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Working Paper

Environmental mediation: The mediation procedure on the waste management plan in the district of Neuss, North Rhine-Westphalia - Initial results of the companion social science research

WZB Discussion Paper, No. FS II 95-303

Provided in Cooperation with:

WZB Berlin Social Science Center

Suggested Citation: Fietkau, Hans-Joachim; Weidner, Helmut (1995) : Environmental mediation: The mediation procedure on the waste management plan in the district of Neuss, North Rhine-Westphalia - Initial results of the companion social science research, WZB Discussion Paper, No. FS II 95-303, Wissenschaftszentrum Berlin für Sozialforschung (WZB), Berlin

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DISCUSSION PAPER



WISSENSCHAFTSZENTRUM BERLIN
FÜR SOZIALFORSCHUNG

SOCIAL SCIENCE RESEARCH
CENTER BERLIN

FS II 95-303

Environmental Mediation: The Mediation Procedure on
the Waste Management Plan in the District of Neuss,
North Rhine-Westphalia—Initial Results of the
Companion Social Science Research*

Helmut Weidner und Hans-Joachim Fietkau

Schriften zu Mediationsverfahren im Umweltschutz Nr. 10

ISSN 1011-9523

Forschungsschwerpunkt:
Technik — Arbeit — Umwelt

Research Area:
Technology — Work — Environment

Abteilung:
Normbildung und Umwelt

Research Unit:
Standard-setting and Environment

*This paper is a translation of WZB Discussion Paper No. FS II 94-322 (Schriften zu Mediationsverfahren im Umweltschutz Nr. 6). One subchapter has been added.

ZITIERWEISE • CITATION

Helmut Weidner und Hans-Joachim Fietkau

Environmental Mediation: The Mediation Procedure on the Waste Management Plan in the District of Neuss, North Rhine-Westphalia—Initial Results of the Companion Social Science Research. Schriften zu Mediationsverfahren im Umweltschutz Nr. 10.

Discussion Paper FS II 95 - 303
Wissenschaftszentrum Berlin für Sozialforschung 1995

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ENVIRONMENTAL MEDIATION: THE MEDIATION PROCEDURE ON THE WASTE MANAGEMENT PLAN IN THE DISTRICT OF NEUSS, NORTH RHINE-WESTPHALIA.

Summary

For the first time ever in the Federal Republic of Germany a mediation procedure on a waste management concept has been carried out. It took place in Neuss in the German federal state of North Rhine-Westphalia. The interdisciplinary project group, "Environmental Mediation", from the Science Centre Berlin for Social Research (WZB) was one of the initiators of the mediation project. It conducted social science research that accompanied the procedure throughout. The procedure began in March 1992 and ended in August 1993 with a "controversial compromise"; in particular, it proved impossible to reach agreement on the question of whether waste incineration was objectively necessary and legally required. The results presented here should be seen as a workshop report; the final report is planned for winter 1995. This paper will provide an overview of events leading up to the mediation procedure and the course it has taken, in conjunction with the methodological approach of the parallel empirical research and the international comparative studies that are still going on. It will then report some of the central findings from our participatory observation and questionnaire survey, and examine the influence of the normal political process before, during and after the mediation procedure. The problem of "success" and "failure" as criteria for assessing the results of the mediation will be discussed. The conclusion drawn is that, although the mediation procedure in Neuss did not manage to counter the gravitational force of the normal political process, certain aspects indicating a positive conflict resolution have emerged as well as results that are not normally possible to achieve in formal (conventional) procedures.

This research has been funded in part by the German Federal Ministry of Education, Science, Research and Technology (BMBF).

UMWELTMEDIATION. DAS MEDIATIONSVERFAHREN ZUM ABFALLWIRTSCHAFTSKONZEPT IM KREISS NEUSS

Zusammenfassung

Zum ersten Mal wurde in der Bundesrepublik Deutschland ein Mediationsverfahren zu einem Abfallwirtschaftskonzept durchgeführt. Es fand im Kreiss Neuss (NRW) statt und ist von der interdisziplinären WZB-Projektgruppe "Mediationsverfahren im Umweltschutz" mit initiiert und sozialwissenschaftlich begleitet worden. Das Verfahren begann im März 1992 und endete im August 1993 mit einem "strittigen Kompromiß": insbesondere über die Frage, ob eine Müllverbrennungsanlage sachlich notwendig und rechtlich erforderlich sei, konnte keine Einigung erzielt werden. Bei den hier vorgetragenen Ergebnissen handelt es sich um einen Werkstattbericht, der Ende 1994 unter dem Titel "Umweltverhandeln" im Verlag edition sigma, Berlin, erscheinen. In diesem Beitrag wird - neben einem Überblick zur Vorgeschichte und zum Ablauf des Mediationsverfahrens, zum methodischen Vorgehen der empirischen Begleitforschung sowie zu den noch laufenden internationalen Vergleichsstudien - über einige zentrale Befunde aus der teilnehmenden Beobachtung und der Fragebogenerhebungen sowie zum Einfluß des politischen Normalprozesses vor, während und nach dem Mediationsverfahren berichtet. "Erfolg" und "Mißerfolg" als Kriterien zur Bewertung von Mediationsergebnissen werden problematisiert. Fazit ist, daß durch das Neusser Mediationsverfahren die Gravitationskräfte des politischen Normalprozesses nicht aufgehoben werden konnten, sich aber Formen und Ergebnisse einer positiven Konfliktregelung ergeben haben, die in förmlichen Regelungsverfahren üblicherweise nicht erreichbar sind.

Das Forschungsprojekt wurde durch das Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie (BMBF) finanziell gefördert.

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1. Introduction*

1.1. Environmental mediation—A new procedure in the Federal Republic of Germany for resolution of disputes

Generally it can be said that environmental disputes are on the increase in all democratic industrial societies and that attempts to resolve them still take place predominantly in the courts. In the United States of America, the country with the most innovative although not the most effective environmental policy, new kinds of procedures for dispute resolution were developed quite some time ago and have been practised ever since. The aim of these new kinds of procedures is to avoid unproductive conflicts. Collectively they are termed "alternative dispute resolution". The numerous kinds of alternative procedures have one thing in common: they aim to settle disputes through negotiation. Participation is voluntary; solutions based on consensus are sought; every attempt is made to preserve whatever common ground still exists between the parties to the conflict.

Amidst the broad spectrum of different forms of organisation to be found in alternative dispute resolution procedures one form has emerged as being particularly successful: the *mediation procedure* with an *active* mediator. His or her main task is to design a fair procedure capable of bringing about a solution acceptable to all persons and institutions involved in the conflict. In so doing, the mediator should seek to involve all groups relevant to the conflict, particularly those that have difficulty articulating their points of view and those that have few or no rights in formal procedures. The mediator acts as guardian of this idea and (along with the parties involved) creates a frame of procedural rules which he or she then watches over.

It has become obvious that the authorities responsible for environmental matters in Germany are finding it increasingly difficult to make or implement acceptable decisions about projects with major environmental consequences without provoking intense conflicts. The power of environmental groups to block the implementation of decisions has increased sharply throughout the history of environmental policy in the Federal Republic of Germany and in times of

* Extracts from the article "Praxisbericht Mediationsverfahren Kreis Neuss" in the anthology *Umweltkonflikte. Vermittlungsverfahren zu ihrer Lösung*, edited by Frank Claus and Peter Wiedemann, (published by E. Blottner Verlag, 1994, in Taunusstein), pp. 99-118, have been included in this paper. There are on the whole no bibliographical references since the main concern here is to describe our findings from the mediation procedure in Neuss. A selected bibliography can be found in the attached list of publications on the project.

economic restraint, such as we are now faced with, the pressure exerted by the business community on the authorities to take decisions quickly and implement them promptly usually increases. At the same time (also as a result of the predominantly reactive rather than proactive approach to environmental policy) environmental problems intensify on a broad front, and trend reversals and increased problems start to appear in areas which, to date, have been relatively successful. Faced with these generally unfavourable basic conditions, aggravated by pressure from seemingly antagonistic interests, the environmental authorities "crumble apart" and they become incapable of action. As a result they act as if they had no other choice but to strengthen their authority (e.g., with laws to speed up implementation of regulations, or by cutting back rights of participation) or to take sides.

Virtually all major environmental disputes in Germany end up in court. It is seldom, however, that a court ruling will satisfy all parties to the conflict, and even the winning party is rarely completely satisfied. Court rulings often lead to long-lasting resentment on the part of the weaker party, and they do not exclude the possibility of subsequent implementation deficits. Using instruments of legal and political power to implement less than optimal decisions in cases of dispute undermines trust in the capacity of state institutions to solve problems and in their impartiality. One side will complain about the "weak state" (and call for privatisation and de-regulation), while the other side sees the state as "an advocate of the economically strong" that jeopardises the ecological future of everyone for the sake of short-sighted profit interests or even self-interest (nepotism, graft, corruption).

Under these conditions, conventional procedures for decision making face increasing, fundamental criticism. Some critics see these procedures as inefficient relics of an overly bureaucratic view of the state; others see them as ecologically blind instruments which systematically favour economic interests. If these were merely the exaggerated criticisms of a few, we would not be looking at a structural problem of the political process. But opinions and attitudes of this kind are widespread, and in the district of Neuss in North Rhine-Westphalia, our area of investigation, we came across them to an astounding degree. Against a background of this kind of experience—to a great extent an "interpretation background"—it can come as no great surprise that conventional procedures therefore have such a bad reputation that it hardly seems possible that this could be repaired in the short to medium term. This is possibly an indication that, in the field of environmental policy, confidence in the ability and will of

political/administrative institutions to solve problems is perhaps the most scarce resource at present. This is despite the fact that, in the course of formal procedures, by far still the greatest number of decisions are taken with relative ease and lack of friction. In a situation like this—characterised by a mass of expectations, experiences, interests and fears—it is not surprising that alternative procedures for settling environmental disputes, such as environmental mediation, meet with increased interest and optimism. In particular, the following changes and improvements are expected from a mediation procedure vis-à-vis conventional procedures:

- the incorporation of themes and aspects which to date have been repressed, i.e., an extension of the framework of themes and options governing environmental policy: This, according to expectations, would make decision making processes not only more environmentally appropriate but also more democratic. (There are good arguments to support this view in the "local power research" carried out in the sixties and seventies. This research showed that when decision making is based on power and interests "non-decisions" in fact systematically occur, so that the visible conflicts in decision making processes do not reflect the entire extent of social problems and social conflicts.)
- the creation of a decision making process that would be more appropriate to society, taking into account the change in values that has occurred particularly in the industrialised countries: This would make it possible to consider social and conflict-relevant aspects that have not yet been legally standardised, and to consider even vague fears and feelings of uncertainty. It is hoped that this would bring greater rationality and stability into decision making. In this context it is also argued that a communication process more appropriate to the problems would become possible since it would not take place in the "dramatic" political arena nor would it aim deliberately strategically at a final decision being taken by the courts.
- broadening and deepening of participation through the active mobilisation of groups of people affected or interest groups otherwise excluded: This would replace the public relations work and efforts at persuasion that usually occur after the event in order to generate acceptance for basic decisions taken after consultation especially with economic interest groups.
- From a broad democratic and system-theoretical perspective, it is hoped that members of the public who are tired of politics will be re-integrated into the political system as a result of this procedural change. Political scientists have

provided some arguments to support this. At the same time, however, the theory—particularly strongly advocated by Niklas Luhmann—still persists that an increase in participation will lead to an increase in frustration, amongst other things, due to increased disappointment since individuals seldom see their interests fully realised.

- More socially effective risk communication and assessment of the consequences of technology will become possible, due to greater attention to ecological, societal and economic points of view of the various special interest groups.
- Finally, it is often emphasised that alternative dispute resolution procedures help save time and money. This tack is probably taken mainly in order to make such procedures seem more appealing to public administrations and businesses. Nevertheless, relevant literature on empirical cases and our experience to date offer little proof that this is the case. In the long run, however, from a view that also takes into account the formation of "trust capital" for future decisions on environmentally explosive topics, the cost-benefit analysis could prove favourable.

Mediation procedures are thus saddled with huge expectations: an increase in ecological effectiveness, an increase in efficiency, democratic integration and the implementation of a higher ecological rationality that should also somehow be emotional—and all that within the existing frame of conventional political and procedural practice. Mediation procedures are thus sometimes viewed idealistically as islands of bliss in a sea of bad political practice. Given such a high degree of idealisation, profound disappointments are inevitable. The history of political ideas and political research has taught us that structural changes (structures in the sense of entrenched power and interest relations) in modern political systems need a great deal of time, in particular if they are to be attained through reform in which *social innovations* and *social learning* play a decisive role and not through revolutionary acts of force. Mediation procedures in the Federal Republic of Germany, like in other countries, are, in the main, social innovations: in other words, not complementary instruments imposed by the state, but instruments that have evolved from social practice into formal policy.

1.2. The WZB research project on mediation procedures in the field of environmental protection

Since 1990 a group from the research unit "Standard Setting and Environment" in the *Wissenschaftszentrum Berlin für Sozialforschung* (Science Centre Berlin for

Social Research) (WZB) has been conducting a broad-based research project on mediation procedures in the field of environmental protection funded by the German Federal Ministry of Education, Science, Research and Technology (BMBF). The project looks at a mediation procedure in the district of Neuss. From the outset, this project was accompanied by parallel multi-disciplinary research conducted by a group composed of political scientists, psychologists and engineers. In addition, a comparative analysis of mediation cases in the field of environmental protection in Germany and elsewhere (the US, Canada, Japan, Switzerland and Austria) is being conducted; for Great Britain, Denmark, Italy, Sweden and the Netherlands an overview on the environmental mediation practice is under preparation¹. The question central to the academic research is whether, and under what conditions, mediation procedures can be successfully employed in environmental planning procedures and schemes rife with conflict in the Federal Republic of Germany in a way that promises success both in ecological and social terms, for politics and the public administration.

In September 1991 the local council in the district of Neuss approved a waste management programme. The intent of this programme was to ensure reliable disposal as required by law in the state of North Rhine-Westphalia, and to put into practice the priority given in principle to avoidance and recycling of waste over disposal. The remaining refuse is to be incinerated and incineration residue recycled or deposited in a landfill. The central components and planning data for this waste management programme were criticised, particularly by environmental associations and pressure groups, and also by the Green Party in the local council. The individual issues were:

- the full exploitation of all possibilities for avoiding and reducing household waste and waste from trade and commerce;
- the increase in the quotas of waste generated in the district from industry and commerce to be avoided and recycled;
- the use of all appropriate methods for separate collection and sorting and treatment of recyclable waste fractions;
- the necessity for, capacity of, and the ecological and health impacts of a waste incineration plant;
- the siting of new plants for incineration and landfill waste.

¹The results will be published in: Helmut Weidner (Ed.), Environmental Mediation. Experiences with Alternative Dispute Resolution in Various Countries, Berlin: edition sigma (spring 1996).

During the course of discussions which sometimes involved quite vehement clashes dating back to long before the formal resolution taken by the local council on the waste management concept, the environmental mediation research group from the WZB and the local administration in Neuss persuaded all the main parties to the dispute to try to settle their differences through mediation. The WZB provided organisational and financial support to help set up and implement the procedure. It was able to draw upon funding from the BMBF for this.

