



International Institute for
Applied Systems Analysis
www.iiasa.ac.at

Creativity in Negotiation: Directions of Research

Spector, B.I.

IIASA Working Paper

WP-93-004

January 1993



Spector BI (1993). Creativity in Negotiation: Directions of Research. IIASA Working Paper. IIASA, Laxenburg, Austria: WP-93-004 Copyright © 1993 by the author(s). <http://pure.iiasa.ac.at/id/eprint/3807/>

Working Papers on work of the International Institute for Applied Systems Analysis receive only limited review. Views or opinions expressed herein do not necessarily represent those of the Institute, its National Member Organizations, or other organizations supporting the work. All rights reserved. Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage. All copies must bear this notice and the full citation on the first page. For other purposes, to republish, to post on servers or to redistribute to lists, permission must be sought by contacting repository@iiasa.ac.at

Working Paper

Creativity in Negotiation: Directions for Research

Bertram I. Spector

WP-93-4
January 1993



International Institute for Applied Systems Analysis ☐ A-2361 Laxenburg Austria

Telephone: +43 2236 715210 ☐ Telex: 079137 iiasa a ☐ Telefax: +43 2236 71313

Creativity in Negotiation: Directions for Research

Bertram I. Spector

WP-93-4
January 1993

Working Papers are interim reports on work of the International Institute for Applied Systems Analysis and have received only limited review. Views or opinions expressed herein do not necessarily represent those of the Institute or of its National Member Organizations.



International Institute for Applied Systems Analysis ☐ A-2361 Laxenburg Austria

Telephone: +43 2236 715210 ☐ Telex: 079137 iiasa a ☐ Telefax: +43 2236 71313

Preface

This paper is a contribution to the Working Group on Negotiation Flexibility sponsored by the Processes of International Negotiation (PIN) Project. It lays out various directions for future research concerning the usefulness of creativity heuristics in breaking negotiation impasses. The paper fits within the school of thought that views the resolution of disputes more as a cognitive problem-solving process than a tit-for-tat concession-making process. Based on this conceptual framework, the author conducted several creativity bargaining experiments in the Summer 1992, which will be the subject of future research reports.

The author is grateful to Ian Morley and Daniel Druckman for their insightful comments on a draft of this paper. This paper was translated into Dutch and published as "Nieuwe impulsen in onderhandelingen: creativiteitstechnieken die impasses kunnen doorbreken," *Negotiation Magazine* V,4: 153-162. An earlier version was presented at the Fourth Annual Conference of the International Association for Conflict Management, Den Dolder, The Netherlands, June 17-20, 1991.

1. Introduction

In the course of complex negotiations, an impasse may be reached beyond which none of the parties can readily identify a mutually acceptable next step. The interests of the parties may appear irreconcilable. Positions may seem far apart. All of the previously planned strategies have been played out and yet no proposal can be offered that enables the parties to reach a convergence of interests. Often, such deadlocks are broken by a novel offer presented by a participant or third party that satisfies most, if not all, of the participants' requirements, resulting in a positive-sum outcome. Some new offer, some new approach, some new way of packaging the issues is required to break the impasse and facilitate agreement.

How is a completely novel and fresh offer arrived at once negotiating parties have been stymied by an impasse? How can such freshness and discovery be stimulated especially at this critical point in a negotiation when the tendency is to dig one's heels into existing positions even deeper and become rigid in approach? Perhaps, more importantly from a practitioner's perspective, the question is can this freshness be stimulated prior to reaching a stalemate in talks, to avoid an impasse altogether?

Zartman (1983) suggests that two necessary conditions for negotiation are stalemate and the desire to resolve the impasse through talks. He proposes that a major step-level change in the ambient reality surrounding the negotiations is needed to break such a stalemate. The introduction of fresh proposals and approaches into the negotiation environment is one significant way to change reality and open up novel opportunities for convergence.

