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Embracing the Ill-Structured Problem in a Community Economic Development Clinic

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EMBRACING THE ILL-STRUCTURED PROBLEM IN A COMMUNITY ECONOMIC DEVELOPMENT CLINIC

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This article describes the form, or formlessness, of a typical community development project that a law school clinic might take on for a community group; how the project resembles that described in the literature on problem-solving as the "ISP" — the "ill-structured" or "complex" problem; and how law students, the archetypal novice problem-solvers, face particularly high hurdles in attempting to negotiate this particularly intimidating kind of case. With their fluidity of variables and indeterminancy of path and result, community development projects are quintessential "ISPs."

The article asks whether the solving of complex problems can be taught as a learning strategy, or if learners can only expand this expertise through time and experience. For experts, the most important activities within the process of complex problem-solving are those that occur at the very beginning: those involved in defining the problem, or in "problem-finding." These are steps that novices often presume to be obvious, rush through, or simply overlook. The article suggests that teachers focus on assisting their students (and on assisting their students to assist their clients) in taking great care with these first steps.

In the context of community development, where neighborhood-based groups choose their projects to address the systemic bases of poverty, the process of problem definition is inherently political. The article addresses the significance of the "causal story," the hypothesis about what the problem is, how it began, and inferentially how to solve it. Control over the fortunes of the neighborhood will rest in the hands of whoever gets to dictate the terms of the "causal story." The article contends that how to combat the received wisdom of the causal story is a teachable, and indispensable skill.

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AND THE DAYS GROW SHORT, WHEN YOU REACH SEPTEMBER. . .[1] (AN INTRODUCTION)

The scene is September, an office interior. The fly on the wall sees Sam and Stella, deeply focused on their computer monitors. They are representing a neighborhood group. The group did not form organically, though some of its members have known and lived near each other for years; it was convened by the city's planning department in an attempt to capture a federal grant. The purpose of the grant is to revitalize urban neighborhoods through support of small businesses. In order to be competitive, the grant application had to present what would qualify as a "severely distressed" community; in response, the planning department described this neighborhood, accurately, as without branches of libraries or banks, without sit-down restaurants, retail stores, or a community center. The application also had to demonstrate consultation and partnership with a neighborhood advisory board; in response, the planning department picked the group. After the grant was awarded, the planning department contacted this law clinic to incorporate the group and secure federal and local tax exempt status for it, both pre-conditions to drawing money down from the grant.

Sam and Stella are clinical law students, and this is their first case.[2] They hunker down to the IRS website (on line) and the state nonprofit corporations code (also on line) and dig into drafting articles of incorporation and pulling up the IRS's form for applying for tax exemption.

The fly moves on in search of something more interesting.

The scene is February, an office interior. The fly on the wall sees Sam and Stella, deep in discussion. They are brainstorming about whom to invite to a meeting that their client group has asked them to help organize, to investigate ways to set up an "incubator" program to advise and fund home daycare providers. Sam and Stella contacted the SBA's Small Business Development Center downtown, the city council member's office, the state and federal agencies that provide funds for daycare, and the three local agencies that license daycare providers. Representatives from all these offices agreed to attend, to describe what assistance might be available. Now Sam and Stella are discussing their report to the client board on the possible cast of characters, and how to advise the board on the most productive structure

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[1] MAXWELL ANDERSON & KURT WEILL, SEPTEMBER SONG (1938).

[2] The usual caveats about the "Sam(s)" and "Stella(s)" of this genre of writing apply: These are fictional names and situations, abstracted from a number of experiences with students and neighborhood-based organizational clients in a community development law school clinic over the course of several years.

for this meeting.

The space between September and February marks more than the passage of time. Between September and February Sam and Stella met seventeen times with their client, at night in a kindergarten classroom. By the seventeenth meeting eight of the original thirteen members of the group had been replaced by others. Sam and Stella had walked the neighborhood in the morning and after dark, alone and in the company of different members of the group. They had eaten at the KFC and had accepted an invitation to introduce themselves to the congregation at the AME church. They talked to the principals and PTA presidents of the elementary and middle schools. About a month into their relationship with the members of their board, they learned how little the members knew about the purpose or administration of the grant, and how superficially they had been consulted about the neighborhood's needs.

After many discussions, the board members decided to canvass their neighbors to get a sense of their priorities. They set up committees to draft a questionnaire and to administer it, door to door. They found that daycare was a significant need that the original grant had ignored, that several women were already earning extra cash by babysitting for many children in their homes, and that none of these temporary arrangements was accessible to disabled children or met basic safety standards. The meeting which Sam and Stella helped convene in February resulted from not only the board members' conviction of the importance of child care, but also from Sam's and Stella's research, which persuaded them that they could make a case for interpreting the purpose of the grant to meet their client's needs. The processes of organizing to interview their neighbors and of reconceptualizing the goals of the grant encouraged the board members to think of themselves as a formal group that spoke for their neighborhood. They directed Sam and Stella to draft by-laws for them, to set conditions of membership and sketch out a mission statement.

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Sam and Stella have done several different things in these five or so months. They have re-defined a "problem space;" they have broken apart the "well-structured" problem they were given into an "ill-structured" one; and they have re-configured that ill-structured problem into a well-structured one.[3] To chart their progress is to illustrate how novice lawyers approach problem definition — if they are lucky. As we know, novices process information differently from more experienced practitioners — both because they have less of their own

[3] For a discussion of "problem spaces" and the distinction between "well" and "ill-structured" problems, see *infra* Section I.A.

experience to process and because they process what little they have less efficiently and at the same time, less expansively.[4]

But even experienced practitioners encounter difficulties when they represent community groups in community development projects. It is in the very nature of community development projects to be "complex" or "ill-structured." Only rarely are there defining structures of the sort one might find in planning strategy for, say, a housing eviction defense or a custody case: the rules and timetables of a particular tribunal, the substantive and procedural rules for an ascertainable body of law. Rather, "the law" may be many laws — the private contractual law of real estate transactions, the federal regulatory law of housing development programs, or the local statutory law of zoning. There may be no tribunal at all; actors talk about "partnerships," not adversaries.[5]

That there are no obvious battle lines does not mean that there are no issues about power. Within every deal that a neighborhood-based organization makes with an agency, a business or another nonprofit group, there are questions about who gets to control the agenda — and, most important for our purposes, who gets to dictate the terms of the problem. The creator of the "causal story," the hypothesis about what the problem is, how it began, and inferentially how to solve it, holds enough power to turn any problem-solving relationship from a collaboration into a struggle for control. Seen from this perspective, "problem-solving" evolves from the procedural to the

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[4] *See, e.g.*, Joachim Funke, *Solving Complex Problems: Exploration and Control of Complex Systems*, *in* COMPLEX PROBLEM SOLVING: PRINCIPLES AND MECHANISMS 185, 210 (Robert J. Sternberg & Peter A. Frensch eds., 1991) (noting experts' greater facility in generating hypotheses from data and analyzing relationships among variables). For a fuller discussion of the differences in ways that expert and novice problem solvers tackle "ill-structured" problems, see *infra* Section I.B.

[5] For an overview of the political and economic issues underlying the reliance on alliances between governmental and private sector actors to stimulate development in distressed cities, see Max O. Stephenson, Jr., *Whither the Public-Private Partnership: A Critical Overview*, 27 URB. AFFAIRS QTRLY 109 (1991). For a recent example among many in which funding sources predicate participation in their programs upon the collaboration of different community actors in "partnership," see Super Notice of Funding Availability for HUD's Discretionary Grant Programs for Fiscal Year 2002, 67 Fed. Reg. 13,925, 13,930 (March 26, 2002) (requiring applicants for grants from the Office of University Partnerships to show collaboration among university departments, local governments, neighborhood groups and community institutions in designing programs of direct benefit to distressed communities). *See also* Harry J. Wexler, *HOPE VI: Market Means/Public Ends — The Goals, Strategies and Midterm Lessons of HUD's Urban Revitalization Demonstration Program*, 10 J. OF AFFORDABLE HOUSING & COMMUNITY DEVELOPMENT 195, 213-216 (2001) (describing how the necessity of developing social service programs and leveraging federal funds to satisfy the goals of the public housing HOPE VI program has prompted public housing authorities to form partnerships with social service providers and private developers).

political.

Finally, in a community development practice, the client itself may be "complex" or "ill-structured" — a corporate group or an informal association, where the elected officers may be nominally accountable to a membership, or only to some principle. Sometimes the lawyer may look confidently to the elected officers and directors of an organization for guidance; sometimes the instability of the organization may leave the lawyer with no clear idea of who is in charge, or whose point of view the spokesperson represents.

In this free-floating world, our Sams and Stellas face more than the usual challenges to their sense of competence as young lawyers. They must contend not only with the basics of how to function in a law office and take responsibility for a client's welfare, but with identifying the fora, the actors, and sometimes even the client itself.[6] With all these variables in a community development practice, "problem solving" becomes inevitably "complex." The recognition that a problem is "complex" involves a process that of itself invokes several skills, the most critical of them being the definition of the problem and its immediate "operators" or tools towards resolution, all summed up as the creation of "the problem space."[7] Creating problem spaces requires development not only of cognitive skills, but of political sensitivity, an ability to challenge the preconceptions of more powerful actors in situations just as intimidating to novices as standing up to a judge would be. The purpose of this paper is to examine how — or whether — we can shorten the distance between September and February for clinical students (and their clients who wait for them to get up to speed) by assisting them in mastering these most difficult predicate skills.

