokala to Ilawokuva besides himself, is Monilobu who belongs to a different dala. Therefore, the counterargument could be: Monilobu already held 'U_2 (Kb)', so 'U_2 (Kb)' cannot have been transferred to Motabasi. Motabasi also states that this counterargument could possibly be supported by his own observation that Monilobu brought an arm of bananas to Ilawokuva. However, he also suggests that these bananas could not have been accepted by Ilawokuva as an exchange (pokala) for transferring use rights to someone belonging to a different dala. So, in Motabasi's view the whole counterargument breaks down (cf. nodes 0, 2, 3, 4, and 5 in [1]).

Kailimila's Presentation

Kailimila's rather complex response to Motabasi is represented by diagram [2] (with Kailimila's statements underlined).

Kailimila's strategy for rejecting Motabasi's claims and for supporting his own claims on allocation and use rights on Kuluboku essentially amounts to the following: he doesn't deny any of the basic premises that occur in Motabasi's defence (nodes 1, 3, and 5 in [1]); he rather proceeds from two of these statements as an initial set of collectively valid statements (nodes 3 and 5 in [2]; framed by rectangles) and he tries to demonstrate that there are some other factual statements, for which he can supply strong evidence, and that these statements altogether refute Motabasi's inferences and claims and strongly support Kailimila's inferences and claims.

For Kailimila the whole controversy boils down to the question whether Monilobu's bananas were accepted by Ilawokuva or not. Kailimila resolves this controversy by showing that Monilobu's arm of bananas was not pokala for getting the use rights on Kuluboku, but katumamata for a renewal of these use rights which already had been transferred from Ilawokuva to Solobuwa (an older brother of Monilobu) who transmitted these rights to Monilobu. This history of transferring rights on Kuluboku is strongly supported by citing the outcome of a previous court case between Monilobu and Kailimila which confirmed Monilobu's inheritage of use rights on the garden (cf. nodes 5, 6, 7, 8, and 9 in [2]). This argument does not only support Kailimila's inference that Ilawokuva could accept Monilobu's bananas as an exchange for the renewal of use rights, it

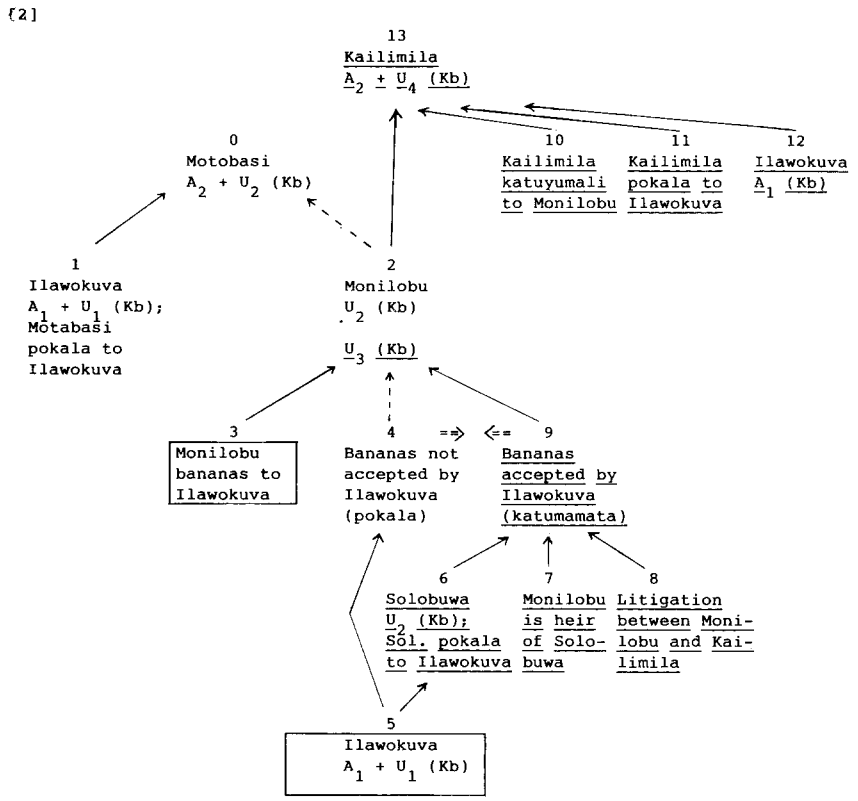

Fig. 2.

also refutes Motabasi's assumption that there was no transfer of rights on Kuluboku before allocation and use rights had been, as Motabasi claims, transferred to him (node 2 in [2]).

Thereafter, Kailimila can support his own claims in a rather straightforward manner. He pokalaed Ilawokuva who transferred the allocation rights on Kuluboku to him and, moreover, urged him to retrieve the use rights from Monilobu. He presented katuyumali to Monilobu who transferred the use rights to him. Subsequently, it proves that Motabasi cannot reject the refutation of his claims. He cannot deny the basic premises of Kailimila, because either these are identical with his own basic premises or they have a very strong evidential force (cf. nodes 3, 5, 7, and 8 in [2]). And what can be inferred from these basic premises can neither be denied by Motabasi. Hence, Motabasi's presentation turns out to be an inconsistent or even contradictory justification of his claims which the auditory doesn't accept.