The purpose of this paper is to examine this "eureka" phenomenon more closely – to describe its characteristics of freshness and discovery, to assess its preconditions, and to understand how it can be activated consciously. The paper evaluates the concept of creativity as a central strategic and processual element in the dynamics of impasse resolution and one that should receive more attention by the research community.

2. Background

Two major process paradigms in the negotiation literature describe how convergence is attained. In the game-theoretic model, offers are made that are responded to by counteroffers. This is a traditional bargaining framework based on a "tit-for-tat" strategy or on concession-making behavior. Alternatively, in the formula-detail model, a broad understanding of principles by which an agreement can be reached is identified first; this may be followed by "classic" offer-counteroffer activity over details. This model suggests a collaborative problem-solving approach to achieve convergence. Both of these paradigms are useful in understanding the typical behavioral process that takes place at the negotiating table to reach convergence. They are capable, too, of explaining the inverse of convergence: how negotiating parties can spiral their demands and counteroffers until they can go no further, that is, until they reach an impasse.

Neither paradigm, however, can fully explain the phenomena of *how* parties emerge successfully from an impasse. This is the "black box" of the two models. An offer is *somehow* achieved that breaks a logjam in the talks. A formula is *somehow* arrived at that satisfies the interests of all parties. This paper attempts to reveal this hidden transformation process from impasse to agreement by addressing the catalytic role played by creativity.

2.1 Creativity

There are hundreds of definitions for the phenomenon of creativity. Taylor (1988) presents a categorization of these definitions:

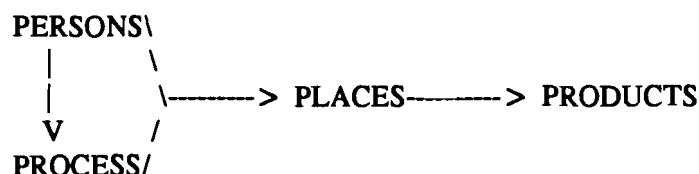
- o Gestalt: The recombination and restructuring of ideas into a new form
- o End-Product: The process that results in novel work that is accepted and useful
- o Aesthetic: The process of developing unique self-expression
- o Psychoanalytic: The product of special personality dynamics
- o Solution Thinking: The process of solving problems.

Stein (1974) offers an operational definition of creativity that integrates several of these dimensions. Creativity is a process by which persons develop novel outcomes that are acceptable, useful, and satisfying to a given audience. The process is one of hypothesis formulation, hypothesis testing, and communication within an environment that at best promotes creativity and at a minimum, does not inhibit its use. The outcome is usually a new way of perceiving things, a new possibility or opportunity, or a new path or direction to explore. It is always a step-level change from the way things are today. Importantly, Stein's definition does not imply that creativity is the sole province of geniuses; rather, creativity is available to everyone and can be acquired as a skill through training.

Mooney (1963) and Taylor (1988) distinguish four conceptual approaches, each one providing a different perspective on explaining creativity. One school of thought views creativity primarily as a *personality trait*, an attribute embodied in the cognitive and emotional style of a person. For this school, the creative person is special, endowed with special gifts. A second school views creativity as a special type of *problem-solving search process*, a deliberate iterative process that requires time and gestation to reach creative conclusions (Tardif and Sternberg, 1988; Weisberg, 1988). For this school, creativity is a process that can be taught. A third school evaluates *the environment* in which creative thinking occurs, suggesting that a special climate may be responsible for stimulating and sustaining creativity. A fourth school views creativity in *the product of behavior and thought*, as an output of a creative process. In this paper, we focus our attention on the second school – creativity as a problem-solving process that can be induced and enhanced through training.

Graphically, the relationship of these dimensions are displayed in Exhibit 1.

EXHIBIT 1
THE DIMENSIONS OF CREATIVITY



The interaction between person and process is modified by the environment to result in creative outcomes.