I. "ILL-STRUCTURED" PROBLEMS, WELL-SEASONED PROBLEM-SOLVERS

A. The"Ill-Structured" Problem and the Construction of the Wide-Open Problem Space

The many characterizations of "ill-structured" or "complex" problems coalesce around some common points. Ill-structured problems present unclear, often multiple goals,[8] and often demand

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[6] For a thoughtful commentary on the challenges which clinic students face when they must encounter ill-structured problems and "take responsibility for shaping the problem situations as well as proposing persuasive solutions," see Mark N. Aaronson, *We Ask You to Consider: Learning About Practical Judgment in Lawyering*, 4 CLINICAL L.REV. 247, 305 (1998).

[7] Many researchers use the phrase "problem space;" for further discussion of the term, and of others (such as "operators") associated with the model of problem solving, see *infra* Section I.A.

[8] *See, e.g.*, Jan D. Sinnott, *A Model for Solution of Ill-Structured Problems: Implica-*

generation of multiple solutions.[9] Such problems suffer from "open constraints," an absence of obvious parameters or variables, where some of the initial and developing features of the problem may be invisible to the problem-solver. To cite an example, when a composer faces the task of composing a fugue, the only "closed constraints" which inform her work are the fugue form itself and the conventions — perhaps — of tonality.[10] In a complex problem, these constraints erupt, intrude, and vanish frequently, and effect changes in each other. As a result of the fluidity of variables in a complex problem, any action one takes towards resolution may have long-delayed, unpredictable outcomes.[11] The activity of lawyering itself, with its indeterminacy, uncertainty of result, and mutability of multiple variables has been described as an "ill-structured problem."[12] In contrast, "well-structured problems" immediately present the problem solver with all the obvious elements for resolution: a stable environment, desirable outcomes, and a predictable relationship between outcomes and the actions necessary to achieve them.[13]

Herbert Simon and others concur in their observation that most of the effort which problem solvers direct at solving problems actually goes towards structuring problems.[14] The term "problem space"[15] refers to the cognitive framework within which problem solvers "invent" a problem (described in one source as "the recognition of a gap be-

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tions for Everyday and Abstract Problem Solving, in EVERYDAY PROBLEM-SOLVING: THEORY AND APPLICATIONS 72 (Jan D. Sinnott ed., 1989).

[9] *Id.* at 87.

[10] *See* Herbert A. Simon, *The Structure of Ill-Structured Problems*, 4 ARTIFICIAL INTELLIGENCE 181, 189 (1973) (citing W.R.REITMAN, COGNITION AND THOUGHT 169 (1965) for the example of the composer and the fugue).

[11] Joachim Funke, *Solving Complex Problems: Exploration and Control of Complex Systems, in* COMPLEX PROBLEM SOLVING: PRINCIPLES AND MECHANISMS 186 (Robert J. Sternberg & Peter A. Frensch eds., 1991).

[12] *See* Ian Weinstein, *Lawyering in the State of Nature: Instinct and Automaticity in Legal Problem Solving*, 23 VT. L. REV. 1, 13 (1998).

[13] Karen Strohm Kitchener & Helene G. Brenner, *Wisdom and Reflective Judgment: Knowing in the Face of Uncertainty, in* WISDOM: ITS NATURE, ORIGINS AND DEVELOPMENT 212, 213 (Robert J. Sternberg ed., 1990).

[14] *See* Simon, *supra* note 10, at 187 ("There is merit to the claim that much problem solving effort is directed at structuring problems, and only a fraction of it in solving problems once they are structured"); James F. Voss & Timothy A. Post, *On the Solving of Ill-Structured Problems, in* THE NATURE OF EXPERTISE 261, 262 (Michelene T.H.Chi, Robert Glaser, & Marshall J. Farr eds., 1988).

[15] For the use of the term "problem space" in a classic text, see ALLEN NEWELL AND HERBERT A. SIMON, HUMAN PROBLEM SOLVING 59 (1972). For a summary of a definition of "problem space" as composed of "initial" and "goal" states and "operators," see Gary L. Blasi, *What Lawyers Know: Lawyering Expertise, Science, and the Functions of Theory*, 45 J. LEGAL EDUC. 313, 333 (1995) (citing Keith J. Holyoak, *Problem Solving, in* THINKING: AN INVITATION TO COGNITIVE SCIENCE 118 (Daniel N. Osherson & Edward E. Smith eds., 1991)).

tween the present state of affairs and some desired goal state"),[16] identify the internal and external resources or "operators"[17] available to resolve it, and collect and sift information. This metaphor of mind as "IPS," or "information processing system,"[18] with nomenclature and functions drawn from computer science, dominates the way in which cognitive psychologists approach the analysis of problem solving.[19]

Simon has depicted the "immediate problem space" for an ill-structured problem graphically, in the form of a loop. A set of initial goals, limits or "constraints" and specifications to those goals rests within the loop of the "immediate problem space," and awaits the influx of new and old information.[20] From outside the loop, the problem solver retrieves new information from external sources, and evokes buried knowledge from long-term memory. The process is loopy, but linear. While the constant in-flow of information subjects the problem space to constant modification, in keeping with the conceptualization of the problem solver as "IPS" each draw-down of information, each corresponding shift in strategy occurs in sequence, in what Simon describes as the "basically serial character" of problem solving.[21] Problem solvers may cycle back to the same steps over and over — defining the initial problem and goal, searching for information, re-defining the problem, choosing and testing strategies, re-designing solutions, re-defining the problem — but each of these steps will occur one at a time. With ill-structured problems, that process comes to a halt only once the problem solver decides that it does. Subjectivity of result virtually defines the circumstances of the ill-structured problem, for which no two problem-solvers may agree on which are the open and which are the closed "constraints," and therefore may be unable to agree on any ensuing solution.[22] Ill-structured problems are solved via the "application of stop rules" — when the problem solver decides that she has amassed enough information to reach her goal.[23] The complex problem literally is over when the fat

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16 KEITH HOLYOAK & PAUL THAGARD, MENTAL LEAPS: ANALOGY IN CREATIVE THOUGHT 63 (1995) (describing the most basic processes of problem creation and definition in primates).

17 *See* WAYNE W. REEVES, COGNITION AND COMPLEXITY: THE COGNITIVE SCIENCE OF MANAGING COMPLEXITY 42 (1996) (defining "operators" as strategies for problem solving, a term derived from software programs with "known solution sets").

18 *See* Newell and Simon, *supra* note 15, at 85 (defining a human problem solver as an "IPS," or "information processing system").

19 Reeves, *supra* note 17, at 42.

20 Simon, *supra* note 10, at 192, Figure 1.

21 Simon, *supra* note 10, at 192.

22 Voss & Post, *supra* note 14, at 263.

23 Voss & Post, *supra* note 14, at 281.

lady sings.

That "human problem solvers," however experienced, can perform only one procedure in the problem solving process at a time makes bewilderment easy, and puts a premium on efficient mechanisms for admitting new stimuli into the problem space. "Schema theory" offers an explanation for how problem solvers work through this limitation. All learners file information in "schemata," storage structures of existing information with "slots" into which new information is channeled and from which it can be retrieved.[24] The existence of schemata enables the problem solver to connect new to old information, and to create "scripts," a series of schemata in sequence, that will allow her to compare elements of resolved problem spaces with what currently confronts her.[25] The process of creating and applying analogies is closely related to, and perhaps a part of, how problem solvers use schemata. Construction of an analogy entails the "selection" of a "source analog" from the thinker's memory (the stored item in a schema), the "mapping" of the source analog to the "target," (association of the stored item with the new item,) an "evaluation" of the inferences about the target that the analogy raises, and "learning,"an assessment of the success of the analogy.[26] Without schemata, the approach to every new problem requires a re-invention, particularly when the problem solvers are new not only to a particular field, but (as our students may be) to the cognitive task of learning how to learn about a particular field.[27]

Ill-structured problems morph. At different points along the continuum of structuring and resolution, ill-structured problems may turn into well-structured problems, and back again.[28] Or, rather than say that ill-structured problems morph, it might be more accurate to note that problem solvers take ill-structured problems and morph them. Researchers have used different metaphors to describe this process of morphing: that of "decomposing,"or breaking down of unwieldy

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[24] Reeves, *supra* note 17, at 47.

[25] See Blasi, *supra* note 15, at 336-37, for a description of "schema theory" in cognitive science. Gerald Lopez describes the bank of information invoked to sort and categorize incoming information, as a "stock structure." Gerald P. Lopez, *Lay Lawyering*, 32 UCLA L.REV. 1, 16 (1984). For a discussion of what Lopez refers to as "stock stories," the political scripts which problem solvers generate out of their "stock structures" or schemata, and which are described elsewhere as "causal stories," see *infra* Section II.D. .

[26] *See* Holyoak & Thagard, *supra* note 16, at 15 (describing the process of drawing analogies).