In all, nine big mediation sessions (an average of 45 participants representing some 30 groups) took place, in addition to a number of smaller meetings with deliberately smaller groups of participants. At the end of August 1993, the ninth and final large meeting took place, wherein the main points of conflict remaining (particularly the type of waste treatment technology) were discussed. The mediation procedure ended in a "controversial compromise": no consensus could be attained on the waste incineration plant (the official term for which is "thermal residual waste treatment plant") favoured in particular by the local administration and the political parties, *excluding* the Greens. On the other hand, agreement was reached about a number of points that had previously been hotly disputed, for instance, trends in waste volumes, advice on waste management, composting, and refuse sorting.

2. The Mediation Procedure in Neuss

2.1 Background information on the district of Neuss

The district (*Kreis*) of Neuss is in the Lower Rhine region of the state (*Land*) of North Rhine-Westphalia. It belongs to the county (*Regierungsbezirk*, the intermediate authority between local and *Land* level) of Düsseldorf and borders directly on the city of Düsseldorf, the capital of North Rhine-Westphalia. The county of Düsseldorf comprises five districts and ten self-governing towns, and has a total of 5.3 million inhabitants. It is part of Germany's, and indeed Europe's, largest industrial conglomeration, the Rhine-Ruhr region, which is also Europe's most densely populated area (approximately 1,000 inhabitants per square kilometre). There are at present six household waste incineration plants, one incineration plant for hazardous waste (a further such plant is under construction), eleven household waste and nine hazardous waste landfills, and a number of special waste treatment plants.

With 425,000 inhabitants, the district of Neuss is the tenth largest district in Germany; it has a surface area of 576 km², comprising six towns and two

municipalities. Its land use structure is mixed: it includes some highly industrialised areas as well as some mixed use areas and some rural agricultural areas. The processing industry dominates in the district of Neuss, accounting for 40% of all employees; large lignite-fired power stations and large expanses of open-cast lignite mines characterise the face of the district. This area has the highest "density of energy generation" and the largest uninterrupted deposits of lignite in Europe, and it has the greatest concentration of lignite-fired power stations in the world. The structural character of the area is also further defined by the chemicals industry, the steel industry, the engineering and automobile industries, the metalworking industry, the paper and wood processing industries, and quite a bit of light industry as well. Because of the industrial and energy generation structure and the population density, parts of the district are heavily polluted; the pollution levels are at times way above the German national average. The Christian Democratic Union (CDU) is the strongest political party in the district council, as well as in many of the towns and municipalities. The elections in 1989 resulted in the following distribution of seats in the district council: the CDU, 31 seats; the Social Democratic Party (SPD), 28 seats, the Free Democratic Party or "the Liberals" (FDP), 5 seats; and the Greens, 5 seats. (The Independent Voters' Association (UWG), supported by the citizens' initiative against waste incineration, won a large percentage of the vote in three election districts in close proximity to a potential site for a waste incineration plant.)

Under the *Waste Act* of North Rhine-Westphalia (§5, LAbfG NW), the district of Neuss is a "local authority with a disposal mandate" for what is known for short as household and commercial waste (this includes household refuse, commercial refuse similar to household refuse, bulky refuse and refuse from building sites), but not for hazardous waste or recyclable resources collected under the German "dual system", and thus obliged by law to draw up and regularly revise a waste management programme,² and it was one of the first districts to do so in 1986.

² The divided responsibility for waste disposal between the district of Neuss and the town of Neuss will be in force up to the end of 1995. Until December 31st, 1995, the town of Neuss—not the district—is responsible for the treatment, interim storage and disposal of its own as well as waste from the towns of Kaarst, Korschebroich and Meerbusch. In a decree of March 11th, 1991, the Minister of Environment for the state of North Rhine-Westphalia stated that this special responsibility would not be extended beyond the end of 1995. The decree also stated that the *district* of Neuss' future waste management plans should, from that point on, address the *entire* area.

The district of Neuss' waste management programme of 1986 was revised in 1991 and further developed in the mediation procedure. The district has two landfills (a third in the town of Frimmerdsorf is out of service), one hazardous waste landfill, a power station that also incinerated hazardous waste until February 1994, and a large chemicals factory in Dormagen (Bayer AG) that is currently building its own hazardous waste incinerator. Of the total volume of waste, amounting to 666,000 tonnes per annum, approximately 535,000 tonnes were deposited in landfills in 1989. The waste management programme of 1991 assumes that the total volume of waste will remain constant in the future, the forecast increase in waste, anticipated as a result of economic growth and population increase, being offset by waste avoidance measures. On the basis of this prognosis one more combined landfill (with areas for hazardous waste, and household and commercial waste) and an incineration plant for household waste are planned. These constituted the most hotly disputed points in the mediation procedure. The responsible administrative department argued that the waste incineration plant was necessary, based primarily on the facts that forecasts about the volume and structure of waste, current disposal technology, and waste legislation at central government and state level made other disposal methods (in particular the biological-mechanical type) out of the question as single alternatives, both from an objective and legal point of view (thus making them impossible to implement against the will of higher authorities).

The higher authorities, those to which local and district authorities in North Rhine-Westphalia report on matters of waste management, are the state environmental ministry (the Ministry of Environment, Regional Planning and Agriculture) and, on the middle level, the Düsseldorf county government (*Bezirksregierung*), the authority responsible for approving plans and issuing licenses. Since 1987 Division 5 ("environment") of the county authority has subsumed all the governmental sections concerned with environmental matters. Section 52, "waste management", is responsible for waste. In legal terms this is the "higher waste management authority". Apart from the responsibilities mentioned above (for licensing waste incineration and treatment plants) the county authority is also responsible for reviewing the waste management programmes set up by the local authorities, for analysing data on waste trends, licensing and checking hazardous waste facilities, monitoring other waste treatment facilities, and providing advice, legal assistance, and financial and technical support to local authorities for dealing with contaminated sites.

Since 1988 the Düsseldorf county authority has drawn up its own waste disposal plan for the entire county, which is revised continually. The environment ministry of North Rhine-Westphalia and the head of county government (*Regierungspräsident*) advocate primarily (and sometimes very vehemently) the construction of waste incineration plants. Legal underpinning for this was provided by an amendment to the *Regional Waste Act*. The set of requirements outlined in the *Technical Instructions on Household and Commercial Waste of 1993* (*Technische Anleitung Siedlungsabfall*, a federal administrative regulation) are considered legally unequivocal on the fact that household and commercial waste may no longer be landfilled without preliminary treatment and that, according to present levels of knowledge, thermal treatment is the only adequate way of ensuring that the requirements of the *Technical Instructions* will be met.

2.2. Background to the Neuss mediation procedure

In December 1990 initial contacts were established between the WZB and the administrator responsible in the district of Neuss for the environment (the head of department, *Umwelt- und Gesundheitsdezernat*). This administrator expressed a basic interest in mediation procedures. In a meeting with representatives from the district administration in February 1991 the following agreement was reached: The district administration, as the local authority responsible for waste disposal, was prepared to participate in a mediation procedure on its waste management programme and to support the research interests of the WZB. The responsibility of the WZB, in turn, was to determine the chances for implementing a procedure of this kind; it would, if required, assume the organisational tasks, bear the direct costs, seek a potential mediator for proposal to the disputing parties (and finance him/her), and it would set up a mediation office in the district of Neuss. Thus, for the first time in the history of environmental policy in the Federal Republic of Germany, a public administration had decided in favour of a mediation procedure on a waste management programme. This means that a procedure had been selected with which there has been little experience in Germany: Up to that time, only one other environmental mediation procedure had occurred—that over the leaking hazardous waste landfill in Münchehagen in Lower Saxony.

Following the agreement with the Neuss district administration, members of the WZB project team held intensive preliminary discussions with numerous groups who had concrete or potential interest in the district's waste management policy. During these discussions the project team informed the interest groups about the reasons for and aims of a mediation procedure (a procedure with which

most of the parties to the discussion were not familiar), and about the WZB's research interests. Parallel to this an extensive search for a mediator began. Finally, on the basis of these preliminary discussions, the WZB project team decided that the chances were good to implement a successful mediation procedure. It remained the task of the potential mediator to review this assessment and decide whether to take the job.

At a public information meeting and discussion organised by the Neuss district administration to present its waste management concept, we introduced the mediation procedure, presented the mediator we had provisionally selected and described our selection criteria (impartiality, social and political competence, experience in dealing with complex administrative organisations, basic environmental knowledge). Both the project and the potential mediator met with the broad approval of the participants. The project was also discussed at one of the meetings of the Neuss district environment committee (a district parliamentary committee) in which we took part. The project was supported and the proposed mediator approved.

In the ensuing period from September 1991 to the end of March 1992, the provisional mediator (he had at that time not yet been formally appointed), Professor Georges M. Fülgraff,³ held numerous preliminary, bilateral and multilateral discussions with a large number of potential participants. He began his round of discussions with the district administration. These discussions served to provide information about the purpose and form of the mediation procedure, and about the mediator's own understanding of his task. They also explored to what extent there was scope for compromise and identified the central points of conflict.

As a result of preliminary discussions (in the main, concluded by the end of January 1992), the mediator decided that there was sufficient scope for negotiation—just enough to justify a mediation procedure, even though the Neuss district council had already passed the waste management programme (which had been in preparation for some time) in September 1991, despite the Green Party's

³ Georges M. Fülgraff MD, born in 1933, specialises in pharmacology and toxicology. He is currently professor of public health at Berlin's Technical University (*Technische Universität Berlin*). Since 1974 he has served as president of the German Federal Office of Public Health (*Bundesgesundheitsamt*); from 1980 to 1982 he was permanent secretary in the German Federal Ministry of Public Health and for six years has been a member of the Council of Experts on Environmental Matters (*Sachverständigenrat für Umweltfragen*).

votes against it. The aim of the mediation procedure was specified as being to explore whether and how the waste management programme could be modified in such a way that it would enjoy support by a broad consensus among the population, that it would benefit the environment and the people in the district of Neuss, and possibly compensate for local disadvantages.⁴ The relevant political bodies, represented by delegates in the mediation procedure, agreed to incorporate the results of the procedure into their decisions.

2.3. Chronology of the mediation procedure

At the end of March 1992 the first big mediation meeting took place in Grevenbroich (seat of the Neuss district administration). Representatives of all the groups were invited who had shown an interest in participating in the procedure during preliminary discussions. None of those approached rejected the procedure explicitly by declining to attend this first meeting or any of the subsequent meetings. Each group had the right to participate with up to three representatives. This agreement was handled very flexibly, however, and it never became a point of contention. In all, nine big mediation meetings took place, some of them lasting an entire day, others only about four hours. Invitations to the meetings and information materials were mailed by the mediator's office in the Glehn Technology Centre, staffed by a part-time assistant to the mediator, financed by the WZB.

In addition to the nine big mediation meetings, a number of smaller meetings also took place, some of them with the participation of the mediator. These smaller meetings can be subdivided into two main types: (1) special sessions that had been discussed and approved in the larger meetings, called to respond to the needs of particular groups (especially environmental organisations and pressure groups); (2) special sessions held at the request of individual groups without previous discussion in the larger circle of participants, usually called to prepare for larger meetings. In addition to these (as in any normal political process), there were further meetings between different groups with the aim, for instance, of co-ordinating their strategies within the mediation procedure. Below we have presented a chronological overview of the large, "official" meetings and the smaller mediation sessions.

⁴ Information documented by the mediation office, Glehn Technology Centre in the district of Neuss.

A short chronology of the mediation procedure in the district of Neuss

December 1990

The administrator in charge of environment in the district of Neuss, Dr. Reiner Fonteyn, indicated that he was interested in carrying out a mediation procedure in conjunction with the WZB to address the waste problem in Neuss.

February 1991

The WZB "environmental mediation" research team and the local council discussed the mediation procedure and agreed to launch the project jointly.

6 July 1991

We presented our mediation project at the "public waste forum" in Neuss and proposed our candidate, Professor G. Fülgraff, as mediator. Both the project and the choice of mediator met with approval.

August 1991

The mediator took up his post.

September 1991

The Neuss district council passed a new waste management programme against the votes of the Green Party representatives.

October 1991

The WZB set up a mediation office in the district of Neuss' Glehn Technology Centre. This office was run on a part-time basis by a social scientist.

13 November 1991

A co-operation agreement on the mediation procedure was signed by the leading administrators of the Neuss district authority and the WZB research team.

November 1991 - January 1992

Preparatory discussions prior to the first mediation meeting were held. A total of 21 preliminary discussions, involving all potential participants, were organised by the mediator and the WZB project team. In general, everyone approved of the procedure and shared a willingness to participate in it.

28 March 1992

The first joint mediation meeting took place in Grevenbroich, the district administrative seat. Over 60 persons took part, representing some 30 organisations and institutions ranging from the field of politics, administration, nature conservation and environment, to pressure groups, churches, trade and industry. This meeting constituted the beginning of the mediation procedure. The first concrete step taken was to announce the intention to ask consultants trusted by the environmental groups to comment on the existing waste management programme. It was agreed that no further measures be taken until the expert report had been completed and discussed.

8 May 1992

Individual questions concerning the expert report were discussed by the mediator and the environmental pressure groups; they developed a catalogue of questions. The consultants who were to prepare the report (Öko-Institut Darmstadt) were selected. In particular, the wishes of the environmental groups were taken into account.

26 May 1992

The second big mediation meeting took place in Neuss. The proposals of the administration to commission further expert reports (on existing pollution levels, additional pollution, noise and additional traffic at three potential sites for waste incineration plants, the state of health of the population and the potential for reducing waste in various areas) were discussed by the 40 participants. Agreement was reached on most of these matters.

3 July 1992

A meeting was held between the Neuss district administration, the environmental pressure groups and the consultants to discuss the environmental implications for the area. A report was commissioned to describe the potential environmental impacts of a waste incineration plant at any of the three possible sites currently under consideration.

10 July 1992

A meeting was held between the Neuss district administration, the environmental pressure groups and the consultants to discuss a health study. A report was commissioned to describe the current state of health of the population at the three potential sites for the waste incineration plant.

18 December 1993

The third mediation meeting took place. In this meeting, first part of a report submitted by the Öko-Institut Darmstadt, on the waste management programme was discussed.

16 January 1993

The fourth mediation meeting was held. In this meeting the second part of the report submitted by the Öko-Institut Darmstadt on the Neuss district waste management programme was discussed.

24 February 1993

The fifth mediation meeting took place. In this meeting the question of commissioning a report to compare the two philosophies for disposing of residual waste, the "cold" method (biological-mechanical treatment) versus the "hot" method (incineration), was discussed. After a lengthy debate during which the environmental organisations in particular expressed their dissatisfaction with the selection process, and following a proposal by the district administration, the participants finally agreed to select a consultancy to review both issues. In addition, an experts' hearing to be conducted by the environmental pressure groups and organisations was scheduled for April. This was to be followed by a public hearing in May 1993 as part of the mediation procedure.

3 March 1993

As part of the mediation procedure, the Neuss district administration and representatives of the environmental organisations met in the presence of two consultants to prepare the commissioning of the expert report (see 24 February 1994). The consultants' remit was formulated. (The environment committee and the Neuss district council approved the commissioning of the report later in March 1993).

29 April 1993

A small hearing of experts was held together with representatives of the environmental groups. Four experts presented their opinions on the *Technical Instructions on Household and Commercial Waste (TASi)* and on the treatment of residual waste. The group consisted of two legal experts to explain the legal problems connected with the TASi and two technical experts to comment on biological-mechanical treatment of waste and waste incineration.