Stein's definition is probably the most useful for the study of creativity in negotiation; it is possible to observe, recognize, and categorize creativity in the proposals placed on the table that offer a new vision of a future changed reality. The creative process is a problem-solving search process which consciously attempts to break through current limitations and deliberately fill in gaps in thinking.

Stein's integration of the literature describes creative thinking as proceeding through the basic stages of the typical problem solving process – hypothesis formation, hypothesis testing, and communication of the results. However, Stein insists that creative thinking is more irrational and takes greater leaps of judgment into the unknown than is typical in simple problem solving behavior. Indeed, Stein describes the heart of the creative process as being driven by three mystique factors – inspiration, intuition, and aesthetic feeling. While these factors can be observed, the processes by which they operate are quite difficult to describe, let alone explain. Other researchers, on the other hand, contend that creativity is truly embedded in a problem-solving paradigm (Tardif and Sternberg, 1988; Weisberg, 1988). While unexplainable flashes of insight do occur, creative thinking is primarily a deliberate iterative search process that requires time and gestation to reach creative conclusions. It is a process that can be tracked and explained.

2.2 Negotiation Freshness

Impasses in negotiations often require creative and novel proposals to extricate the parties from the quagmire of stalemate. The term "freshness" seems to bear a useful connotation for this impasse-breaking concept that we are trying to understand. A fresh resolution, in the face of impasse, is one that introduces novelty, either in the offer itself, in the construction of the overall formula, or in the general approach or packaging of the offer. The old offers and approaches clearly have not worked. A novel direction is required – one that is fresh and offers new possibilities.

There is an element of discovery involved in freshness. Behaviorally, it requires a renewed search for options. The process of discovery results in finding something that may not have been seen before in the same light, something nonobvious.

Strategy Freshness

Freshness in strategy is not to be confused with ripeness for resolution (Zartman, 1986), despite their common organic metaphor. Ripeness primarily refers to the impact of time on the appropriateness, or coming of age, of particular outcomes that have already been proposed. It is the recognition of an opportunity for solution. Freshness, on the other hand, describes the novel strategies, proposals, and approaches that introduce new insights and new opportunities for agreement in negotiation that were not previously available or apparent to the parties. Freshness in negotiation strategy development is a function of creativity.

The importance of creativity in resolving impasses has been recognized by negotiation researchers and practitioners. Raiffa (1991) refers to creative compensation arrangements as a strategy to develop acceptable formulas in stalemated negotiations. Druckman, Husbands and Johnston (1991) discuss the importance of "frame-breaking changes" at critical turning points in negotiation. These constitute step-level changes in the negotiation life cycle that enable the discussion to take on fresh and novel approaches – to break out of old patterns. From a practitioner's

perspective, Benedick (1991) identifies the benefits of creative approaches in environmental negotiations. Kidder (1987) describes the potential utility of a novel proposal in a labor-management stalemate. And Stein (1989) refers to the dramatic and innovative approaches used by President Carter to break the age-old deadlock between Egypt and Israel leading to the 1979 peace treaty agreement. Despite this recognition, few researchers have examined the impact of creativity on the negotiation process and outcome systematically and empirically.

Pruitt (1987) has directly addressed the issue of creativity in negotiation strategy. He views the introduction of creative techniques as a way of achieving integrative, positive-sum agreements. His typology of five creative approaches to strategy development all require a refocusing of the original negotiation problem, the development of a new and changed reality. These include:

- o Broadening the pie: Increasing the size of the resource being allocated.
- o Nonspecific compensation: Making payoffs to the other side in some other currency that it finds beneficial.
- o Logrolling: Trading off one issue for another.
- o Cost cutting: Minimizing costs incurred by one party in accepting what the other side wants.
- o Bridging: Satisfying the true interests of both sides.

