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# MEDIATION AND JOKE DESIGN: RESOLVING THE INCONGRUITIES

John W. Cooley\*

## I. OVERVIEW

Mediation is a joke . . .

Seriously, the process of mediation is very closely related, conceptually, to the process of humor. Mediators, particularly those who use creative techniques to achieve super-optimum solutions,<sup>1</sup> have the capacity to help disputants reframe their perceptions of a dispute situation to achieve satisfaction much in the same way that a joke-teller frames and reframes a factual situation to achieve laughter. To become more effective in assisting disputants to achieve creative, super-optimum solutions, mediators need to study humor and joke design. Sound bizarre? Consider these excerpts from the writings of experts in the evolving field of the psychology of humor:

A humorous incident is told so as to encourage a certain point of view. Then in the end we are given a conclusion (an organization of the facts presented) which is very different from the one we anticipated. It is like the experience of insight . . . .<sup>2</sup>

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1. An optimum solution is one that is best on a list of alternatives in achieving a set of goals. A super-optimum solution is one that is simultaneously best on two (or more) separate sets of goals. In other words, a super-optimum solution is a settlement result which is better than the disputants' best expectations of any result achievable by adjudicatory means. Super-optimum solutions are further discussed in Part III.

2. Norman R.F. Maier, *A Gestalt Theory of Humor*, 23 BRIT. J. PSYCHOL. 69, 70 (1933).

Understanding a joke is a special case of solving a problem. As the process of solving a problem can lead to joy if it happens suddenly enough, like almost always in the case of a puzzle, the understanding of a joke, which also usually happens suddenly, arouses joy too, arouses relief from embarrassment and thus laughter.<sup>3</sup>

In the ideal case, the problem solving will be successful and will retrieve the relevant rule that reconciles the joke parts. The punch line is then perceived to make sense, and the person "gets" the joke. When the apparent incongruity has been made congruous, the [mental] program has succeeded and will terminate; the humor has been understood.<sup>4</sup>

The element that seems to me most common to all the different kinds of humor is that of unexpected frame-substitution, in which a scene is first described from one viewpoint and then suddenly — typically by a single word — one is made to view all the scene-elements in another, quite different way. Some such shifts are insightful, of course, whereas others are mere meaningless accidents.<sup>5</sup>

Conflict interveners need to be sensitive to . . . the possibility of differences among disputants in conflict frames. . . . Managers might be trained to evaluate their own conflict frames and to recognize when their interpretations cripple attempts to reach better quality settlements. Managers might then be taught to reframe their interpretations of conflicts . . . to promote more efficient and effective conflict resolution.<sup>6</sup>

I was kidding about this last excerpt. It does *not* contain words of a psychologist expert in the area of humor. Rather these are the words of two behavioral researchers, Robin Pinkley, of the Southern Methodist University, and Gregory Northcraft, of the University of Arizona, who, in my view, are on the

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3. Paul Schiller, *A Configurational Theory of Puzzles and Jokes*, 18 J. GEN. PSYCHOL. 217, 224 (1938).

4. Jerry M. Suls, *A Two-Stage Model for the Appreciation of Jokes and Cartoons: An Information-Processing Analysis*, in THE PSYCHOLOGY OF HUMOR 81, 88 (Jeffrey H. Goldstein & Paul E. McGhee eds., 1972).

5. Marvin Minsky, *Jokes and the Logic of the Cognitive Unconscious*, in METHODS OF HEURISTICS 171, 183 (Rudolph Groner et al. eds., 1983).

6. Robin Pinkley & Gregory Northcraft, *Conflict Frames: Implications for Disputant Motives and Behavior* 18-19 (1989) (working paper, Southern Methodist University).

cutting edge of important new discoveries — in particular, conflict frames and conflict reframing — in the field of mediation and conflict resolution.

The purposes of this Article are: (1) to highlight some of these new discoveries; (2) to discuss their implications for mediators generally, particularly toward achieving super-optimum resolutions of conflict; (3) to explore the relationship of these discoveries to the brain's bilateral functions, creativity, and the process of humor and joke design; (4) to suggest techniques, based on joke design, for altering conflict frames of disputants; and (5) to suggest directions for further experimentation and research. Although the interrelationships among the separate topics presented here may not be immediately discernible, the seeming incongruities will be resolved in Part VIII.

## II. MEDIATIONAL PROBLEM SOLVING AND CONFLICT FRAMES

### A. Problem Solving

The mediator's role is to assist parties in negotiation, i.e., in problem solving.<sup>7</sup> In a conflict setting (i.e., dispute or transactional), the mediator helps parties in conflict reach a voluntary settlement of their differences through an agreement defining their future behavior.<sup>8</sup> Mediation consists of eight stages: initiation, preparation, introduction, problem statement, problem clarification, generation and evaluation of alternatives, selection of alternatives, and agreement.<sup>9</sup> The mediator does not impose a decision on the parties, but, despite

7. Professor Robert A. Baruch Bush has identified three concepts of the mediator's role: efficiency, protection of rights, and empowerment and recognition. See Robert A.B. Bush, *Efficiency and Protection, or Empowerment and Recognition?: The Mediator's Role and Ethical Standards in Mediation*, 41 FLA. L. REV. 253, 257-58 (1989). Professor Leonard L. Riskin sees the mediator's role, in part at least, as facilitating negotiations based on adversarial or problem solving principles, or both. See Leonard L. Riskin, *The Represented Client in a Settlement Conference: The Lessons of G. Heileman Brewing Co. v. Joseph Oat Corp.*, 69 WASH. U. L.Q. 1059, 1081 (1991). I disagree with neither of these points of view; my concept of "problem solving" simply encompasses both. I view "problem solving" as three separate decisionmaking (or design) processes: (1) designing the problem; (2) designing the process for solving the problem; and (3) designing the solution. See JOHN W. COOLEY, CALLAGHAN'S APPELLATE ADVOCACY MANUAL § 2.04 (1989). There are two basic types of problem solving: adversarial (focusing on rights and duties), which entails designing *biased* problems and *biased* solutions; and nonadversarial (or collaborative) — focusing on needs and resources to satisfy them — which entails designing *unbiased* problems and *unbiased* solutions. See *generally id.* In any given dispute resolution context, including mediation, either or both of these types of problem-solving alternatives might be used by the parties, by the neutral, or by both.

8. See *generally* Bush, *supra* note 7, at 267-73.

9. John W. Cooley, *Arbitration vs. Mediation: Explaining the Differences*, 69 JUDICATURE 263, 266 (1986). See *generally* STEPHEN B. GOLDBERG ET AL., DISPUTE RESOLUTION 91-147 (1985); LEONARD L. RISKIN & JAMES E. WESTBROOK, DISPUTE RESOLUTION AND LAWYERS 214-26 (1987); NANCY H. ROGERS & RICHARD A. SALEM, A STUDENT'S GUIDE TO MEDIATION AND THE LAW §§ 2.01 to .04 (1987); WILLIAM L. URY ET AL., GETTING DISPUTES RESOLVED: DESIGNING SYSTEMS TO CUT THE COSTS OF CONFLICT 49-52 (1988).

this lack of decisionmaking authority, the mediator is effective for several reasons.<sup>10</sup>

However, this process is subject to a variety of impediments. Research has revealed, convincingly, that a significant barrier (and conversely an aid) to resolution of a conflict is the way in which the parties perceive: (1) the subject matter of the conflict, (2) their own goals, and (3) each other as participants in the conflict.<sup>11</sup> Such cognitive structures or interpretations of conflict (also called dimensions of conflict frame) which inhibit or assist conflict resolution are matters about which mediators should be aware and with which they must learn to deal. Identifying conflict frames of ourselves as mediators and of the disputants is the first step in determining how to deal with them in mediation. This step must occur before assessing whether reframing is possible and, if so, how reframing should proceed.

## *B. Conflict Frames*

### *1. Studies 1 and 2*

Research conducted by Robin Pinkley proceeded from the premise that "conflict situations elicit a well-defined cognitive structure based on past experiences with conflict as well as present concerns and interests . . . [which] guide disputant behavior, strategy selection, outcome concerns, and evaluations of the other party."<sup>12</sup> The purpose of her research was to develop a typology and measure of conflict interpretations (dimensions of conflict frame) which describe various ways in which people perceive conflict. In addition, she also examined whether, from a disputant perspective, disputants and mediators focus on different aspects of conflict or appear to share the same conflict frames and interpretations.<sup>13</sup>

The Pinkley research consisted of two studies. Study 1 included conflict descriptions of mediators and disputants, whereas Study 2 concerned the conflict

10. See generally RISKIN & WESTBROOK, *supra* note 9, at 196-249.

11. See generally Max H. Bazerman and John S. Carroll, *Negotiator Cognition*, in 9 RES. ORGANIZATIONAL BEHAV. 247 (L.L. Cummings & Barry M. Staw eds., 1987); Max H. Bazerman & Margaret A. Neale, *Heuristics in Negotiation: Limitations to Effective Dispute Resolution*, in NEGOTIATING IN ORGANIZATIONS 51 (Max H. Bazerman & Roy J. Lewicki eds., 1983); Lynn Mather & Barbara Yngvesson, *Language, Audience, and the Transformation of Disputes*, 15 LAW & SOC'Y REV. 775 (1981).

12. Robin Pinkley, *Dimensions of Conflict Frame: Disputant Interpretations of Conflict*, 75 J. APPLIED PSYCHOL. 117, 117 (1990). In some respects, Dr. Pinkley's research parallels the research of psychologists Thomas and Kilmann who identified five types of conflict behaviors: avoiding, accommodating, competing, collaborating and compromising. See Kenneth W. Thomas & Ralph H. Kilmann, *Developing a Forced-choice Measure of Conflict-handling Behavior: The "MODE" Instrument*, 37 EDUC. & PSYCHOL. MEASUREMENT 309, 309-25 (1977); Kenneth W. Thomas & Ralph H. Kilmann, *Interpersonal Conflict-handling Behavior As Reflections of Jungian Personality Dimensions*, 37 PSYCHOL. REP. 971, 971-80 (1975).

13. Pinkley, *supra* note 12, at 118.

descriptions of disputants only.<sup>14</sup> Study 1 examined statements of an older and more demographically heterogeneous population, whereas Study 2 included responses of a younger, more homogeneous population (i.e. students enrolled in introductory psychology classes).<sup>15</sup> The results of Study 1 suggested that three dimensions define the typology of conflict frame: (1) RELATIONSHIP vs. TASK; (2) EMOTIONAL vs. INTELLECTUAL; (3) COMPROMISE vs. WIN.<sup>16</sup> With only a few inconsistencies, the results of Study 2 replicated the findings of Study 1.<sup>17</sup>

The results of both studies demonstrated that in Dimension 1 (RELATIONSHIP vs. TASK), "people differ in the extent to which they attribute the conflict to problems in the relationship and, consequently, how concerned they are about the other party and maintaining the relationship."<sup>18</sup> In Dimension 2 (EMOTIONAL vs. INTELLECTUAL), "although some disputants focus on the feelings involved, such as jealousy, hatred, anger, and frustration, others seem to attend only to the specific behaviors and thoughts involved."<sup>19</sup> Finally, in Dimension 3 (COMPROMISE vs. WIN), "some disputants attribute blame to both parties and seek a compromise solution; others assign blame to the other party while expecting to be compensated for their victimization."<sup>20</sup>

## 2. Study 3

In a subsequent study, conducted in association with Gregory Northcraft, Dr. Pinkley sought to discover what impact conflict frames have on the behaviors of disputants and the outcomes of disputes.<sup>21</sup> Without going into the methodology and procedure of the study, the results of the study showed that in the pursuit of monetary goals, a disputant does best when he or she has a TASK-INTELLECTUAL-COMPROMISE frame and the other disputant has a RELATIONSHIP-INTELLECTUAL COMPROMISE frame.<sup>22</sup> This combination of conflict frames appeared to result in greater joint monetary outcome, increased percentage of separate outcomes, and a continued, and perhaps improved, working relationship, which left both parties feeling satisfied with the outcome.<sup>23</sup> It is not clear whether this same pattern of results would occur if different types of issues (e.g. relationship-based) were being negotiated. The results of the study, however, do confirm the importance of viewing disputes as multi-dimensional, even though they may appear on the surface to involve

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14. *Id.*

15. *Id.* at 118, 122.

16. *Id.* at 124.

17. *Id.* at 124-25.

18. *Id.* at 124.

19. *Id.*

20. *Id.*

21. See Pinkley & Northcraft, *supra* note 6 (discussing this study).

22. See generally *id.*

23. See generally *id.*

exclusively achievement of task outcomes or exclusively relationship or emotional goals.

The third study further revealed that current theories regarding strategic negotiator behavior may be inappropriately focused on the achievement of task outcomes, for instance, to the exclusion of relationship or emotional goals.<sup>24</sup> Also, in integrative bargaining, if both disputants value money, two of the non-monetary items in dispute may, in actuality, have complementary monetary values to the disputants; these differences in value allow mutually beneficial trade-offs.<sup>25</sup> "Differences in conflict frames suggest that integration of disputants' needs also can be profitably pursued *across* dimensions."<sup>26</sup> Thus, a "disputant who frames a conflict (i.e., what is in dispute) in terms of relationship issues may be willing to trade-off task issues (which that disputant sees as less central to the conflict) to reach agreement; and a disputant who frames the same conflict in terms of task issues [might] have complementary inclinations."<sup>27</sup> In any event, as Pinkley and Northcraft suggest, "[f]uture research may want to determine if conflict *reframing* is possible and advantageous."<sup>28</sup>

Because conflict frames are structures of mind, our next step should be to determine how and why they are formed and whether they can be altered. For insight into these topics, we must turn to the subject of brain functioning and the state of current research in that field. This is a necessary step before connecting "reframing" with the process of humor — or more particularly with joke design. But first, we need to review the types of solutions attainable in mediation, including super-optimum solutions.

### III. SUPER-OPTIMUM SOLUTIONS

It is not a new discovery that disputes are transformed in the resolution process and that a mediator can have a significant impact on the type and extent of the transformation. Two commentators on this phenomenon have observed that, at a fundamental level, the transformation of a dispute involves a process of *rephrasing* — that is, some kind of reformulation — into a discourse.<sup>29</sup> According to them, a skillful third party will accomplish this without appearing to force a value choice; rather, he or she will construe the facts in such a way that norms seem to relate to the disputants inevitably.<sup>30</sup>

This transformation role of the mediator raises the question of what specific skills and techniques of the mediator can enhance the *quality* of the mediated solutions. We will be exploring these potential skills and techniques throughout

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24. See generally *id.*

25. *Id.* at 18.

26. *Id.* (emphasis in original).

27. *Id.*

28. *Id.* at 19 (emphasis in original).

29. Mather & Yngvesson, *supra* note 11, at 776.

30. *Id.*

the remainder of this Article, but initially we need to examine the types of solutions that are available in mediation.

Professor Stuart Nagel of the University of Illinois, a nationally-recognized expert in computer-aided mediation, has suggested this taxonomy of mediated solutions.<sup>31</sup> In Nagel's taxonomy, the highest-quality solution achievable in mediation is the super-optimum solution, of which he has identified many types; four examples are as follows:<sup>32</sup>

1. *Solution that achieves a super-optimum goal.* A super-optimum goal is one that is far higher than is traditionally considered to be the best attainable. An example would be doing better than 0% unemployment by simultaneously eliminating or reducing traditional unemployment and greatly increasing job opportunities for those who are willing and able to work more but who were formerly considered outside the labor force or formerly considered fully employed.