[27] *See* Sharon J. Derry & Debra A. Murphy, *Designing Systems That Train Learning Ability: From Theory to Practice*, 56 REV. OF EDUC. RESEARCH 1, 10 (1986) (suggesting that "immature learners" lack "schema knowledge," the ability to identify what is important to be learned).

[28] Voss & Post, *supra* note 14, at 261.

problems into manageable ones;[29] or of constructing a sequence of sub-goals[30] or of separate problem spaces;[31] or, without reliance on metaphor, of "defining a solvable problem."[32] Whatever the metaphor, under a cognitive model problem solvers re-conceptualize ill-structured problems into well-structured ones, with achievable sub-tasks and knowable variables, so that they can solve the more fluid problem one piece at a time.[33]

B. The Well-Seasoned Problem-Solver

As Simon has pointed out, in the real world outside simulations and experiments, virtually every problem presents itself as an "ill-structured problem" or "ISP;" it is the problem solver who, in making the problem "solvable," transforms it into a "well-structured problem" or "WSP." Or, to push the point further: "It is not exaggerating much to say that there are no WSPs, only ISPs that have been formalized for problem solvers."[34] Thus, the transition from "ISP" to "WSP" is in the eye — or within the cognitive capabilities — of the problem solver. The perception of the problem space depends directly on everything that the problem-solver brings to the enterprise: personality, which affects the problem solver's ability to put mechanisms of information sorting, storing and retrieval into play;[35] the ability to distinguish between past relevant and irrelevant experience and to retrieve what matters; and the capacity to draw from sources be-

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[29] *See* Robert Glaser & Michelene T.H. Chi, *Overview*, *in* THE NATURE OF EXPERTISE, *supra* note 14, at xxv (on how experts "decompose" ill-structured problems into series of well-structured ones); Simon, *supra* note 10, at 190 (on how, as an architect conceptualizes the ambiguous meta-task of designing a house, the design "begins to acquire structure by being decomposed into various problems of component design.").

[30] Simon, *supra* note 10 at 190 (referring to the creation of a "system of sub-routine calls").

[31] *See* Sinnott, *supra* note 8, at 85.

[32] RONALD TOSELAND & ROBERT RIVAS, INTRODUCTION TO GROUP WORK PRACTICE 133 (1984).

[33] Although Simon's view seems to predominate the literature that I have read on the cognitive model of problem solving, not all researchers agree that problem solvers will draw on basically the same repertories of strategies, perhaps with different sequences and facility, to fashion small problems from large. Phillip Karl Wood summarizes literature on "inquiring systems," cognitive processes which react differently to problems of different degrees of structuredness, and trigger within the problem solver different ways of modeling the problem, the solution(s) and the means of implementing the solution. Phillip Karl Wood, *Inquiring Systems and Problem Structure: Implications for Cognitive Development*, 26 HUM. DEV. 249, 254 (1983). Expert problem solvers are those who have expanded their repertoire of "inquiring systems" to enable them to respond to different types of problems. *Id.* at 263.

[34] Simon, *supra* note 10, at 186.

[35] *See* Derry & Murphy, *supra* note 27, at 7 (noting that traits such as impulsiveness may impede the development of helpful processing tools such as reflection).

yond personal experience.[36]

All problem solvers re-fashion complex problems into digestible chunks, but experts and novices do so differently. Novices have been described as working backwards from what they perceive as the desired "goal state" of their problem, to structure a series of "subgoals."[37] Though their trajectory may be backward, their reasoning is linear: at first novices absorb information in series and unselectively, but then are quick to infer connections from the limited information that they have; and they may exclude information in order to reach hypotheses for solutions consistent with their limited, manageable bank of information.[38] Their lack of experience means that they have fewer schemata (or, to adopt an "information-processing" metaphor, less information to fill the slots of their schemata) from which to abstract patterns of connection that they can apply to new situations. As novices learn, they become more adept at drawing upon their stock of experience and constructing schemata; indeed, the transformation from novice to expert has been described as marked by the increased "accessibility" of the schemata to the problem solver.[39]

Expert problem solvers move through information more assuredly but less in lock step, buoyed by the schemata that enable them to select what past experience tells them will more likely than not be applicable to the new problem. This confidence allows them to acknowledge the subjectivity of the choice of problem space — there may be no one correct configuration for a problem and there probably

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[36] For a summary of the difference between acting from "induction," or the ability to cull and extrapolate from pertinent personal experience, and acting from "analogy," or the ability to apply dissimilar, external experience, see Blasi, *supra* note 15, at 355. For a description of a similar distinction between "domain-specific" (requiring the ability to repeat a problem-solving performance within one system) and "domain-general" (requiring the ability to transfer problem-solving experience from one setting to another) learning, see Funke, *supra* note 11, at 208.

[37] *See* Blasi, *supra* note 15, at 345; Mary Bryson, Carl Bereiter, Marlene Scardamalia & Elana Joram, *Going Beyond the Problem as Given: Problem-Solving in Expert and Novice Writers*, *in* COMPLEX PROBLEM SOLVING: PRINCIPLES AND MECHANISMS, *supra* note 11, at 61-62.

[38] *See* Funke, *supra* note 11, at 209 (noting that when expert and novice international development aid workers were given the task of designing a hypothetical program for improving living conditions in an impoverished third world community, novices more likely to leap to conclusions and infer causal relationships from limited data); Eric J. Johnson, *Expertise and Decision Under Uncertainty: Performance and Process*, *in* THE NATURE OF EXPERTISE, *supra* note 14, at 209, 217 (observing that novice readers of files of applicants for internships reviewed the files sequentially, taking in the information in the order presented); Jeanette A. Lawrence, *Expertise on the Bench: Modeling Magistrates' Judicial Decision-Making*, *in* THE NATURE OF EXPERTISE, *supra* note 14, at 229, 244-47 (remarking that expert magistrates judging minor offenses were more likely to use and search for more information and to explore more possibilities in sentencing than a novice magistrate, who limited his concerns to keeping sentences consistent with the norms of the court).

[39] Holyoak & Thagard, *supra* note 16, at 137.

will be no one correct solution — and select the space that allows for the greatest inclusion of the most variables at a given moment.[40] Some of this ability comes from experience, some from basic personal equanimity or at least the confidence born of experience. People who excel at solving complex problems can cope comfortably with great uncertainty at the beginning, long enough to tread water while they sort out the patterns that enable them to sculpt out the known from the unfamiliar.[41]

As one might expect, there is no one formula for the expert approach to the solving of complex or ill-structured problems. A couple of portraits of archetypal expert problem solvers at work suggest variations in how and when they use schemata to expand or contract the problem space. Herbert Simon describes how an experienced architect might attack the assignment to design a house, a problem which is "complex" because it begins with few closed external constraints (perhaps no more than those supplied by the owners of the house such as cost, and number and type of rooms.) In this scenario, the expert actually works backwards *and* forwards from and to the goal, calling up from memory a schema, or "executive program" for the design process that will remind her of what other constraints might define the project (the size of the lot, the number of floors, the choice of materials, the applicability of building codes) and will require the evaluation of new information. The new information may change the initial view of the project, and will elicit new schemata for the next steps. Here the expert's sequenced application of schemata turns the "ISP" into a succession of linked "WSPs," or sub-goals; as Simon notes, ". . .the problem is well-structured in the small, but ill-structured in the large."[42] While this "sub-goaling" may also be typical of the novice's approach, the expert's access to schemata enables her to move cyclically as well as linearly, from sub-goal to sub-goal to modifying the initial goal to generating new sub-goals, if information gleaned in the course of the intermediate steps warrants alteration.

This differs from another model presented to illustrate the expert problem solver at work: that of the experienced writer. For writers, the roles of the novice and experienced problem solvers are reversed: studies of the novice writer show that she breezes through the assignment, moving forward with scarcely a sideways or backwards glance, while the expert agonizes, rejecting solutions and throwing up obstacles.[43] The reason for the difference is that the expert writer ap-

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[40] Sinnott, *supra* note 8, at 85.

[41] Funke, *supra* note 11, at 205-6.

[42] For the example of the architect as expert problem solver, see *id.* at 189-90.

[43] *See* Bryson, et al., *supra* note 37, at 63-64 (contrasting the experiences of expert and

proaches her task as the ultimate ill-structured problem, one that begins with no articulation of any problem at all. The process of the expert writer is an almost endlessly circular one of re-defining a goal, one akin to that of representational artists who spend much of their "problem-solving" time in "problem-finding," choosing and manipulating media, and constructing preliminary models.[44] Unlike novice writers, expert writers plan and re-plan throughout the course of writing, as what they create drives them in unexpected directions. Their experience manifests itself not in schemata, but in increased expectation of ". . .originality, coherence and interestingness."[45]

Researchers have noted that experts do not necessarily traverse the problem space more efficiently, or always arrive at results more satisfactorily, than do novice problem solvers. This paradoxical result arises from rigidities in experts' thinking, when they succeed too well at what they are good at: namely, retrieving relevant information out of memory and imposing the schemata they have retrieved upon their choice of factors to consider in modifying the problem space.[46] So experienced lawyers may constrict all their data into enabling them to evaluate clients' cases "bivalently" as "negligent/non-negligent" or "guilty/not guilty," or as permitting or excluding a limited range of well-trodden defenses.[47] In this sense, both experts and novices

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novice writers). Many writers have described the tortures of writing. Philip Roth has done so through his alter ego, Nathan Zuckerman, who relates what his object of veneration, the novelist E.I. Lonoff, tells him about his processes of creation: "I turn sentences around. That's my life. I write a sentence and then I turn it around. Then I look at it and I turn it around again. Then I have lunch. Then I come back in and write another sentence. Then I have tea and turn the new sentence around. Then I read the two sentences over and turn them both around. Then I lie down on my sofa and think. Then I get up and throw them out and start from the beginning. And if I knock off from this routine for as long a day, I'm frantic with boredom and a sense of waste." PHILIP ROTH, THE GHOST WRITER 17-18 (1979). Where necessity leaves off, and self indulgence begins, we tend to admit only to ourselves.