Freshness may appear in a new offer, in a new approach or in both. It is possible that an offer may be fresh but the approach is old, or vice versa. From a practical perspective, a fresh offer or approach must be perceived as fresh by all parties in the negotiation. It must be viewed as breaking new ground in a positive way by all sides. Otherwise, if it is viewed as one-sided, it will not serve its purpose, that is, to break the impasse in negotiation. Hare and Naveh (1985) show this to be the case in the Camp David Summit. By coding first-hand accounts of the 1978 Camp David talks using Bale's Field Diagrams and Taylor's five levels of creativity, Hare and Naveh identified proposals that could be considered inventive and innovative which served to break the deadlock between the Egyptians and Israelis. Several proposals that rated high on the creativity scale did indeed result in a breakthrough between the parties; other proposals that scored low on the creativity scale did not conclude in agreement. Overall, the authors suggest that creative approaches were effective because they redefined the relationship between the two parties.

Fresh offers or approaches can be the product of multi-party endeavors or unilateral initiatives. Parties who are bargaining in good faith, but who are caught up in stalemated talks, may be willing to work together cooperatively to develop creative ways out of their mutual impasse. A multilateral approach to developing fresh offers presents an opportunity to ensure that all parties feel a sense of ownership over the new directions. On the other hand, one party by itself, may have that flash of insight required to deduce a fresh proposal or approach. In this case, the other parties must also view the proposal or approach as being truly fresh and novel, providing a new and positive path out of the current quagmire.

Process Freshness

The utility of fresh, creative processes may be critical at three stages of negotiation. A major problem in intractable conflicts is, first, getting the parties to the table. Creativity processes can stimulate a change in attitudes or definitions of the problem enabling the parties to accept negotiation

as a vehicle for conflict resolution. This adjustment of attitudes or reframing of the conflict is especially important in emotion-laden issues involved in ethnic and national identity conflicts, for example. This is a prenegotiation phase in which each party, operating independently, may benefit from the use of creative thought processes to move in a step-level fashion from old ways of thinking about the conflict.

If the parties can be convinced to come to the table, the next phase is for them to come together to present ideas and, possibly, set an agenda for negotiation. This is a bi- or multi-lateral phase in which creative processes can help all the parties develop a new and joint redefinition of the problem. A mutual understanding of the conflict is a first step in establishing a common framework from which the parties can move from impasse to solution. As well, creative processes can aid parties in thinking of new formulas or principles upon which to base a solution.

If an agenda is established for negotiation, then the parties can proceed into a third phase, that of negotiation itself. Here, creative processes can help in the problem-solving process of continual redefinition of the problem as new positions, strategies, demands, and concessions are presented. Creative processes can also assist in generating new options for solution.

2.3 The Criteria of Freshness

How can a creative process or strategy be distinguished from a noncreative one? Three criteria can be established to define creativity in negotiation.

1. **Positive-sum:** The process or strategy must present an integrative solution that all parties view as increasing their benefits. This attribute focuses on equity and fairness.
2. **Problem redefinition:** The process or strategy must transform the existing representation of the problem so that old patterns that have resulted in stalemate can be broken. The bargaining space is thereby redefined. This attribute deals with how the proposal changes the negotiation milieu.
3. **Break with the past:** The process or strategy must present a totally new way of solving the impasse that does not reflect past solutions and experience, but is truly novel and innovative. This attribute focuses on how the proposal employs new and different mechanisms to achieve its ends.

These criteria emphasize the novel, innovative, and mutually beneficial nature of fresh, creative processes and strategies in negotiation.

3. Case Examples

To demonstrate the phenomenon of fresh strategies and outcomes, two illustrations of stalemated negotiations are presented in this section in which creative strategic approaches appear to have helped to untangle the impasse and get the talks on their way again.

3.1 Paris Negotiations on Vietnam

The secret, as well as the public, negotiations to end the hostilities in Vietnam came to a standstill in October 1971 (Zartman, 1983; Szulc, 1974). The North Vietnamese wanted to discredit the effectiveness of the Vietnamization program and were unhappy over the seemingly unshakeable commitment taken by the United States to keep Thieu in power in the South. The United States, on the other hand, felt it had received no signs of faithful reciprocity from the North after pursuing a course of sincere concession-making for about one year. In addition, there were serious signs of misperception and mistrust on both sides that cast doubt on intentions and made stalemate more likely.