2. *Solution that resolves public policy disputes.* Such a solution satisfies liberals and conservatives in a policy dispute so that both consider the solution to be better than their original best expectations as measured by their own respective goals and priorities.

3. *Solution that resolves adjudicative or rule-applying controversies.* This solution satisfies disputants in a way that is better than their best expectations. An example would be where a plaintiff demands \$900,000, the defendant refuses to pay more than \$300,000, and they agree that the defendant will turn over merchandise that the defendant manufactures which is worth more than \$1 million to the plaintiff but where the variable cost to produce such merchandise is worth less than \$200,000 to the defendant.<sup>33</sup>

4. *Solution that enables all sides in a dispute to add substantially to their original net worth.* An example would be that in the same litigation dispute described in the preceding example, the defendant agrees to give the plaintiff a franchise for selling defendant's products, and the franchise brings in a net of \$1 million each year, \$500,000 per year for plaintiff and \$500,000 per year for defendant. This expanded-sum solution would still be met if the total net worth of all participants substantially increased even if the worth of some of the participants slightly decreased, provided that the decrease did not cause those participants to go below a minimum level of satisfaction.<sup>34</sup>

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31. Professor Nagel's taxonomy includes the following types of mediated solutions: super-optimum, pareto optimum, win-lose, lose-lose, win-win. See *Introduction to SYSTEMATIC ANALYSIS IN DISPUTE RESOLUTION* at xi, xi-xii (Stuart S. Nagel & Miriam K. Mills eds., 1991).

32. See STUART S. NAGEL & MIRIAM K. MILLS, *MULTI-CRITERIA METHODS FOR ALTERNATIVE DISPUTE RESOLUTION* 226-42 (1990).

33. See John W. Cooley, *Merging of Minds and Microcomputers: The Coming of Age of Computer-Aided Mediation of Court Cases*, in *SYSTEMATIC ANALYSIS IN DISPUTE RESOLUTION*, *supra* note 31, at 65, 72-73 (discussing a particular mediation session in which this solution was used).

34. See NAGEL & MILLS, *supra* note 32, at 239.



Achieving super-optimum solutions should be the goal of every mediator in transforming disputes, where transformation is feasible.<sup>35</sup> The key to obtaining such solutions may lie, ultimately, in understanding the relationships between conflict frames, cerebral dominance, creativity, humor, and joke design.

#### IV. SPLIT BRAINS, CEREBRAL DOMINANCE, COGNITIVE STYLES

The results of the research regarding conflict frames in mediation, described in Part II, find support in the results of split-brain research conducted over about the last 30 years.<sup>36</sup> These split-brain research findings may offer at least a partial explanation of the conflict-frame research results from the perspective of brain functioning. Split-brain research also directly impacts on the topics of creativity in problem solving and of joke design, discussed in Parts V and VI.

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35. It is arguable that super-optimum mediation may not be suitable for all categories of disputes, particularly those which, traditionally, have been perceived as having only distributive (monetary) solutions. For example, some experts might contend that small, individual monetary claims against insurance companies, large corporations, or government entities would not warrant the kind of expenditure of time and effort that super-optimum mediation would require. While there is some possible merit to this argument, I still cling to the view that all disputes, regardless of their size or nature, are amenable to super-optimum resolution so long as the parties and the neutral adopt an "expanding the pie" or "different pie" mentality. When this mentality becomes more universal, insurance companies, other corporations, and government entities will begin to appreciate the practical and economic benefits of super-optimum solutions, even with respect to disputes involving small, individual monetary claims. In the meantime, it would be prudent for the traditional "deep pockets" to engage in super-optimum problem solving by adopting comprehensive policies and processes for handling identified categories of small monetary claims, and by providing for specified integrative settlement options.

36. See generally NANCY C. ANDREASEN, *THE BROKEN BRAIN: THE BIOLOGICAL REVOLUTION IN PSYCHIATRY* (1985); M.P. BRYDEN, *LATERALITY: FUNCTIONAL ASYMMETRY IN THE INTACT BRAIN* (1982); COGNITIVE PROCESSING IN THE RIGHT HEMISPHERE (Ellen Porecman ed., 1983); MICHAEL S. GAZZANIGA, *THE BISECTED BRAIN* (1970); MICHAEL S. GAZZANIGA, *MIND MATTERS: HOW THE MIND AND BRAIN INTERACT TO CREATE OUR CONSCIOUS LIVES* (1988); MICHAEL S. GAZZANIGA, *THE SOCIAL BRAIN: DISCOVERING THE NETWORKS OF THE MIND* (1985); MICHAEL S. GAZZANIGA & JOSEPH E. LEDOUX, *THE INTEGRATED MIND* (1978); ANNE HARRINGTON, *MEDICINE, MIND, AND THE DOUBLE BRAIN: A STUDY IN NINETEENTH CENTURY THOUGHT* (1987); RICHARD M. RESTAK, *THE BRAIN: THE LAST FRONTIER* (1979); ROGER SPERRY, *SCIENCE AND MORAL PRIORITY: MERGING MIND, BRAIN, AND HUMAN VALUES* (1983); Roger Sperry, *Bridging Science and Values: A Unifying View of Mind and Brain*, 32 *AM. PSYCHOLOGIST* 237, 237-45 (April 1977); Roger Sperry, *Hemisphere Deconnection and Unity in Conscious Awareness*, 23 *AM. PSYCHOLOGIST* 723, 723-33 (1968); Roger Sperry, *Some Effects of Disconnecting Cerebral Hemispheres*, 217 *SCI.* 1223, 1223-26 (1982).

*A. The Bilateral Brain*

In the 1960s, Roger Sperry and his colleagues at the California Institute of Technology conducted extensive "split brain" experiments for which they received the 1981 Nobel Prize.<sup>37</sup> As a result of this research, the theory now widely accepted among scientists and researchers is that the left hemisphere of the brain is more specialized in serial processing, i.e., analysis that involves processing information one bit after another, whereas the right hemisphere is more specialized in parallel processing, i.e., forming a synthesis of several bits of information.<sup>38</sup>

In solving a problem using an algebraic formula, for example, the brain inserts numerical values for letters in the formula and then performs certain set mathematical "operations" according to directions given by the formula.<sup>39</sup> The mathematical operations usually themselves involve fixed sequential procedures or rules. This is the serial or analytical (left brain) process. On the other hand, the brain's recognition of a face does not require step-by-step analysis of the facial image, feature by feature. The brain takes a large number of elements simultaneously and synthesizes them into a whole. This is parallel, or synthetic (right brain) processing.<sup>40</sup>

Research has further revealed that: (1) the left and right hemispheres of the brain are connected by a massive bundle of nerves called the corpus callosum, through which the two halves communicate; and (2) the functioning brain shifts back and forth between the hemispheres as it and the remainder of the body

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37. See COOLEY, *supra* note 7, § 2.02, at 5; JACQUELYN WONDER & PRISCILLA DONOVAN, *WHOLE BRAIN THINKING* 10 (1984).

38. See GAZZANIGA & LEDOUX, *supra* note 36, at 45-72; NORMAN GESCHWIND & ALBERT M. GALABURDA, *CEREBRAL LATERALIZATION* 5-19 (1985); ALBERTA S. GILINSKY, *MIND AND BRAIN: PRINCIPLES OF NEUROPSYCHOLOGY* 69-79 (1984); SALLY P. SPRINGER & GEORG DEUTSCH, *LEFT BRAIN, RIGHT BRAIN* 64-65 (1985); Norman Geschwind, *Historical Introduction to CEREBRAL DOMINANCE: THE BIOLOGICAL FOUNDATIONS* 1, 1-7 (Norman Geschwind & Albert M. Galaburda eds., 1984); see also PETER RUSSELL, *THE BRAIN BOOK* 48 (1979).

39. See generally RUSSELL, *supra* note 38.

40. *Id.* at 52; COOLEY, *supra* note 7, § 2.02, at 8.

change activities.<sup>41</sup> The brain's two halves house different specialized functions or characteristics, as shown below:<sup>42</sup>

<i>Left</i>	<i>Right</i>
Convergent	Divergent
Intellectual	Intuitive
Deductive	Imaginative
Rational	Metaphorical
Vertical	Horizontal
Discrete	Continuous
Abstract	Concrete
Realistic	Impulsive
Directed	Free
Differential	Existential
Sequential	Multiple
Historical	Timeless
Analytical	Holistic
Explicit	Tacit
Objective	Subjective
Successive	Simultaneous

### *B. Cerebral Dominance and Cognitive Styles*

The discovery, through cognitive science,<sup>43</sup> that the two hemispheres of the brain are specialized for different modes of thought has led to the concept of cerebral dominance (also called lateral preference) or hemisphericity — the idea that a given individual relies more on one mode or hemisphere than on the other.<sup>44</sup> This unconscious preference for using a particular side of the brain is thought to be reflected in the individual's "cognitive style": the person's

41. COOLEY, *supra* note 7, § 2.02, at 8; RUSSELL, *supra* note 38, at 48-50.

42. SPRINGER & DEUTSCH, *supra* note 38, at 237.

43. Cognitive science, an amalgam of neuroscience, cognitive psychology and education, has emerged only in recent years. Kenneth A. Klivington, *Building Bridges Among Neuroscience, Cognitive Psychology, and Education*, in *THE BRAIN, COGNITION, AND EDUCATION* 3, 3 (Sarah L. Friedman et al. eds., 1986).

44. SPRINGER & DEUTSCH, *supra* note 38, at 239; WONDER & DONOVAN, *supra* note 37, at 20-30. "Cerebral dominance" originally referred to the perceived dominance of the left hemisphere over the right. Currently, when psychologists use the expression, they usually ask the related question: "Dominant for what task?" See Lauren J. Harris, *Right-Brain Training: Some Reflections on the Application of Research on Cerebral Hemispheric Specialization to Education*, in *BRAIN LATERALIZATION IN CHILDREN: DEVELOPMENTAL IMPLICATIONS* 207, 210 (Dennis L. Mofese & Sidney J. Segalowitz eds., 1988).

orientation and approach to problem solving.<sup>45</sup> A tendency to use verbal, mathematical, or analytical approaches to problems or tasks is generally seen as evidence of a left-hemisphere cognitive style, whereas an approach which features emotional, visual, and spatial aspects indicates a right-hemisphere cognitive style.<sup>46</sup> There is some evidence to suggest that lateral preference or cognitive style may be related to cultural and occupational experiences.<sup>47</sup> Other research suggests that cognitive style may be directly influenced by the educational system an individual experiences.<sup>48</sup> It is contended by some experts that an educational program which over-emphasizes reading, writing, mathematics, and deductive thinking has a tendency to influence a left-hemisphere cognitive style while one which over-emphasizes art, drama, imagination, and creative thinking influences a right-hemispheric cognitive style.<sup>49</sup>

Other research suggests that an individual's cognitive style cannot so easily be stereotyped as left- or right-brain *directed*; rather, some individuals' cognitive style can be said to be laterally *differentiated*.<sup>50</sup> For example, an individual who consistently and reliably shows good performance on "left-hemisphere tasks" but poor performance on "right hemisphere tasks" is said to be *directionally* left-lateralized.<sup>51</sup> A laterally *differentiated* individual, on the other hand, tends to use the right hemisphere for tasks for which the right hemisphere has an

45. Another recent outgrowth of the hemispheric specialization research is the concept of neurolinguistic programming ("NLP"). The proponents of NLP contend that there are three main sensory channels which they call representational systems (i.e., systems which represent experienced reality). These representational systems are: (1) visual (pictures, images); (2) auditory (sounds, tones); and (3) kinesthetic (touch, feelings). A person is said to tend to favor one of these systems as his or her "primary" representational system though he or she may "lead" with one of the other two systems in particular situations or tasks. NLP proponents believe that a person's primary representational system can be identified physiologically in several ways, the most important being a person's eye accessing cues. They contend that when one accesses either pictures, words, or feelings one uses the eyes to stimulate the corresponding areas of the brain. According to them, visuals, auditorys, and kinesthetic types each have different eye patterns for accessing information. These eye patterns, it is contended, provide useful information as to how other people view the world, how they problem solve, and how people dealing with them can best establish rapport and negotiate or problem solve. See Paul M. Lisnek, *New Courtroom Strategy: Getting Through to Jurors*, 6 CHICAGO B. ASS'N REC., April 1992, at 28, 28-31. See generally RICHARD BANDLER & JOHN GRINDER, *FROGS INTO PRINCES: NEURO LINGUISTIC PROGRAMMING* (Steve Andreas ed., 1979); RICHARD BANDLER & JOHN GRINDER, *REFRAMING: NEURO LINGUISTIC PROGRAMMING AND THE TRANSFORMATION OF MEANING* (Steve Andreas & Connirae Andreas eds., 1982); MICHAEL BROOKS, *INSTANT RAPPORT* (1989).

46. See JAMES J. ASHER, *BRAINSWITCHING* 176-83 (1988).

47. SPRINGER & DEUTSCH, *supra* note 38, at 239-44.

48. *Id.* at 246-47.

49. *Id.*; RUSSELL, *supra* note 38, at 55-57. See generally Sarah L. Friedman & Rodney R. Cocking, *Instructional Influences on Cognition and on the Brain*, in *THE BRAIN, COGNITION, AND EDUCATION*, *supra* note 43, at 319, 319-43.

50. Warren D. TenHouten, *Cerebral-Lateralization Theory and the Sociology of Knowledge*, in *THE DUAL BRAIN: HEMISPHERIC SPECIALIZATION IN HUMANS* 341, 342-44 (D. Frank Benson & Eran Zaidel eds., 1985) (emphasis added).

51. *Id.* at 343 (emphasis added).

advantage and also to use the left hemisphere for tasks for which the left hemisphere has an advantage.<sup>52</sup> In addition, research on field-independent and field-dependent cognitive styles suggests that field independence (capacity to separate a stimulus from its perceptual context) is correlated with extent of lateralization.<sup>53</sup> A number of studies suggest that field-independent persons are not directionally left-lateralized as much as they are laterally differentiated.<sup>54</sup> Thus, field-independent persons will tend to use the hemisphere that has an advantage for the cognitive task at hand.<sup>55</sup> Another study sought to identify the sources of the "analytic" and "relational" cognitive styles, which closely resemble field-independent and field-dependent cognitive styles, respectively.<sup>56</sup> The analytic cognitive style is characterized by a formal model of abstracting information from a situation and by a stimulus-centered orientation to reality, such that parts or attributes have meaning in themselves.<sup>57</sup> The relational cognitive style, in contrast, requires a descriptive mode, is self-centered in its reality orientation, and finds meaning in global characteristics of a stimulus.<sup>58</sup> The analytic cognitive style is most typical of children raised in subcultures characterized by formally organized family and friendship groups, while the relational style characterizes children raised in shared-function groups that are less competitive and more cooperative.<sup>59</sup> This latter research may have a direct parallel to the conflict-frame research results discussed in Part II.

Aside from lateral direction and differentiation, hemispheric *interaction* is also an important aspect of brain functioning; brain research has engendered speculation that it is the *interaction* (dialectic or communication) between the two hemispheres that produces a level of thought higher than that produced by either hemisphere acting separately. One commentator has suggested that analytic and synthetic thinking are opposed in such a way that the two, together, are able to generate a level of thought which goes beyond the level of either mode of thought, separately.<sup>60</sup> Hemispheric interaction causes the two modes of thought to have qualities of both mutual antagonism and complementarity.<sup>61</sup> This research seems to complement other experts' suggestions that persons with opposite lateral preferences can, working together, produce better solutions to

52. *Id.* (emphasis added)

53. *Id.*

54. *Id.*

55. *Id.*

56. *Id.* at 353. See generally MICHAEL COLE & BARBARA MEANS, *COMPARATIVE STUDIES OF HOW PEOPLE THINK* (1981).