[44] Bryson et al., *supra* note 37, at 80; *see also* Patricia Kennedy Arlin, *Wisdom: The Art of Problem Finding, in* WISDOM: ITS NATURE, ORIGINS, AND DEVELOPMENT 230, 235-6 (Robert J. Sternberg ed., 1990) (citing J.W.GETZELS & M.CSIKZENTMIHALYI, THE CREATIVE VISION: PROBLEM FINDING IN ART (1976) in which the authors describe their study of how art students chose and arranged their subjects for still-life drawing).

[45] Bryson et al., *supra* note 37, at 61.

[46] *See, e.g.*, Johnson, *supra* note 38, at 217 (noting that experts evaluating applications of medical school students for internships tend to overlook information considered irrelevant to their previous experience with medical school curricula and past applications, not always with the most efficacious results); Blasi, *supra* note 15, at 346-47.

[47] *See* David Chavkin, *Fuzzy Thinking: A Borrowed Paradigm for Crisper Lawyering*, 4 CLINICAL L. REV.163, 182 (1997) (describing the phenomenon of "bivalent" or "either/or" thinking among attorneys); *see also* GERALD P. LOPEZ, REBELLIOUS LAWYERING: ONE CHICANO'S VISION OF PROGRESSIVE LAW PRACTICE 103-109 (pb.ed. 1992) (transcript of fictional interview between a client who withheld rent to make repairs and received a three day notice to quit, and a prototypical housing lawyer in a non-profit neighborhood law office; as the lawyer notes before the client comes in, "Once you've done enough of these

"skip" what could turn out to be useful information, but do so for different reasons. Experts risk prematurely narrowing their field of vision because their building up of and reliance upon schemata has served them too well; novices arbitrarily exclude information because they lack the schemata that would enable them to achieve a degree of comfort with acknowledging and sorting through daunting masses of data. In either case, the result is a premature transformation of the "ISP" into the "WSP" or series of "WSPs."

So there are novices, experts, and experts whose unconscious reversion to the tried and true makes them approach complex problems more as do novices. The differences between experts and novices in addressing ill-structured, or unstructured, problems seem to lend themselves to being summarized in the differences between those terms, "morphing" and "decomposing." "Decomposition" implies a one-way, irreversible process of disintegration, the kind of linear processing of information backwards from a defined goal, and sequential narrowing of the problem space, in which novices and sometimes burned-out experts engage. "Morphing," as I mean to use it, with its evocation of shape-shifting and re-shifting, seems to come closer to what experts do when they are able to maintain the permeability of the problem space. Not only are they comfortable with re-designing plans in response to changing circumstances, but they are comfortable with admitting the changing circumstances into the problem space to begin with. Expert problem solvers, like expert writers, can distinguish between when it is important to tolerate uncertainty, be sensitive to ambient information, and reject easy analogies to past problem-solving experiences; and when it is safe to rely on the schemata that have served them well, to pass over certain data and thus dismiss certain possibilities. In short, they have developed the judgment to know how long to suspend the rush to closure and leave the messy problem "unstructured."

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II. SAM'S AND STELLA'S CASE, WIDE-OPEN PROBLEM SPACES, AND THE TEACHING OF EQUANIMITY

Sam and Stella had no experience to draw on save what they brought from their personal lives and from their incipient training in legal research and writing. Virtually by hit or miss, they succeeded in

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things, you can get everything you need pretty fast. Kind of filling in the blanks.") *Id.* at 104. Brest and Krieger also comment on how experienced lawyers may miss nuances of fact as a result of assumptions they make about the analogies between their instant client's case and stock facts stored in schemata. Paul Brest & Linda Hamilton Krieger, *Lawyers as Problem Solvers,* 72 TEMPLE L. REV. 811, 824 (1999).

re-conceptualizing the problem. First they transcended the set form of the problem that was given to them, exploding the narrowest possible problem space (the drafting of basic documents) into the broadest possible one (the representation of the neighborhood's true interests and perceived needs.) Then they split that space up among several complex sub-problems (assessing the needs; defining and stabilizing the client group;) and from those generated some well-structured problems (re-defining the need as home-based day care and setting up a meeting to get more information about how to encourage it; writing by-laws to clarify the structure of the group and to articulate its mission.) They did better than "decompose;" they "morphed."

As noted earlier, Sam and Stella are composites. They are also a fantasy — as are their clients, and is their case: not in that the situation could never present itself in this way (it does, and has),[48] and not in that the client group could never re-constitute itself by half (that happens, too) but in that this scenario could resolve itself to this point, this quickly. This is a time-lapse video, in part because it seems unlikely that any brand new client group could maintain itself, in however fractured a form, and reach consensus on a startlingly new set of goals and intermediate steps in a few months; or that it could do so at least in part through engagement in a brand new relationship with two brand new lawyers. That the lawyers are novice lawyers and possibly novice problem-solvers makes it hard to see how, in turn, within a few months *they* could feel enough at ease with the group and their role in advising it to assist in formulating a new, defiant mission and a long series of steps to confirm its validity and then to implement it.

But in some ways this was a speed in slowness. The admirable, and most unlikely, skill which these novices demonstrated, was that of stalling one set of demands, making a project imposed by outsiders stand still while they worked with the possibility that a wholly unacknowledged project was resting in its matrix and capable of extraction and definition. The "morphing" that they accomplished could only begin once they could dare to question the initial definition of the problem state. The question is whether this daring, and the framing of the situation that enables it to occur, can be nurtured, and whether the tools that enable students to feel more comfortable in embracing ill—structured problems can be supplied.

A. Community Development Cases as Ill-Structured Problems

The way in which Sam and Stella inadvertently approached their

[48] *See, e.g.*, Wexler, *supra* note 5, at 216-18 (describing the complexities of the "community-building" model encouraged by the U.S. Department of Housing and Urban Development in the implementation of its HOPE VI program).

client's problem — fluidly enlarging and constricting the problem space, accepting the subjectivity of definition and of acceptable goal or result — exemplified the expert's approach to complex problems in general, and to community development problem solving in particular. The problem, or problems, confronting Sam's and Stella's neighborhood group had all the potential for complexity or "ill-structuredness." The goal — revitalization of a neighborhood described as distressed — could not have been more ambiguously defined: what is "revitalization?" Would we know it if we saw it?[49] The means to "revitalization" — here, the support of small businesses — was only slightly more circumscribed. Some of the variables of the problem may be invisible to the client, but perfectly clear to the agency that set the problem in motion: constraints on uses of funds, time limits, benchmarks for progress, involvement of other actors such as other representatives of government or the business community outside the neighborhood. Other variables may be unclear to all: the number of entrepreneurs available and qualified for support, the sustainability of funding, and (depending on the thoroughness of the preliminary research) the actual market for retail products and services within and from outside the neighborhood. There is no way to predict whether achievement of even the major subordinate goal, that of creating small businesses, will result in neighborhood revitalization, let alone whether any particular action taken in support of any small businesses will guarantee their success.[50]

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[49] Whether an urban area can be said to have been "revitalized" calls upon political, physical, and economic definitions, and absolutely depends on whether one elicits the perspective of the winners or the losers. For an attempt to arrive at a measurement more precise than "I know it when I see it," see Harold L. Wolman, Coit Cook Forde III & Edward Hill, *Evaluating the Success of Urban Success Stories*, 31 URB. STUDIES 835, 836-37 (1994) (comparing economic well being of residents in distressed cities perceived to have experienced "successful" revitalization from 1980 - 1990, to that of residents in similarly distressed cities not thought to have been revitalized). The gentrification often seen as one indicator of revitalization creates desirable living and work space for some, and the displacement of homes and cherished institutions for others. For a study defining the elements and impacts of "gentrification," see Maureen Kennedy & Paul Leonard, *Dealing with Neighborhood Change: A Primer on Gentrification and Policy Choices*, (Brookings Institution Center on Urban and Metropolitan Policy, April 2001) *available at*http:// www.brookings.edu/urban. *See also* John W. Fountain, *A Chicago Bluesman, Reaching Crossroads, Gives Up His Fights*, N.Y.TIMES, July 15, 2002, at A10 (describing the resistance of Jimmy Lee Robinson, blues guitar player, to the leveling of the bars, storefronts and restaurants on the street in Chicago where he and others had lived and played their music for decades); Eric Siegel, *Urban Revitalization - But at What Cost?* BALT. SUN, March 11, 2002, at 1A (interviewing twenty-year tenants of a subsidized apartment building for which the owner does not plan to renew the federal subsidy contracts, in the gentrifying southwest Baltimore neighborhood of Ridgely's Delight).