As Zartman indicates, this impasse in the negotiations necessarily required a change in the ambient reality surrounding the talks. This change took two forms. Along the military dimension, there was a major escalation initiated by Hanoi – the Spring offensive of March 1972 – followed rapidly by the American bombing of Hanoi and Haiphong and the mining of Haiphong harbor. These actions together succeeded in reinforcing the perceptions on both sides that a situation of military stalemate had been achieved and that the only way out of the conflict was a negotiated settlement.

On a political level, Henry Kissinger introduced what could be considered a fresh and creative approach to the renewed negotiations which Szulc views as the real turning point in the negotiation. First, he sought out the Soviets, a third party but committed ally of Hanoi, as a sounding board for new proposals and as a channel to right some old misperceptions. Second, he introduced a major step-level change in U.S. policy – a proposal for a tripartite council to govern the South until elections, to include the existing Saigon government, neutral elements, and the Vietcong. This fresh offer provided the United States with maintenance of the Thieu government, while also providing Hanoi with explicit representation by the Vietcong in the provisional government. Zartman indicates that this proposal was greeted with astonishment and surprise by the Soviets.

Breaking of the impasse and ultimate convergence in this case may be viewed as a function of some basic changes in the negotiation environment – some military changes that reminded the other side of strong commitments to one's interests and some political changes that employed elements of freshness. Kissinger was playing a somewhat risky and unusual strategy by using the Soviets as a go-between with Hanoi. Rather than working directly with the other party in the talks, he sought the good offices of a certainly skeptical third party. He also used an element of surprise and innovation in presenting the new tripartite offer.

Both of these strategies satisfy the freshness criteria. They offered a new way to achieve a satisfactory positive sum solution – both sides obtained representation in a future government. They redefined the problem by suggesting an innovative form of joint rule, whereas previously the problem was defined in a zero-sum fashion. Finally, these strategies certainly broke with past approaches – enhanced communications with the enemy's key ally and dropping of the U.S. commitment to Thieu.

3.2 Panama Canal Negotiations

Between 1969 and 1972, the negotiations between the United States and Panama over the future status of the Panama Canal that had begun during the Johnson administration in 1964 were at an impasse (Habeeb and Zartman, 1986). Once serious joint discussions ended, the stalemate period was characterized by joint hostile escalations – an escalation of U.S. demands reversing previous concessions made and an escalation of Panamanian threats of violence. Both Nixon and Torrijos had dug their heels in deep.

Torrijos was the one who stepped forward to introduce a fresh and creative approach for breaking out of this impasse. The new concept that he presented, which changed the ambient reality of the negotiations, was to internationalize the canal issue. Backed by a strong coalition of Latin American states that he had been courting, Torrijos escalated what was essentially a bilateral conflict by giving it a multilateral audience at the United Nations Security Council. In early 1973, he was successful in getting a resolution passed there that urged a new treaty be concluded between the United States and Panama. This resolution would not have been so spectacular if it were not for the one-sided vote that promulgated it. Thirteen members of the council voted in favor of the resolution, the United Kingdom abstained, and the United States cast the sole negative vote.

Torrijos' fresh strategy significantly altered the nature of the audience attentive to the canal negotiations. Rather than having to battle the United States alone, Torrijos' novel strategy shifted the balance of power in the direction of Panama by transforming the nature of the talks into a major North-South conflict issue where the United States was clearly in the minority.