57. TenHouten, *supra* note 50, at 353.

58. *Id.*

59. *Id.* See generally COLE & MEANS, *supra* note 56.

60. TenHouten, *supra* note 50, at 344; see also Hedy White et al., *Laterality Effects in Symbolic Judgment: The Effects of Semantic Congruity on Hemispheric Processing*, 28 BULL. PSYCHONOMIC SOC'Y 401, 401-04 (1990).

61. TenHouten, *supra* note 50, at 344.

problems more effectively than if the individuals worked separately (or with other persons of similar brain preferences).<sup>62</sup>

Amid all of the evidence and speculation about the localization of specific brain functions,<sup>63</sup> there is one proposition with respect to which most experts agree: Creativity requires appropriate interaction between both the left and the right hemispheres.<sup>64</sup> Since creativity is essential to achieving super-optimum solutions, it is to that subject that we now turn.

## V. CREATIVITY

The study of creativity relative to mediation is important from the standpoints of: (1) defining the creative problem-solving process; (2) identifying the creative skills, abilities, and attributes of mediators and disputants; and (3) understanding the essence of conflict reframing. The first two topics are discussed in this section; the third topic is developed in Parts VI, VII, and VIII.

### A. *Creativity and the Creative Problem-Solving Process*

Of all psychological constructs, few have proved more elusive to define than creativity.<sup>65</sup> In 1926, Graham Wallas identified four steps in the creative process: preparation, incubation, illumination, and verification.<sup>66</sup> According to Wallas, the problem in the preparation stage is investigated in all directions; the incubation stage consists of unconscious thinking about the problem; an idea appears in the illumination stage in an instantaneous flash, perhaps after a series of tentative unsuccessful trains of thought associations varying from a few seconds to several hours; and the idea is tested and reduced to exact form in the

62. See WUNDER & DONOVAN, *supra* note 37, at 42; see also COOLEY, *supra* note 7, § 2.02, at 15.

63. Another theory of brain functioning posits that the mind has three levels of function corresponding to the three principal stages of the brain's evolution. Level one locates us in the past, level two relates us to the present, and level three directs us toward the future. Level one (the oldest region closest to the core of the brain — the Reptilian-like Brain) contains the basic instincts and ritual behaviors of precedent. Level two is the midregion — the Old Mammalian Brain — which generates emotion and gives us a sense of the reality of ourselves, the environment, and a conviction of what is true and important. Level three is the forebrain or neocortex, which is referred to as the New Brain or The Rational Mind. Level three is claimed to be responsible for activity which is distinctly human — particularly that of promoting the preservation and procreation of ideas. See generally PAUL D. MACLEAN, *THE TRIUNE BRAIN IN EVOLUTION: ROLE IN PALEOCEREBRAL FUNCTIONS* (1990).

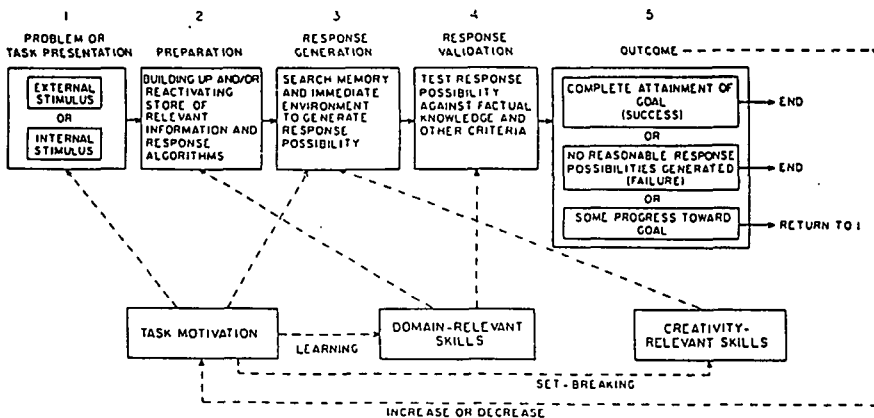
64. TenHouten, *supra* note 50, at 354; see also Joseph E. Bogen & Glenda M. Bogen, *Creativity and the Bisected Brain*, in *THE CREATIVITY QUESTION* 256, 256-61 (Albert Rothenberg & Carl R. Hausman eds., 1976); Itzhak Harpaz, *Asymmetry of Hemispheric Functions and Creativity: An Empirical Examination*, 24 *J. CREATIVE BEHAV.* 161, 161-70 (1990).

65. Robert J. Sternberg, *A Three-facet Model of Creativity*, in *THE NATURE OF CREATIVITY: CONTEMPORARY PSYCHOLOGICAL PERSPECTIVES* 125, 126 (Robert J. Sternberg ed., 1988).

66. Graham Wallas, *Stages in the Creative Process*, in *THE CREATIVITY QUESTION*, *supra* note 64, at 69, 69.

verification stage.<sup>67</sup> The "Wallas Process" is widely perceived as the basis for almost all of the systematic methods of creativity training in existence today; however other experts and researchers have elaborated and refined the Wallas concept.<sup>68</sup> E.P. Torrance, one of the leading experts in the field of creativity, has developed several definitional formats for "creativity" including research, artistic, and survival definitions.<sup>69</sup> Teresa M. Amabile has developed a componential framework of creativity which appears in Figure 1.<sup>70</sup>

FIGURE ONE



This framework attempts to describe the entire creative process from problem-finding (discussed later) to evaluation. The heart of Amabile's concept of creativity consists of three components: "domain-relevant skills," "creativity-relevant skills," and "task motivation."<sup>71</sup> These three components are discussed in more detail in Part B.

67. *Id.* at 70-72.

68. E.P. Torrance, *Creativity As Manifest in Testing*, in *THE NATURE OF CREATIVITY: CONTEMPORARY PSYCHOLOGICAL PERSPECTIVES*, *supra* note 65, at 43, 45; *see also* Shawn Boles, *A Model of Routine and Creative Problem Solving*, 24 *J. CREATIVE BEHAV.* 171, 171-89 (1990).

69. *See* Torrance, *supra* note 68, at 47, 57-58.

70. Teresa M. Amabile, *The Social Psychology of Creativity: A Componential Conceptualization*, 45 *J. PERSONALITY & SOC. PSYCHOL.* 357, 362 (1983) (copyright 1983 by The American Psychological Association; reprinted with permission); *see also* *HANDBOOK OF CREATIVITY* 28 (John A. Glover et al. eds., 1989).

71. *HANDBOOK OF CREATIVITY*, *supra* note 70, at 26-28; *see generally* Amabile, *supra* note 70.

## B. Creative Skills, Abilities, and Attributes

### 1. General Skills

It has been said that highly creative persons stress their inventiveness, independence, individuality, enthusiasm, determination, and industry.<sup>72</sup> They also have a preference for cognitive complexity and for rich, dynamic, asymmetrical information as opposed to that which is simple and symmetrical. This was found to be true of creative artists as well as research scientists, architects, and writers.<sup>73</sup> Creative persons also usually approve of the modern, experiential, primitive, and sensual while disliking the aristocratic, traditional, and emotionally controlled. They also tend to reject suppression as a mechanism for the control of impulse.<sup>74</sup>

It has also been said that creativity "exists in every individual, and awaits only the proper conditions to be released and expressed."<sup>75</sup> Furthermore, there are relatively low correlations between measures of intelligence (IQ) and creativity. In one study of creative architects, the correlation between creativity and IQ was -.08; another study suggested that "at the high IQ levels there will be a very wide range of creativity, whereas as we go down to average IQ, and on

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72. Irving A. Taylor, *A Retrospective View of Creativity Investigation*, in PERSPECTIVES IN CREATIVITY 1, 13 (Irving A. Taylor & Jacob W. Getzels eds., 1975).

73. *Id.*

74. *Id.*

75. Carl R. Rogers, *Toward a Theory of Creativity*, in THE CREATIVITY QUESTION, *supra* note 64, at 296, 298; *see also* Albert Rothenberg, *Creativity in Adolescence*, 18 PSYCHIATRIC CLINICS N. AM. 415, 415-34 (1990).



down to lower levels, the scatter for creativity will be less and less."<sup>76</sup> Several abilities of creative thinkers have been identified,<sup>77</sup> along with these specific attributes:<sup>78</sup>

1. Fluency — thinking of a number of responses;
2. Flexibility — seeing a number of ways circles or lines could be used;
3. Originality — responding in unusual or rare ways;
4. Elaboration — stating a number of details that contribute to the "story" told by the response;
5. Transformation — with ease from the figural to the verbal and giving expression;
6. Synthesis or combination — joining together two or more figures and making it into a coherent response;
7. Unusual visualization — seeing and putting the figure in a visual perspective different from the usual;
8. Internal visualization — seeing objects from the inside;
9. Humor — juxtaposing of two or more incongruities; and
10. Extension or breaking of the boundaries — getting outside the expected.

Amabile's theory of creativity hypothesizes that creativity is not best conceptualized as a personality trait or a general ability but as "a behavior resulting from particular constellations of personal characteristics, cognitive abilities, and social environments."<sup>79</sup> These three components are described in **Figure 2**.<sup>80</sup>

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76. Taylor, *supra* note 72, at 22; *see also* RICHARD E. MAYER, THINKING, PROBLEM SOLVING, COGNITION 329-30 (1983); Lazar Stankov & Kuei Chen, *Can We Boost Fluid and Crystallized Intelligence?*, 40 AUSTRALIAN J. PSYCHOL. 363, 363-76 (1988).

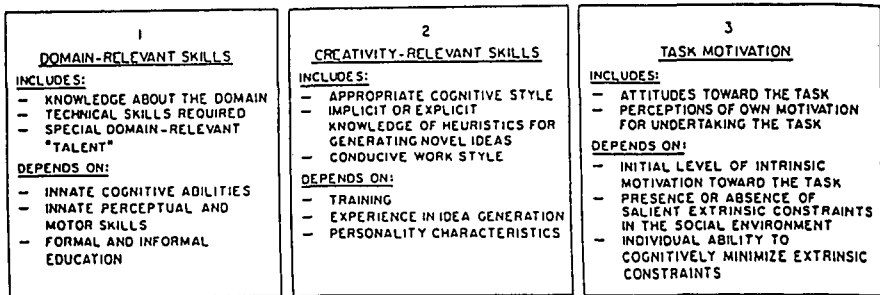
77. *See* Torrance, *supra* note 68, at 72.

78. *Id.* at 66-67; *see also* Lynn G. Johnson & J. Amos Hatch, *A Descriptive Study of the Creative and Social Behavior of Four Highly Original Young Children*, 24 J. CREATIVE BEHAV. 205, 205-24 (1990).

79. HANDBOOK OF CREATIVITY, *supra* note 70, at 26.

80. Amabile, *supra* note 70, at 367 (copyright 1983 by the American Psychological Association; reprinted with permission); *see also* HANDBOOK OF CREATIVITY, *supra* note 70, at 27.

FIGURE TWO



## 2. *The Problem-Finding Skill and Creativity*

Perhaps without knowing it, a mediator employs the skill of problem finding and assists disputants to employ it; it may be the mediator's most important tool. To use the tool effectively requires creativity and the ability to reframe situations. Mediators must also be able to identify disputants who possess this skill and to motivate their use of it in problem solving.

Understanding what problem finding entails knowing the difference between presented and discovered problems. Presented problems are those which have a known formulation, a routine process for solution (known by the individual problem solver and/or others) and a recognized solution. Solving the simplest type of presented problem requires one only to follow established steps to meet the requirements of the situation. An example of a presented problem would be finding the area of a rectangle whose unit width,  $a$ , is 4 and whose unit height,  $b$ , is 3. The routine method of solution is the formula:  $\text{Area} = a \times b$ . The solution is easily obtained by plugging 4 for  $a$  in the formula, 3 for  $b$ , and multiplying  $4 \times 3$  to yield 12 square units. The primary method of thought in solving this type of problem is memory and retrieval.<sup>81</sup>

A second, more difficult, type of presented problem is where the problem is posed, but no routine method of solving it is known by the problem solver (although a routine method is known by others). An example of such presented problem would be this question posed to a person (perhaps a child) who knows nothing about geometry: "How would you go about finding the area of a rectangle?" The problem solver would have to use reasoning and rationality as

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81. Jacob W. Getzels & M. Csikszentmihalyi, *From Problem Solving to Problem Finding*, in *PERSPECTIVES IN CREATIVITY*, *supra* note 72, at 90, 102.

a primary mode of thought to solve the problem and then match his solution against that which is already known to others.<sup>82</sup>

The third type of problem, the discovered problem, is at the other extreme. An example of a discovered problem would be: "Formulate a problem about a rectangle and solve it." Others would not know the method for solving the problem because they would not know what problem would be found. In this situation, the problem solver would be a problem finder. The problems he or she could find would be infinite, ranging from "How is a rectangle like a circle?" to "Are certain dimensions of a rectangle more pleasing to the eye than other dimensions?" The solution reached by the problem solver cannot be compared against a pre-determined standard of right or wrong. Rather, the solution can be rejected or accepted by the problem solver and others only on the basis of a critical, relativistic analysis — as in the case of a work of art. The primary mode of thought required to find and solve a discovered problem is imagination and creativity.<sup>83</sup>

### 3. A Case Study in Discovered Problems

Very little theoretical, and almost no empirical, work has been conducted regarding discovered problems.<sup>84</sup> However, because the mediator's work often entails discovering problems and dealing with them once discovered, one of the available, highly regarded empirical studies regarding discovered problems deserves comment here.

After completing the study with children<sup>85</sup> and formulating the model of *presented* and *discovered* problems, researcher Jacob Getzels, assisted by M. Csikszentmihalyi, decided to embark on a substantial empirical study of creativity involving artists.<sup>86</sup> The focus of their research was to observe the process of the artists' drawing of pictures; as the researchers explained:

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82. *Id.* at 102-03.

83. *Id.* at 103.

84. *Id.*

85. *Id.* at 97-101. See generally JACOB W. GETZELS & PHILIP W. JACKSON, CREATIVITY AND INTELLIGENCE: EXPLORATIONS WITH GIFTED STUDENTS (1962).

86. As the researchers candidly admitted:

In retrospect, it is clear that what happened at this point is a classic instance of the paradoxical lack of congruence between theory and practice which so often accompanies research. The model suggested a new paradigm for approaching creativity. Yet when we started to collect data we automatically reverted to the already established paradigms. Instead of asking crucial questions about how discovered problems are found, we proceeded along the familiar route of searching for correlations between personal characteristics on the one hand, and creative achievement on the other. . . . It was a case of the empirical hand not knowing what the theoretical hand was doing, and it took us two years of work and reflection [in the artist study] to realize the obvious — namely that the questions we were answering were not the ones we should have been asking.

Getzels & Csikszentmihalyi, *supra* note 81, at 104.