11 May 1993

The topics discussed at the sixth mediation meeting were:

- legal questions connected with the TASi,
- the TASi's coming into force on June 1st, 1993. This administrative regulation is a piece of federal legislation which has a great influence on the choice of disposal technology for residual waste. It favours "hot" (thermal) methods.
- converging and diverging opinions of two experts on the technical aspects of "cold" versus "hot" techniques for treating residual waste.

24 June 1993

In the seventh mediation meeting a report on biological-mechanical methods of waste treatment and a report on thermal methods were presented by consultancy experts from Hoberg, Tilke und Partner (HTP) in Aachen. With this the phase of fundamental clarification of the disposal philosophies of the waste management programme was initiated.

5 July 1993

At the eighth mediation meeting the following reports were presented and discussed:

- a report on the pros and cons of the three potential waste incineration plant sites from a traffic point of view,
- a report comparing the potential noise impacts at each of the three sites,
- a report on existing pollution levels at each of the three sites,
- a report on the possibilities to avoid commercial and industrial waste, and
- a public health report for each of the three sites.

It was decided that, at the next meeting, the basic issues of disposal philosophies underlying the Neuss district waste management programme would be discussed.

27 August 1993

At the ninth and last big meeting, the mediator gave a summarised presentation to illustrate how the procedure and the reports compiled for it had, in many respects, facilitated some reconciliation in points of view among the various administrators, organisations and institutions involved. The technical solution to the problem of residual waste treatment nevertheless remained a bone of contention. The district administration essentially adhered to its view that residual waste should be incinerated; it did, however, leave open the possibility to consider at a later date (roughly 2 years hence) the newest developments in technology before it made a final decision. Neurath (part of Grevenbroich) was the chosen site for a waste incineration plant of this kind. The Green Party, citizens' initiatives and environmental organisations persevered in their demands for a biological-mechanical waste treatment plant. This was the final state of discussion by the end of the mediation procedure. The mediator—in agreement with representatives of some of the participating groups—issued a press release. He also offered to organise and head further mediation meetings, should an urgent need for such arise.

16 September 1993

The environment committee of the district of Neuss met. The administrator in charge of environmental matters presented a draft resolution to the committee, drawn up by the environmental department, on the waste management programme. The chair of the district environment committee thanked the various environmental organisations and administrative departments for their productive co-operation during the discussion and modification of the waste management programme. The chair made special reference to the mediation procedure which, he said, in a number of points had had positive influence. The political parties, with the exception of the Free Democratic Party (FDP), commented positively on the way the mediation procedure had progressed and on its results. This was followed by discussion on the selection of a site for the waste incineration plant. The Green Party proposed that a site selection procedure be initiated for both methods—incineration and the biological-mechanical option. This proposal was rejected by the majority of the committee. The committee decided to present the administration's draft resolution ("Selection of a Site for a Waste Incineration Plant") to the district council for approval, with those amendments passed by a clear majority.

29 September 1993

The district council (*Kreisparlament*) met. At this meeting the resolution drafted by the environment committee was definitively passed. This meant that the revised waste management programme had been approved and that the initiation of a procedure to earmark a site for a residual waste thermal treatment plant in Neurath was agreed. The chief executive officer and political party leaders on the council explained their positions on the matter. Amendments proposed by the Greens to initiate a site selection procedure for a bio-mechanical plant and by the FDP to select Neuss-Hafen as the site were rejected. Most speakers viewed the mediation procedure positively.

2.4. How the procedure stands and overview of the results

The greatest differences of opinion amongst the participants in the mediation procedure concerned the objective necessity for a waste incineration plant, the legal necessity for a waste incineration plant (as a result of the TAsi and a decree issued by the Minister of Environment for North Rhine-Westphalia based on the TAsi), its impact on the environment, the economic sense of such a plant and its size. Questions concerning the siting of a waste incineration plant and landfill were also highly controversial. The procedure ended without a consensus and without having achieved even a compromise acceptable to all parties in the dispute.

Despite all the unresolved controversies, it was nevertheless possible to attain numerous agreements over objective issues, for instance, the deficits to be tackled in the field of commercial waste, more precise information on waste volumes, waste avoidance and waste recycling, improved access to the administrative departments responsible for waste management for environmental groups, and a tighter networking of environmental organisations and citizens' initiatives represented in the district. Relationships between participants also improved—another positive result that can be ascribed to the mediation procedure. The data base for waste has improved; among other things, waste stream recording is more sophisticated. At the end of the mediation procedure the administration drastically reduced its projected figures for residual waste volumes to be incinerated or landfilled—a source of considerable controversy before and during the procedure. A comprehensive survey and analysis of 40 waste management programmes carried out by the WZB research team after the close of the mediation procedure has also shown that the Neuss district waste management programme is more progressive than those of most other local authorities. At the end of the day fears were allayed that had been expressed by many groups before its onset that the mediation procedure could serve the purpose of taking critical environmental groups "for a ride"—pulling the wool over their eyes.

Overall the result of the mediation procedure can be described as a "controversial compromise." On the one hand it contains extensive agreement on many individual points (some of them mentioned above) that are crucial to the waste management policy for the district of Neuss. On the other hand, for the main points of contention (waste incineration versus biological-mechanical waste treatment, siting), only one line for further action within the formal procedure was found, which might have gained majority support, but it was rejected by the environmental groups. The proposal put forward by the district administration on this point was summarised in a press release by the mediator as follows:

While in many areas it proved possible for the various administrative departments, organisations and institutions to come closer together in their views, the technical solution for the treatment of residual waste remained a point of dispute. . . . The two opposing sides were irreconcilable to the bitter end: Should residual waste be incinerated or biologically treated in a composting facility and then landfilled? The district administration announced that it will table a motion in the council meeting of 29 September 1993 to earmark a site in Neurath for a waste incineration plant. This does not mean, however, that a decision has been taken to actually build a plant of this kind. No investment decision is planned before the end of 1995. Until then the search for the best solution is to continue. It must be stated,

however, that the district administration is thinking more in terms of new technologies in the field of thermal treatment, while the environmental organisations and citizens' initiative groups still favour cold, i.e. biological-mechanical, methods. . . .

During the mediation procedure the representatives of the Neuss district administration had explained their proposal by saying, amongst other things, that site selection for a waste incineration plant was to be carried out using a so-called "marker" at the corresponding geographical spot on the development plan for the area. This did not imply, however, that the authorities were legally bound to actually build a waste incineration plant at that site. Only after a subsequent—but this time legally binding—development plan procedure (*Planfeststellungsverfahren*) of much greater complexity (in legal, organisational and temporal terms) would the concrete choice of technology be specified. The district administration did, however, state clearly that they did not want a biological-mechanical waste treatment plant, this preference being based upon the technological state of the art and the legal situation.

The district council environment committee met on 16 September 1993, with the waste management programme as the main item on its agenda. It adopted, in all essential aspects, the proposals made by the district administration in the mediation procedure. The environment committee advocated with a clear majority that the site at Neurath be "earmarked" for a waste incineration plant. (The plant would thus be near a large-scale coal-fired power station.) In addition the committee approved a revision to the waste management programme (including waste volume prognosis), in part worked out during the course of the mediation procedure. The waste incineration plant should be designed with a limited capacity, that is, to deal only with residual waste (destined for thermal treatment) generated in the district of Neuss. The district administration was asked to initiate an open competition for determining the technical process, planning, construction and operation of a waste incineration plant, whereby the influence of the whole district, including towns and municipalities, on the essential elements of waste management would be guaranteed. The results of the competition are to be presented to the district council (the highest district parliamentary instance) for evaluation; the district council should also take into account the anticipated amendment to the TAsi in 1995 (based on an upper house resolution). Only then should a final decision be taken by the district council on how to implement the waste management programme.

On 29 September 1993 the Neuss district council took its decision on the waste management programme. With a clear majority it adopted the environment

committee's draft resolution. The 1991 waste management programme had intended to reduce the volume of waste *to be landfilled* by 78%, from 535,000 tonnes in 1989 to 119,000 tonnes. In the "Outline of the Waste Management Concept for 1993" presented by the district administration after the close of the mediation procedure the volume of residual remaining waste to be incinerated and landfilled dropped even more sharply. At present it is 311,455 tonnes per annum. Of that, 219,019 tonnes per annum are to be incinerated and 92,436 tonnes per annum landfilled. Compared to the starting figure the volume of waste to be incinerated has dropped by 63,681 tonnes per annum and the amount to be landfilled by 26,964 tonnes per annum. The volume of waste remaining after all avoidance and recycling measures is therefore clearly below the prognosis of the Öko-Institut Darmstadt's expert report commissioned for the mediation procedure, which had forecast a residual waste volume of 366,900 tonnes per annum. It should be noted, however, that some 40,000 tonnes of paper sludge will no longer have to be dealt with by the public disposal services because this sludge will be disposed of privately in the future. An important element of the waste management programme will also be a co-operative system between different recycling plants, with facilities ranging from a composting plant and a sorting plant to a plant for processing mixed waste from building sites.

As the mediation procedure was drawing to a close, representatives of the environmental groups in particular began to express their dissatisfaction with important aspects of the outcome. The environmental groups then sent written comments and held a press conference (on 23 September 1993) at which the Neuss district waste management policy was strongly criticised, especially the planned construction of a waste incineration plant. The environmentalists called instead for an immediate start in planning an alternative, biological-mechanical waste treatment plant. In addition they announced their intent to take legal and political action against a waste management policy based on incineration; a written "Comment by Citizens' Initiatives and the Environmental Organisations on the Mediation Procedure" stated amongst other things:

Politicians should consider that the decision being taken in 1993 for a waste incineration plant will be put to the test of public decision in a year's time. The citizens initiatives and environmental organisations will make the waste disposal policy of the district of Neuss *the* central issue in the election campaign of 1994!!! [sic]

An independent voters' group (UWG) was established in virtually all parts of the district. It intended to stand for the local elections held in October 1994. In the district waste management "hot spots" the UWG enjoyed intensive support by

members of the largest and most influential citizens' initiative, the "Citizens' Initiative Against Waste Incineration" (*Bürgerinitiative gegen Müllverbrennung*).

3. Form and Results of Parallel Empirical Research

3.1. The methodical approach

Unlike the analyses of mediation procedures found in the literature, this is not a case of retrospective observation and evaluation of a mediation procedure, but rather an attempt to gather impressions and assessments from (a) academic observers (members of the WZB research team who took part in all the mediation meetings), (b) participants in the procedure and (c) the mediator, both during the mediation procedure and as soon after the closing of that event as possible. It was hoped that this strategy would prevent the results of analysis from being influenced by "distorted recollection" but, at the same time, that it would make it possible to tune into variations in judgement as to how the procedure had progressed (an aspect that tends to become blurred in retrospective observation). In addition to this the aim was to use structured background interviews with representatives from all the groups party to the procedure as well as other important context groups not actually represented, in order to determine the nature of interaction between the mediation procedure and the social environment. Our approach and a varied range of methodological instruments represent the treading of virgin methodological territory in Germany and, as far as we know, in other countries as well. All the case descriptions with which we are familiar have been either undertaken at a distance (and, in that respect, with methodological problems) or they were written by persons actually involved (to a greater or lesser extent) in a mediation procedure. In particular, when the authors of such studies were themselves mediators, it is hardly surprising that their descriptions and analyses were coloured by their necessarily limited view which, again, may be further biased by their own interests.

In order to do justice to the complexity of our case and our questions, the parallel social science research in the Neuss mediation procedure has been based on a variety of elaborate methodological approaches:

- participatory observation by two to four members of the research project of all (large and small) mediation meetings;
- tape recordings of all the mediation meetings, a video recording of one meeting: Originally we had planned to record all the meetings on video but this led to major technical problems. In particular the size of the group meant

that the minimum requirements of to evaluate the materials could not be fulfilled.

- transcription of the recorded material and evaluation of its content: The quantitative part of the evaluation (mainly descriptive and statistical) used a category system we devised ourselves with criteria relating to particular themes and interaction analysis (random samples of coding units, checking of the interrater reliability); the qualitative part of the evaluation used selected themes.
- Structured interviews (of from one and a half to two hours each) were conducted with participants in the procedure and with representatives of relevant context groups not formally included in the mediation. Three surveys were carried out: one during the mediation procedure and two after it had been concluded. This was followed by qualitative analysis of the interview protocols, mainly to record political, economic and social "background influences".
- Two structured interviews were conducted with the mediator and recorded on tape.
- Surveys based on questionnaires were distributed after each mediation meeting (with the exception of the first) to all participants, the mediator and the scientific observers (the WZB project team).
- evaluation of the official protocols of the district environment committee over several years: We carried out qualitative and quantitative analysis of the content by topic of discussion (key themes etc.) at environment committee meetings, using a system of categories we developed ourselves.
- We carried out a final survey (with specially developed questions) about two months after mediation had been officially concluded. We used questionnaires distributed to each person who had taken part in at least two mediation meetings.

In addition to this preliminary discussions between the mediator and potential participants in the procedure were observed and minuted⁵; the reports on waste in

⁵ The mediator felt that this made the discussions more difficult: "I had to begin each discussion by introducing a third person, a social scientist from the WZB, who would be observing us. I was unable to say what she was doing or why, and she did not give any explanation herself. She sat in on the discussion, watched, listened and made notes. Particularly in the case of groups that had a critical attitude to the procedure from the outset, this generated another barrier to trust which it took some time to dismantle"; see G. Fülgraff, "Das Mediationsverfahren zum Abfallwirtschaftskonzept des Kreises Neuss," in Dally, Weidner and Fietkau (1994).

the regional press and the activities of the mediation office in dealing with enquiries from participants were documented and evaluated. For purposes of international comparison, a catalogue of criteria for analysing case studies was developed, which have been, or will be, carried out by co-operation partners in Austria, Switzerland, the United States, Canada and Japan. Finally, two overview studies on environmental mediation practice in Great Britain, Denmark, Italy, Sweden and the Netherlands have been prepared.

The willingness of all participants in the mediation procedure to co-operate in our surveys was very high, although this often involved a great deal of work for them. Once our research aims and the organisational and financial background to the project had been explained, and two representatives had been selected from the participants for liaison purposes, there were no objections to tape recording and everyone was prepared to give individual interviews. Similarly, there were also no objections to the surveys carried out by questionnaire after each meeting. However, given the fact that the number of participants, 40, is quite low for such generally complex data analyses, the quota of returns (60-70%) is not entirely satisfactory from a methodological point of view. A more severe problem than the limited number of participants was the fluctuation among those who actually filled in the questionnaire: This limited the possibility to comment on the development of participants' evaluations over time. However, the quota of returns (90%) for the extensive final questionnaire was surprisingly high.

3.2. Results of the research on the Neuss procedure

The mediation procedure in Neuss has only recently been concluded and, due to the complex evaluation methods and extremely large volume of data, a final evaluation is not expected before winter 1995. The central results will be published in the form of a book. While the procedure was running, results of the scientific research were deliberately brought out only in a very cautious and generalised form, since any publication that went too far could have had the effect of interfering with the procedure or, at least, it could have been seen to have done so by the parties involved. Some interim results of the questionnaires were presented to the participants at the mediation meetings. This was intended to allow them to give feedback as well as to nurture the understanding they had shown for our research activities up to that point.

3.2.1. Design principles for the procedure

A large number of principles connected with organisation, legal and political theory, theory of democracy and political strategy accompany the introduction of mediation procedures to complement conventional forms of dispute resolution in the field of environmental policy. These principles have been the subject of controversial debate even in the United States, the country that pioneered mediation and that has had over twenty years of practical experience with it. We shall discuss briefly five issues connected with this using provisional experience gleaned from the Neuss procedure. The experience to which we refer is specific to the Neuss mediation procedure with all the peculiarities of the political and technical problems in that district; it is specific as well to the most certainly atypical situation that the procedure was given intensive backing from a team of social scientists as part of a research project partially financed by the German Federal Ministry of Education, Science, Research and Technology, and that the procedure was also initiated and partially financed by a scientific institution, the WZB.