This strategy meets the threefold criteria for fresh approaches. The power asymmetry between Panama and the United States presented an incalculably wide gap and the internationalization strategy of Torrijos tended to even out this power imbalance. Whereas the United States had previously controlled a zero-sum outcome, there was now a possibility to distribute the benefits more evenly between the two principals. Torrijos' strategy also significantly redefined the problem. What was previously a bilateral problem was now a salient North-South problem in which the U.S. had to deal in a much more conscious and constrained fashion when making future demands and concessions. Finally, the Torrijos strategy was a major break with past approaches. He introduced an influential third party into the process that emphasized the seriousness of the situation and escalated the interest of the U.S. in resolving the conflict.

4. Directions for Future Research and Support for Practice

Creativity in negotiation deserves attention by both the research and practitioner communities. As demonstrated in this paper, creativity can be an important element in explaining the dynamics of flexibility and impasse resolution, as well as a skill that can be trained in a practical sense. Several research directions would advance the study of the role and impact of creative approaches on the negotiation process and outcome.

1. Case Studies: Additional case studies of negotiation deadlocks that have been resolved through the use of creative solutions will serve to illustrate and describe how these techniques have been applied in the past. Interviews with and memoirs of the principal parties in a negotiation where creative approaches have been used would be the primary data sources. These case studies should describe the impasse situation, attempts to resolve the conflict – both creative and noncreative, and the short- and long-term effects of these proposals. A common framework will help to analyze these cases comparatively.

2. Correlates of Creativity: A more systematic, comparative assessment of creativity in negotiation is warranted. Such a study would examine empirically whether strategies classified as being creative are indeed more effective in resolving negotiation impasses than other types of strategies. It would identify which of the creative strategies are most effective under certain circumstances and it would assess the situational and processual correlates of creative strategies. First, an inventory of historical negotiation stalemates would need to be generated within a particular issue area, such as arms control or the environment. Second, criteria against which creative approaches can be identified and distinguished from other approaches need to be developed and data

gathered on each case in the inventory. This would include characteristics of the impasse itself, descriptive attributes of the approach, how it was generated and implemented, and its relative effectiveness in terms of breaking the impasse. Third, additional situational and process factors should be collected as these are hypothesized to stimulate or inhibit the impact of creative approaches. Data sources can include richly descriptive accounts of the negotiations, memoirs, and interviews with the principals. Finally, correlational analyses can be applied to determine the factors that covary with, stimulate, or inhibit the use and effectiveness of creative strategies.

3. Simulation Experiments: Experimental simulation games can be designed to test the effect of applying creativity heuristics in impasse situations. Under controlled conditions, the utility of alternate creative techniques can be introduced into a deadlocked negotiation scenario to determine their direction and degree of impact on achieving positive-sum integrative solutions.

Several activities, more directly in support of improved negotiation practice, should also be considered.

4. Stimulating Freshness through Practitioner Training: Stein (1974) indicates that the research literature is sufficiently rich in its understanding of creative persons that we are capable now, and confident, in recommending techniques that will help stimulate creativity in others. We understand many of the personality and cognitive factors that yield creative thinking. He, as well as others, in fact, provide detailed descriptions and empirical evaluations of techniques appropriate for motivating individual and group creativity under a variety of circumstances. Many of these techniques may be appropriate to stimulating freshness in stalemated negotiations.

There are four basic conditions that must be satisfied to stimulate creativity. They include:

- o Working within an atmosphere that facilitates free wheeling and stream of consciousness thinking
- o Developing a large quantity of focused ideas
- o Building upon ideas that have been previously identified
- o Deferring evaluation of those ideas that are proposed, so that individuals are not inhibited and all ideas are viewed initially as acceptable.

Together these criteria provide the opportunity for individuals to perform creatively. Certainly, not all negotiators are innate creative personalities, but they can be taught. Training of negotiators in the use of creativity would include recognition of opportunities to be creative, the development of environments that facilitate the application of creative approaches, and the design and implementation of creative strategies.

There are many techniques used to stimulate creativity, which are more or less appropriate depending upon the circumstance and issue. These heuristics can be classified into three categories where they have been found useful in stimulating creative thinking. All three categories are meaningful from the point of view of diagnosing the impasse environment and developing fresh offers and approaches in negotiation situations. (Many of these techniques are discussed in Spector, 1989 and Stein, 1974 and 1975.)