Drawing a picture may be seen as a process of solution to a problem . . . . It may be assumed . . . that if the artist begins a painting as a process of personal discovery of an aesthetic problem, his work will be relatively more original than if he begins a painting to fit a standard aesthetic problem. In a sense, in the first case he is working with what we have called a "discovered problem," in the second with a "presented problem."<sup>87</sup>

The researchers thus sought to determine individual differences among the art students in *problem finding* at the beginning of their artistic task. The goal was to see whether systematic relationships existed between the quality of the problems and the quality of the solutions, in terms of the finished drawings.<sup>88</sup>

The methodology of the study was relatively simple. A "core sample" of 179 students of the Art Institute of Chicago was tested.<sup>89</sup> Of this core sample, 31 students were then asked to select an object to draw from a table on which some 30 "still-life" objects were placed.<sup>90</sup> An observer took notes and photographs of each artist's behavior.<sup>91</sup> It soon became apparent that there were readily observable individual differences in the way artists behaved, even *before* they turned to the task of drawing.<sup>92</sup> The differences observed in the pre-drawing stage fell into three categories:<sup>93</sup>

1. *Handling of objects (to be drawn)*. Some artists handled as few as two objects; others handled as many as 19. The researchers assumed that, in order to discover a more original problem, the artist had to consider a great number of possible stimuli.<sup>94</sup>

2. *Interacting with objects*. Some artists simply picked up the objects, took them to a table, and immediately began to draw. Others rolled the objects in their hands, threw them up in the air, held them against the light, smelled them, bit into them, felt their texture, moved their parts, turned them upside down, etc. The researchers presumed that one had to explore the greatest number and variety of problematic elements in order to discover the more original problem.<sup>95</sup>

3. *Selecting an object*. Many of the artists chose popular or "cliche" objects, like a leather-bound book, a bunch of grapes, and a wooden ball. Some artists, on the other hand, appeared to seek out original objects. The researchers presumed that an artist who used only popular stimuli would be more likely to

87. *Id.* at 108.

88. *Id.* at 109.

89. *Id.* at 105.

90. *Id.* at 109.

91. *Id.*

92. *Id.*

93. *Id.* at 109-10.

94. *Id.* at 109.

95. *Id.* at 110.

design a "presented problem" rather than a "discovered problem," and the resulting drawing would be less original.<sup>96</sup>

The researchers referred to these three distinct types of behaviors as *problem finding* or discovery orientation in problem formulation.<sup>97</sup>

With respect to what the researchers referred to as the problem solution stage (behavior at the drawing board), similar sharp differences in behavior were observed among the artists.<sup>98</sup> Two of these differences were:

(1) Some artists changed their position, the material they used, and the composition of the objects. Others made no changes whatsoever.<sup>99</sup>

(2) Some of the drawings were completely structured after as little as 11% of the total drawing time had elapsed. The final structure of other drawings was not recognized until 74% of the time had elapsed. Researchers assumed that the delay in closure was evidence that the artist was still keeping the problem open — still problem finding — even while the artist was drawing.<sup>100</sup>

Based on the information developed in the experiment,<sup>101</sup> the researchers concluded that "[e]ach of the behavioral variables of problem finding is significantly related to the ratings in originality and in overall aesthetic value; one of the problem finding variables is related to craftsmanship. Similar effects were found in the relationships between problem finding at the problem solution stage of the drawing and from the interviews."<sup>102</sup> From this data, the researchers further concluded that "[p]roblem finding appears to be a crucial component of creativity, and what is more, it can be observed and assessed with satisfactory reliability and validity."<sup>103</sup>

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96. *Id.*

97. *Id.* In my experience, these varieties of behaviors are also evident during mediation. Often, disputants and their attorneys come to mediation sessions with what they strongly perceive to be *the* problem(s). They are likely to focus on popular or "cliche" issues (or "presented problems") and to take a position with respect to them. Rarely do disputants and their attorneys come to mediation sessions seeking to discover a more original (or more appropriate) problem. I believe it is the mediator's function, in part, to help parties and their attorneys reframe their thinking to get beyond their notions of "presented problems" and into the realm of problem discovery — or "problem design" as I call it. See Cooley, *supra* note 7, §2.04, at 46-47. Mediators can do this by using some of the techniques for stimulating creativity described in Part IX.

98. Getzels & Csikszentmihalyi, *supra* note 81, at 110-11.

99. *Id.* at 111.

100. *Id.* I have also observed these two types of behaviors among disputants and their attorneys during mediations. In various mediations, as the process progressed into what I call the "solution design" stage, I have noted that some disputants (and/or attorneys) changed their positions (presented problems), abandoned their "positions" in favor of their newly perceived "needs", or retained their positions but changed their priorities. Others made no changes whatsoever. In the latter type situations, the disputes were either not resolved or something less than a win-win solution was achieved. In a few mediations, I have experienced, particularly in caucuses, some disputants still keeping the problem design process open — still searching for an original or more appropriate problem — while they were searching for solutions to problems already designed.

101. *Id.* at 111-12.

102. *Id.* at 113.

103. *Id.* at 114; see also JONATHON BARON, THINKING AND DECIDING 127-30 (1988).

Problem finding (what I call problem design) and problem resolution (what I call solution design) also appear to be integral components of humor and joke design, topics which we will now explore.

## VI. HUMOR AND JOKE DESIGN

### A. Humor

The study of humor has frequently provided the path to a better understanding of the creative process.<sup>104</sup> Thus, to understand the creative thought processes which yield super-optimum solutions in mediation, it should not seem foreign for us to take a close look at humor by (1) identifying its origins and essence; and (2) examining its types and characteristics. Design aspects of a specific type of humor — jokes — are discussed in Part VI, B, where they are correlated with the mediation process in Part VIII.

One author speculates that our early human ancestors experienced humor and engaged in laughter even before the Cro-Magnon race dominated Europe some 15,000 years ago.<sup>105</sup> Humor and laughter appear to be instinctive in certain respects: some studies reveal clear traces of laughter in the orangutan and chimpanzee; in human infants, laughter usually occurs before the beginning of speech.<sup>106</sup> Another author has speculated that laughter's facial component "evolved in connection with social communication . . . in part from a 'conciliatory' expression, but it includes also a baring of teeth that suggests a defensive-aggressive mixture."<sup>107</sup> The same author theorizes that laughter's bizarre vocal component suggests "social functions that combine ancestral 'releasers' for both conciliation and aggression."<sup>108</sup> Most of the theories or conceptions about the essence of humor can be categorized under eight headings as follows: (1) biological, (2) superiority; (3) incongruity; (4) surprise; (5) ambivalence; (6) release and relief; (7) configurational; and (8) psychoanalytic.<sup>109</sup>

104. SILVANO ARIETI, *CREATIVITY: THE MAGIC SYNTHESIS* 101 (1976).

105. ALBERT RAPP, *THE ORIGINS OF WIT AND HUMOR* 32 (1951). That author speculates that thrashing laughter resulted from victory in a Stone Age duel. According to him, laughter evoked by ridicule (of physical mishaps and physical deformity) came later, historically. See *id.* at 32-35.

106. *Id.* at 32; see also NORMAN N. HOLLAND, *LAUGHING: A PSYCHOLOGY OF HUMOR* 68 (1982).

107. Minsky, *supra* note 5, at 188.

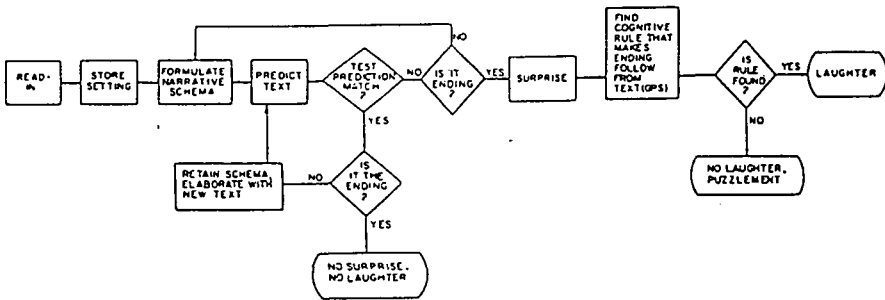
108. *Id.* at 189. Its origins aside, there are practically as many theories about the *essence* of humor (what makes people laugh) as there are psychologists. See HOLLAND, *supra* note 102, at 16-17; Patricia Keith-Spiegel, *Early Conceptions of Humor: Varieties and Issues*, in *THE PSYCHOLOGY OF HUMOR*, *supra* note 4, at 3, 14.

109. See Keith-Spiegel, *supra* note 104, at 5-13; see also MELVIN HELITZER, *COMEDY WRITING SECRETS* 17 (1987). Mediators should be particularly interested in the ambivalence theory as it finds a reflection in the caucus "shuttling effect" which occurs — sometimes with rapidity — in some mediations. One author describes the ambivalence theory in this manner:

As one author has observed — with a wink of paradox — exploring humor is serious business, which any newcomer must approach thoughtfully: within the field of humor is a formidable landscape of "wit and word-play and banter; . . . slogans and captions and catchwords; allusion and parody; ironies; satires; . . . graffiti and limericks; . . . pert rhyme; . . . twisted pun; . . . scrambled spellings and skewed pronunciations."<sup>110</sup> To this list, another author has added: "absurd[ity], burlesque, caricature, comedy, comic, farce, grotesque[ness], . . . nonsense, . . . repartee, sarcasm, . . . [and] travesty."<sup>111</sup> The common thread connecting all of these varieties of humor is the paradox, and there is no simpler way to begin to understand the paradox than to study optical illusions.<sup>112</sup>

While optical illusions are not necessarily humorous or a "joke" in the true sense of the word, they possess several elements of the humor experience (reality, unreality, resolution, surprise, oscillation), which can be used to explain the creative process in mediation (see Part IX, A). The next step in understanding how super-optimum solutions can be designed is to study the cognitive aspects of problem finding (problem design) and problem resolution (solution design) in joke design.

FIGURE THREE



Humor is seen as play — an interpersonal process or communication which either starts out contained in a play frame or which is suddenly caught into such a frame from behind when the episode is at the point of termination. The play frame indicates that the process is unreal. . . . It is a fantasy or metaphor for reality. And because of this playful nature, this metaphorical quality, humor must necessarily be paradoxical. We are confronted by the shimmering, endless oscillation of the paradoxes or 'real-unreal.' Humor becomes a vast structure of intermeshed, revolving rings of reality-fantasy, finite-infinite, presence-void.

WILLIAM F. FRY, JR., SWEET MADNESS: A STUDY OF HUMOR 146-47 (1963). This description of humor is similar to Douglas Hofstadter's description of Strange Loops in his Pulitzer Prize winning book, *Godel, Escher, and Bach: The Eternal Golden Braid*. DOUGLAS R. HOFSTADTER, GODEL, ESCHER, AND BACH: THE ETERNAL GOLDEN BRAID 10-19, 691-94 (1989).

110. WALTER NASH, THE LANGUAGE OF HUMOUR 1 (1985).

111. HOLLAND, *supra* note 106, at 18.

112. FRY, *supra* note 109, at 138.

## B. Joke Design

### 1. Information Processing Analysis

Professor Jerry Suls of the State University of New York at Albany has developed a two-stage model to describe the process of humor in joke-telling and captioned cartoons; he uses an information-processing type of analysis.<sup>113</sup> His model presumes two criteria for (or stages of) humor — incongruity and resolution: "In the first stage, the perceiver finds his [or her] expectations about the text [or in the case of a cartoon, the picture] disconfirmed by the ending of the joke [or by the caption];"<sup>114</sup> "[i]n the second stage, the perceiver engages in a form of problem solving to find a cognitive rule which makes the punch line follow from the main part of the joke and reconciles the incongruous parts."<sup>115</sup> A diagram of Suls' information processing model for jokes and cartoons appears in **Figure 3**.<sup>116</sup>

Referring to Figure 3, one can see that the joke process proceeds in the following sequence:

#### *Stage 1: Establishing Incongruity*

1. Read-in (or listening to) introduction;
2. Memory stores setting and context from introduction;
3. Reader or listener formulates a narrative schema (hypothesis about what he or she might next encounter), which facilitates later decoding;
4. Predictions about forthcoming information are formulated from the schema;
5. Predictions are then tested against the schema based on the most recent text input (punch line). If predictions match input (punch line), the recipient checks to see whether the joke is at an end, i.e., whether there is no surprise or incongruity and thus no humor. This might occur when a person had heard the joke before or accurately predicted its ending;
6. If predictions *do match*, then program cycles back to form new schema used to make predictions about later text; and
7. If predictions *do not match* and incongruous text (punch line) comprises ending, the result is surprise, i.e., expectations have been disconfirmed abruptly.

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113. The forms of humor covered by this model are narrative in nature and elicit humor from a sequence of ideas. Other forms of humor might obtain from a Gestalt configuration derived from a single exposure. See Suls, *supra* note 4, at 82.

114. *Id.*

115. *Id.*

116. *Id.* at 85 (copyright 1972 by Academic Press; reprinted with permission).



*Stage 2: Resolving the Incongruity*

1. The recipient engages in problem solving to determine how the punch line follows or is *congruent* with the preceding text, i.e., whether, at some level, the incongruous elements can be seen to fit together;

2. If a cognitive rule is found that reconciles the joke parts, the punch line is perceived to make sense, and the recipient "gets" the joke and laughs. The apparent incongruity has been made congruous;

3. If the relevant cognitive rule cannot be retrieved, the punch line is not reconciled with the joke parts, the recipient does not "get" the joke, and there is no laughter.<sup>117</sup>

Suls has applied the above model in analyzing the following joke: O'Riley was on trial for armed robbery. The jury came out and announced, "Not Guilty." "Wonderful," said O'Riley, "does this mean I can keep the money?" In his analysis, Suls applies the following information processing analysis:

*Stage 1: Establishing Incongruity*

In the Stage 1 process, the joke text is read in. Some appropriate narrative schema concerning a jury or the course of a trial is selected. Some forthcoming information concerning a jury or a trial is expected. The later read-in verifies this, and some verdict is predicted. The verdict is then read in. O'Riley's response to the verdict, "Wonderful," is expected. He is a free man. It is then predicted that he will say, "Does that mean I can go now?" Instead, he asks, "Does that mean I can keep the money?" This is unexpected since it admits his guilt, and we have already heard that the court considers him innocent.

*Stage 2: Resolution*

In Stage 2, problem solving begins to resolve the incongruity. A search is made for a rule or rules that might reduce the difference between the preceding text and the punch line. What would accomplish this? The appropriate setting concerns trials, justice, sentencing. The difference between the premises of the stem and the ending is that O'Riley has been found innocent of robbery, but he wants to know whether he can keep the money which he has just been found innocent of stealing. The processor must find rules or some explanation that makes sense out of this. Clearly the rule that apprehended criminals are punished is not applicable; this does not reduce the difference. The underlying difference does indicate, however, that there has been a mistake. The processor might find the rule that juries do not always come to a correct verdict, but this experiential fact is not sufficient. O'Riley did not say, "I'm guilty; I stole the money." This is certainly implied by his statement, but there is more. He asked if he could

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117. *Id.* at 85-89.

keep the money. The rule that seems to come closer to resolving this incongruity is that which recognizes the difference between actual and legal truth. This rule, in conjunction with the fact that courts make mistakes, comes closer to a solution but is not entirely satisfactory. Thus far, the processor can determine that O'Riley could be found innocent but actually be guilty. However, the processor has missed the point of his question which refers to the consequences of the verdict. Further search may yield a rule concerning legal consequences. Applying such a rule in conjunction with the previous ones, it is realized that O'Riley can indeed keep the money. If problem solving were to take this course, then the joke's problem would be resolved. O'Riley's question points out that courts make mistakes, that legal truth and actual truth do not always correspond, and that legal truth determines public consequences. In short, O'Riley can keep the money since, by law, he did not steal it. For successful solution of the problem, some routine like this is necessary. When the incongruity has been explained, the process should terminate and laughter ensue.<sup>118</sup>

The problem-solving process in Stage 2 of the joke process, as demonstrated, may be compared to the human problem-solving system developed by Newell, Shaw, and Simon in the 1950s.<sup>119</sup> That system solves problems in which there are no fixed sequences of operation to assure solution — much like problems found or presented in mediation. The Newell-Simon system uses heuristics (a variety of strategies and devices which offer a reasonable promise of reaching solution), in a means/end analysis; in such analysis, the premises of the problem and its goal are stated in comparable terms: the system (or program) seeks to transform the premises into the goal.<sup>120</sup> For example, if the goal is to transform A into B, A and B are compared to identify differences. Then, by application of three transformation methods, a sub-goal, C, is established to reduce the differences, then C and B are compared. If they do not match, the process is replicated until the proper rules are found to achieve correspondence.<sup>121</sup>

## 2. Motivation and Other Considerations

### a. Motivation

Research has predicted that the more surprise that a punch line creates, the greater the recipient's motivation to solve the problem, i.e., to make the punch line congruent with the text.<sup>122</sup> One would ordinarily assume that a highly unexpected punch line would cause the recipient to leave the field of play with the

118. *Id.* at 90-91.