[50] That policymakers often give little thought to whether the programs they prescribe to cure certain social ills have ever been or could ever be, proven to do so, is a fixture of social policy. For a catalogue of all the unexamined assumptions in a typical job training

The example described earlier of the relationship between the problem-solving architect and her client seems a good analogy — a "source" — to that between Sam and Stella and their client's problem. An even better analogy for Sam and Stella may be to the relationship between the writer and her product. Within the continuum of "ill-structuredness," the assignment to design a house stands closer to the well-structured end; the mission of writing a novel, or even an essay with a pre-determined topic stands close to the other. (Poem-writing, like fugue-composing as mentioned earlier, has at least the possibility of reference to external conventions, or "constraints," such as choice of meter, or end-line or internal rhyming). For the architects who care whether what they design will be comfortable and safe to live in, within the "ISP" of house-building there are many external constraints, such as building codes and suitability of materials, that can be closed through the application of schemata. For the author, the only constraints may be the ones which she creates. Similarly, Sam's and Stella's community development "problem" can be seen "in the large" to be almost completely formless. Virtually every definition of the problem is subjective, including even the definition of who the problem solvers ought to be, and everything is potentially open to debate.

Not all problems that arise in the practice of community development need present themselves as completely ambiguous. Some, such as the purchase and management of a building by its tenants, though hugely complex, resemble more closely the architect's problem, at the more structured end of the continuum of "structuredness:" once the participants have chosen their objective, then certain severe constraints, such as the availability and type of financing to keep the building affordable, create "WSPs" that will build upon each other on the way to achievement of the final goal.[51] These better-structured ISPs — one could almost call them "sequenced WSPs" instead — and Sam's and Stella's client's problem, both occur frequently in the

program for youth, see Carol Hirschon Weiss, *Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families*, at 2-3 (1995), *at* http://www.aspenroundtable.org/vol1/weiss.htm.

[51] For example, in the District of Columbia, the statute that gives tenants a right of first purchase of their building defines steps the tenants must take (form and register a tenants' association as a corporation) within a set time period after the owner notifies them of its intention to sell, steps which trigger additional statutory time periods within which tenants must make an offer and produce proof of financing. D.C. Code §42- 3404.2 *et seq* (2001). The arrangements necessary to secure temporary and permanent financing to acquire, renovate and maintain affordable rental buildings have been described as "deals from hell." C. Theodore Koebel, *The Torturous Path of Nonprofit Housing Development, in* SHELTER AND SOCIETY: THEORY, RESEARCH AND POLICY FOR NONPROFIT HOUSING 219-30 (C. Theodore Koebel ed., 1998) (presenting a case study of one "deal from hell"). But as complicated and perilous as it may be, each effort at financing has its own knowable parameters and sequence of steps.

course of community development practice. Rather than continue to think of the situation facing Sam's and Stella's client as "ill-structured," one might label it, and its type of community development problem, more accurately as "non-" or "unstructured." What is critical in community development practice is the ability to distinguish between when it serves clients best to conceptualize their problems "in the large," or "in the small."

B. Can Equanimity Be Taught? (Or — the Equanimity of the Long Distance Problem Solver)

As noted earlier, success in tackling ill-structured problems depends on how long the problem solver can stave off an instinctive, defensive reaction against being bombarded by variables that results in a premature choking off of the problem space. The equanimity that allows problem solvers to craft a problem space in the face of uncertainty may be an aptitude or habit of mind; it may be a teachable skill. Despite the importance of maintaining calm under conditions of ambiguity, it is a skill that law schools neglect in favor of teaching the opposite, namely, closing in — quickly and authoritatively — on certainty.[52]

There is skepticism about whether the equanimity of the expert problem solver can be taught, or whether a student must mark time and work through an accretion of repeated experiences until she attains some calm-conferring level of expertise. Students of what constitutes "wisdom" compare, and find it similar to, the collection of attributes that enables learners to excel in "problem-finding," the act we have seen defined elsewhere as structuring the problem space.[53] In addition to a baseline tolerance for ambiguity and an awareness of their own limitations, problem finders exhibit an openness to change, a willingness to confront irregularities or "asymmetry," a "sense of

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[52] For a small sample out of the many commentators who decry the emphasis in the traditional law school curriculum on quick resort to schemata to interpret cases presented with already severely excerpted facts–the opposite from teaching students to understand that most problem spaces are shaped in the face of significant factual and environmental uncertainty– see Janeen Kerper, *Creative Problem Solving vs. The Case Method: A Marvelous Adventure in which Winnie-the-Pooh Meets Mrs. Palsgraf*, 34 CAL.W.L.REV.351, 356 (1998); Carrie Menkel-Meadow, *Aha? Is Creativity Possible in Legal Problem Solving and Teachable in Legal Education?* 6 HARV. NEGOT. L. REV. 97, 135 (2001). One study comparing the impact of the professional training of students in law school, medical school, and graduate school in psychology on students' ability to use different kind of reasoning found that law school succeeded least well in helping students deal with "variability or uncertainty in causal relationships." *See* Darrin R. Lehman, Richard O. Lempert, & Richard E. Nisbett, *The Effects of Graduate Training on Reasoning: Formal Discipline and Thinking About Everyday-Life Events*, 43 AMERICAN PSYCHOLOGIST 431, 440 (1988).

[53] Arlin, *supra* note 44, at 230.

taste" for important problems, and a learned instinct for finding "complementarity" or congruence among seemingly isolated facts, an aptitude analogous to the expert's ability to surf schemata for associations with new information.[54] Unhappily for the novice problem solver, these attributes are of the type that usually come with deep knowledge of and comfort acting within a subject matter "domain."[55] Proponents of the "reflective judgment" model of cognition note that the uncertainty and muddy outlook of ill-structured problems are exactly what brings wisdom into play. They also warn that learners are unlikely to acquire the level of wisdom that enables them to tolerate and make decisions in the face of uncertainty — in short, the level that assists in complex problem-solving — before they reach the age of thirty.[56]

Since the longest law school class lasts for eight months, not eight years, those of us who cannot wait for time to take its course must place faith in those who believe that the "wisdom," or "equanimity," essential to coping with complex problems can be taught. In cognitive theory, whether equanimity can be taught at all depends on whether learners can be led to an awareness of their own learning processes, or metacognition; and then to conscious application of different learning strategies through which to improve their learning processes.[57] Those who are optimistic about the prospects of deliberate intervention to increase metacognition in learners generally, and in problem solvers in particular, have proposed several similar heuristics, or models, or guides for doing so. Applying Dewey's prototype of "reflective thinking," Jonathan Baron has charted "five phases of thinking" which instructors may teach learners to apply to problem solving. These include: The initial recognition that a problem exists; listing of possible characterizations of the problem and of solutions; "reasoning" or search for information to refine the characterizations; and evaluation and testing of the depictions of the problem in light of the information.[58] Others who have focused on teaching problem solving in the law school context have proposed similar models.[59]

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[54] *Id.* at 230-1.

[55] *Id.* at 230.

[56] Kitchener & Brenner, *supra* note 13, at 223.

[57] Derry & Murphy, *supra* note 27, at 9.

[58] Jonathan Baron, *Reflective Thinking as a Goal of Education*, 5 INTELLIGENCE 291, 295 (1981). For a similar sequence of steps that should guide problem solving, this from the "creative problem-solving" school - "objective-finding," "fact-finding," "problem-finding," "idea-finding," "solution-finding," and "acceptance-finding," see ARTHUR B. VAN GUNDY, CREATIVE PROBLEM-SOLVING 64 (1987).

[59] Linda Morton, *Teaching Creative Problem Solving: A Paradigmatic Approach*, 34 CAL.W.L.REV.375, 381 (1998) (presenting a "visual model for creative problem solving" that consists of identifying and understanding the problem; choosing, posing and imple-

Most ambitious among the heuristics of complex problem solving that I have seen is that developed by Wayne Reeves. Reeves bases his approach to problem-solving upon the premise that a thinker can only manage complexity with the help of strategies to assimilate overloads of factual information into knowledge,[60] a process that he breaks down into the three steps of getting access to information, filtering the information, and transforming the information into something usable.[61] He proposes a heuristic of problem solving heuristics: that any guide for problem solving include an outline of steps, (such as understanding the problem; planning, implementation, and evaluation;) space for critical evaluation and questioning within each step; and techniques for effectuating that evaluation and questioning.[62] Such techniques can include what others have identified as "divergent"methods such as brain-storming for augmenting the supply of options, and "convergent" techniques for systematizing and closing in on options.[63] Reeves recommends this format as one which fights off paralysis in the face of overwhelming information, by encouraging formulation and re-formulation within each step as more information enters, rather than holding off any evaluation until the problem solver reaches some unattainable stage of perfect information.[64]

As we have seen, this is a framework which many guides to problem -solving follow,[65] but Reeves elaborates on it. In addition to this framework, any heuristic of problem solving should include steps to force an appreciation of the historical context and possible future, as

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menting solutions; and analyzing the results, in sequence, with each step subject to re-examination through values, interests, investigation and analysis of how to prevent a recurrence of the problem); Kimberly O'Leary, *Using "Difference Analysis" to Teach Problem-Solving*, 4 CLINICAL L.REV. 65, 81 (1997) (expanding the phase identified elsewhere as "solution-finding," into a sequence of investigations into the effects on others of actions that could be taken to address the client's needs). Katherine Kruse has identified four stages in a widely used prototype of a problem-solving heuristic: identifying the problem, exploring solutions, developing and implementing a strategy, and revising that strategy in the light of newly acquired information. Katherine R. Kruse, *Biting Off What They Can Chew: Strategies for Involving Students in Problem-Solving Beyond Individual Client Representation*, 8 CLINICAL L. REV. 405, 422 (2002).