Problem Understanding and Structuring: The creativity heuristics in this category are particularly useful in performing diagnosis of the negotiation environment – the current and anticipated positions, interests, and strategies of negotiating parties.

1. Analogies: It is often easier to place new information into proper context and assess its importance if it can be compared to other situations and circumstances by analogy.
2. Roleplaying: This technique helps by putting the negotiator into the shoes of the other party to facilitate better understanding of their intentions, motivation, and interests.
3. Gaming: This technique is a more active version of roleplaying in that the negotiator can assess, through behavioral simulation, how different parties might "play out" their roles within a given scenario.
4. Flowcharting: This technique offers the negotiator a structured way to display facts – in a time line, on a map, or as inputs and outputs of a process – to try to better understand the underlying structure of the impasse.
5. Association Matrix: This technique also helps the negotiator understand the impasse situation better by structuring his perceptions of it. A matrix is developed that compares all of the events that have and may yet occur within a given time frame. The events are listed on both axes of the matrix. The cells are then filled in by the negotiator to identify whether there was a positive, negative, or null influence of each event on the others in a pairwise fashion.
6. Link Analysis: This technique sorts evidence in a structured and revealing way to uncover nonobvious linkages and relationships between entities and events. It can be used by negotiators to understand the nature of the impasse and the juxtapositions of interests and positions of the various stakeholders.

Hypothesis Generation: This grouping of creativity heuristics is targeted at generating meaningful alternatives for impasse-breaking strategies.

1. Brainstorming: This is a group technique to generate new ideas and explore various solution options in which there is strong emphasis on not evaluating, criticizing or judging these ideas which might tend to inhibit creative thought.
2. Attribute Listing: This technique involves the identification of the major attributes of a desired negotiation outcome. The negotiator elaborates on all of the possible values that each attribute can take on and thereby considers new alternatives.
3. Morphological Analysis: This technique involves dividing a problem into its component parts and then subdividing each of these further. By looking at each of these basic dimensions in combination, the negotiator can assess systematically many alternatives for action, some which can be easily dismissed, some that will be obvious, and others that will be nonobvious and intriguing.
4. If-Then Chains: In this technique, the negotiator develops a decision tree that elaborates all possible actions – both within and outside his control – and their likely consequences downstream.

5. **Alternate Hypotheses:** Using this technique, the negotiator generates alternate hypotheses and explanations of the current impasse. If the alternate hypotheses are tested and disproven, the primary hypothesis is thereby strengthened.

Hypothesis Testing and Evaluation of Evidence: These creativity heuristics help the negotiator test, evaluate, and conduct tradeoffs of alternative proposals and strategies.

1. **Categorization:** Using this heuristic, the negotiator creates a category system in which fragments of information are placed over time. It can help in identifying possible patterns and trends.

2. **Extrapolation:** This technique extends and projects the predicted consequences if events are slowed down, sped up, or kept at the same rate.

3. **Tradeoffs:** This technique evaluates alternative hypotheses against a set of established criteria. Hypotheses can then be prioritized in terms of likelihood based upon satisfaction of these criteria.

4. **Outcome Utilities:** Multiple decision options can be evaluated by comparing their likely downstream consequences.

5. **Negotiation Support Tools that Stimulate Creativity:** Some tools can be provided to negotiators, outside of a training program, that might help to stimulate creativity. Raiffa (1982) believes that decision support systems, such as decision analysis, can facilitate creative thinking. Such tools can help negotiators generate and evaluate options in a systematic way, oftentimes freeing them from past ways of thinking.

6. **Roles for Mediation and Third Parties:** Many creativity techniques, and the development of a facilitating environment for the presentation of creative proposals, can be promoted by mediators or other third parties. While the principals may not be able to offer fresh suggestions, it is often extremely appropriate for a third party to do so.