119. Allen Newell et al., *Elements of a Theory of Human Problem Solving*, 65 *PSYCHOL. REV.* 151, 151 (1958).

120. Suls, *supra* note 4, at 87-88.

121. *Id.*

122. See generally Jerry M. Suls, *Cognitive Processes in Humor Appreciation*, in 1 *HANDBOOK OF HUMOR RESEARCH* 39, 53 (Paul E. McGhee & Jeffrey H. Goldstein eds., 1983).

joke unresolved. That is unlikely for several reasons: (1) the most unexpected punch line should not be threatening, because the joke is perceived as fantasy or as safe play, where even the most bizarre input is tolerable if a "fit" can ultimately be found;<sup>123</sup> (2) leaving the field would negate the effort of engaging in play and attending to the joke initially;<sup>124</sup> and (3) "typically, one does not leave the field before making some [reasonable] attempt to solve the problem."<sup>125</sup> This motivation toward problem solving is analogous to situations, examined in research, where an individual encounters an unbalanced cognitive structure and initiates an attempt to restore balance.<sup>126</sup> In joke-telling, "[t]he prediction . . . is that the more surprising the punch line, the more one should want to overcome the surprise;<sup>127</sup> "[w]hen the problem is solved, the recipient should experience greater appreciation" or satisfaction.<sup>128</sup>

### *b. Complexity*

Complexity in joke processing refers to the cognitive demand that the problem requires for solution in Stage 2. A joke whose solution is too trivial might evoke no felt success in solving it. Consider this joke, for example: An optimist jumped off the top of a skyscraper. As he passed the third-floor window, he was heard to mutter: "So far so good."<sup>129</sup> This joke is so easily solved that it would normally produce only the hint of a smile for most readers. On the other hand, a joke too difficult might be unsolvable and any humorous effect lost. The current state of empirical research is not clear as to what degree of complexity is optimum for the greatest humorous effect. Some research suggests that humor increases with ease of information processing;<sup>130</sup> other research suggests that humor peaks just before resolution of the problem becomes impossible.<sup>131</sup> There is also some disagreement as to whether highly unexpected punch lines make more complex problem solving.<sup>132</sup>

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123. Suls, *supra* note 4, at 91.

124. *Id.*

125. *Id.*

126. *Id.*

127. *Id.*

128. *Id.*

129. This joke appears in EDWARD DE BONO, *LATERAL THINKING: CREATIVITY STEP BY STEP* 36 (3d ed. 1990).

130. Jeffrey H. Goldstein, *Humor Appreciation and Time to Respond*, 27 *PSYCHOL. REP.* 445, 445 (1970).

131. Edward Zigler et al., *Cognitive Challenge as a Factor in Children's Humor Appreciation*, 6 *J. PERSONALITY & SOC. PSYCHOL.* 332, 333 (1967).

132. Professor Suls believes unexpectedness and complexity are independent. See Suls, *supra* note 4, at 93.

### c. Contextual Cues

The two-stage joke model described earlier provides a way to understand how contextual cues and environmental inputs (affective/emotional mechanisms) can influence the quality of humor appreciation quite independent of cognitive processes (comprehension and interpretation of the information).<sup>133</sup> Some humor experts believe that "emotions, like humor, are the result not just of the person's objective judgment of a stimulus (such as a joke) but of environmental inputs (presence of other people) and subjective expressive cues [such as] kinesthetic feedback from smiling or laughing."<sup>134</sup> Two distinct, yet interacting, modes of making judgments in joke processing have been identified: "One level of processing involves objective stimulus-oriented judgments of the joke, such as its incongruity, resolution, and other attributes, that are integrated to form an overall appraisal" of the information;<sup>135</sup> the other level of processing is a subjective mode which "is based on kinesthetic feedback from expressive reactions as well as objective appraisal of joke quality."<sup>136</sup> According to this theory, "expressive reactions are not independent of social or external influences."<sup>137</sup> For example, if other people are laughing, the subject is also likely to do so, which, in turn, should feed into subjective processing. Presumably, the outputs of both the subjective and the objective processing modes are integrated and together lead to the overall appraisal of joke quality.<sup>138</sup> Contextual cues and environmental inputs may explain laughter which occurs even in the absence of incongruity and resolution as in the case of an audience mentally set for giddiness.<sup>139</sup>

### d. Time Required to Solve Problem

Aside from a joke's complexity (i.e., the number of operations needed to solve the problem), the amount of time required to solve the joke problem may have an impact on the degree of appreciation and satisfaction of the humor produced. Two individuals may solve a joke requiring the same number of problem-solving operations, but one individual may work faster than the other. Generally speaking, joke appreciation decreases as processing time increases, and, conversely, joke appreciation increases as the time to understand the joke decreases.<sup>140</sup>

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133. Suls, *supra* note 122, at 50.

134. *Id.* at 49.

135. *Id.*

136. *Id.*

137. *Id.*

138. *Id.*

139. *Id.* at 50.

140. Suls, *supra* note 4, at 93; Suls, *supra* note 122, at 54.

Humor has three basic features: (1) a "play" cue; (2) extreme divergence, and (3) a certain appropriate time scale for the perception and processing of joke materials.<sup>141</sup> Timing may be critical for two aspects of humor processing. First, "the joke premise must be told in such a way that the listener has enough time to generate an [erroneous] expectation and therefore be surprised by the punch line."<sup>142</sup> Provided with too much time, the listener may accurately anticipate the punch line; provided with too little time, no expectation will be generated. Comedians' frequent reference to the importance of timing in getting laughs suggests that this is an important ingredient in producing humor.<sup>143</sup>

Another phase of the joke process where time is of importance is in the resolution of the incongruity: Resolution must occur quickly or the humorous experience is minimal; oscillation must be rapid to be pleasurable.<sup>144</sup> "Successful incongruity resolution serves to bring arousal provided by the incongruity back to baseline."<sup>145</sup>

### *e. Repeated Jokes*

It is common knowledge that some jokes can be appreciated more than once. Accepting that as true, how does this phenomenon square with the two-stage model which presupposes an element of surprise? One explanation is that jokes that are only moderately funny on the first hearing may be forgotten so that their punch lines on second exposure might again seem incongruous and therefore produce humor. Another explanation is that a joke can be funny for more than one reason. Some jokes seem to have several levels of interpretation; enjoyment might be experienced from working through the joke in several different ways. Another possible explanation is that "humor is enjoyable on repetition because the joke has been associated with the positive emotional response that the recipient experienced after comprehending the joke on its first exposure."<sup>146</sup> Finally, there is some research to suggest that some jokes may actually become *more* enjoyable upon repeated exposure. It is believed that repeated exposure of a given joke may lessen the tension aroused by its novelty and thereby increase the appreciation of it.<sup>147</sup>

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141. Suls, *supra* note 122, at 54.

142. *Id.*

143. *Id.*

144. *Id.*

145. *Id.*

146. Suls, *supra* note 4, at 94.

147. *Id.*

*f. Weighting Factors*

A very important aspect of joke appreciation, not as yet fully examined by researchers, is the effect of the above-discussed factors in combination, including the questions of the weight to be accorded each factor and how they interact with one another. Increasing complexity to a moderate level may not only make a joke congruent with a given recipient's level of cognitive functioning but may also increase the time needed for solution. Experimental evidence is needed to know and understand the weights of these factors in determining whether, in any particular case, there will be an increase, decrease, or no change in joke appreciation and also in determining whether these factors interact with each other "additively or multiplicatively."<sup>148</sup>

*3. Disparagement Humor*

Up to now, we have been discussing the processing of jokes which have a fortunate or generally positive resolution. There is another broad category of jokes that involves disparagement. In such a joke, one party is disparaged or aggressed against by another party (i.e., by another character in the joke or by the narrator), and the punch line (creating incongruity) involves surprising misfortune.<sup>149</sup> Consider this example:

*Question:* If a 100-pound student senator and a 200-pound student senator jumped off a tall building at exactly the same moment, who would come out ahead? *Answer:* The rest of the campus.<sup>150</sup>

Another example of a disparagement joke (with a twist) would be:

Mr. Churchill sat down next to Lady Astor at dinner one day. She turned to him and said, "Mr. Churchill, if I was married to you I should put poison in your coffee." Mr. Churchill turned to her and said, "Madam, if I was married to you . . . I should drink the coffee."<sup>151</sup>

When a disparagement joke is told, a recipient who sympathizes with the disparaged party is less likely to make sense of the unexpected misfortune or resolve the joke.<sup>152</sup> That is, in the case of the sympathetic respondent, the incongruity should not fit. On the other hand, the more hostile or superior the recipient feels toward the disparaged joke character, the more the surprising

148. *Id.* at 93-94.

149. Suls, *supra* note 122, at 51.

150. *Id.*

151. DE BONO, *supra* note 129, at 36.

152. Suls, *supra* note 122, at 51.

misfortune will seem to fit or "make sense" based on how the recipient feels about the victim.<sup>153</sup> Thus, with respect to the first example above, recipient students with negative attitudes toward their politically oriented classmates would enjoy the above joke because they would experience more resolution.<sup>154</sup>

#### 4. Meta-Humor

One other form of humor which falls within the ambiance of the joke is called "meta-humor." This type of humor does not possess an incongruity and resolution structure, and such stimuli usually provide enjoyment or satisfaction to the recipient by playing off the fact that they only are pretending to be humor.<sup>155</sup> "One example is the shaggy dog story that involves an indefinitely prolonged narrative of incidents all of the same kind that ends with a non sequitur punch line."<sup>156</sup> Another example is the familiar Henny Youngman quip, "Take my wife, please." This one-liner is almost universally known, no longer surprising, and used to introduce humorous material. It achieves its impact by playing off of traditional joke features: The humor is produced by violating the properties expected of humor, and the listener understands that the joke-teller had this intent.<sup>157</sup> In fact, it is this understanding on the part of the recipient that is the joke's resolution; an analogous situation operates when Johnny Carson or Jay Leno obtains more laughs by fluffing a joke than telling it correctly. When Carson, for example, begins to tell the joke again, he is playing off and commenting on the fact that there is even a right way to make nonsense (incongruities). Meta-humor is a more complex form of humor than the types considered earlier for it involves understanding the structure of structure, an aspect of formal operational thought.<sup>158</sup>

Now that we have familiarity with the creative process and the processes of humor and joke design as they relate to creativity, we are ready to focus on the topic of the *climate* for creativity.<sup>159</sup>

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153. *Id.* at 51-52.

154. *Id.*

155. *Id.* at 53.

156. *Id.*

157. *Id.*

158. *Id.*

159. Before proceeding, it might be helpful to loop back to the split-brain concept and consider the relationship between hemispheric lateralization and humor. In explaining the way in which the two hemispheres of the brain interact when processing humor, Paul McGhee, a leading expert in humor theory, has observed that as one reads or listens to a joke, incoming information is continually related to what has been said and to what is expected to follow. See Paul E. McGhee, *The Role of Arousal and Hemispheric Lateralization in Humor*, in 1 HANDBOOK OF HUMOR RESEARCH, *supra* note 122, at 13, 33-34. When the unexpected and incongruous information in a joke is delivered (in the punch line), the left hemisphere appears unable to go beyond registering surprise. *Id.* at 30. It is the right hemisphere that produces the simultaneous awareness of two meanings or of the diverse elements that must be brought together in order to appreciate the humor potentially present. *Id.* at 33. He has further observed that "a quick integration of pertinent information may be central to maximizing

## VII. *Climate For Creativity*

One researcher has described the process of creativity as a "system involving a person who shapes or designs his environment by transforming basic problems into fruitful outcomes facilitated by a stimulating climate."<sup>160</sup> A "creative climate" has been defined by another researcher as the conditions that facilitate and stimulate creativity.<sup>161</sup> In this Part, we shall explore some of the facilitating and stimulating conditions that impact on reframing of situations.

### A. *Facilitating Conditions*

To understand what conditions *facilitate* creativity in a group dynamic situation, such as a mediation, it may be helpful to focus first on those conditions which research has shown as *depressing* creativity in an organizational context. Four management behaviors have been identified as constraining creativity in organizations: (1) "[I]ntent fear and distrust;" (2) "[r]estricted flow of communication;" (3) "[a]ttempted imposition of motivation;" and (4) "[a]ttempted control of behavior."<sup>162</sup> Coincidentally, these appear to be four of the conditions which are at work in preventing early settlements of litigated disputes. This type of management attitude tends to produce dependent behavior, on the one hand, and rebellious behavior on the other.<sup>163</sup>

In contrast, behavioral research has identified four management behaviors that facilitate and promote creativity in an organizational context: (1) trusting, (2) open, (3) allowing, and (4) interdependent actions.<sup>164</sup> Research suggests that, in general, the more the manager creates conditions in which persons initiate, feel

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funniness, and a punch line that is not sufficiently compact may interfere with this timing." *Id.* at 32. If the right hemisphere arrives at the necessary insight too quickly (or easily) the joke will not be very funny. *Id.* at 31-32. Similarly, if the insight is achieved only after considerable analytical and sequential thought, funniness will be sharply reduced. *Id.* at 32. "Some optimal moderate level of effort or time required for successful [cerebral] integration and resolution of incongruous elements appears to maximize funniness." *Id.*

160. Taylor, *supra* note 73, at 4.

161. *Id.* at 19.

162. Jack R. Gibb, *Managing for Creativity in the Organization*, in CLIMATE FOR CREATIVITY 23, 23 (Calvin W. Taylor ed., 1972).

163. *Id.* at 27-28.

164. *Id.* at 29-30.



responsible for achieving goals, and feel free to create their own goals, the more the persons create the *internal* conditions which maximize the creativity potential.<sup>165</sup>

Research conducted in an educational setting has suggested the following specific behaviors as facilitating creativity:

1. rewarding diverse contributions;
2. helping creative persons recognize the importance of their own talents;
3. making use of opportunities;
4. holding to purposes;
5. avoiding equating divergence with delinquency;
6. reducing or eliminating emphasis on sex roles
7. respecting unusual questions;
8. respecting unusual ideas;
9. showing that ideas have value; and
10. allowing performance to occur without constant threat of evaluation.<sup>166</sup>

Now that we have surveyed some of the conditions found to facilitate creativity in group situations, let us now examine some of the specific techniques found useful to stimulate creativity.