Selection of participants

The first question to be addressed at the beginning of the mediation procedure was who should take part in it and who should decide that. Should it be all affected parties, all interested parties or all those who are in a position politically or legally to intervene in the planning process? In the Neuss procedure all groups with a potential or concrete interest in the waste management programme were contacted; the suggestions of groups approached directly were taken into account here.

Almost certainly, no relevant group was ignored. (A currently very active citizens' initiative against waste incineration in Rommerskirchen was not founded until after the Neuss mediation had actually drawn to a close.) Participation by representatives of the various disposal firms that have offices or operate in the district was rejected by the mediator, largely in agreement with the remaining participants. The main argument for this was that the firms had not yet been selected to build the disposal facilities required by the waste management programme; nor did their umbrella organisation, the *Bundesverband der Entsorgungswirtschaft* (the German federal association of the waste disposal industry), have its offices in the district of Neuss. Furthermore it was felt that the Chambers of Commerce and Industry already present in the mediation could adequately represent the interests of the waste disposal companies.

The decision to not allow the press uninterrupted access to the meetings proved problematic. Two representatives of the regional press who had covered environmental issues for many years criticised this decision, claiming that it was undemocratic and at odds with the transparency principle of the mediation procedure. In all, two press conferences on the mediation procedure were held. It is possible that more frequent press conferences would have satisfied the transparency principle without forfeiting the advantages of a "no-press" rule (e.g., an intimate atmosphere more conducive to compromise, avoidance of "political show speeches" and unprofessional, sensational reporting by the tabloid press). The journalists we spoke to nevertheless believed that they learned all they needed to about the procedure via informal channels; it is remarkable, however, that the proviso was strictly observed that only non-confidential information on participants would be revealed to third parties.

All groups who had indicated some interest in the mediation procedure were invited to the first, constitutive meeting. Approximately 60 persons from about 30 organisations came to this first meeting. In such a large meeting it is very difficult to facilitate personal exchanges of opinion. If everyone speaks on a difficult point, time becomes a problem. Spontaneity, therefore, of necessity has to be suppressed by tightly controlled, centralised running of the meeting. One advantage of this, however, may be that none of the groups involved in the dispute were summarily excluded. In "pioneering" procedures (often initially suspected of being manipulated, more so than routine procedures) it is advisable that loss of efficiency be accepted for the sake of the democratic principle of participation. In the further course of the Neuss mediation procedure the number of participants dropped of its own accord to around 40. It was also possible to ensure that there was a potential for discussion by organising separate, smaller meetings to prepare for individual issues to be dealt with in the larger mediation sessions.

Equal treatment

The equal treatment of all parties in a mediation is one of its fundamental requirements. However, this principle collided with the political and legal reality in Neuss. The district administration as the authority responsible for the waste management programme, the district's political institutions as democratically legitimated decision making bodies and the county government as the authority responsible for initiating and approving binding development plans all have special roles inherent in their functions.

For example, since the district administration had conceived the waste management programme and organised the political decision making process associated with it, it could not help but get caught in an ambivalent position with respect to the mediation procedure: the district administration is both an interested party *and* a trustee in the political-administrative procedure. It was the main protagonist in the field of conflict and thus a prominent discussion partner for the preparation and implementation of the mediation procedure. The relationship of the administration to the procedure, particularly in the preparatory phase, aroused fears amongst the other parties that mediation might be an instrument (of manipulation) primarily used by the administration to implement its aims more easily. (For instance, if the district administration had refused to go along with such procedures there would have been little point in continuing with them). This was no doubt part of the administration's intentions, but in that respect it was no different from the other parties.

This constellation meant that the mediator (and, prior to the convening of the mediation, the WZB research team) had to communicate with the Neuss district administration more intensively than with the other participants because, without the co-operation of the district administration, mediation would probably not have been possible in this case. On the other hand the mediator had to be careful to not allow himself to be drawn into the interests of the district administration. Fortunately, he was indeed able to make this (publicly) clear; his stance was decidedly neutral and his behaviour towards the district administration was not uncritical.

The credible demonstration of the mediator's impartiality was made considerably easier by the fact that his salary and office in the district of Neuss

were financed by the WZB.⁶ The suspicion that he was "dancing to the tune of the authorities" would thus have been fairly difficult to substantiate. Nevertheless, the environmental organisations and representatives of the Green Party retained some of their initial scepticism as to whether the publicly acclaimed neutrality might not indeed be covering up some hidden interests on the part of the mediator and the WZB. These fears meant that the environmental organisations and the Greens often reacted sensitively to the behaviour of the mediator and the WZB project team. Our impression was, however, that this latent distrust diminished greatly later on in the procedure. In the end, only very few participants still suspected that the WZB project team had taken some important decisions (such as the choice of mediator) in a way neither scientifically nor technically justified, motivated by self-interest.

Obstacles to participation

Mediation as opposed to conventional procedures for conflict resolution is characterised by the fact that it offers a wider circle of affected parties and those interested in environmental policy greater opportunities to exert an influence on decisions relevant to the environment. As a rule mediation requires a great deal of time and money—a fact that causes environmental groups/citizens' initiatives in particular to quickly reach the limits of their capacity and organisational capabilities. In the tension that results from this they, like others who do not participate officially or who have been excluded for reasons of vested economic interests, react particularly sensitively to procedures and incidents within the mediation. They tend to perceive mediation as an event of only *seemingly* participatory character.

On the other hand mediation does not take place in a social and political vacuum; representatives in the procedure do indeed continue, to use typical, functional means and methods to bring their interests to bear, albeit in a more

⁶ This corresponds to the mediator's experience of the preliminary discussions: "The question of financing for the mediation procedure played a part in discussions with other parties, not just with the citizens' initiative groups. . . . The issue came up almost every time. This would seem to be an important point to consider for the further development of mediation procedures in Germany since mediation, particularly if it is a commercial enterprise, is usually financed by the operators. This would make it very difficult to eliminate doubts about the impartiality of the mediator. I believe therefore that if mediation is to be widely used as an instrument of dispute resolution it is vital that methods of financing be found that avoid a direct dependence on operators or any one party" (Fülgraff, *op. cit.*). In the meantime there are several examples of mediation-like procedures in Germany, in which financing of the mediator by the operators has not created an impossible barrier to impartiality.

controlled way. In so doing, however, some groups have, by virtue of better resources and more experience, sizeable advantages over others. One of the central tasks of a mediator is thus to redress the imbalance of power and assuage tensions caused by this. To do this, especially if some of the participants are skilled negotiators or possess a great deal of expertise or status, he needs considerable powers to facilitate negotiation as well as a good reputation to enable him to be taken seriously as a management figure.

Unlike conventional procedures for conflict resolution, in a mediation, poor financial resources may mean less chances to fully exploit the greater participatory opportunities. In the Neuss mediation procedure it was possible to counteract this to some extent by providing financial support through a special fund set up by the WZB and administered by the mediator who acted as trustee. This fund was used, for example, to finance experts invited at the request of environmental organisations or to finance attendance at specialist conferences. Although, as later questioning showed, there had been a wish for further support, the funds available were not in fact fully exhausted. This may have been due to lack of clarity about possible uses for the money.

Our experience suggests that mediation procedures, in particular, involving complex problems and requiring a high investment of time need a fund to support groups whose financial resources are scant, in order to reduce the differences caused by social factors in the ability to exert influence, although it will never be possible to eliminate these completely. The ability to provide such support in the first place has strict financial limits. It has also not yet been determined scientifically at what point the amount of funds for this kind of support would begin to arouse fears (particularly among outside observers) of co-option or even corruption; nor has it been determined to what extent financing of this kind can be used as a tool for stalling tactics such as purposely commissioning expert reports that require very lengthy preparation. (The level of funding provided by the WZB, however, (DM 50,000) would not have sufficed even for a medium-sized report.)

Responsibility of the mediator

In the Neuss mediation scarce financial resources were not the only problem, perhaps not even the major problem, facing representatives of environmental groups. They had to go through a great deal of strain in order to convey to their members results of the procedure wherein they had agreed to compromise, and they had to try to persuade their members to commit themselves voluntarily to

this process. Compared to the hierarchically structured organisations, the internal decision making processes within environmental groups/citizens' initiatives were considerably more time-consuming, less easy to predict and produced less stable results. The readiness for conflict among non-participating members of these groups is, as a rule, greater than their willingness to compromise. Their representatives therefore had to systematically report back to them throughout the mediation in order to ensure that the compromises attained during the procedure remained "valid" outside it. This process of reporting back put considerable extra strain on the delegates, which was presumably sometimes greater than the strain caused by the mediation procedure itself.

In view of the heavy demands placed on the environmental groups, one of the main tasks of the mediator was to scrutinise carefully the projects and those responsible for decision making to determine whether there was sufficient scope for compromise to justify putting the environmental groups under so much pressure.⁷ If a mediator does not do this or if he or she does not have the necessary authority to do so, the mediation procedure will not only fail but it could also result in a "scorched earth" effect for the whole mediation philosophy. The negative consequences for other mediation procedures in progress or planned could be particularly far-reaching because, in the case of Germany, these procedures are still quite rare and many individuals are suspicious of them. Thus potential mediators face pressure from the (probably) exaggerated hopes and fears of others, and anyone who at present takes on this job in large-scale disputes must also take this responsibility into account. If a mediator is uncertain about his or her assessment of the scope for compromise or about the amount of pressure that can be put on citizens' initiative groups in environmental mediation without overstepping their limits, he or she should discuss this issue with participants and/or the affected groups in order to come to a joint decision about whether to continue or end the procedure.

According to the relevant literature very heavy demands are placed on the mediator. From our experience we can only reaffirm the importance of taking great care in environmental mediation when selecting a mediator, even if this

⁷ The, for some participants, surprisingly abrupt ending of the mediation procedure in Neuss was explained by the mediator as follows: "I felt that it was not justifiable to expect participants who were not involved in a professional capacity to sacrifice any more free time and energy if no further scope for negotiation could be detected. New room for manoeuvre could only be created by the parties represented on the district council" (Fülgraff, *op. cit.*).

means a long process of searching. Not every person who has experience in drawing up environmental reports or resolving legal disputes on environmental matters, who has a good reputation, or who can "deal with" environmental groups is necessarily suited to the job.

Unlike the countries that have a longer tradition of environmental mediation and where there is a great choice now of mediators with both theoretical and methodical training and vast practical experience, there are no professionally trained mediators in Germany at present. For this reason the selection of mediators has been carried out to date largely on the basis of pragmatic considerations, usually based, for instance, on whether a person has had already had experience with similar jobs such as an environmental consult or moderator. The situation has thus been one of "on-the-job training". There is now a small circle of persons (approximately 15) who have already managed some medium-to large-scale environmental disputes with relative success. These individuals are, in the main, from private environmental consultancies, some of which have incorporated the word "mediation" into their company name. We are aware of only one case where a mediator attended a training course for mediation in environmental disputes (in this case abroad).⁸ Finally, as a result of our experiences with the Neuss procedure, it can be stated unequivocally that the following criteria must be taken into account when selecting a mediator for major environmental conflicts: impartiality, professional competence, social competence (competence in communication), political experience, general reputation and, if it is not his or her sole job, flexibility in terms of time.

Procedural rules

In the Neuss mediation procedure the internal procedural rules (standing orders) were confined to a small number of assumptions worded mostly in a general way. The mediator had written to the groups involved proposing the rules several weeks *before* the procedure convened. The groups had three weeks in which to lodge objections. The mediator explained this by saying that it was important "to be able to begin discussing the matter at hand in the first mediation meeting and not have delays or place the mediation procedure under strain at the outset with debates over procedural matters and points of order" (Fülgraff, *op. cit.*). The rules

⁸ The demand for courses like this has been increasing for three years now, but the market has not yet responded.

of order were closely based on the procedural rules of the Münchehagen mediation.

As far as the number of participants was concerned, it had previously been decided that each group could be represented by a maximum of three persons. This limit was occasionally exceeded without it's being contested—adherence to this rule was not strictly checked. Representatives of the press were excluded from the procedure in order to guarantee the participants—as it had been done in the Münchehagen case—a "safe haven" and in order to minimise publicity-seeking rituals (grandstanding). The desired effect was attained with ease.

The participants also agreed to the ruling that the internal workings of the procedure, particularly anything relating to other participants, should not be disclosed to anyone outside the procedure. Of course, there was quite a large grey area here which, had the rules been interpreted more rigidly, could have triggered numerous secondary disputes. With the exception of two or three individual incidents, this did not occur.⁹

Overall the striving of the participants to realise the "spirit and substance" of the self-imposed rules of order can be described as surprisingly high (although such rules, by the criteria of jurists, are extremely vague). The procedural rules agreed were as follows:

- (1) The participants in the round of discussions will make every effort to find a solution to problems in a co-operative way. This means working productively, which requires more than simply exchanging points of view. What is required is a safe place to facilitate and promote
 - the search for new responses to the questions posed,
 - the creative devising of new ideas,
 - the formulation of mutually agreed points of view and positions (initially tentative).
- (2) It is [further] agreed that
 - the discussion will be conducted fairly, showing respect for individuals. Persons should refrain from personal attacks and accusations.

⁹ Incidences in which it was felt that the confidentiality rule had been violated were discussed among the participants in the mediation. An apologetic explanation by the offender was usually sufficient to defuse the whole event.

- Tape recording, apart from that done by the research team, is permissible only with the agreement of all participants.
- Verbatim minutes will not be taken. Summarised minutes may be taken.
- The comments of individual participants during the discussions may not be quoted without the express permission of that person and may not be used for administrative purposes or in court cases.
- Each participant is at liberty to comment in public on the results of the discussion.

There was no agreement on how to settle disputes between the participants themselves in the procedure and, similarly, no rules on how decisions should be taken. Nevertheless, there were no "majority decisions" (considered by all concerned to be binding) taken on substantially controversial points, apart from questions of a more formal nature (dates and duration of meetings for example). There was no systematic, comprehensive minuting of the meetings; as a rule the mediator prepared short minutes of the results.

In view of such a rudimentary set of procedural rules, the negligibly small number of arguments about procedure was very surprising. This could be an indication of a tacit but strong basic consensus among the participants not to violate the spirit of the mediation for personal advantage—in other words not to use procedural rules as a strategic or tactical tool. Only towards the end of the procedure were isolated critical voices heard (outside the official mediation meetings) complaining of unclear procedural rules and expressing a wish in particular for clearer rules with specific procedural aims.

Our provisional conclusion here is that a few basic rules are in general sufficient for procedures of this sort. In particular, it would not seem to be necessary to try to ensure controlled development by imposing a corset of detailed procedural rules that could strangle any attempt to achieve discursive continuity. There are evidently functional equivalents more appropriate to the informal character of mediation than a dense set of procedural rules. Nevertheless, continual recording in the minutes of unresolved issues, open questions or compromises agreed could be helpful in keeping the major points of conflict always present and in focus, so as to avoid a backlogging of problems to be worked through in the final stages of a mediation under great pressure of time.