5. Conclusions

The world is continually beset by a host of intractable conflicts. Many age-old impasses are never resolved, while new stalemates join the ranks. These conflicts range the gamut in terms of issue and intensity: the Arab-Israeli conflict, sectarian violence in Northern Ireland, ethnic conflicts in the former Soviet Union and Yugoslavia, and the conflict between the Russians and Japanese over control of the Kuril Islands are only a few examples. Creative interventions may be viable options to resolve these conflicts. Systematic research on the effectiveness of creative strategies, as well as practitioner training to identify appropriate opportunities for the use of these approaches are sorely needed.

Bibliography

Benedick, R. (1991) "Lessons for Practitioners," Presentation at the conference on International Environmental Negotiation at the International Institute for Applied Systems Analysis, Processes of International Negotiation Project, Laxenburg, Austria.

Druckman, D., J. Husbands, and K. Johnston (1991) "Turning Points in the INF Negotiations," Negotiation Journal (January)

Habeeb, W. M. and I. W. Zartman (1986) The Panama Canal Negotiations. Washington, D. C.: Foreign Policy Institute, School of Advanced International Studies, The Johns Hopkins University.

Hare, A. P. and D. Naveh (1985) "Creative Problem Solving: Camp David Summit, 1978," Small Group Behavior 16,2, 123-138.

Kidder, L. (1987) "Breaking a Stalemate with a Creative Alternative," Negotiation Journal (April)

Pruitt, D. (1987) "Creative Approaches to Negotiation," in D. Sandole and I. Sandole-Staroste, eds., Conflict Management and Problem Solving: Interpersonal to International Applications. London: Frances Pinter Publishers.

Raiffa, H. (1982) The Art and Science of Negotiation. Cambridge, MA: Belknap Press.

_____ (1991) "Contributions of Applied Systems Analysis to International Negotiation," in V. Kremenyuk, ed., International Negotiation: Analysis, Approaches, Issues. San Francisco, CA: Jossey-Bass Publishers.

Spector, B. (1989) "Inference in the Analysis Process." Presented at the Annual Meeting of the Society of Competitor Intelligence Professionals – South East Region, Washington, D. C., December.

Stein, J. (1989) "Prenegotiation in the Arab-Israeli Conflict: The Paradoxes of Success and Failure," in J. Stein, ed., Getting to the Table. Baltimore, MD: Johns Hopkins University Press.

Stein, M. I. (1974) Stimulating Creativity: Individual Procedures. New York: Academic Press.

_____ (1975) Stimulating Creativity: Group Procedures. New York: Academic Press.

Szulc, T. (1974) "How Kissinger Did It: Behind the Vietnam Cease-Fire Agreement," Foreign Policy 15 (Summer).

Tardif, T. and R. Sternberg (1988) "What Do We Know About Creativity?" in R. Sternberg, ed., The Nature of Creativity. Cambridge: Cambridge University Press.

Taylor, C. (1988) "Various Approaches to and Definitions of Creativity," in R. Sternberg, ed., The Nature of Creativity. Cambridge: Cambridge University Press.

Weisberg, R. (1988) "Problem Solving and Creativity," in R. Sternberg, ed., The Nature of Creativity. Cambridge: Cambridge University Press.

Zartman, I. W. (1983a) "The Analysis of Negotiation," in I. W. Zartman, ed., The 50% Solution. New Haven, CT: Yale University Press.

_____ (1983b) "Reality, Image, and Detail: The Paris Negotiations, 1969-1973," in I. W. Zartman, ed., The 50% Solution. New Haven, CT: Yale University Press.

_____ (1986) "Ripening Conflict, Ripe Moment, Formula, and Mediation," in Perspectives on Negotiation: Four Case Studies and Interpretations. Washington, DC: Center for the Study of Foreign Affairs, Foreign Service Institute, U.S. Department of State.