## *B. Stimulating Conditions*

### *1. Research*

Studies inquiring into the question of what specific techniques can stimulate creativity have yielded results helpful to our exploration here. Research conducted with both adults and children as subjects has shown that: (1) an instructional procedure which combines instruction, reinforcement, and practice can be successful in changing human behavior;<sup>167</sup> (2) group interaction has the

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165. *Id.* at 30.

166. Taylor, *supra* note 72, at 19, 26.

167. John Glover & A.L. Gary, *Procedures to Increase Some Aspects of Creativity*, 9 J. APPLIED BEHAV. ANALYSIS 79, 79-84 (1976).

tendency to enhance the production of new ideas;<sup>168</sup> (3) control-orientation or freedom-orientation of participants in a group problem solving activity affects how much structure or clarification the instructor will be required to provide;<sup>169</sup> (4) control-oriented participants require significantly more structure than freedom-oriented participants;<sup>170</sup> (5) evaluative feedback usually improves the performance of control-oriented problem solvers;<sup>171</sup> and (6) creative feedback usually improves the performance of freedom-oriented problem solvers.<sup>172</sup>

## 2. Lateral Thinking Techniques

In his book, *Lateral Thinking: Creativity Step by Step*, Dr. Edward de Bono presents several techniques for stimulating creativity.<sup>173</sup> According to Dr. de Bono, lateral thinking is closely related to insight, creativity, and humor.<sup>174</sup> Whereas vertical (logical) thinking is concerned with proving or developing concept patterns, lateral thinking is concerned with restructuring such patterns (insight) and stimulating new ones (creativity).<sup>175</sup> Usually, there are alternative ways of arranging available information, and a "switch over" to another arrangement can be made suddenly. According to Dr. de Bono, when the sudden switch over is temporary, it gives rise to humor; if the sudden switch over is permanent, it gives rise to insight.<sup>176</sup> The reaction to an insight solution, he contends, "is often laughter even when there is nothing funny about the solution itself."<sup>177</sup> Dr. de Bono explains: "In each of these situations an expectation is generated by the way the information is put together. Then suddenly this expectation is thwarted but at once one sees that the unexpected development is another way of putting things together."<sup>178</sup>

Lateral thinking is a process of effecting "switch overs" or reframing of arrangements of information to achieve restructuring of the information and the stimulation of new ideas.<sup>179</sup> It enhances the effectiveness of vertical thinking by challenging the arrogance and the cliché-pattern thinking associated with

168. E.P. Torrance, *Group Dynamics and Creative Functioning*, in CLIMATE FOR CREATIVITY, *supra* note 162, at 75, 87.

169. *Id.* at 90.

170. *Id.*

171. *Id.* at 91.

172. *Id.*

173. *See generally* DE BONO, *supra* note 122.

174. *Id.* at 9.

175. *Id.* at 14.

176. *Id.* at 35-36.

177. *Id.* *See supra* notes 92, 105 and accompanying text for examples of the relationship between humor, insight, and creativity provided by Dr. de Bono.

178. DEBONO, *supra* note 122, at 36.

179. *Id.* at 44.

logic.<sup>180</sup> Both vertical and lateral thinking are essential to effective problem solving. As Dr. de Bono has observed:

The differences between lateral and vertical thinking are very fundamental. The processes are quite distinct. It is not a matter of one process being more effective than the other for both are necessary. It is a matter of realizing the differences in order to use both effectively.

With vertical thinking one uses information for its own sake in order to move forward to a solution.

With lateral thinking one uses information not for its own sake but provocatively in order to bring about repatterning.<sup>181</sup>

In his book, Dr. de Bono describes the following lateral thinking techniques: (1) generating alternatives; (2) challenging assumptions; (3) suspending judgment; (4) fractionation; (5) thought reversal; (6) brainstorming; (7) using analogies; and (8) random stimulation.<sup>182</sup> He also describes three additional characteristics of information processing in problem solving: sequence of arrival of information; choice of entry point; and attention area.<sup>183</sup>

Many of these techniques have the capacity to enhance the climate for creativity and increase the opportunities for super-optimum solutions. Part IX describes the use of some of these techniques in a mediation setting.

#### VIII. RESOLVING THE INCONGRUITIES: IMPLICATIONS FOR MEDIATION

Punch lines, by themselves, are usually not funny; out of context, they are normally bland and meaningless. For example, consider these punch lines from jokes appearing earlier: "Does that mean I can keep the money?"; "The rest of the campus."; "So far so good."; and "Madam, if I was married to you, I should drink the coffee." If one did not know the set-up for the four accompanying jokes, these punch lines would convey no special meaning and certainly would not be viewed as humorous by anyone. Also, if a punch line *precedes* the joke set-up, no humor or unusual insight results.

Consider the opening sentence of this Article: "Mediation is a joke." It is neither funny nor completely sensical out of context. To some readers (particularly proponents of mediation) that four-word opening may even initially evoke resentment, anger, or hostility. That is because those four words are a

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180. *See id.*

181. *Id.* at 44-45.

182. *See DE BONO, supra* note 129, at 63, 91, 107, 131, 141, 149, 167, 193. In *Getting to Yes*, Roger Fisher and William Ury describe a type of brainstorming procedure in relation to their third principle of collaborative negotiation, "inventing options for mutual gain." ROGER FISHER & WILLIAM URY, *GETTING TO YES* 60-65 (Bruce Patton ed., 2d ed. 1991).

183. DE BONO, *supra* note 129, at 31, 175.

misplaced punch line. By inverting the order of the first three sentences of this Article, the joke's design should become apparent: The process of mediation is very closely related, conceptually, to the process of humor. Seriously. Mediation is a joke.

The smile which you may have just experienced is the result of your resolving incongruities between ideas while sensing, cognitively, an accompanying "shimmering . . . oscillation of paradoxes."<sup>184</sup> Actually, there are at least three incongruities of ideas being resolved during the cognitive processing of the information in this joke: (1) the internal incongruity in the first line (or play frame) between what is commonly known to be mediation and what is commonly known to be humor; (2) the incongruity between the ideas of being "serious" about something being a "joke"; and (3) the incongruity between the general consensus that mediation is something beneficial and the idea that it "is a joke," an expression which, in today's parlance, carries with it derogatory overtones. The trick in understanding (appreciating) this joke is retrieving the relevant cognitive rule that reconciles the joke parts and permits the joke parts, ultimately, to make sense. In searching for a relevant rule (similar to the O'Riley joke analysis in Part VI, B), one might first consider the rationale that both mediation and the joke are processes. However this does not reduce the difference between the first two sentences of this Article and the punch line (third sentence). The underlying difference between the set-up and the punch line does indicate that there might be a perceptual mistake as to what, in fact, are the common elements (or as Socrates would say, "eidos") of mediation and of a joke. Thus, one might posit the rule that people do not always correctly perceive common elements of processes.

But there is more. The punch line communicates that mediation *is* a joke. The rule that comes close to resolving the incongruity is that which recognizes the difference between the actual and perceived essence of mediation and of a joke (which we accept as a sub-set of humor). Thus, if problem solving would take this course, the composite general rule would be: (1) people make perceptual mistakes; (2) perception and reality do not always correspond; and (3) reality should guide human behavior. Let us now briefly test the *reality* of the statement "Mediation is a joke" in an information-processing context.

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184. FRY, *supra* note 109, at 147. If you did not smile when you first read the joke, try reading it again while visualizing a comedian (perhaps Johnny Carson or Jay Leno) delivering it in a monologue, with his characteristic inflection, facial expression, gestures, and timing. If you smile (or smiled more) this time, you have just experienced the effect of mental set on disputants whose expectations are that the mediator will inspire creative solutions.

Putting a simplified Suls joke model side-by-side with conventional (less than super optimum) mediation process stages, yields the following diagram:

*Information Processing*

<i>Joke Model</i>	<i>Mediation</i>
Introduction (read or heard)	Initiation
	Preparation
Setting and Context Stored	Introduction
Narrative Schema Formulated	Problem Statement
Forthcoming Text Predicted	Problem Clarification
Punchline Communicated	
Prediction Match Tested	Generation and Evaluation of Alternatives
No Match	
Surprise	
Cognitive (Reconciling) Rule Found (Reframing Occurs)	Selection of Alternatives
Laughter	Agreement <sup>185</sup>

The immediately obvious difference between the conventional mediation process stages and that of the joke process is that, in the joke process, there is an intentional infusion of information — an instruction or punch line — at the stage corresponding to generating and evaluating alternatives which causes surprise, reframing, and, ultimately, a higher-degree of satisfaction (laughter), if the joke

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185. See *supra* note 116 and accompanying text for presentation and discussion of Suls' joke model.

is properly designed. And now, for the "punch line" to this Article: It is the mental process which occurs in joke processing in a microsecond — at the time of and just before surprise — that the mediator must replicate in the mediation setting in order to achieve super-optimum solutions; it is as if that mental process of reframing must be viewed under a microscope and in slow-motion to be effectively discerned and applied.

While science has not yet progressed to the point where such discernment is possible with any degree of accuracy, we do have clues, based on the empirical research presented in this Article, as to how the substantive steps of that reframing process may be replicated in mediation on a gross scale and at a cosmically decelerated rate of speed. The answer may lie in resolving the apparent incongruities of the topics discussed thus far in this Article. The following explanation contained in this Part will trace the search for the relevant cognitive rule to reconcile the previous parts of the informational "set-up" presented earlier in this Article.

We begin with the observation that the achievement of super-optimum solutions requires radical reframing of the disputants' cognitive interpretations of the conflict.<sup>186</sup> Conflict frame research to-date teaches, at a minimum, that: (1) conflict interpretations (dimensions of conflict frame) describe various ways in which people perceive conflict; (2) at least three such dimensions of conflict frame have been identified (relationship vs. task; emotional vs. intellectual; and compromise vs. win); and (3) future research might focus on determining whether conflict *reframing* is possible and advantageous in resolving conflicts (problems).

We have also learned from the split-brain research that there is data to suggest, at least tentatively, that a person's orientation and approach to problem-solving may be dictated, in part, by cerebral dominance (lateral preference) or hemisphericity. A left hemisphere cognitive style may influence a verbal, mathematical, or analytical approach to problems or tasks, and a right hemisphere cognitive style may influence an emotional, visual, or spatial approach to problems and problem solving. Creativity, the research suggests, results from appropriate interaction between the left and the right hemispheres, and there is speculation that better (more creative, more appropriate, more satisfactory) solutions to problems result when a person with a left hemisphere cognitive style interacts with a person of right hemisphere cognitive style.

Furthermore, creativity research discloses that although creativity exists in every individual, persons of ordinary intelligence (mid-range IQs) are more apt to be creative than persons having higher IQs. Among the skills associated with creative thinkers are: (1) unusual visualization, seeing and putting a figure in a visual perspective different from the usual; (2) extending or breaking boundaries, or getting outside the expected; (3) juxtaposition of two or more incongruities; (4) ability to transform from the figurative to the verbal; and (5) synthesis or combination, joining together two or more figures and converting them into a

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186. An example of radical reframing would be the cognitive transformation of a commercial dispute into a commercial transaction.

coherent response. Moreover, creativity research suggests that creative thinkers tend not only to reject old solutions but also to reject old problems, thereby discovering new problems which trigger new solutions.

The creative process and the process of humor are closely related. The key to understanding the creative process and its reframing element lies in understanding the information processing model for jokes. The stages of the joke process and the conventional mediation process correlate quite closely, except that in the joke process an instruction (punch line) is intentionally and suddenly injected which requires the recipient to retrieve the relevant rule that reconciles the joke parts and allows the recipient to view all the scene-elements in another, quite different way. Humor research has shown that the more surprise the "instruction" creates, the greater the recipient's motivation to solve the problem. This is so because the joke designer has established an atmosphere of safe-play; the recipient's leaving the field would negate the effort of engaging in play, initially; and recipients are usually willing to make some reasonable attempts to solve the problem.

These discoveries have obvious and direct implications for the mediator's role in the mediation process. Complexity of a joke may not adversely affect its appreciation, though more time may be required to resolve the incongruities, depending on the relative problem-solving abilities of the recipients. Contextual cues and environmental inputs (presence of other people; affective/emotional mechanisms) may enhance and accelerate the problem-solving process and increase joke appreciation. The timing of the punch line of a joke is crucial to its level of appreciation. Jokes may actually be more enjoyable on repeated exposure because familiarity lessens the tension aroused by novel stimuli and the opportunities for meta-humor increase. Jokes whose outcome amounts to perceived overretaliation (injustice) yield less appreciation.

These findings also have a direct analogy in the mediator's role in the mediation process. The cognitive rule which seems to reconcile all of this research and allows us to view the mediation scene-elements in a different way is: To achieve a super-optimum solution, the mediator must intentionally inject information (an instruction) into the mediation process. The rule immediately precipitates two questions: (1) of what should the instruction consist; and (2) what should be its timing (i.e., where in the process should it be inserted). The second question may find its answer in reviewing the earlier chart, which correlates the information processing stages in jokes to those of conventional mediation. The instruction (punch line) in the joke process appears in the stage corresponding to the generation and evaluation stage of mediation. Thus a reasonable hypothesis would be that the instruction should occur in the "generation and evaluation of alternatives" stage to convert conventional mediation to super-optimum mediation — and perhaps at the *beginning* of that stage of process. The answer to the first question may be found in the research concerning the establishment of the appropriate climate for creativity.

Creative climate research suggests, in general, that an instructional procedure which combines instruction, reinforcement, and practice seems to be useful and

powerful in experimentally changing behavior. Group interaction tends to enhance the production of new ideas. Control-orientation or freedom-orientation of participants in a group problem solving activity affect how much structure or clarification the instructor will be required to provide. Control-oriented participants require significantly more structure than freedom-oriented participants. Evaluative feedback usually improves the performance of control-oriented problem solvers; creative feedback usually improves the performance of freedom-oriented problem solvers. Lateral thinking techniques are tools to stimulate the restructuring of information and the stimulation of new ideas. This data suggests that an appropriate "instruction" module, inserted at the beginning of the "generation and evaluation of alternatives stage" of mediation might be characterized by a brief (15-30 minute) mediator-led instructional period involving individual and group problem-solving tasks (demonstrating the nature of reframing, examples of creative solutions, and the tools used for achieving them) interspersed with and followed by appropriate evaluative and creative feedback, either by the mediator, the disputants, or both.<sup>187</sup>

Over the years, I have experimented with modules of instruction incorporating the use of optical illusions, lateral thinking techniques, and cartoon captioning. The results of that experimentation are discussed in Part IX.

## IX. INFORMAL EXPERIMENTS

In conducting mediations of business disputes and in teaching mediation and negotiation over the years, I have informally experimented with four techniques to establish a creative climate for problem solving and to enhance the probability of achieving super-optimum solutions. When used in mediations, the techniques were normally employed after the initial joint session in which the disputants told their respective stories. The four separately employed techniques involved: (1) the use of optical illusions; (2) brief instruction on lateral thinking; (3) word finding/sentence finding (unscrambling letters to form words which are then used to form sentences); and (4) cartoon captioning.