This has been a very rough and global analysis which skips most of the interesting details of Hutchins' more conversationally and logically oriented interpretations. But it, nevertheless, suggests that the logic of argumentation that has been applied in Kailimila's response to Motabasi closely resembles the logic of argumentation of those German adolescents who can 'derelate' the formation of a relevant and collectively valid situational definition from the normative perspectives of the individual participants of a collective argumentation.

When, for example, Motabasi tried to refute a possible counterargument, he proceeded from his observation that Monilobu brought some bananas to Ilawokuva, but then he selected a certain normative rule (pokala rule) and assumed certain facts (Ilawokuva has not yet transferred use rights to another person) which made it easy for him to neutralize this normative rule. Of course, Motabasi was not necessarily wrong, and this circularity can also be conceived as an important heuristics. Still, German children of about 6—10 years seem to be restricted to such a logic of argumentation. But, as well as German adolescents manage to develop a logic of argumentation which makes possible to interrupt such a circularity, the Trobriands seem to be able to make a collectively valid distinction between the 'is' and the 'ought' within the context of a particular land litigation.

Moreover, there seems to be a parallel on the level of basic moral beliefs. If questions of fact can be collectively settled, hierarchical systems of norms can be formed by German adolescents. In the case of land litigation among Trobriands the normative system has taken a different shape. Still, the underlying 'ethos' seems to be quite similar in both cases, namely to get the society function by conforming to, what Hegel has called, concrete morals.

5. SUMMARY AND SOME OPEN QUESTIONS

Lorenz Oken's fantastic classificatory and evolutionary system of plants supplied the catchword for my rather preliminary considerations on 'Culture and collective argumentation': are beliefs and belief systems only rational in so far as they can be based on some 'local consensus'? If that were all one could reasonably say, 'rationality' would become a rather vacuous notion; and, indeed, this is the message of cultural and cognitive relativism. However, at least a radically relativistic position does not only lead to the absurd consequence that any belief is just as good as any other belief, if there is some 'local consensus'; it also makes intercultural comparisons meaningless and refutes the possibility to learn from these comparisons, because for a consequent relativism there is no common denominator on which such a comparison could be based.

However, cultural and cognitive relativism can be challenged on its own grounds. One can ask how states of collective acceptance are achieved, whether there is some hard core of human cognitive rationality underlying the formation of collective beliefs and belief systems, how this capability develops in children, adolescents and adults, whether there are differences between different cultures that go deeper than all the observed varieties in belief contents and refer to a systematic correlation between belief formation and belief content and, finally, what the causes of such differences are, if any should be observed. These questions call for studies on the mechanisms underlying the reproduction and change of collective beliefs. And it has been suggested in this paper that a productive and promising approach could be found in empirical and cross-cultural studies on 'collective argumentations and belief systems'.

In order to show that empirical studies of that kind need not start from scratch, some basic elements of a conceptual framework for the empirical study of collective argumentations were outlined. Emphasis was laid on the concept of a 'logic of argumentation' which is concerned with the cognitive and communicative procedures underlying a coordination of different perspectives on ego/alter relationships. Thereafter, a path was traced out that leads from the logic of moral argumentations of 3 year-olds to the logic of moral argumentations of adolescents. This showed that as the logic of argumentation develops there will be different and increasingly more complex constraints on the kinds of basic moral beliefs that can be collectively accepted. Moreover, there is some empirical evidence that, as German children approach adolescence, they will have acquired a logic of argumentation which makes possible a collectively valid distinction between the 'is' and the 'ought' of some disputed particular moral issue. A comparison with a litigation among Trobriands showed that the logic of argumentation and the corresponding basic moral beliefs of Trobriands may very much resemble the logic of argumentation and moral rationality standards of German adolescents.

Of course, all of these findings are of a more or less exploratory nature. So, a reasonable extension of such a research program would, first of all, consist in exploring and testing the suggested developmental model of 'logic of argumentation and basic moral beliefs' with regard to a broad array of empirical data on collective moral argumentations of children and adults living within different sociocultural contexts. But, one can also envisage at least two directions in which this research program could be further extended — extensions which suggest themselves rather immediately.

The first one of these extensions concerns *different domains of argumentative discourse.*

I have already indicated that within the research project on collective argumentations, I carry out at present, also the development of collective problem solving behavior within empirical/theoretical task domains is

being studied. The empirical data on collective argumentations about balance scale problems that have been analysed so far suggest that, at least with regard to earlier developmental stages, children apply the same kind of logic of argumentation within the moral and the empirical/theoretical domain of discourse; and, furthermore, that this constrains the possible theoretical or explanatory models that can be collectively accepted. Of course, especially psychologists working in the Piagetian tradition, will, at the latest at this point, like to know how the different developmental logics of argumentation can be related to Piagetian preoperational, concrete and formal operations. Elsewhere (Miller 1986a), I have discussed this issue, and for pragmatic reasons I have to refer the interested reader to this publication.