60 Reeves, *supra* note 17, at xv.

61 *Id.* at 129-130.

62 *Id.* at 119.

63 *Id.* at 120. For a summary and description of "divergent" and "convergent" methods of managing data in problem-solving, see Van Gundy, *supra* note 58, at 65-68; for guides to problem-defining and idea-generating techniques such as nominal group technique, *see* WILLIAM ROTH, JAMES RYDER & FRANK VOEHL, PROBLEM-SOLVING FOR RESULTS 29-34 (1996) (grouping techniques into four types, as designed to stimulate individual or group creativity, to address problem networks or "messes," and to measure productivity in problem-solving).

64 Reeves, *supra* note 17, at 120-1.

65 *See* Kruse, *supra* note 59; Morton *supra* note 59; O'Leary, *supra* note 59.

well as the current status, of the problem, a contextual understanding that will assist the problem solver in remaining open to the likelihood that "facts" will be fluid and that strategies will evolve. A system for problem solving should also use metaphor and analogy to frame the problem in familiar terms; and should incorporate "systems thinking,"[66] an analysis of any one of the multiple systems likely to be in play under "environmental," "still-picture," and "motion-picture" models.[67] Such a meta-heuristic is a tool kit designed to assist problem solvers in assimilating masses of knowledge to build their understanding of a field, the kind of "domain knowledge" that necessarily eludes our students but that, as we have seen, many view as a prerequisite to the ability to handle complex problems.[68]

Reeves's own heuristic covers a number of stages. It begins with gaining a historical understanding of the problem, its actors and their systems. Then it moves through an analysis of the systems under the three models; develops analogies to known problem situations; designs a "blackboard," i.e., some visual representation of the systems and then of the problem; engages in critical dialogue with third parties (a "backboard") about initial impressions, and then abstracts conclusions.[69] Throughout, the problem solver consciously evaluates and rearranges her current store of knowledge about the problem in light of new data, and chooses from among the storehouse of techniques alluded to earlier in order to generate new paths for investigation or to close other paths down. The heuristic seems to focus on problem-finding, or what we have seen in the context of cognitive theory as defining the problem space, though arguably the problem solver could extend it to any one of the other steps in the problem solving se-

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[66] See Reeves, *supra* note 17, at 127-28 for a catalogue of the necessary elements of a heuristic of problem solving.

[67] *Id.* at 109-111 (citing BELA H. BANATHY, SYSTEMS DESIGN OF EDUCATION: A JOURNEY TO CREATE THE FUTURE (1991)). Reeves explains the "environmental model" of systems analysis as one which distinguishes and notes the interactions between a system and the context within which it functions; the "motion-picture" model as one which evaluates a system's internal components over time; and the "still-picture" model as one which observes the relationships among a system's components. In his example, an environmental systems analysis of a library would map all its external influences such as its funding, external board of directors if any, vendors, and patrons. A still picture analysis would look at its physical facility, staff, collection, and supplies. A motion picture analysis would examine the functions of its elements over time, such as circulation, acquisition, cataloguing, reference services, personnel management, and client feedback. The environmental model in particular reinforces the concerns expressed by Kim O'Leary in her proposal for "difference analysis," in which lawyers pay particular attention to the reciprocal impacts of the actions of their clients and the actors in their environment. O'Leary, *supra* note 59.

[68] Reeves, *supra* note 17, at 111 (describing systems' thinking as one of a number of tools, including schema theory, and dialectical and critical thinking, to enable the learner to gain a grasp of a domain while integrating masses of in-coming information).

[69] *Id.* at 133-135.

quence as prescribed by other writers. Reeves's and other problem-solving strategies implicitly (or in Reeves's case, explicitly) incorporate both the circular cognitive theories of how problem-solvers use schemata to help cordon off ill-structured problems into better-structured "chunks," and the linear developmental theories of how learners move through levels of ability to acknowledge and manage ambiguous information. In its focus on acquiring an understanding of historical context and relationships, Reeves's model shows potential for assisting in the systematic acquisition of knowledge about the field within which the client's problem rests, a necessary prerequisite to the equanimity that will aid the novice problem solver in deliberate evaluation of the problem.

Researchers differ over whether learners can transfer these heuristics for problem solving strategies across different substantive areas of expertise or domains. There is a lack of consensus about whether one can teach "executive learning skills" such as problem-solving successfully through "detached" training, in which instruction focuses on the transferable learning strategy itself; or whether students will only internalize such skills in the context of instruction in specific subject matter, through "embedded" training.[70] To give a law school example: a "stand-alone" class in negotiation is "detached" training (as is the typical clinic seminar segment on negotiation;) articulation of the very same lessons of negotiation in the context of a student's representation of a client is "embedded" training. It appears that neither approach provides any guarantees that a learner will be able automatically to apply a learning strategy beyond the specific context in which she is being introduced to it.[71] (Without more intervention, the student in the negotiation class will not necessarily show greater facility at negotiation in her real client work than a student who had never taken the class; and without more intervention, the clinic student who has negotiated on behalf of a clinic client will not necessarily extrapolate that experience to another clinic client, or to a client outside clinic.) That transferability depends on the care which the teacher takes in making the learning lessons explicit across the boundaries of discrete experiences.

As Baron has noted, there are "rules that a good thinker follows," and there are "the factors that cause him to follow or not fol-

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70 *See* Derry & Murphy, *supra* note 27, at 26 (describing differences between "detached" and "embedded" approaches to the teaching of learning strategies); DEBORAH L. RHODE, PROFESSIONAL RESPONSIBILITY: ETHICS BY THE PERVASIVE METHOD xxix (2d ed 1998) (suggesting that segregating the teaching of legal ethics into a discrete course has had the effect of marginalizing the subject).

71 Derry & Murphy, *supra* note 27, at 31.

low those rules."[72] It is up to the teacher to create environments within which she can demonstrate to the learner that the heuristics are being applied. Studies of how learners acquire competencies support what many clinical teachers have blundered into: that the tripartite structure of the class in which principles are presented — the "case rounds" in which the students' cases can illustrate possible use of the principles; and the "before and after" supervision meetings in which student and supervisor may choose to plan a performance of the principles in a case event — provides the right balance of reinforcement.[73] Whatever the theater, "planned practice" — the planned, conscious application to real situations of the learning strategies sought to be taught — offers the best guarantee that the learner's metacognitive knowledge will grow.[74] "Deliberate practice" is another training step that ideally alternates with planned practice throughout a student's instruction. Deliberate practice consists of the monitored, self-conscious repetition of the desired competency outside of the workaday setting. Both planned and deliberate practice are as much responsible for the ability to perform Liszt at Carnegie Hall, or bat .406 at Fenway Park, as is simple genius.[75] (It helps to have both.)

The good news for novice learners about the efficacy of deliberate and planned practice is that frequency and extraordinary aptitude of performance do matter, but raising consciousness about the lessons transferred between each practice setting matters more. A recent study emphasizes the importance of the hospitability of the environment within which reflective learning occurs. The study compared the speed with which several surgical teams, located in sixteen different medical centers, mastered a new technique for open heart surgery which required not only use of new technology but a resulting re-adjustment of the traditional relationships among members of cardiac surgery teams.[76] The elements of each team — a multidisciplinary co-

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[72] Baron, *supra* note 58, at 305.

[73] For a description of the relationship of classroom to case rounds, here described as "group analysis case meeting," to supervision of students within the structure of the clinical course, see Ann Shalleck, *Clinical Contexts: Theory and Practice in Law and Supervision*, 21 N.Y.U.REV. L. & SOC. CHANGE 109, 141-149 (1993-94).

[74] Derry & Murphy, *supra* note 27, at 11.

[75] *See* K. Anders Ericsson, Ralf Th. Krampe, & Clemens Tesch-Romer, *The Role of Deliberative Practice in the Acquisition of Expert Performance*, 100 PSYCH REV. 363, 368 (1993) (citing JOHN UNDERWOOD AND TED WILLIAMS, THE SCIENCE OF HITTING (1986) and using the example of a hitter in batting practice to emphasize how deliberate practice focuses on weaknesses observed in everyday performance); Richard Goldstein & Robert McG.Thomas Jr., *Ted Williams, Red Sox Slugger and Last to Hit .400, Dies at 83*, N.Y.TIMES, July 6, 2002, A1, col.1, (explaining how Williams's "natural" swing was as Williams himself described it the product of thousands of hours of meticulously monitored practice); *id.* at B18.

[76] *See* Amy Edmondson, Richard Bohmer & Gary Pisano, *Speeding Up Team Learn-*

hort of primary and assistant surgeons, scrub nurse, anaesthesiologist, and perfusionist (the operator of the machine that assumes the function of the heart and lungs during bypass surgery) — and the substantive training in the new technique were the same.[77] What differed was the approach of the lead surgeon to assembling, coaching and setting up lines of communication within each team.