### A. *Optical Illusions*

In one mediation involving the dissolution of a business partnership, apart from administering the Thomas Kilmann Conflict Mode Instrument and a Brain Preference Indicator test to the parties on a take-home basis, I experimented in-session with the use and explanation of optical illusions and their relationship to

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187. It should not be surprising to practitioners of mediation that the key to achieving super-optimum solutions may be the giving of an *instruction* by the mediator. Any veteran mediator knows that his or her central function in any mediation is being a teacher of negotiation in the context of the particular situation and of the particular personalities with which he or she is then involved.



human interaction. This explanation closely approximated the following description.<sup>188</sup>

It is relatively common knowledge that two people rarely perceive the same visual scenes or the same written words wholly identically. This is evidenced by the fact, for example, that eyewitness accounts of an automobile accident vary dramatically. One eyewitness may see something that another did not, and another may see something that did not, in fact, exist or occur, all because the eyewitnesses were "programmed," mentally, to see it. Similarly, two people entering into a contract will think that they are perceiving its terms identically and even smile confidently as they sign the document binding themselves to its terms. Later, when events cause the parties to refer to the contract's terms for guidance, it is likely that they will perceive the pertinent contract provisions in somewhat different lights, interpreting the provisions, inclusively or exclusively, as best suits their separate needs. Thus, perception has at least two aspects: (1) an aspect that is totally visual; and (2) another which involves beliefs or mental sets. Sometimes, these aspects combine to impair significantly the problem-solving function.

As to the visual aspect of perception, we know that sometimes the eye plays tricks on the brain, or *vice versa*. In childhood, we knew these "tricks" to be optical illusions, and we normally dismissed them as being fun, perhaps curious, but having no substantive effect on our lives. As adults, however, we should not be so quick to dismiss them because they can, in part, contribute to design impairment and, at the very least, provide a useful analogy as to how beliefs and sets can interfere with design effectiveness and efficiency.

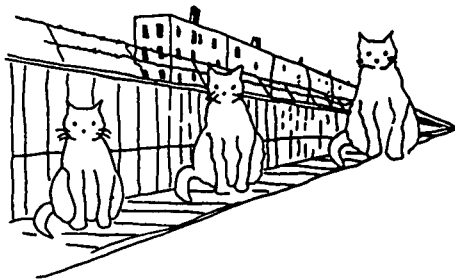
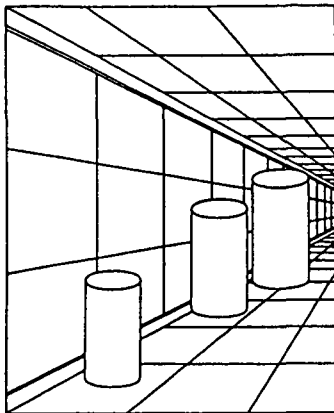
Information provided by the eye is not always precise or uncomplicated. Nearly every cue to spatial vision and distance, and thus nearly every visual situation, contains potential for ambiguity. Where ambiguity arises, it is called an illusion. Visual illusions are complicated and baffling; most geometric or spatial illusions involve one or more of several basic phenomena, and they can be classified into three broad categories: (1) those which "fool" all observers identically; (2) those which are perceived differently by different observers (but eventually most observers can see both shapes); and (3) those which represent impossible objects which cannot be built in three dimensional space. They impact on efforts in designing both unbiased problems and solutions (dispute settlement and transaction negotiation), and biased problems and solutions (issues and arguments).

Examples of the first category of visual illusions (shown below) are those which fool all observers identically. Your brain is "programmed" by experience to think that two parallel lines converge in the distance and that if two objects of the same size are placed at varying distances from you, the closer one will appear larger. Thus, your brain does not accept the fact that in **Figure 4**, the right barrel does not look smaller, therefore it compensates by making it look larger.

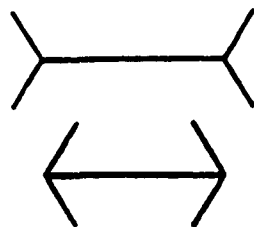
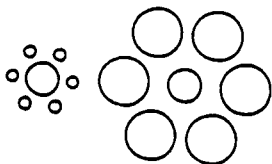
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188. This description is adapted from COOLEY, *supra* note 7, at 36-43 (footnotes omitted).

## FIGURES FOUR AND FIVE



## FIGURES SIX AND SEVEN



Likewise, your brain functions similarly with respect to the cats in **Figure 5**. The cats are all the same size and so are the barrels. This gives us some idea as to how the brain perceives in terms of background and relationships. It demonstrates how the brain does not always perceive things correctly, in situational contexts, such as here, where the barrels and the cats refuse to get smaller when they should. Similarly, the brain tends to underestimate the size of circles and overestimate lengths of straight lines. This is exemplified by **Figures 6 and 7**.<sup>189</sup>

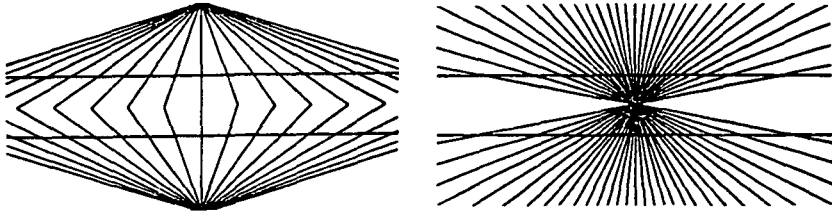
In **Figure 6**, the middle circles are identical in size; in **Figure 7**, the horizontal lines are identical in length. In **Figures 8 and 9**,<sup>190</sup> the two horizontal lines in each depiction are parallel, but each set appears to be bent.

189. Figures 4 and 5 are reprinted with the permission of Professors Dodge Fernald, Jr. and Peter S. Fernald. Figures 6 and 7 are reprinted with the permission of Dr. Henry Clay Lindgren.

190. ERNEST R. HILGARD & RICHARD C. ATKINSON, *INTRODUCTION TO PSYCHOLOGY* 228 (4th ed. 1967) (copyright 1967 by Harcourt Brace Jovanovich, Inc; reprinted with permission).

This effect is due to the fact that parallel lines are perceived in terms of the relationship of the lines appearing behind them.

### FIGURES EIGHT AND NINE



By analogy, in any interpersonal situation, each party perceives events and circumstances in terms of background, relationships, and interrelationships of people and events. Sometimes the perceptions of both (or, as the case may be, all) parties to the situation are incorrect. That is, they are viewing the situation (dispute or transaction) identically, but mistakenly. This problem of perception may interfere with effective design. For example, the parties may design a problem and solution differently if they know that the "barrels" are all the same size instead of thinking that one "barrel" is much larger than the other two. Recognition later that the "barrels" are identical in size may precipitate a dispute. Usually the parties themselves, with appropriate investigation and inquiry, can discover their joint misperception, but sometimes the situation might require the assistance of a disinterested neutral party and, in the case of a dispute, a mediator, to detect the joint misperception. Sometimes, opposing parties in a lawsuit will have identical but incorrect perceptions of the issues in a case, and the appellate court, through its decision, identifies the misperception.

The second type of visual illusions are those figures or shapes which are perceived differently yet "correctly" by each of the observers. With additional study, however, each observer can eventually see the figure or shape which is perceived by the other observer. Consider these examples in **Figures 10 and 11**.<sup>191</sup>

In Figure 10, the so-called "Wife-Mother-in-Law" illusion, you should be able to see either a young girl (wife), or an old woman (mother-in-law). If you cannot see both, show this picture to someone else and ask that person whether

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191. Figure 10 appears in ERNEST R. HILGARD ET AL., *INTRODUCTION TO PSYCHOLOGY* 142 (5th ed. 1971) (copyright 1971 by Harcourt Brace Jovanovich, Inc.; reprinted with permission). Figure 11 appears in ANTHONY ROBBINS, *UNLIMITED POWER* 290 (1986) (copyright 1986 by Robbins Research Institute; published by Ballentine Books; reprinted with permission of Simon Schuster, Inc.).

he or she sees the female representation that you cannot see. Once you see both the old and young woman in the figure, your brain should be able to flash the figures back and forth for you with relative ease. In Figure 11, some might see miscellaneous typewriter parts, a straw hat on end, an arrow pointing downward, etc. Actually, with a little effort, you will be able to see the illusion's primary representation: a word. If you focus on the white areas between the black objects and treat the black areas as background, the word "FLY" in large, fat letters should appear.

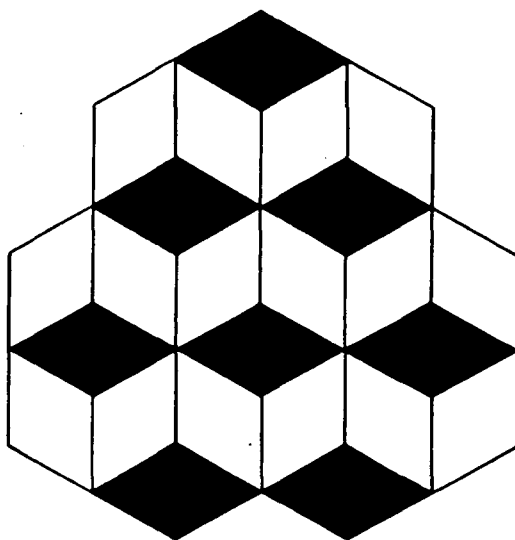
FIGURES TEN AND ELEVEN



This second type of illusion is quite prevalent in problem and solution design situations. Oftentimes, parties enter into interpersonal situations with "correct" perceptions about events or circumstances, but, at the same time, they are unable to "see" or appreciate the "correct" perceptions of their opponents. This often leads to a standoff or stalemate when, in fact, if each side could see the problem or transaction from the other's perspective, effective (unbiased) problem and solution design could commence. Again, this process of seeing the problem or transaction as perceived by the opponent often requires the assistance of a disinterested neutral party.

Occasionally, even when there is a complete understanding of the perception of all parties, joint resolution is not possible. For example, if all parties see the situation in **Figure 12**<sup>192</sup> as having both 6 or 7 cubes, they might not be able to agree to select a 6-cube or a 7-cube resolution, but at least all parties will have had the opportunity to consider the possibility of selecting one or the other. If one party thinks he or she will get "7-cubes" out of a particular deal (not perceiving the "6-cube" deal), there is bound to be trouble down the road.

FIGURE TWELVE



The third type of visual illusion is impossible objects. Visual impossibilities, unknown in direct vision or reality, can be depicted on paper in such a way that at first glance, they appear to be logical. As they are examined more carefully, the visual cues create confusion. The staircase depicted in **Figure 13**<sup>193</sup> neither rises nor descends, is consistent over certain regions, yet is nonsensical overall.

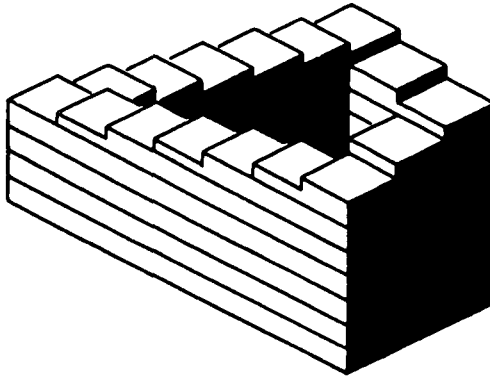
The brain struggles to make sense of visual object illusions, but eventually accepts them for the illusions that they are. Similarly, in some interpersonal situations, the perceptions of one or more of the parties might be consistent in some respects, but design efforts may be doomed because of an unperceived impossible objective, due to personality conflicts, uncompromising philosophies, exaggerated expectations, and ineffective or nonexistent means to attain certain

192. R. CARRAHER & J. THURSTON, *OPTICAL ILLUSIONS AND THE VISUAL ARTS* (1966) (copyright 1966 by Van Nostrand Reinhold Co.; reprinted with permission).

193. L.S. Penrose & R. Penrose, *Impossible Objects: A Special Type of Visual Illusion*, 49 *BRIT. J. PSYCH.* 31 (1958) (reprinted with permission of the British Psychological Society).

goals. The earlier the "impossible objective" can be discovered in such situations, the better for all parties concerned. A disinterested neutral party can often be of assistance in discovering the existence of an "impossible objective."<sup>194</sup>

FIGURE THIRTEEN



After this explanation, I observed during the course of the mediation that some of the parties would make reference to the optical illusions as we discussed various aspects of their conflict. I also, from time to time, referred to pertinent optical illusions to make a point, to "jog" the parties' perceptions, or to assist them in reframing their perceptions about the situation. I found this technique very beneficial, particularly in the phase of the mediation where the parties were struggling to decide whether dissolution was the appropriate solution. Eventually, they concluded that their situation had been an "impossible illusion" from the beginning and that disassociating was in their best interests.

### *B. Lateral Thinking Techniques*<sup>195</sup>

In another case involving a \$1 million product liability claim which I mediated with Professor Stuart Nagel of the University of Illinois, I experimented with an abbreviated module of instruction on four lateral thinking techniques: (1) generating alternatives; (2) challenging assumptions; (3) fractionation; and (4) thought reversal. Only the mediators and the parties' lawyers were present for this instruction. At the outset, the lawyers perceived the dispute to have only a traditional distributive (monetary damage) solution.

194. A neurobiological (split-brain) explanation for several of these optical illusions appears in ASHER, *supra* note 46, at 65-90.

195. Section B is an adaptation from Cooley, *supra* note 33, at 65, 73-78.

The lateral thinking instruction occurred after a traditional joint session and a caucus with each side in which the parties aired their perceptions of their own legal positions. The instruction was introduced with these comments:

1. Mediation relies, in large part, on creative efforts of the participants for its effectiveness.

2. Participants must be willing to adopt a mindset for creative problem solving.

3. In negotiating a super-optimum solution, the principles of *Getting to Yes* by Roger Fisher and William Ury, are important considerations (i.e. separating the people from the problem; focusing on interests, not positions; inventing options for mutual gain; and insisting on objective criteria).<sup>196</sup>

4. Settling a case is a *joint* problem-solving effort. The parties own the problem and the process, and they will own the solution. The mediators protect the process and help make it work. The challenge for the parties and their counsel is not to determine who is right or wrong, but rather to create a solution yielding mutual benefits.

5. Ground rules suggested for the mediation conference: (a) the topic of assigning fault will not be discussed; (b) the lawsuit will be viewed as an opportunity for mutual gain, as if corporate lawyers were putting together a business deal; (c) discussion should revolve around the needs and interests (not rights and duties) of the parties; and (d) the word "no" is taboo, all ideas are welcome, judgment will be suspended, and evaluation of ideas will be deferred.

The lawyers were surprisingly receptive to these unusual parameters and ground rules. It was as if they welcomed the opportunity to think freely and to be creative.

Next, I described the differences between vertical and lateral thinking and the importance of each in the problem solving process. I explained that in that day's session, mostly lateral (innovative, intuitive) thinking would be employed and that we would reserve vertical (analytical, logical) thinking for the evaluation and selection stages of the settlement process. Lateral thinking was defined as insight restructuring, and several methods of lateral thinking were briefly described.

Counsel for the parties then participated in four short exercises to give them a "feel" for thinking laterally in solving problems before focusing on the actual problem, the settlement of the lawsuit. Those exercises involved solving four problems. Here is what occurred:

*Problem One - Generating Alternatives.* Counsel were asked to determine how many ways a square could be divided into four equal pieces. They worked

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196. See generally FISHER & URY, *supra* note 181.

individually on this problem. After two or three minutes, counsel were finished, and the most ways determined by any one lawyer were six. They were surprised and somewhat embarrassed when told that the correct answer to the problem was "an infinite number of ways." The point of this exercise was to teach the lawyers not to think narrowly about the number of alternative settlement solutions to the lawsuit. The number of potential solutions was limited only by the restrictions they placed, consciously, or unconsciously, on their imaginations and power of thinking.