Another interesting domain of argumentative discourse could be the aesthetic domain encompassing the whole field of judgements of taste. How interesting a cross-cultural study of this domain could be, is very well documented in Bourdieu's work 'La distinction' (1979) in which Bourdieu is quite successful in uncovering systematic relations between judgements of taste within an array of different domains and economically and socially defined subcultures of France. Again, the question could be raised how states of collective acceptance can be achieved, above all, in cases where quite different aesthetic judgements collide with each other.

To study these three domains of argumentative discourse, the empirical/theoretical, the moral, and the aesthetic domain, this would amount to confine cross-cultural studies on the relation between collective argumentations and belief systems to those domains of reasoning which, since Kant's 'Critique of Pure Reason', his 'Groundwork of the Metaphysic of Morals', and his 'Critique of Judgement', define at least for our Western world fundamental domains of human rationality.

A second direction in which cross-cultural research on collective argumentations and belief systems could be extended concerns the mechanisms that underlie a developmental transition from more simple to more complex logics of argumentations and the mechanisms that may block such a transition. Such an extension to *developmental mechanisms*, however, faces a great number of rather difficult questions. Above all, it is certainly no exaggeration to say, that development is the greatest puzzle to developmental psychologists. However, there is one aspect of cognitive development which may be dealt with in quite an interesting way within the framework of 'argumentation analysis' — an aspect which has been pointed out by recent cross-cultural work on cognition and cognitive development (cf. e.g. Cole & Scribner 1974; cf. also the survey article of the Laboratory of Comparative Human Cognition 1982).

When, for example, Cole, Scribner and their co-workers went into the field in order to find out whether the manifoldly reported cultural differences in cognition and cognitive development really exist, they

discovered the pervasive role of *context*. If people's reasoning abilities are studied in social contexts (e.g. experimental settings) and with regard to task domains that are unfamiliar or even exotic to them, a psychologist may find rather significant cultural differences. But these differences do not necessarily point to differences in reasoning abilities. If, as Cole & Scribner (loc. cit.) have shown, a Kpelle man is asked a syllogism that in general does not have an equivalent in everyday discourse, he will find this question irrelevant. Why should he talk about nonsense? On the other hand, if, as Saxe (1979) has shown, schooled children from Papua New Guinea are asked about possible or hypothetical combinations of birth orders in a family, they will show an understanding of 'formal operations' somewhere between the ages of 13 and 19.

However, in these recent cross-cultural studies the notion 'context' obtains an ambiguous meaning corresponding to two opposite developmental functions. Context may push ahead or inhibit the application and the development of cognitive abilities. But, what is context?

To give a satisfying answer, one would have to work out a theory of developmentally relevant experience (cf. Miller 1986a, b). This cannot be done here. Let me simply and shortly state a couple of hypotheses which, at present, frame my thoughts on possible mechanisms that push ahead or inhibit the development of logics of argumentation.

Just consider the situation in which some people having acquired different logics of argumentation (corresponding to different developmental levels) argue about some issue. They will apply different cognitive and communicative procedures for coordinating their different perspectives on ego/alter relationships; and at least in many cases they will not succeed in developing collectively valid beliefs. However, if this should constitute some developmentally relevant experience — especially, if one of them is acting in a more teaching and the other one in a more learning function — there must be an even more basic coordination device which, among others, defines what belongs to the realm of the collectively valid and how this realm can change.

Let us assume that there are at least two basic cooperation principles of a collective argumentation which are related to this kind of a 'kinematics of the collectively valid'. According to the *principle of generalizability*, a statement (or a transition between statements) belongs to the realm of the collectively valid, if it is immediately accepted or if it can be converted into a collectively valid statement on the basis of collectively valid statements. According to the *principle of objectivity*, a statement (or a transition between statements) extends the realm of the collectively valid, if it cannot be denied (i.e., if its denial cannot be converted into a collectively valid statement), regardless of whether it supports or even rejects the point of view of some participant of the argumentation. It can be shown that this principle of objectivity cannot fully account for a

satisfying theory of developmental experience (cf. Miller 1986a). Nevertheless, it provides some starting point for understanding how the logic of argumentation could develop by participating in collective argumentations which conform to these principles of cooperation.

Correspondingly, one may ask how the constitution of developmental experience of such a kind can be blocked. In this case, one is looking for discourse mechanisms that inhibit any significant changes of the realm of the collectively valid. These discourse mechanisms must allow for a rather restricted mode of communication reducing alternative ways of thinking as much as possible. *Ritual communication* (cf. e.g. Douglas 1970, Bloch 1974, and Senft 1985) and ritualized forms of collective argumentation seem to offer a way for studying discourse mechanisms that inhibit argumentation development and a corresponding significant change of collective beliefs. And since ritual communication and ritualized forms of collective argumentation are, by no means, only restricted to certain cultures, the cross-cultural studies proposed here may, after all, tell us something about human universals of blocking rationality.

NOTE

* This paper was presented at a symposium of the Max-Planck-Society on Cognitive Anthropology at Ringberg Castle, May 12—14, 1986. The aim of the symposium was to suggest possible research topics for an interdisciplinary project on 'belief systems' carried out by cognitive scientists and cultural anthropologists.

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