3.2.2. Results of the questionnaires

3.2.2.1. Participants' assessment of the procedure

A survey on how the participants viewed and assessed the mediation procedure was central to our research philosophy. The survey was carried out during and at the end of the procedure; it included written questionnaires. Our analysis made it increasingly clear that it would be impossible to reach a black and white, overall conclusion, a fact that makes it difficult for us as social scientists to evaluate the usefulness of mediation procedures. On the other hand, the opinions of the participants on the issue of usefulness must to some extent be regarded as the opinions of the *real* experts, since they are the ones being addressed, the customers targeted by the whole operation. Who can better judge whether a mediation procedure was useful than those whom it is meant to serve?

The participants were questioned about the procedure itself, the mediator and the issue the procedure addressed. The various questionnaires were completed by the participants, the mediator and by us, the research team, as observers. The questionnaires had the following objectives:

- (1) to describe how the participants judged the procedure while it was happening and afterwards;
- (2) to determine whether differences in judgement stem from different perspectives (i.e. the perspective of a participant, a mediator or an observer);
- (3) to analyse the cognitive structure of the different aspects to a judgement (i.e. the interconnections between variables); and finally
- (4) to establish trends in judgement specific to groups (i.e. different groups of participants).

A detailed evaluation of the questionnaires will be described in a separate paper. We shall confine ourselves here to a summarised report of the first set of questions.

The results reported here are purely descriptive. Differences among groups, participants, the mediator, academic observers, aggregations/interconnections of variables as well as the course of the evaluations over time, which go beyond the "obvious", are not mentioned. The questionnaires were developed using normal statistical criteria.¹⁰ In the questionnaires used while the mediation was in

¹⁰ Cf. Karin Pflingsten and Hans-Joachim Fietkau (1992), "Mediationsverfahren: Leitgedanken und methodische Erfassungsmöglichkeiten: Darstellung der empirischen Erhebungsverfahren im

progress and in the one used at the end, the main area of research interest was operationalised using several items in order to make aggregations of variables possible and to provide support for statements/contentions.

Questionnaire survey of participants during the mediation procedure

At each mediation session, excluding the first, we distributed a questionnaire to each of the participants during the break period. Most individuals filled out the questionnaire during the last third of the meeting or immediately afterwards; some sent it to us later. The extent and structure of each questionnaire were designed such that our research interests would be served without disturbing the course of the meeting too much. To avoid individuals' memories of events from becoming too distorted, it was important to us that as little time as possible lapsed between the meetings and completion of the questionnaires. Although participants had no essential objections to this approach, their main interest was still the development of the discussion and not our research. Thus we often had to push participants somewhat in order to get them to fill out the questionnaires.

We did not distribute questionnaires at the first meeting because we did not want to overwhelm the participants right away. Therefore the temporal measuring points of the data base consist in eight meetings although nine meetings took place in all. The first measuring point, *t1*, thus refers to the *second* meeting; *t2* to the *third* meeting and so on. The following quota of returns was obtained for the individual measuring points:

Table 1: Return statistics

Measuring point	N	Participants	Percentage
t1	28	37	76
t2	23	38	61
t3	26	36	72
t4	13	36	36
t5	19	40	49
t6	24	37	65
t7*	22	ca. 35	ca. 65
t8	18	40	45

*There was no actual list of participants for the 8th mediation meeting; the number of participants was estimated on the basis of our notes.

The questionnaires issued during the procedure covered the following points:

- previous experience of those questioned,
- expectations of the aims and results of the mediation procedure,
- evaluation of the mediator,
- evaluation of the negotiating situation,
- evaluation of the risks and benefits of the project.

Results of the questionnaires

An initial glance at participants' response patterns over the eight measuring points reveals, strikingly enough, that judgement remained relatively stable despite great variation among the individual meetings. In general, clear trends can barely be discerned and even individual meetings did not seem to generate any characteristic evaluation structures. Individual participants seemed to have formed opinions on the issues we raised very rapidly (in the case of the first meeting before the meeting, possibly even before it was over). Opinions thus formed changed very little (systematically) over time.

It was important to the participants that the solutions reached in the mediation procedures be long-lasting and that they have been achieved fairly, on the basis of mutual agreement. Participants were less concerned about public acceptance, ease of implementation and the speed with which a solution was

found. In terms of content, maximum environmental compatibility was the overriding aim. Whether the results of the mediation procedure were economically feasible and compatible with the law were considered less important.

The mediator was judged very positively under a number of different aspects (competence, fairness etc.). Some individuals saw him as "pushy" but it remains open to discussion how the participants judge this. It should be noted that the mediator was viewed extremely positively throughout the entire procedure by the vast majority of participants when asked for an overall opinion. This positive assessment of the mediator changed only very slightly at the end of the mediation.

Participants' hopes and fears with regard to the Neuss waste management concept (particularly the issue of waste incineration) relate to a number of different things. While risks were strongly associated with health, quality of life and the political climate, hopes were pinned on the economic effects of the concept. Overall those questioned considered the project to be "probably not risky" (approximately 50%¹¹) and "likely to be of benefit" (approximately 60%). When weighing up benefits against risks, 60% saw the benefits as dominant and 30% the risks.

The two orientations described above (also called the "psychological" versus the "political" interpretation of the procedure) are represented by eight pairs of items or statements: one item in each pair is intended to represent the point of view that interprets the negotiating situation as a conflict of interests—a battle; the other item in the pair emphasises the aspect of mutual discursive learning. In addition to the first 16 items, we also included two items at the end that refer to satisfaction with the way the meeting in question was run. The items shown below are labelled *i* if they relate to interests and *d* for discursive. The individual results were as follows.

¹¹ Percentages varied from one meeting to another.

Table 2: Evaluation of the procedure

The figures below represent the percentage of individuals responding to either the first (interest related) or the second (discursive) statement on a scale of 1 to 5, where 1 = true and 5 = not true.

1. <i>I see myself clearly as representing specific interests in this meeting.</i>								
2. <i>The most important thing about this meeting for me is that we learn from one another.</i>								
	t1	t2	t3	t4	t5	t6	t7	t8
1 (i)	59	79	69	32	63	55	68	53
2 (d)	57	39	54	54	52	54	46	59
3. <i>Most of the people participating in the discussion are potential opponents to my interests.</i>								
4. <i>The discussion has made it clear to me that most of those present are willing to cooperate constructively with each other.</i>								
	t1	t2	t3	t4	t5	t6	t7	t8
3 (i)	15	14	8	23	11	12	14	6
4 (d)	43	50	50	77	42	62	64	24
5. <i>At the moment it is actually clear what an appropriate solution to the problem should look like.</i>								
6. <i>I have still not decided which solution to the problem I should opt for.</i>								
	t1	t2	t3	t4	t5	t6	t7	t8
5 (i)	48	59	62	70	58	67	59	94
6 (d)	37	34	17	13	22	13	23	6
7. <i>My main concern in the discussion is to convince the others that my point of view is the correct one.</i>								
8. <i>My main concern in the meeting is to understand the points of view of the others.</i>								
	t1	t2	t3	t4	t5	t6	t7	t8
7 (i)	22	43	24	39	32	30	27	35
8 (d)	75	34	54	31	37	50	55	30
9. <i>The others will only understand me if I explain the background to my arguments.</i>								
10. <i>If I want to win the others over I can rarely be open in my way of arguing.</i>								
	t1	t2	t3	t4	t5	t6	t7	t8
9 (d)	74	87	89	69	79	83	54	77
10 (i)	8	14	0	8	0	4	10	12

11. *The meeting was a kind of battle.*

12. *Some understanding was reached between the participants during the meeting.*

	t1	t2	t3	t4	t5	t6	t7	t8
11 (i)	15	9	16	8	5	12	9	6
12 (d)	33	21	33	77	21	29	37	24

13. *When I say something during the discussion I always know exactly what I want.*

14. *Often in the meetings I'm not sure myself how I should argue in the next moment.*

	t1	t2	t3	t4	t5	t6	t7	t8
13 (i)	78	90	79	70	79	80	77	82
14 (d)	15	5	4	31	5	21	18	6

15. *I think that the solution to the problem will represent either a victory or a defeat for me.*

16. *I can imagine a solution to the problem which would largely satisfy all concerned.*

	t1	t2	t3	t4	t5	t6	t7	t8
15 (i)	26	23	19	0	22	12	15	12
16 (d)	39	52	38	70	58	59	78	36

17. *All in all I am happy with the way the meeting went.*

18. *Did the meeting go better or worse than you originally expected? (The figures show the total percentage of "much better" and "better" answers.)*

	t1*	t2	t3	t4	t5	t6	t7	t8
17 (i)	—	34	60	70	68	75	73	36
18 (d)	—	39	40	69	37	46	36	24

*Questions 17 and 18 were not taken into the questionnaire until the 2nd measuring point (i.e. from the 3rd mediation meeting onwards).

In sum we can say that the participants in the procedure quite definitely saw themselves as representing specific interests and they are clear in their minds about what they wanted. They did not, however, view other groups as opponents: rather they saw them as partners in a process of co-operation. Individuals were not so much concerned about convincing others as about understanding them and "being open". They interpreted the procedure more as a process of understanding than as a battle, and believed on the whole that a consensus would be reached, rather than a result that could be labelled as victory or defeat. This view of the procedure, in particular the individual's own role in it, may have been greatly influenced by social desirability. Perhaps political activists really are developing

a new self-image—that of a "discursive lobbyist". The "inexorable lobbyist" has undergone a constructive synthesis with the "discursive harmony proponent".

In the middle phase of the mediation procedure most of the participants were happy with the way the meetings had gone. This corresponded largely with their expectations: no one was absolutely surprised. In the last meeting, however, satisfaction clearly dropped. This meeting was not so much characterised by information gathering and promotion of discussion, but rather by controversial decision.

The final questionnaire

Two months after the end of the mediation a questionnaire was sent to 52 participants to enable them to make a more detailed final evaluation of the procedure. Of those questioned 45 (almost 90%) returned the questionnaires. The final questionnaire covered the following issues:

- consequences of the procedure,
- realisation of mediation aims,
- view of the individual's group and of other groups in the negotiation,
- assessment of the mediator (his conduct, job performance)
- development and implementation of the mediation procedure,
- future expectations,
- overall evaluation and general assessment.

Results of the final questionnaire¹²

Many of those questioned held the opinion that the outcome of the mediation had been influenced by external factors: in particular they thought legal constraints (77%), regional politics (86%), and the interests of the waste disposal industry (59%) had had significant impact. About half those questioned expressed the opinion that the mediation procedure had improved the waste management concept, particularly in the areas of waste avoidance and waste recycling; this was less so the case, however, in the area of waste disposal. All in all, 26% of those questioned were satisfied with the outcome—51% were not; 22% felt that

¹² Most evaluations were based upon a 5-point scale, where respondents rated a statement from "true" (1) to "not true" (5). Reference made below to "agreement" corresponds to a ranking on the scale of 1 or 2, while "rejection" corresponds to a ranking of 4 or 5.

the outcome was better than they had originally anticipated—32% thought it was worse.

Of those questioned 50% said that they had learned a considerable amount about the legal and technical aspects of waste disposal as well as about the actual waste situation in the district of Neuss. A majority (62%) felt that one important result of the mediation (compared to other effects) had been the establishment of a solid information base. This belief, however, led to a shift in viewpoint of only 30%.

The majority of those questioned felt that what they had demanded of the mediation had been realised only to a limited extent. This related to a number of procedural aspects (for instance, a fair, long-lasting, consensual solution) as well as to the subject matter (for instance, an environmentally acceptable solution that is also appropriate in waste management terms). There was majority agreement (60%) only in response to the question of whether the outcome of the mediation was legally beyond reproof.

Would a different solution have ever been possible with respect to the highly controversial nature of the main issue (waste incineration)? More than half of those questioned could imagine agreeing to solutions quite different from those listed in the questionnaire; a good deal fewer, however, believed that other representatives of their group would do the same. Most individuals considered themselves to be more flexible than the other members of their group.

A low degree of flexibility accorded to others can lead to alternative solutions not being sought (or not sufficiently explored) in negotiation and to premature demands for decision, entailing possible head-on confrontation. What we learned from our survey is that individuals do not credit others with sufficient mental flexibility. We feel that it would be helpful in a procedure of this kind if participants could learn to base their beliefs on their own mental flexibility, that is, to consider others to be at least as flexible as themselves instead of judging them automatically to be more rigid. Encouraging this behaviour might be a worthwhile function of the mediator.

Table 3: Consent to alternative solutions: self-view and view of others

Would you or your group have been willing at the end of the mediation procedure to agree to one of the following alternative mediation results?

The participants could answer "yes" or "no". The figures given are the percentage shares of "yes" responses per cell.

Alternatives	My Group	Myself
Biological-mechanical treatment with a landfill for residual waste	51%	67%
Biological-mechanical treatment as an interim stage with a subsequent option for incineration	40%	59%
Co-operation with a neighbouring district (e.g. one district incinerates residual waste, the other landfills the slag)	38%	54%
Waste incineration plus compensation for the area (e.g. zoning as a nature conservation area)	39%	48%
Waste incineration plus extensive waste avoidance and recycling schemes in the district	41%	49%
Waste incineration plus legally enshrined monitoring rights (e.g. visible display of emission values)	40%	54%

Many individuals questioned saw their own group as being willing to compromise (i.e., they showed a readiness to make concessions against their initial positions) whereas only a few ascribed the same willingness to other groups (cf. table 4). The tendency to see others as being less willing to concede to compromise than oneself can be an obstacle to mediation in the same way that failure to ascribe others a reasonable degree of flexibility has been shown to be a hindrance.

Table 4: Estimated willingness to compromise: self-view and view of others

How do you judge the willingness of the participants in the mediation to modify their original position in order to make compromise possible?

- (a) *My group would be willing to do that (self-view)*
- (b) *The others would be willing to do that (view of others)*

		Self	Others
True	1	11%	2%
	2	47%	13%
	3	36%	24%
	4	4%	31%
Not true	5	2%	29%

One-third of those questioned saw the work of reporting back to their own group as easy; another third saw it as difficult to some extent. Nevertheless, conflicts within groups seem to have been seldom. The participants did not believe that members of their group who did not actually take part in the procedure were given inadequate information. Individuals seemed to rate highly their own performance in passing on information.

The mediator was rated positively by the majority of respondents, although often in terms of very diverse aspects, such as organisation of the procedure, preparedness and competence. On the other hand, he was also seen as being pushy and having little patience. The majority (69%) were on the whole satisfied with the mediator.

Respondents had differing views on the significance of the consultants' report. A bare majority (51%) considered the choice of consultants to be fair.

In terms of, for instance, frequency and duration of the meetings or structure of the mediation, the majority of respondents considered that, the procedure was run "just right". Nevertheless, 60% would have liked to have seen further agreements on future co-operation. The majority (68%) believed that the mediation procedure began too late and about half thought that it ended too soon. Respondents' assessments in terms of overall satisfaction with the practical implementation of the procedure corresponds to normal Gaussian distribution.

Parallel research/observation by the WZB was not considered to have been a factor of disturbance nor was it considered to have influenced the proceedings. One-third of respondents said that it helped them reflect about themselves; a majority (74%) thought it important so that the results could be passed on to others.

Hardly any of the participants expected the implementation of the resolutions to be unproblematic. Of those questioned, 26% believed that those involved would adhere to the resolutions, but:

- 40% considered it of value to continue the mediation procedure in the implementation phase;
- 58% said, given a similar type of problem, they would participate in a mediation procedure again;
- 49% believed that mediation procedures would gain in significance;

A similar number of those questioned would recommend mediation to other local authorities faced with similar situations.