*Problem Two - Challenging Assumptions.* In the second exercise, the problem involved arranging four business cards on the table so that each business card was touching three others. This was a group, or collaborative, problem-solving exercise requiring both plaintiff and defense counsel to work together toward a solution. This problem is quite difficult for some people because they *assume* that all of the cards have to lie in the same plane. The solution is for three cards to lie touching each other on the table with the fourth card raised and placed on top of the three cards. As soon as one breaks free from the "same plane assumption" and realizes that there is no rule preventing movement into the third dimension, the problem is solved. One of the lawyers in the group was not stymied by the "same plane assumption", and he saw the solution to the problem; he and the group were complimented on their creativity. The point of this exercise was to demonstrate that effective problem solving (even in a lawsuit) requires one to be free to move into new dimensions, to be wary of false assumptions regarding alternative solutions, and to avoid cliché patterns of thinking.

*Problem Three - Fractionation.* Next, the lawyers were given a paper on which appeared a geometrical block "L" shape. The problem was to divide the shape into four pieces which were identical in size, shape, and area. Again, the adversaries collaborated in an attempt to solve the problem. A solution was proposed, but it soon became evident that, although the figure was divided into four pieces, the solution did not satisfy the criteria of identity of size, shape, and area of the pieces. The lawyers struggled with the problem but were unable to solve it in the time allotted. I then noted that to solve a problem, oftentimes it is necessary to break it down into smaller parts or elements (to fractionate) and try to see alternative configurations. A correct solution consists of four small "L" shaped pieces, of identical size, shape, and area. The point of this exercise was to demonstrate that the settlement ultimately designed for the lawsuit might consist of several component elements, derived untraditionally, yet fully satisfying all criteria (the needs and interests of all the parties).

*Problem Four - Thought Reversal.* The fourth exercise was probably the most difficult. The problem was to divide a triangle into three parts in such a way that the parts could be put together again to form a rectangle or square. The difficulty of the problem stems from missing information: The problem statement fails to specify the shape of the triangle. Counsel worked on this problem individually, then collaboratively, without success. To solve the problem quickly, one must recognize that it is much easier to start with a square instead of with a



triangle, which was the suggested starting point. There can be no doubt about the shape of a square, whereas the shape of a triangle (and to a lesser extent, of a rectangle) is variable. Since the three parts must fit together again to form a square, one can solve the problem by dividing a square into three parts that can be put together again to produce a rectangle or triangle. The purpose of this exercise was to demonstrate the effect of missing information in reaching a settlement solution and the significance of one's entry point into the information available to design a settlement. It also demonstrated the power of thought reversal as a trial-and-error method for identifying a possible settlement element or for uncovering an obscured route or avenue for achieving agreement.

After these exercises were completed, the mediation team conducted brainstorming sessions with counsel for each side in separate caucuses. The enthusiasm for creativity demonstrated by counsel in these sessions was truly remarkable. Several possible non-monetary components of a possible settlement package were suggested by counsel. In a final joint session of the day, the mediation team reconvened the attorneys to discuss some of the ideas generated in the caucuses. After discussion, counsel agreed that they wished to explore more extensively (in addition to a monetary component) two non-monetary settlement components including: (1) a transfer of products from the defendant electronics manufacturer to plaintiff insurance company; and (2) transfer of insurance claims from defendant insurance company to plaintiff insurance company.<sup>197</sup>

### C. *Word Finding/Sentence Finding*

In teaching mediation techniques to groups as large as 200 lawyers, I have experimented with an exercise involving word finding and sentence finding. The purposes of the exercise are to quickly familiarize the audience with the concepts of conflict frames of disputants, the mediator's role in assisting the disputants to reframe the conflict situation, and the basic principles of creative problem solving.

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197. This mediation and its results are described more thoroughly in Cooley, *supra* note 33, at 65-90.

I first give the members of the audience a list of words with scrambled spellings as follows:

CATFEF  
EMOS  
FLIDYFRENET  
SOMT  
ELEPPO  
DARRYOIN  
SCLOCTNIF

I then explain that the objects of the exercise are to unscramble the spellings to form words *and* then to use the words in a simple declarative sentence. I also explain that, if they wish, they may "collaborate" to solve the problem in teams of two persons. The audience is told that the exercise is timed and that each two-person team (or individual) is competing against all of the other teams to solve the problem first. The audience is instructed that when a solution is reached, one teammember (or individual) must shout "solution" in a loud, clear voice.

In one such experiment, one team took approximately two minutes to solve the problem; after ten minutes, only about 10% of the 200-person audience had solved the problem. Before reviewing the solution below and the learning analysis, perhaps the reader would like to test his or her prowess at solving the problem.

After 10 minutes have elapsed in such a session, regardless of the progress of the audience's problem-solving efforts, I display the following list of words in unscrambled form:

AFFECT  
SOME  
DIFFERENTLY  
MOST  
PEOPLE  
ORDINARY  
CONFLICTS

I explain that the first list of words with scrambled spellings is analogous to disputants' perceptions of some (or possibly) all the issues involved in the conflict between them. One side of the dispute may come to the mediation with an unambiguous perception of the issue(s) or may be able to acquire such perception rapidly (as did some audience teams) as the mediation progresses. Some disputants may never timely acquire an unambiguous perception unless they receive assistance from the mediator (as when I displayed the list of unscrambled spellings). This, I suggest to the audience, is a very simple analogy to disputants' dimensions of conflict frame in a conflict setting.

I then ask for solutions (declarative sentences) from the audience. Normally, I ask the team (or individual) who had solved the problem the quickest to go first. The first two solutions from the audience might be: MOST ORDINARY CONFLICTS AFFECT SOME PEOPLE DIFFERENTLY. PEOPLE AFFECT SOME ORDINARY CONFLICTS MOST DIFFERENTLY. I then ask for other solutions. Many people in the audience do not immediately realize that there are multiple solutions (declarative sentences) which satisfy the parameters of the exercise as framed. Here are three more possible solutions: SOME CONFLICTS AFFECT MOST ORDINARY PEOPLE DIFFERENTLY; MOST ORDINARY PEOPLE AFFECT SOME CONFLICTS DIFFERENTLY; and SOME ORDINARY CONFLICTS AFFECT MOST PEOPLE DIFFERENTLY.

I then point out that there are probably many more solutions, and I emphasize that the number of solutions is really dependent on the creativity of the disputants and the mediator. The mediator can help the parties perceive other potential solutions and can help the disputants perceive that they have *complete* control of the process — that is, they can go beyond the assumed rules or parameters of the exercise (or mediation process) and define new or modified rules leading to win-win or super-optimum solutions. For example, in the basic exercise described above, the mediator could point out that no rule prohibits the use of punctuation to achieve more solutions. For example: MOST CONFLICTS AFFECT ORDINARY PEOPLE, SOME DIFFERENTLY; SOME DIFFERENTLY AFFECT ORDINARY-PEOPLE CONFLICTS MOST; and CONFLICTS: MOST AFFECT ORDINARY PEOPLE, SOME DIFFERENTLY.

The mediator can also suggest expansion of the rules of the exercise to include consideration of the relevance and utility of other resources (words) toward achieving solutions of greatest satisfaction to the disputants. For example, suggesting the word "positively" as an additional resource for the exercise would create a whole host of new possible solutions which could not have even been contemplated initially by the disputants. The mediator could, of course, suggest that the whole exercise be redesigned to use totally new words as resources for a win-win or a possibly super-optimum solution. For example: JOKE DESIGN: THE KEY TO ACHIEVING SUPER-OPTIMUM SOLUTIONS IN MEDIATION.

Finally, I point out that, regardless of the solution (declarative sentence) finally agreed upon by the disputants, it is the mediator's job to ensure that each element (word) of the solution is being interpreted identically by the disputants *in the context* of their agreed solution. For example, if the disputants agree to resolve their conflict by adopting this last solution, the mediator would be obligated to ensure that the term "joke design" was understood by the parties to relate to creative processes in directed problem solving, as opposed to an undirected, comedy club-like joke fest.

### D. *Cartoon Captioning*

In teaching negotiation to non-lawyers as well as law students, I have experimented with cartoon captioning as a technique to quickly acclimate persons toward achieving creative solutions (win-win or super-optimum) in negotiation exercises. The procedure is as follows: After a short lecture on brainstorming and creativity, I present the participants with an unusual picture, such as one where a man is shown waving to the camera while sitting at the wheel of a tractor which is suspended in the air by what appears to be a 15-foot pole. I then ask the students, who are working individually, to write down a serious or "straight" caption for the picture, one which they might find in the business section of the *New York Times*, one which evokes no laughter. I tell them that they are in a competition to design the "most reasonable" caption, the one which describes the "most likely" explanation for what is represented by the picture in the real world of everyday life. Individual students have come up with serious captions such as "John Deere substitutes billboard advertising with the real thing" or "New hydraulic lift may be boon to Acme Hydraulic Corp."

The students then form groups of three. Taking turns, each person in the group of three plays the role of a judge and determines which of the other two captions is "more reasonable" under the ground rules. At this point, I draw an analogy between what they have just done and the process of adjudication (court process or arbitration). Essentially, I explain to them that their solution was designed under a number of restrictions, which included the concept of right and wrong.

I then ask them to work individually on the next task. I tell them to look at the same picture and engage their imaginations to design a humorous caption. After they are finished designing captions individually, I ask them to form the same groups of three and share their results. They can then collaborate to achieve the "most humorous" caption for their group. They can select one of the three captions, designed individually, as the most humorous or, working collaboratively, they can create a new one. The criterion for "most humorous" is the caption that creates the most laughter. As you can imagine, for several minutes while the students are collaborating on the humorous caption, the class turns into a din of laughter. Creative thought processes are running in high gear. Imagination is free to "run wild." After a few minutes of collaboration, I ask each group jointly to select its most humorous caption. Then each group, in turn, orally shares its best caption with the whole class. Inevitably, there is much additional laughter when these captions are read. The captions are exceptionally diverse, and the students are amazed at how the same visual information (one set of facts portrayed by the picture) can, through reframing of perceptions (creative interpretation), be transformed into other sets of perceived facts (solutions). Some of the reframed perceptions have ranged from "Farmer Jones takes new 'Pogo stick' tractor on test-jumps," to "Russians, deep-drilling for oil in Siberia, produce 'gusher' on Iowa farm." When shown a photo which depicts a sculpture consisting of vintage Cadillac automobiles half-buried nose-deep amidst a vast

wasteland in the Southwest United States, humorous reframing has yielded captions ranging from "*Pravda* reports 'hard-landing' of space squadron on the moon" to "A microscopic look at baby hair follicles on our instructor's head." (I am bald.)

After the most humorous captions are shared orally, I then explain that what they just experienced is very similar to the experience and feelings in producing super-optimum solutions. The unrestricted freedom to reframe perceptions and the reframing of them are essential steps in achieving super-optimum solutions. While the super-optimum solution is not necessarily the most humorous (or most drastic) reframing, the unrestricted freedom of the process often evokes ideas or interpretations that the participants can use to design a mutually acceptable, "better-than-best expectation" solution. This, I explain, is the advantage of negotiated and mediated solutions over adjudicated solutions, which are restrictive and normally only partially satisfy interests of the parties, and sometimes, of only one party, and occasionally, of no party. The students then engage in negotiation (or mediation) exercises as the case may be.

In my informal observations of such negotiations and mediations, I have noted that these creative acclimating and captioning exercises enhance the level of collaboration among students in the negotiation and mediation and tend to influence disputants' reaching win-win and sometimes super-optimum results.

## X. SUGGESTED DIRECTIONS FOR BEHAVIORAL RESEARCH

The research consolidated in this paper suggests a multitude of possible behavioral research directions in the future.<sup>198</sup> The overall research direction, however, would appear to be a search for the answer to the principal question: "Can super-optimum solutions be achieved more frequently in mediation where the parties' conflict reframing abilities are stimulated and facilitated by a mediator-led instructional module on creative thinking and problem-solving?" If the results of such research reveal a high correlation between the frequency of super-optimum solutions and the use of instructional modules ("punchlines"), then the "joke design" model for super-optimum mediation would command credibility.

To arrive at a conclusive answer to the principal question would require several studies with control groups and research groups testing several variables. An initial study could be conducted to determine the direct relationship, if any, between Dr. Pinkley's conflict-frame research results and the cognitive style research concerning cerebral dominance and problem solving. If a positive

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198. I acknowledge with gratitude the assistance provided to me by Karen (Etty) Jehn, a doctoral candidate in Organizational Behavior at Northwestern University's Kellogg Graduate School of Management. She greatly helped me by reviewing an original lengthy monograph on the subject matter of this article and by making many suggestions for improvement, including recommendations for future directions of behavioral research. I also thank Professor Leonard L. Riskin of the University of Missouri-Columbia School of Law for graciously reading the original, lengthy manuscript and making helpful suggestions which caused me to reframe and fine-tune my thinking about some of the ideas presented here.

correlation between the two could be shown, then the experiment could be designed so that disputants could be grouped according to a variety of conflict-frame and cognitive styles, and super-optimum solutions (SOS) mediations would be attempted. If no such correlation could be shown, disputants could be grouped according to conflict orientation (conflict-frame or cognitive style) and the SOS-yielding results of the two experiments could be compared.

In one part of the experiment, control groups would not be apprised of what a super-optimum solution is nor that a super-optimum solution was the goal of the experiment. Research groups would be told both the definition of a super-optimum solution and that it was the goal of the particular mediations. All groups would be involved in a mediation of a conflict involving the same set of facts. In all of the mediations involving research groups, SOS-trained mediators would be used, and they would conduct creative thinking/problem solving instructional modules. In some of the research groups, instructional modules would consist of an explanation of optical illusions; in others, lateral thinking techniques; in others, cartoon captioning; and in still others, a combination of these techniques. The control groups, on the other hand, would have no SOS-trained mediators assigned to them and the disputants would be randomly assigned to mediators without pretesting for conflict frames or cognitive styles.

These suggestions for research are the result of very basic, preliminary thinking. Certainly, the specifics of a useful experiment could be developed, collaboratively, by experts in the various fields of psychology and other pertinent disciplines.

## XI. CONCLUSION

The study of the mediation process is in its fledgling stage of development. Remarkably, this is also true of the study of conflict frames, brain functions, the creative process, and the process of humor. In this Article I have shared my perception of how these developing disciplines may reasonably overlap and interrelate and how this perceived interrelationship may advance understanding of methods by which high-satisfaction resolutions of conflicts might be achieved. It is my hope, on a grand scale, that, ultimately, the ideas expressed in this Article may affect the ways in which conflict is resolved in the family, in the corporate setting, and among nations. For the time being, however, much experimentation and analysis needs to be done either to confirm or to disprove the hypotheses advanced here. In the pursuit of the right answers, researchers in various involved disciplines must be willing to interact, to collaborate, and to reframe perceptions. They must free themselves to see analogies and be open to resolve apparent incongruities among their respective disciplines, which may, in

fact, be illusions. They must dare not to be blind to the obvious. For in the Kingdom of the Blind, even a one-eyed vassal reigns supreme.<sup>199</sup>

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199. See Erasmus, *Adagia, Dignitas et Excellentia et Inequalitas* (1523) ("In regione caecorum rex est luscus": "In the kingdom of the blind the one-eyed man is king.").