Of the two teams highlighted in the report of the study, one was led by a highly credentialed surgeon hired for his expertise in the new technique. He picked his team members based solely on seniority, chose not to rehearse the procedure in a practice run, and did not discuss or try to adapt the dynamics of the roles within the team to the new techniques. Even after fifty operations, this team failed to improve the speed of or its confidence in its performance.[78] In contrast, another team, directed by a far less experienced surgeon selected for his enthusiasm about learning the new procedure, was assembled based on its members' corresponding enthusiasm and desire to collaborate. This team's leader discouraged hierarchy, encouraged discussion of performance before, during and after each procedure, and readily admitted error. This team was among the quickest within the study to adapt to the new procedure.[79] Researchers concluded overall that the lead surgeon's status, the experience of the team members, and even the use of post-operative de-briefing and reports were irrelevant to how quickly the team members learned. More influential were the leader's flexibility and ability to create a safe space for non-hierarchical discussion, evaluation and experimentation at all phases of the procedure.[80] Another factor that improved performance was the maintenance of cohesion of the team over time, an approach differing from the usual treatment of surgical teams as a collection of fungible individuals.[81]

Teachers can, and do, create worlds which structure the self-conscious acquisition of learning strategies, and as a result hasten the usually deliberate process of building the equanimity necessary for solving complex problems. But can students learn how to solve complex problems while working on them? The optimum environment for complex (or any) problem solving would allow for the application, through deliberate practice and team-building, of Reeves's or any of the problem-solving heuristics we have seen. The surgery study sug-

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ing, 79 HARV. BUS. REV.5, 5-8 (Oct. 2001) (describing the new technique, the training, and the implementation).

77 *Id.*

78 *Id.* at 8.

79 *Id.*

80 *Id.*

81 *Id.* at 9-10.

gests that the greatest success in mastering new skills results from continuous reflection upon and adjustment of the performance of tasks, repeated over time, (in short, deliberate practice,) in a team whose membership is maintained constant over time. In clinical law settings, the "team" of client, supervisor and students stays constant, at best, over eight months. Thus the learning argument for the "small case" is that its finiteness — such as an unemployment insurance case, involving a limited forum with bounded applicable law — may allow for the monitored repetition of isolated skills throughout several cases within the concededly inadequate time frame.[82]

But the learning argument for the "big case" — here, the community development case with its ambiguous actors, boundaries and goals — is that its amorphousness allows for teaching the skill of "problem-finding"under conditions that more closely approximate those of real life. To accommodate the heuristics of "small case" problem solving to projects which transcend years, in which students address systemic issues that transcend individual cases, Katherine Kruse suggests the strategies of "compartmentalization, connection, collaboration and continuity:" creating manageable sub-tasks, maintaining contact with clients who give meaning to the issues, working in teams, and building in mechanisms to bridge the gap between generations of students who inherit the projects.[83] Kruse's "compartmentalization" resembles the "decomposing" or "sub-goaling" that we discussed earlier, here the planned rather than panicked sculpting out of a well-structured sub-problem from the larger complex one.[84] As I will discuss below, Sam's and Stella's case offers an opportunity to adapt the compartmentalization strategy, spliced with others we have seen, to form an explicit heuristic to instruct students in complex problem-solving as a self-conscious, deliberative process.

C. *"Who is the Client?:" An Initial Exercise in Problem-Finding and Compartmentalization*

The toughest test for a novice problem solver is to be faced with a "done deal:" when someone else (usually in a position of perceived superior expertise and authority) assigns a problem and characterizes it as a well-structured one, with limited tasks and closed constraints.

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[82] For a summary of literature addressing the arguments supporting "big cases" or "small cases" as vehicles for mastery, *see* Kruse, *supra* note 59, at 407-08. I have not mentioned the one semester, or (at best) four month clinical course, because it is difficult to see how in such a short period of time students could benefit from any of the techniques I have reviewed for building the metacognitive strategies critical to an appreciation of complexity (unless they were enrolled in clinic full time).

[83] *Id.* at 433-4.

[84] *See supra* notes 29-33 and accompanying text.

The received wisdom of the WSP is infinitely more difficult to challenge than the paralyzing morass of an ISP. Sam and Stella could not possibly know that the most important unknown variables, or "open constraints," in this problem would be the first, the ones which the initial formulators of this problem assumed to be and presented as "closed:" those concerning first, the identity, and then, the role, of the client. As the identity of the community client is not only a concern for this hypothetical problem but a perpetual question for community development practice, I will address that constraint first.

I noted earlier that Sam's and Stella's client was an artificial group, convened with no obvious mission or powers beyond the limited purpose of satisfying a condition for a grant. The group was pulled together, perhaps in haste, perhaps even with deliberation, but with no end in mind save attainment of someone else's goal. Its artificiality may explain its instability: after its initial assembly, the client group experienced almost complete turnover in membership over the next few months. It would have taken a great deal of shared experience and skillful management of group dynamic to enable it to function as any kind of representative or deliberative body;[85] indeed, the initiators of the project did not seem to have contemplated such functions or to envision the organization of the group for action as particularly important.

"Who is the client?" is the question lawyers ask when strategies of class action litigation mash the interests of individuals into the case theory for the collective;[86] or when the presence of the third person in the room (the literal physicality of an interpreter or overbearing relative, or the absent but felt presence of someone else in a position to influence the client's decisions)[87] puts the autonomy of the named cli-

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[85] *See, e.g.*, Chris Carlson, *Convening*, *in* THE CONSENSUS BUILDING HANDBOOK: A COMPREHENSIVE GUIDE TO REACHING AGREEMENT 185-86 (Lawrence Susskind, Sarah McKearnan, & Jennifer Thomas-Larner eds., 1999) (cautioning those who convene meetings on the complexities of choosing the participants, particularly when the goal is to assemble those representative of key interests).

[86] For a summary of issues in impact and class action litigation, pitting individual clients against community interests, and named plaintiffs against members of the class, see *Report of the Working Group on Rendering Legal Assistance to Similarly Situated Individuals*, 67 FORDHAM L.REV. 1801, 1804-06 (1999); Ann Southworth, *Collective Representation for the Disadvantaged: Variations in Problems of Accountability*, 67 FORDHAM L. REV. 2449, 2450-53 (1999) (summarizing literature addressing conflicts between representing the interests of individuals and the broader call to social change; between represented individuals and third parties; and among members of a class).

[87] *See* Thomas L. Shaffer, *The Legal Ethics of Radical Individualism*, 65 TEXAS L.REV. 963, 968-69 (1987) (describing ethical problems posed when the lawyer must divine whose intent to follow, and who to represent in the hypothetical of "The Unwanted Will," in which spouses meeting together with an attorney voice approval the content of their identical individual wills, but the wife expresses reservations in a separate meeting). The litera-

ent in doubt. But this is an occasional question. With the community lawyer and a community group client, "who is the client" is a constant, an inquiry not merely into the clarity of the client's professed goals but into the client's very composition. The reasons for this are practical and political. Practically, it is difficult or impossible to take direction from eight or nine people at once, or perhaps a different eight or nine people the next time. Ethics codes allow lawyers to sidestep this challenge by relying on the decisions of the group's "duly authorized constituents,"[88] a strategy that some have noted as unsatisfying, particularly when the group is young and its processes of decision-making are unsteady.[89] To identify who speaks for the client group, or to elicit a "group voice"out of a tangle of discordant voices, one upon whose authority the lawyer reasonably may take direction, can become an endlessly involving activity.[90] A related practical consideration is whether the client group is adequately constituted to do the work, a question rarely broached for the individual client. Community groups create housing, day care, small business incubators, and a host of other services and facilities; they stand in for government and "civil society." Their governing boards need the "capacity" to raise money, draft mission statements and budgets, and operate facilities.[91] These practical concerns are serious and real. But ultimately, whether the

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ture is expanding on the ethical and instrumental considerations facing the community lawyer in her representation of group clients and individual members of the client group, and of groups in relationship to each other. *See* Christine Zuni Cruz, *[On the]Road Back In: Community Lawyering in Indigenous Communities, 5* Clinical L. Rev. 557, 577 (1999) (on counseling individual clients on the impacts of their decisions on the larger client group within a community lawyering approach); Peter Margulies, *Multiple Communities or Monolithic Clients: Positional Conflicts of Interest and the Mission of the Legal Services Lawyer*, 67 FORDHAM L.REV. 2339, 2340 (1999) (addressing questions of positional conflicts–defined broadly as those involving political, legal and economic interests beyond those put directly at issue between parties in a discrete litigation–among an attorney's client groups).

88 *See* MODEL RULES OF PROF'L CONDUCT R 1.13(1998).

89 Southworth, *supra* note 86, at 2465.

90 *See generally* Stephen Ellmann, *Client-Centeredness Multiplied: Individual Autonomy and Collective Mobilization in Public Interest Lawyers' Representation of Groups*, 78 VA. L.REV. 1103 (1992) (addressing issues of intra-group dynamic and acknowledgment of individual voices in group representation); Susan D. Bennett, *Little Engines That Could: Community Clients, Their Lawyers, and Training in the Arts of Democracy*, 2002 WISC. L. REV. 469, 477 (on the difficulty of identifying the "representative" community organization).