The overall picture painted by the data so far is, on the one hand, one of moderate scepticism towards the mediation procedure and its outcome. On the other hand, this picture has some positive aspects to it. The apparent ambivalence acquires a sharper contour, based on responses to four questions relating to comparative assessment of procedures. When participants were asked how the decision making process would have gone without mediation, in other words decision making via normal political channels, the following picture emerged: With regard to all four evaluation aspects practically no one held the opinion that standard political routes would have led to a better outcome or would have had more positive side-effects (cf. table 5).

The ability of participants to differentiate proved to be extraordinarily high here as elsewhere. The simple question whether this particular procedure was—or, generally speaking, whether procedures of this kind would be—on the whole successful is, by itself, insufficient to accurately reflect the considered, differentiated views of the participants as revealed through their responses in the questionnaire. (Although questionnaire responses show that the participants have the ability to differentiate and articulate precisely, it is natural that when thinking and speaking spontaneously they are more likely to make sweeping generalisations.) The "success" question did not stem from experiences that have actually been made—nor did it stem from those that could: it was more the result

of a desire on the part of social scientists working empirically to have unequivocal classifications and clear answers.

Table 5: Comparative evaluation of the success of the mediation procedure

Please estimate what would have happened if the mediation procedure had not been undertaken.

Without mediation	Likely	Equally likely	Unlikely
a more transparent decision making process	0%	21%	80%
a qualitatively better result	2%	43%	55%
a more consensual result	0%	23%	77%
a result more satisfactory to my group	0%	56%	44%

Despite a general ambivalence towards mediation procedures, it can be safely said, based on respondents' views, that no one really sees any negative consequences of mediation as compared to standard political procedures, not even with respect to the very diverse interests represented by different groups. On the contrary, a great number of the political protagonists believed that through this mediation a better result was achieved in many respects than they would have expected without it.

General conclusion

The outcome of the Neuss mediation procedure was viewed with scepticism by a large proportion of participants. Increased transparency and a higher level of information were acknowledged as clearly visible effects. The flexibility of the mediation group was often systematically underestimated by the participants. (Individuals seem to have a tendency to judge others differently from themselves and see others as unlikely to change their positions.) Were each person to assume that others were as prepared to compromise as they believe themselves to be, the scope for negotiation might be greater. Those who viewed the outcome of the mediation with scepticism nevertheless did not blame the mediator, nor did they find fault with the way the procedure was designed. Mediation scores particularly

high when it is compared to conventional forms of decision making. At all levels of evaluation mediation procedures are seen to have clear advantages.

3.2.2.2. Evaluation trends

The evaluations of the outcome, which subsequently emerged from the Neuss procedure, demonstrated a number of tendencies which were observed in discussions among the participants and comments made by some of them to the press. They were also reflected in the questionnaires¹³

(a) Underestimation of consensus

The difficulty of the points on which a consensus was reached was underestimated; the difficulty of others for which no consensus was achieved was overestimated. The fact that it was possible to achieve consensus at all led to the belief among participants that this was just a matter of course, something to be taken for granted; failure to achieve consensus, on the other hand, led to the assumption that it must be a particularly difficult problem.

When partial consensus is reached in a procedure, what has been achieved is trivialised. The focus of attention is directed to what remained unresolved. This becomes the dominant yardstick for measuring success.

The Neuss mediation provides a good example of this effect: Before the mediation procedure began almost no one would have expected consensus-based decisions on matters such as the selection of consultants, open exchange of information between participants, guideline volumes for waste and fractions of expected waste. After the mediation, participants saw those issues as trivial, hardly worth mentioning. The question of incineration, however, which remained unresolved (this was the main point of dispute from the very outset), dominated in participants' memories of events and determined their final evaluation of the procedure as a whole.

(b) Personal and political interpretations of the mediation procedure as determining factors in evaluating success

In a mediation, evaluations of success are determined by the evaluators' preconceived notions and a priori patterns of interpretation. Interpretation

¹³ Cf. K. Pfingsten and H.-J. Fietkau, (1994) "Umweltmediation: Verfahrenseffekte und Urteilsperspektive," *Psychologische Rundschau*, 1994.

patterns are, in psychological terminology, attributes, naive or implicit theories. In this case, they are theories about mediation procedures that *everyone* has, who observes or takes part in them—including scientific observers.

Based on our experiences with the mediation procedure in Neuss, we shall differentiate between two interpretations of what happened according to the type of ideal (political or psychological) they represent. The first can be called "*quasi-political*" and the second "*quasi-psychological*". "Quasi" is used here to indicate that these are not positions linked to particular disciplines, but rather participants' naive, exaggerated, one-sided interpretations of social events.

The quasi-political interpretation

Judgements and behaviour of individual political protagonists bear the marks of the overall political events and can only be understood in this context. Terms such as "interests" and "balancing interests", "compensation" and "negotiation" can be ascribed to such events.

In a mediation procedure an attempt is made to work with different groups representing diverse interests, in order to reach a decision that satisfies as far as possible all interests and positions. The solution to a problem will—in so far as opposing interests can never be completely reconciled—lie in finding a compromise; otherwise, the decision will be taken by majorities or constellations of power.

On this interpretation, neither the expectation nor the hope of lasting change in the general political conditions or even the forms of social interaction between participants is attached to the mediation procedure. Formal problem solving has its own justifiable logic which cannot or should not be changed by a mediation procedure. The mediation procedure appears for a short time only as a "social island" in the everyday events of politics.

Political conflict is normal, but it is possible to bridge opposing interests only to a very limited extent. Political decisions are majority decisions and this is perfectly legitimate. Majority decisions are also possible in a mediation procedure; they can occur after mediation or during it. It is natural that the representatives of minority positions be dissatisfied with such decisions and, as a result, criticise the procedure. It is somehow not possible for them to consider the procedure to be fair and objective, and yet not be able to achieve their aims within it. Under these circumstances, it seems legitimate therefore that the "losing side" continue to fight for its interests even after the mediation has drawn to a

close; but to do so would be to partially discredit the procedure. Nevertheless it is perfectly appropriate to make use of the increased information gathered during the procedure for a group's particular interests.

If, during a mediation procedure, consensus has been reached on some aspects of an issue, this must be considered a success. The process of the participants getting to know each other is desirable but not central to the procedure. Increased personal understanding should not obscure the fact that it is representatives of interests with fixed roles that interact here. In fact, too much contact, understanding, empathy, sympathy or concern between opposing parties would tend to be counterproductive for further political development in formal conflict procedure: it could cover up contradictions in our society, which ought to be openly acknowledged.

The psychological interpretation

On this interpretation, everything that can be called "political activity" is explained in terms of the actions of individuals. Even when it takes written form (e.g. regulations) it is essentially nothing more than distilled individual behaviour. Terms or expressions such as "mutual prejudice", "learning processes", "changing attitudes and habitual judgements" can be ascribed to the mediation process.

In the procedures, changes in patterns of perception and judgement occur. A more realistic view of the objective problem as well as of the political and legal constellations involved and the persons taking part makes a greater degree of co-operation possible; it facilitates solutions to the problem through increased awareness for new or more appropriate responses to the issue. The resurgence of conflict after a mediation procedure has concluded is a form of relapse indicating that the procedure has failed.

Unresolved points of contention are interpreted as an expression of insufficient reflection and too little effort at dialogue. Even if it proves impossible to resolve a conflict, it is at least expected that the contending parties do not resort to tactical jockeying for position in their dealings with one another. Improvement in the level of information and elimination of distorted perceptions, judgements and social prejudices can and should trigger a mutual, group-dynamic process. This process should result in increased insight and greater willingness to assume responsibility among the contending parties, as well as linking the decisions to a reasonable set of conditions acceptable to all. The outcome of such a process will be a consensus. Consensus is generated from insight. Majority

decisions are not part of the process of consensus building. There is a correct or, at least, a best solution. If consensus cannot be achieved, the reason is that the constructive processes of rapprochement and the mutual search for solutions were not properly initiated or were broken off too soon. This results in widespread disappointment because what had been considered possible and desirable was not ultimately achieved.

The patterns of interpretation described here as quasi-political versus quasi-psychological, influence evaluations of a mediation procedure, especially when success, failure, costs or benefits cannot be unequivocally identified. The diversity of possible criteria for evaluation and the variety of participants' evaluations turn mediation procedures into a stage or forum for individuals to project their aspirations of politics and human interaction.

It is probably a good thing and, in any case, necessary that both approaches to mediation—quasi-political and quasi-psychological—be represented in an actual, ongoing procedure. The quasi-political pattern of interpretation does greater justice to political constellations of power, legitimating, and legal or administrative constraints than does the quasi-psychological. The quasi-psychological pattern of interpretation, on the other hand, is completely dependent on the ability to overcome these constraints, on the positive and creative power of argument, and on interpersonal communication. The tension created between these two patterns of interpretation reveals an important problem in this kind of procedure. It shows what the limitations of mediation are and it leads to the recognition that streamlined decision making processes are not compatible with unequivocal success where complex environmental problems are concerned. It might therefore be one task of social scientists to identify and critically reflect upon those implicit interpretations of events.

3.2.2.3. Quantitative analysis of participant's interactions based on the minutes of the meetings

Method

All mediation sessions except the first were recorded and transcribed. For each page of transcription three "units of meaning" were defined. A "unit of meaning" consists of a participant's utterance, either a complete sentence/statement or an independent clause/part of such a statement. In all, 2,379 such units of meaning were defined. Such a large sampling class eliminates the possibility of significant error. The units were coded by an evaluator. In order to guarantee the objectivity of the coding, 200 units of meaning taken from the fourth session were re-coded

independently by a second evaluator. From a total of 1,400 characterisations of the 200 units of meaning by both evaluators, there were only 24 discrepancies, or a rate of deviation of 1.7%—a highly satisfactory result.

*Summary of results*¹⁴

The frequency with which individuals or groups came to word from session to session in the mediation varied greatly. The variation itself remained relatively constant throughout the whole procedure. The main actors in Neuss, based upon their speaking frequency, were the mediator and the district administration representatives, whose coming to word constituted 32% and 17% respectively of all acts of speech. The expert consultants also had a large share of speech in the mediation, especially in those sessions where they presented testimony (their acts of speech here sometimes constituted as much as 50%). The combined share of all other groups in the mediation (environmental organisations and citizens' initiatives) was not more than 6%. This pattern of distribution shows the prevailing schema of interaction at Neuss: the bulk of verbal exchange was between the mediator and the district administrators or the experts. Other participants had only a minor role in this.

Verbal interaction consisted mainly of statements, explanations and summaries (66%), followed by questions (14%, whereby 50% of these were posed by the mediator) and proposals (6%, whereby 51% of these were made by the mediator). Five percent (5%) of all utterances consisted of criticism; 3% consisted of mediation. Demands, concessions and proposals for compromise constituted 1% of all utterances (whereby all proposals for compromise were made by the mediator). Rejection of, or agreement with proposals constituted each less than 1%. These statistics show fairly clearly that the Neuss mediation was mainly a procedure of information gathering and knowledge dissemination.

Our interpretation of what went on in Neuss is further supported by the results of analysis of the contents of utterances. Seventy-two percent (72%) of all utterances dealt with substantive matters; 22% were concerned with procedural aspects of the sessions (68% of the mediator's utterances were directed at matters of procedure). Three percent (3%) of all utterances concerned interaction among participants or the mediation procedure itself (especially utterances by the mediator and representatives of the Green Party). Utterances dealing with

¹⁴ A full description and analysis will be made in the final project report.

substantive matters concerned mainly issues of a scientific or technical nature (35%), followed by issues of policy and politics (14%), legal issues (10%), ecological and social issues (7%) and economic issues (5%). The following tables provide an overview of the amount of utterances of all groups for the eight recorded mediation sessions and type of interaction.

Table 6: Frequency of utterances according to type of speaker/group for all sessions

Speaker	Number of Utterances	Percentage
Mediator	777	32.7
District administrators	404	17.0
Local authorities	54	2.3
Environmental organisations	98	4.1
Citizens' initiatives	140	5.9
SPD (Social Democratic Party)	38	1.6
CDU (Christian Democratic Union)	63	2.6
The Greens	86	3.6
Experts	679	28.5
Others*	40	1.7

*"Others" refers to the following groups: the FDP, two churches, some economic organisations.

Table 7: Frequency of verbal interaction according to type of utterance for all sessions

Type of Utterance	Number of Occurrences	Percentage
Question	341	14.3
Proposal	144	6.1
Statement, explanation, summary	1564	65.7
Criticism	119	5.0
Praise, acknowledgement	10	0.4
Threat	4	0.2
Defence	45	1.9
Agreeing with proposal	18	0.8
Rejecting proposal	15	0.6
Demands	16	0.7
Concession	7	0.3
Compromise proposal	1	0.0
Mediation	82	3.4
Other	13	0.5

3.2.3. Gravitational force of conventional political processes

Experiences we made in Neuss show clearly that mediation procedures can neither replace nor annul the normal political conflict-consensus process. In any case, against a backdrop of highly complex fields of conflict and numerous political networks with various interests in the waste management arena, and given that this web of interests extends far beyond a regional dimension, it would be highly unrealistic to expect mediation to play a very dominant role here. A kind of function that would largely supersede formal procedures of conflict resolution in Germany is highly doubtful, democratically and legally speaking. In the case of Neuss it was clearly demonstrated that the gravitational force of conventional political processes can be mitigated for a time, but they cannot be completely annulled.

Generally speaking, it was observed that all three phases of the mediation procedure in Neuss—the pre-mediation phase, the mediation procedure itself and the post-mediation phase—were closely to conventional political processes and probably more influenced by them than vice-versa. *In the pre-mediation phase*, the central issues were limiting the topics of discussion, appointing a mediator and selecting the participants. Many of the crucial decisions taken on these matters were made according to or closely akin to conventional political processes. For instance, many groups based their decision to take part in the mediation procedure on whether they believed it would better their chances for having their own interests met, or whether they feared that by not participating they might exclude themselves from valuable information or new networks that could prove important generally for increasing their power and influence in the political arena.

Nevertheless, as a result of the Neuss mediation, some features of conventional political practice underwent qualitative change. This was particularly the case for selection of participants in the mediation procedure. Here an attempt was made to mobilise any and all groups who might have had a potential interest (regardless of how small or remote). In this context, there was never any dispute about the legitimacy of participation of any group; similarly, there were no also no complaints that certain groups had been excluded.¹⁵ Normally, that is, in conventional decision making, such issues would be the subject of heated dispute.

While the mediation was in progress, many political developments outside the district of Neuss had significant impacts on it. These included the passing of the *Technical Instructions on Household and Commercial Waste* and the *Facilitation of Investment and Land for Residential Development Act* which, to some extent, caused radical changes in German federal waste legislation. Other factors of influence included a number of state-level policy statements and decrees, as well as the organisation of the German "dual system" (*Duales System Deutschland*), a private organisation established to collect specific types of waste, mainly packaging, signified by a "green dot". Political processes and constellations of interest within the district also had relevant impacts on the mediation procedure. These included co-ordination processes between the

¹⁵ Some otherwise influential economic protagonists with close links to the political arena were not included in the Neuss mediation. Whether that was part of the rationale of the procedure or whether there were functional equivalents for those excluded is still an open question.

traditional political parties, overlaps and links to other political issues (e.g. industrial policy), the state horticultural exhibition, the activities of district waste disposal companies and the activities of the monopolistic energy supply company. In the end, all these factors and events—within the district and outside it—affected the scope for negotiation within the mediation procedure itself.

At the end of the mediation procedure, what one might call the traditional political modes of behaviour came into play again: accusations, suspicion, threats, painting things black-and-white, personal discrimination. More emphasis was placed on differences than on affinities. To what extent this might have been a temporary effect of frustration resulting from the outcome of the mediation, or a characteristic of the "regional tradition of conflict", or a consequence of atypical contextual conditions (namely, the impacts of an election campaign¹⁶) which tend to polarise, or whether more time and practical experience would have been necessary than were possible at that time for dealing with a "controversial compromise" are questions which cannot be answered at this stage of our research.

But neither should consensus-seeking procedures be dismissed as merely the result of an unrealistically harmonious view of society, for under the conditions of a search for a controversial compromise it is perfectly rational (and in democratic terms even desirable) that the points of contention which remain open be fed forcefully into the channels of conventional political practice and that all available instruments be employed. These include challenging established political parties and lobbyists by founding or supporting competing voters' groups and political parties.

A typical feature of conventional politics is the over-simplification of complex situations and issues. For instance, in Neuss the politically active groups argued within very narrowly defined categories of success and failure in terms of the results of the mediation. What had been mutually achieved was either exaggerated in one direction or played down in the other. Nevertheless, in the post-mediation phase the basic rules of order established during the mediation, were adhered to voluntarily, although they were not legally binding. For instance, confidentiality has not been violated—there has been no "washing of dirty linen" and no "public revelation" of "strictly internal" matters.

¹⁶ Elections to the German *Bundestag* (upper house of parliament), the European parliament and the district council in 1994.

In view of developments so far, it is not possible to say with certainty that participation without formally defined responsibilities for decision making necessarily results in increased frustration for the parties involved and intensifies the level of conflict (a hypothesis particularly favoured by Niklas Luhmann). Before the mediation in Neuss, the tenor of the political discourse was sometimes even more strident. In the meantime, the central protagonists have signalled their willingness to pick up the thread of discussion broken off at the end of the procedure (although this was considered to be a less useful option/approach during the 1994 pre-election period). Finally, some informal meetings between members of different groups involved in the Neuss mediation were initiated as a result of the procedure. This would seem to indicate that the mediation procedure has generated some network building.

3.2.4. Preliminary evaluation of the results

Discussion during the mediation procedure has, to some extent, led to revision of some crucial data in the original Neuss waste management programme; it has also shown some of these data to be problematic. Some possibilities for more far-reaching measures to avoid waste or to recycle it were identified and, in some cases, these met with all-round approval. It became clear that the area of commercial waste had not been taken sufficiently into account, particularly as far as the potential for avoidance and recycling is concerned. These results (as well as others we have not mentioned) were incorporated into the revised waste management programme for the district of Neuss.

It was not possible, however, to reach agreement on the most hotly disputed issue: that of whether the waste management programme should contain exclusively "cold" disposal technologies (e.g., biological-mechanical treatment plants); whether the only possibility, in legal terms as well, would be to construct an additional waste incineration plant; or, if a combination of "hot" and "cold" methods proved possible, how each should be weighted. Nevertheless, as a result of the reports drawn up for the mediation and the discussion of these, it was possible to define more precisely, and thus de-limit, the field of conflict. Essential differences are now explicit; therefore decision making within subsequent political processes and formal procedures has a sounder basis and is more conscious of relevant consequences.

To summarise, the procedure, as we see it, had the following positive effects, among others:

- The information base was broadened for all concerned.

- The actions of the administration became transparent.
- Consultants were found who enjoyed the trust of all.
- The procedure generated a high degree of objectivity and professional competence and could be kept almost entirely free of personal biases.
- It was possible to resolve a large number of issues or points of contention by consensus.
- On the point that from the outset the issue of waste incineration was the most conflict-ridden, it was at least possible to achieve some form of compromise (i.e., modification of the original configuration).

On the other hand the mediation procedure entailed considerable costs for all concerned:

- It necessitated a significant investment in time and money (which may possibly be compensated in subsequent formal procedures by a corresponding savings).
- The administration's scope for action was restricted by the mediation procedure: on many matters, it could no longer take autonomous decisions.
- Similarly, environmental groups could no longer make unrestricted use of their traditional political instruments (e.g., public campaigns).

To a great extent, the mediator steered the development of the mediation procedure. To us, as outside observers, he appeared to be very direct, often insistent, sometimes impatient and occasionally harsh (especially towards the administration). This may have been the price paid for the incredibly rapid progress made in the mediation.

We were sometimes critical of the mediator's behaviour, and here we differed from the participants (cf. questionnaire survey), who generally judged him positively throughout the procedure. The frame of reference here seems to be of major importance. We measured the mediator according to social science criteria which rate highly such qualities as patience, ability to listen, ability to integrate differing points of view, or giving everyone the chance to speak. The participants, on the other hand, judged the mediator more on the basis of effects of the procedure such as information gain, opportunity for participation, or making political strategy more transparent. The participant's "yardstick" for comparison was more their past experience with other political forms of dispute resolution.

After the mediation had drawn to a close, however, the role of the mediator was judged increasingly critically, particularly by environmental groups disappointed at the outcome. The mediator himself was perfectly aware of the diverging opinions about him and his role, which he accepted. The effectiveness of the procedure was obviously more important to him than theoretical correctness or the desire to please everyone. He understood his role as being geared primarily to the final result, not to the process itself.¹⁷

Apart from systemic influences, the development of the procedure was largely influenced by "coincidental", that is, not systematically recordable, unforeseen events which could not be depicted reliably in the form of variables: for example, change in administrator in charge of environment, changes in the mediator's professional circumstances, press comments/releases on the procedure, the coming into force of the *Technical Instructions on Household and Commercial Waste* and the *Facilitation of Investment Act*, or delays in receiving documents.

Individuals attach different objectives to mediation. For them, this procedure is usually expected to produce a solution to a problem that is rapid, agreed to by all parties in the conflict, long-lasting, fair, meets with general public approval and, finally, that is easy to implement. The administration expert Hill¹⁸ classifies mediation in the broader category of "integrative administrative action". By this he means "an action of the administration which aims to integrate the citizen into the state by allowing him/her an appropriate part in the procedure and in the preparation of decisions" (p. 973). The "Canadian Round Tables" (1993) describe

¹⁷ At the last session, one could discern a vague willingness on the part of the environmental organisations to inhibit the procedure's coming to an end. This inclination was, however, not clearly articulated. The mediator could have taken on the role of what is called in the literature an "active mediator" and initiated discussion on this point; he could also taken the initiative to try a "last ditch attempt" to achieve a better compromise through bilateral and multilateral discussion groups. He deliberately did neither. His interpretation of what could be realistically expected given the constellation of conflict and power, and his concept of the function of a mediation procedure within the conventional political and administrative framework seems to have been decisive here. Nevertheless, he offered his services again to the participants, should they desire a follow-up or future mediation.

¹⁸ H. Hill, "Integratives Verwaltungshandeln—Neue Formen der Kommunikation und Bürgermitwirkung," *Deutsches Verwaltungsblatt* 18, 15 September 1993, p. 973.

the aim of mediation procedures in even more general terms, referring to them as building of consensus for a sustainable future.¹⁹

Apart from these general types of objective, more specific aims in terms of content can be followed (these will vary according to the subject of the procedure). For example, the participants in mediation procedures in the field of waste disposal could strive for a waste disposal method that would pose as few problems as possible; they should therefore seek solutions that would be highly environmentally compatible, economically acceptable, legally unproblematic, rational from a waste management point of view and that would contribute to an improvement in relationships and interactions among all parties involved. In addition to objectives that relate directly to the problem itself, there are of course objectives (not so frequently mentioned) in a mediation that have more to do with the individuals and groups involved. For instance, some individuals will want to make a political name for themselves, test their own capacity for conflict and show themselves to be competent at problem-solving, or increase their own economic advantage.

The above examples are intended to give some idea of the variety of objectives participants in, or observers of, such a procedure might associate with a mediation in general. Correspondingly the measures used to evaluate such a procedure will vary. One and the same outcome can be experienced and evaluated as either success or failure. In turn, one consequence of this can be that evaluations made by external scientific observers may meet with incomprehension or even irritation from participants. Finally the whole issue of evaluating results can become explosive if any group (participating or not) wishes to spread a particular interpretation for tactical reasons, such as to gain an advantage in any further decision-making processes.

In view of the variety of aims described above and the potential for conflict (which is quite large for a variety of reasons), it is advisable to use several different measures for evaluation. We have chosen this approach for the Neuss mediation. The box below contains a catalogue of possible yardsticks to measure success. It was developed as a result of our experiences in Neuss and served as the basis for the final questionnaire (still undergoing analysis) we distributed to

¹⁹ Round Tables on the Environment and the Economy in Canada (eds.), *Building Consensus for a Sustainable Future: Guiding Principles*, 1993.

the participants. This publication reports some of the most important preliminary results.

Yardsticks to measure the success of mediation procedures, using the example of the Neuss mediation

General conditions

- It was possible to persuade all relevant protagonists to take part in the procedure.
- It was possible to reach a consensus on framing the problem.
- It was possible to reach a consensus on the choice of a mediator.
- It was possible to reach a basic consensus about procedural methods.

Criteria relating to the course of events

- During the course of the procedure no single participant or group dropped out.
- The procedural rules were either adhered to or modified by consensus.
- All participants were able to present their concerns and arguments appropriately.
- The participants developed an understanding for the positions of others (without necessarily adopting them).
- The participants viewed the way the procedure proceeded positively.
- The participants viewed the mediator positively.
- Participants began to view the issue as a matter of mutual concern and thus an attempt was made to solve the problem in a co-operative way.
- Conflicts were openly discussed, there was no "foul play."
- Pressures exerted on the protagonists to act became explicit.
- The participants retained credibility with the organisations they represented throughout the procedure.
- The procedure ended with a consensus.

Evaluation of the result

- Participants were able to increase their knowledge about the subject involved and about politics in general, as a result of the mediation.
- Social relationships improved among the participants, as a result of the mediation.
- Credibility of the protagonists was elevated.
- Points of conflict between participants crystallised positively.
- Mediation helped reduce conflict.
- Mediation shortened the time required to deal with the problem.

- The financial costs of planning were reduced.
- Mediation contributed to a better solution.
- As a result of better insight into the problem, the participants modified their points of view.
- The result of the mediation was accepted by the organisations the participants represented.
- A compromise was found which satisfied everyone or almost everyone.
- The compromise related to all or to the most relevant aspects of the problem.
- The result represents a consensus in the sense of being a real win-win solution.
- The result of the mediation can be a role model for similar problems.

Consequences of the procedure

- In retrospect the participants evaluated the procedure positively.
- In retrospect the participants evaluated the mediator as constructive.
- The participants would in a similar situation take part in a similar procedure again.
- As a result of the procedure the openness to consensus-based procedures in other problem areas has grown.
- It proved possible to implement the result of the procedure in political decision making bodies.
- The result of the procedure proved to be solid and sustainable.
- The result of the procedure was implemented in reality.
- The result of the procedure did not bring about a mere shift in the problem from one area to another.

Such a diversity of aims will make rapid, clear, consensus-based solutions more difficult to achieve. This is particularly true when divergent aims cannot be easily harmonised, if harmonised at all. In their experiments on strategies for problem-solving in complex decision making situations, Dörner *et al.*²⁰ showed that some of their subjects failed to achieve just such a resolution of conflict because they failed to recognise *different* aims as *competing* aims. Subjects were not able to prioritise goals because they wanted to achieve all the aims at the same time.

²⁰ Cf. Dörner, H.W. Kreuzig, F. Reither & Th. Stäudel (eds.), *Lohhausen. Vom Umgang mit Unbestimmtheit und Komplexität*. Berne/Stuttgart/Vienna: Huber 1983; and D. Dörner, "Wissen und Verhaltensregulation: Versuch einer Integration", in: H. Mandel & H. Spada (eds.), *Wissenspsychologie*. Munich and Weinheim: Psychologische Verlags-Union 1988, pp. 264-279.

This phenomenon is not just confined to experimental psychology. It forms one of the central barriers in real life to solving complex social problems. A problem is simplified in the minds of those involved to such an extent that various solutions or steps towards a solution are seen to be mutually exclusive (the "right" solution versus the "wrong" one) or, at best, are categorised unidimensionally on a good-to-bad scale. If this kind of thinking predominates, then there is, as a rule, no place for dealing with conflicting aims. Individuals tend to become blind to the fact that there are no perfect solutions, that is, solutions can solve *some* problems but not others. Therefore, no solutions are considered or admitted that contain uncertainties, that have different effects in the short-, medium- and long-run, or that favour (or disfavour) some groups.

The ambivalence arising in this way is very difficult to deal with, and cannot be reconciled ideologically. All too often categorical thinking dominates. This kind of (over-)simplification of competing aims may be useful for the psychological comfort of individuals (it lets them feel that they are the "goodies" in a world divided into good and evil), but it is not useful for conflict resolution. The necessary denial that aims can conflict prevents problems from being solved. Individuals will therefore not seek compromises, nor strive for solutions which appear reasonable, and which, with small steps, relieve the world of at least some of its problems. Far more individuals are intent on finding *the* solution—that is, the one that will solve *all* the problems. If such a solution does not exist, then a perpetual process of argument and arguing will be triggered. This is not only frustrating for all concerned; it also makes it easy for everyone to blame everyone else for the impasse.

In the case of complex problems for which no unequivocally "good" or optimal solution can be expected because the aims of the parties involved are simply incompatible, it is essential, first of all, that these very incompatibilities be brought to light. This is not simply a rational cognitive process: Far more, it requires the ability and willingness of parties to a conflict to give up the idea that *they* have the optimal solution and that resolution of the conflict is merely a matter of convincing the *others* of that.

The recognition that some solutions require compromise means that some aims—no matter how desirable—must be abandoned because they cannot be fulfilled or they can be fulfilled only partially. Every participant in a mediation procedure must bear the responsibility for entering into a compromise. This is not easy because it requires, in some sense, a "betrayal" of one's original goals and one's supporters or the group he/she represents. If it becomes clear that no

disposition is possible without this "betrayal" (through action or inaction), then a crisis in the mediation procedure could occur, since not everyone can or would be willing to accept this responsibility. The ultimate consequence could be, then, the failure of the mediation. This would exonerate some individual participants and place the blame for the impasse squarely on the shoulders of others who, for instance, would argue (as well) that "their hands were tied". In view of this fairly typical constellation it is reasonable from a pragmatic standpoint to insist that participants make their aims explicit and acknowledge incompatibility among any of these aims. This can have a fundamental impact on the mediation procedure itself (particularly in terms of reducing frustration) and on how its results are judged.

4. Results of the International Comparison

Apart from the "full-scale" study of the mediation procedure in the district of Neuss and the partial analysis of the mediation procedure on a contaminated site, the hazardous waste landfill at Münchehagen, we have commissioned experts abroad to carry out case studies on mediation procedures (or similar procedures) using guidelines for analysis specified by us. Analyses of a case study each have been completed in the USA, Canada, Japan, Austria and Switzerland. General overviews of the mediation situation have also been submitted by the Netherlands, Austria and the United Kingdom. A further case study is currently being undertaken in the USA. The evaluation of the foreign case studies and a comparative analysis are planned for winter 1995. Results so far indicate that, in particular in the USA and Canada, mediation procedures in the field of environmental policy are on the way to becoming "everyday instruments" of political and social practice, which has been the case in Japan for quite some time (albeit in a form quite specific to Japan).

Mediation procedures to settle environmental disputes were probably used systematically for the first time in *Japan*, where the consensual political culture generally supports "conciliatory procedures for settling disputes". There is hardly a single environmental project of significance in which negotiated solutions are not sought. Their significance for the relatively successful environmental policy of Japan is also evident in the fact that at present there are over 39,000 environmental protection agreements between companies and local authorities or pressure groups in which "tailor-made" arrangements to protect the environment have been set down. In addition to this, due to the extraordinarily vehement environmental disputes of the sixties, Article 21 of the *Basic Environmental Act* of 1967 lays the foundations for special legislation on out-of-court settlement of

disputes. It obliges the government to establish mediation, arbitration and conciliation procedures. As a first step towards this, the *Act on Settlement of Disputes in Connection with Damage to the Environment* came into force in 1970. Overall, the effects of these dispute resolution procedures are considered to be positive: they increase flexibility and the opportunities for participation, which in formal procedures are generally somewhat limited. Dispute resolution procedures and consensual procedures are particularly widespread at local authority level. In the city of Tokyo, for example, extensive processes for creating consensus (lasting up to six years) are implemented for all landfills and waste incineration plants. Economic levers are also used to promote consensual attitudes in local authorities: only when the competent authority can provide evidence of extensive approval in the neighbourhood for the planned construction of a waste incineration plant will it receive the quite considerable financial aid available from the state. Nevertheless there are still powerful conflicts over waste incineration plants, simply due to the number of plants (ten) which are to be built in the densely populated area over the next twenty years; over 70% of household waste is already incinerated.

The mediation procedure as an instrument of environmental policy, now also widely discussed in European countries, began its career in the USA. It was used there for the first time in 1973 (Gerald Cormick being a pioneer in this area of conflict resolution) and was such a resounding success that numerous other cases followed in rapid succession. In the meantime there is talk in the USA of a "mediation boom." The professionalisation of the role of the mediator went hand in hand with this development; private or semi-private mediation institutes were founded to train mediators and offer their services in environmental disputes.

According to a study by Michael Elliott (Consortium on Negotiation and Conflict Resolution/Georgia Institute of Technology, Atlanta) there were only five organisations offering mediation services for the field of environmental policy in 1978, all of them non-profitmaking organisations; by 1984 the number had increased to 17 (90% of them non-profitmaking). Currently there are over 40 organisations of this kind and only half of them are designated "non-profit-making." In addition to this there are another 40 commercial consultancies working in the area of environmental dispute resolution.

A veritable host of advocates and supporters of mediation procedures—including virtually all the large environmental organisations and foundations (such as the Rockefeller, Ford and Hewlett foundations)—emphasise the advantages they have over conventional policy instruments. They point out that

they have led to fairer, more effective, efficient, flexible, and rapid results which have been more satisfactory to all parties in the conflict. In contrast to the court cases and their "win-or-lose" solutions, "everybody wins" solutions were made possible. A study by Gail Bingham, the most comprehensive to date in the field of the environment, indeed indicates an impressively positive balance sheet: in 78% of the 132 cases of dispute studied a consensus was achieved between groups which had hitherto been deep in dispute.

Procedures for alternative dispute resolution (ADR procedures) have also gained a higher status in the formal political processes for drawing up programmes, formulating standards and making decisions, for instance the so-called "regulatory negotiations" (regneg). Since the beginning of the eighties the US congress has passed a number of acts to promote the use of negotiation and mediation procedures, the most outstanding of which is the *Administrative Dispute Resolution (ADR) Act* of 1990 which gives federal authorities extensive scope for using their powers of discretion in deciding to use an ADR procedure and in choosing an appropriate form. A number of federal states also encourage the use of procedures for alternative dispute resolution; 13 states have set up offices to promote these procedures in cases of conflicts under public law. Numerous procedures have been initiated to mediate between departments or institutions of the political and administrative system that are in competition or conflict.

There are also critical voices to be heard. Some have pointed out, with a somewhat fundamentalist tone, that environmental issues are about basic values and principles which are not open to negotiation and compromise. Others use individual cases to point out weak points, for instance the huge amount of time sometimes needed to attain a broad-based consensus or the considerable disadvantage which environmental groups have vis-à-vis representatives of the authorities or companies who are trained in tactical negotiation behaviour. Social scientists nevertheless believe that these problems can be overcome by appropriate measures to provide support and by "social learning", and many a "conflict of values" has in the course of dialogue turned out to be a conflict of interests with room for negotiation. The advocates of mediation procedures are in any case in a clear majority.

Canada too has alternative procedures for settling disputes, which, as S. Glenn Sigurdson (The CSE Group, Vancouver) demonstrated at a conference on mediation in Loccum (jointly organised by the Evangelische Akademie of Loccum and the WZB in November 1993) are relatively widespread and have

been on the increase since the eighties. There is now a number of institutions (such as the Centre for Dispute Resolution), commercial organisations and training centres for mediators. Special information organs (such as the *Canadian Environmental Mediation Newsletter*) provide continual, nation-wide information about developments in the field of ADR procedures and provide opportunities for a networking and professionalisation of the individuals and institutions active in this field. ADR procedures are also promoted by state and provincial authorities. For instance, the Canadian Ministry of Justice has set up a working group with the remit of working out proposals for the use of these procedures within federal authorities, and between federal authorities and provincial authorities or NGOs. The Canadian *Environmental Assessment Act* of 1992 provides for mediation as an alternative or adjunct to formal hearings. In May 1992 a provincial government (of Yucon) for the first time passed legal regulations in its *Environmental Act* making environmental mediation possible.

Development of mediation procedures in Europe

Interest in mediation has been growing in European countries for some years now. There have been instances of these procedures in *Europe*.²¹ In Austria and Switzerland, in other words countries with a political culture based on a participatory or corporate philosophy (co-operation between social partners), compromise-seeking procedures for conflict resolution are being used particularly in disputes over sites and technology for waste disposal. In Austria an institute will shortly be founded which intends to specialise in environmental mediation and other alternative forms of dispute resolution. But these procedures are also increasing in popularity in countries with a centralised state structure. In Great Britain, for example, the Centre for Dispute Resolution was founded in 1990 with the support of the CBI, the Confederation of British Industry. It offers training programmes and mediation services, although there has been no case of environmental mediation so far. Against expectation, the Netherlands at present has no "classical" mediation procedure. The reason for this is probably that in their political culture, which is any case highly participatory, co-operative and negotiated solutions offering pressure groups and environmental organisations extensive opportunities for collaboration (both in the planning and decision

²¹ Cf. overview in conference proceedings "Mediation als politischer und sozialer Prozeß," edited by A. Dally, H. Weidner & H.-J. Fietkau, Loccum: Evangelische Akademie. Examples also in H. Zilleßen, W. Strubelt & P.C. Dienel (eds.), *Modernisierung der Demokratie—Internationale Ansätze*, Opladen: Westdeutscher Verlag 1993.

making process) are already common practice. Nevertheless, a private institution exists (Instituut voor Milieu- en Systemanalyse, Amsterdam—IMSA), which has specialised in mediation-related procedures . In some *Eastern European countries*, such as the Czech Republic, Poland, Latvia and Russia, environmental mediation procedures are taking place, often with the support of mediators and/or institutions from the USA. And on an international level, where negotiated solutions have in any case traditionally been most widespread, bi- and multilateral mediation procedures or similar procedures are being used in individual cases, amongst other things to settle environmental disputes and achieve general agreements in the field of environmental protection.

In the *Federal Republic of Germany*, mediation procedures in the strict sense of the word (i.e. organised and led by a mediator accepted by all parties involved) are still relatively uncommon in the field of environmental protection, although numerous similar procedures do exist, and there have been more cases in total than in other European countries. Overall, the trend for all types of procedures which are negotiation-based, informal and aimed at increasing participation has noticeably gained in popularity, whereby waste (disposal) problems often trigger the selection of this kind of procedure. Both major environmental mediation procedures—the Neuss procedure described here and the "Münchehagen Procedure"—are concerned with waste problems.

The reason for setting up this mediation procedure was the controversy which had raged for years about the hazardous waste landfill in the tiny village of Münchehagen in Lower Saxony, concerning the suspicion of illegal dumping, contamination of soil and water and danger to public health. On the initiative of a member of staff at the nearby Evangelische Akademie Loccum, a mediation procedure was begun at the end of 1990, and its instigator became the first environmental mediator in the Federal Republic of Germany. The participants included representatives of various departments of the local authority, pressure groups, environmental organisations, the district council and state government, as well as politicians from different parties and concerned members of the public. In the so-called mediation committee, around 15 people represented the principal parties in the conflict; in the "plenary" sessions a broader circle of people affected was gathered together. The procedure was financed by the state of Lower Saxony, the environment ministry of which advocates and funds dialogue-oriented procedures that offer opportunities for broader participation. The procedure has not yet been concluded, the participants, who were formerly more or less entrenched in conflict with each other, view the procedure for the main

part as positive, as the surveys conducted by the WZB research team on "Mediation Procedures in Environmental Protection" show. The first consensus-oriented steps to dealing with the objective problem have since been taken.

Apart from these two major mediation procedures there are a number of small to medium-sized procedures, in terms of cost and time, which are extending the idea of co-operation, and are trying or have tried out new forms of dispute resolution either before or in parallel to formal procedures. Just a few examples are: the search for a landfill site for household and similar waste in the area of Hildesheim, for a hazardous waste landfill in the district of Arnsberg and for a landfill in the district of Schleswig-Flensburg; risk estimation, making safe and cleaning up of populated contaminated areas in Wuppertal, Essen and Hamburg; the making safe and cleaning up of the Vorketzin landfill in Brandenburg; cleaning up a sludge landfill in Bielefeld; modifications to a waste incineration plant in Bielefeld-Herford; the search for a landfill site for dredged sludge from the Hamburg harbour in Lower Saxony; modernisation and extension of the waste-fired heating and power station in Iserlohn; cleaning up and re-planning a landfill within a citizens' forum in Dortmund; a "round table search for a site" accompanying a formal search procedure for a household waste disposal centre in the rural district of Märkisch-Oderland; setting up a traffic forum to draw up a long term traffic plan for Heidelberg; dispute resolution in the wake of open-cast lignite mining in the Niederlausitz area; the development of a hazardous waste concept for Lower Saxony; cleaning up kindergartens in Hamburg contaminated by dioxins; clean-up measures near the North German refinery in Hamburg, and a dialogue-oriented task force on waste management in the rural district of Osnabrück.

New (informal and negotiation-based) dispute resolution procedures are being implemented in virtually all areas of the environment, but primarily in the area of waste management, as can be seen from the above list. The examples are connected with regional planning, environmental impact assessments, demonstrating the necessity of plans, licensing, site searches, clean-up procedures and general planning procedures. They take place either before or in parallel to these procedures. Political discussions on delicate subjects also took place. A WZB project group co-ordinated, for example, a discussion on the risks involved in cultivating plants with genetically inbuilt herbicidal resistance, in

which representatives from science, industry and environmental organisations took part.²²

In the area of waste management two mediation procedures (or rather procedures which were at least very similar to mediation procedures) were organised by private companies to look for a site for waste landfills in the states of Saxony and Bremen, and led with relatively little friction to a consensus amongst participants; both companies are now specialising in environmental mediation procedures. Neither the degree of complexity, the social and political delicacy of the object of conflict, the size of the planned investment (and as a consequence the extent of the economic interest) nor the length of time which will probably be required seem to form a barrier to using alternative dispute resolution procedures. The public dialogue procedure initiated to find a site for a major airport for the region of Berlin and Brandenburg, which has been supervised by a private mediation company since autumn 1993, is by far one of the most complex and therefore daring alternative forms of environmental dispute resolution to be seen in the Federal Republic of Germany.

The objection to adopting instruments of environmental policy developed in other countries is often—quite rightly, when "social techniques" are involved—that they are specific to a particular culture and not easily transposed into another culture. In the case of mediation procedures, however, practical experience to date has demonstrated that this argument has only limited validity. The argument is not very plausible even at first glance, if one considers the very different political cultures of the two countries in which mediation procedures are most widespread: Japan is a country which is positively addicted to consensus, whereas the USA is a litigious society. All European countries probably fall somewhere between these two extremes. Nevertheless, in transporting the procedure to Europe it is important to take into account the legal, political, administrative, ecological and social peculiarities of each individual country as well as the techniques for social communication and interaction specific to the culture, and it will always be necessary to fine-tune procedures which have been developed elsewhere. One of the central tasks of the WZB project, "Mediation

²² Cf. W. van der Daele, "Technikfolgenabschätzung als politisches Experiment," WZB paper FS II 94-301, Berlin: Wissenschaftszentrum Berlin für Sozialforschung; A. Bora & R. Döbert, "Konflikt und Konsens im Technikfolgendiskurs—Ein praktisches Experiment," in: J. Weyer (ed.), *Theorien und Praktiken der Technikfolgenabschätzung*, Munich and Vienna: Profil 1994, pp. 69-104.

procedures in environmental protection" which we are currently working on, is to ascertain what this means for Germany.²³

5. Resume

Germany has had to date little experience with mediation procedures in major environmental conflicts but there have been some very encouraging cases. The discussion of such procedures in the scientific community and in society is still characterised by arguments which are either speculative or normative in form. Case studies carried out by social scientists, which could be of help here, are rare.

The conditions are in principle favourable for systematically increasing practical and scientific experience. Interest in mediation procedures is growing steadily and they are gaining a foothold in practice. There are now at least four private institutions which use the term mediation in the name of their companies; other firms (particularly in the field of environmental planning and consultancies) offer mediation services. Their competence in this area is obviously increasing and that alone indicates that there have been some successful cases. Accordingly—and due to the fact that mediation procedures are gradually becoming well known within the "environmental policy scene"—the acceptance by all parties in a conflict of "professional mediators", financed by one of the parties, is also growing. (We believe that a mediator financed by, say, the district council would not have been accepted in the "Neuss Procedure").

The informal procedures for dispute resolution known to us in Germany we have given us the impression that the term "mediation procedure" is sometimes used rather loosely. There can only be a mediation procedure if a person (or several people) considered to be neutral is accepted by all parties in the procedure, and empowered to organise negotiation and communication processes between them, and to ensure that the procedure is run fairly, in order to achieve a resolution to the dispute which has been developed by all, and which can be accepted by all concerned. If someone acts primarily at the request of one group, then he or she—even with the best intentions of paying equal attention to the

²³ In addition to this a psychologist working on the project, Karin Pfingsten, carried out a special broad-based study as part of her doctorate. The study set out to identify the professional framework and demands placed on environmental mediators in the Federal Republic of Germany and how they themselves see their role. Central to the study is the attempt to use qualitative analyses to identify the link between structural demands placed on the job and the individual patterns of interpretation observed in the numerous mediators who were questioned here.

interests of all parties to the conflict—is primarily an "agent", an "ambassador", "negotiator" of the party which appointed him ,or quite simply an "employee," but not a mediator, and the whole process can thus not be called a mediation procedure.

Despite the fact that there are still unresolved questions to be addressed concerning this instrument for settling environmental conflicts, which is still in its infancy in Europe, we believe that on the basis of practical experience to date and on the basis of our international comparative studies the following can be said: mediation procedures—like so-called alternative dispute resolutions procedures in general—have a proven potential to enrich the existing set of instruments available for settling environmental problems expediently. But it would be an exaggeration to claim that they can completely smooth the way in the field of environmental policy. There cannot be a universal panacea of this kind in a field as complex as environmental policy.

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