91 There is an enormous literature debating the capacity of community-based organizations to take on the projects that all levels of government have handed off to them. For a sampling, see CHRISTOPHER WALKER & MARK WERTHEIMER, COMMUNITY DEVELOPMENT IN THE 1990's (Urb. Inst. Press 1998); RACHEL BRATT, LANGLEY C. KEYES, ALEX SCHWARTZ & AVIS C. VIDAL, CONFRONTING THE MANAGEMENT CHALLENGE: AFFORDABLE HOUSING IN THE NONPROFIT SECTOR (2d ed. 1995); Nancy Nye & Norman J. Glickman, *Working Together: Building Capacity for Community Development*, 11 HOUSING POL'Y DEBATE 163 (2000).

client group is, or needs to be, representative of any one constituency is a profoundly political question, one which will be implicated when we look later at the issue of the client's role.

Consequently, coming on top of all the other new experiences which the clinic student must digest, the prospect of figuring out how to communicate with a group client may be overwhelming. While there is help here — an immensely useful literature on group dynamic that can help students distinguish between what may be necessary stages in a group's development, and what instead may be substantive problems with the representation[92] — it must be introduced deliberately. In order to communicate with the group, the lawyer may be faced with the necessity of constituting it: the ethical and tactical questions of whether the lawyer serves the group well if it acts as organizer or even leader[93] compound the wealth of purely instrumental concerns over whether the lawyer can master even the most basic techniques of talking to a group at all.[94] In short, the rush of impressions and ensuing tasks that an open -minded investigation of "who is the client?" lets in may be enough to intimidate any novice lawyer into accepting this constraint as closed, and quickly.

The teacher's own expertise in problem-finding — and stress-handling — has taught her that these initial stages of feeling overwhelmed constitute a "teaching moment" and a first opportunity to suggest to the students how they can begin to develop their own

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[92] For summaries, presented in social work texts, of community groups, their stages of formation, and their activities, see Jack Rothman, *Approaches to Community Intervention*, *in* Jack Rothman, John L. Erlich & John E. Tropman, Strategies of Community Intervention 27, 29-34 (2001) (describing "local development,""social planning," and "social action" groups and the goals and activities predominant in each). For a corresponding typology and enumeration of the activities and dynamics characteristic of each type of group, see STEVE BURGHARDT, THE OTHER SIDE OF ORGANIZING 149 (1982) (table associating different processes of intra-group dynamic with different types of community group); *see also* Linda Argote, Deborah Gruenfeld & Charles Naquin, *Group Learning in Organizations*, *in* GROUPS AT WORK: THEORY AND RESEARCH 369, 371 (Marlene E. Turner ed., 2001) (summarizing four key processes through which groups function: "construction," "operations," "reconstruction," and "external relations").

[93] For a summary of literature on these issues, see Scott L. Cummings & Ingrid V. Eagly, *A Critical Reflection on Law and Organizing*, 48 UCLA L.REV. 443, 480 (2001).

[94] See supra note 63, for discussion of some of the "how to" manuals that describe techniques for encouraging groups in brain-storming and assisting them in decision-making. With proper attention to the issues of when or whether law students and lawyers should use these techniques in representing their client groups, we have found that students have benefitted from exposure to this literature. For an overview of the most widely used methods of working in groups, see CARL M. MOORE, GROUP TECHNIQUES FOR IDEA BUILDING (2d ed. 1994). For practical advice on assisting groups in community development practice, see ALLEN B MOORE & RUSTY BROOKS, TRANSFORMING YOUR COMMUNITY: EMPOWERING FOR CHANGE (1996). For a useful summary of issues that arise for any group attempting to use "consensus-building" as a process of decision-making, see Susskind et al., *Introduction*, *supra* note 85, at 5-13.

processes of community development problem-solving. The first step is to encourage, not assuage, the bewilderment. Acceptance of the initial client configuration is natural and necessary — one must start somewhere. But students must understand that the initial configuration of the client, and, indeed, all representations of the initial problem, may be temporary. Sam's and Stella's supervisor would do well to begin their relationship as a learning team with an introduction to the reading on cognitive models of problem-solving, to suggest that the mind rushes to quick resolution of messy problems, and that more deliberate construction of sub-problems can accommodate and ameliorate that reaction.[95] The supervisor should explain to Sam and Stella that starting with "who's the client" is one example of construction of a sub-problem, one that she is setting forth now explicitly as an introduction to the process of complex problem-solving,

Sam's and Stella's supervisor might even start the teaching of problem-solving by suggesting a sub-sub problem: the "done deal" that the pre-composed client group should be constituted as a non-profit corporation ready to qualify for recognition of federal tax exempt status. The question of entity formation illustrates how reliance on schemata can constrict the problem space — everyone, not just lawyers, assumes that the "501(c)(3)" designation magically confers organizational power and a kind of cachet. While being classified as a "public charity" has its benefits, it also triggers requirements that structure fundraising and political expression as well as impose crushing burdens of paperwork and accounting.[96] Even if the group does not rush immediately to contort its goals and its bookkeeping to fit the requirements for tax exemption, once it chooses to formalize its organization it must — or should — spend time on developing organizational structures that will enable it to function, a necessary but inward-

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[95] I would suggest Herbert Simon's article, *supra* note 10, as a relatively accessible example.

[96] *See, e.g.*, 26 U.S.C.§509(a)(2) (2002) (defining "'private foundation'" as an organization that does *not* receive more than a third of its annual support from a range of public sources); 26 C.F.R. §1.509(a)-3 (2002) (explaining which proportions of different kinds of revenues will exclude an organization from the category of "private foundation" and consequently include it within the rubric of the less restrictedly tax exempt "public charity"); U.S. DEPARTMENT OF THE TREASURY, INTERNAL REVENUE SERVICE, PUBLICATION 557: TAX-EXEMPT STATUS FOR YOUR ORGANIZATION 23-30 (July 2001) (accessible at http://www.irs.gov/pub/irs-pdf/p557.pdf) (describing the calculation of an organization's finances under the "support test" and other financial criteria that will establish an organization's status as a tax exempt, publicly supported charity and not a private foundation); 26 U.S.C.§501(c)(3) (2002) (effectively prohibiting exempt organizations from engaging in political campaigns); 26 U.S.C.§501(h)(2002), 26 C.F.R.§1.501(h)-1(2002) (describing process of electing the "expenditure test" through which public charities may engage in limited lobbying in return for detailed accounting of expenditures related to the lobbying activity).

looking activity.[97]

In short, the common reflexive reversion to the schema of the tax exempt, non profit corporation risks cutting off from the very beginning discussion about the group's self definition and plans for long term growth.[98] Formulation of the group's composition and mission are large, intertwined sub-problems requiring the construction of big, fluid problem spaces to accommodate quickly changing variables. In contrast, while choice of the group's formal legal identity does depend on how the group constitutes itself and its mission, it can be studied as a well-structured problem space set slightly apart, with a set of known constraints (a circumscribed body of tax law, an initial cast of characters) and finite questions to resolve. As such, it is an ideal training vehicle for the self-conscious application of a heuristic of complex problem-solving.

At this early stage, the teacher's most overt intervention may be to highlight the "501(c)(3)" designation as an open constraint masquerading as a closed one, and the question of entity as the first of what may be many problems "in the small" carved out of problems "in the large." She could suggest that Sam and Stella follow Reeves's heuristic of examining the history of the group — its formation, its members — as currently presented; then of using systems analysis to describe the group's present and proposed functions, and its inner dynamics and relationships with other actors; and then of planning how to gather information to build better descriptions. The students could use brain-storming or any one of a number of "divergent" techniques to expand their thinking about new sources for investigation. As the new information cycles through the problem space, Sam and Stella will test it against their initial impressions of the group, its mission and goals. In this deliberately artificially circumscribed problem space, they will already have amassed a stabilizing amount of "domain knowledge" about the client and its environment. Their supervisor will help them invoke some other detached "domain knowledge" that

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[97] RALPH BRODY, PROBLEM SOLVING–CONCEPTS AND METHODS FOR COMMUNITY ORGANIZATIONS 38 (1982) (emphasizing importance of distinguishing among types of organizational objectives, one of which, the "operating" objective, defines the cohesiveness and effectiveness of the organization's internal structure); *id.* at 64 (noting that group's capacity for problem solving will be affected by the clarity of division of responsibility among its board, directors and staff - a dynamic present in any group, but most pressingly so in those that adopt that formal a mode of organization).

[98] Andrea Seielstad raises the concern that rushing to create a formal legal organizational structure for the client group may divert energy and resources towards maintaining the group's structure, and away from critical initial activities of building a membership base and defining the members' concerns. *See* Andrea M. Seielstad, *Community Building as a Means of Teaching Creative, Cooperative, and Complex Problem-Solving in Clinical Legal Education*, 8 CLINICAL L.REV. 445, 460 n. 69 (2002).

they may not immediately recognize as transferable to this situation, such as core concepts about corporations and tax exemption gleaned from other courses or their reading assignments for clinic class. Equipped with this information, they will begin to assess whether the law is a fit or a stretch. They can begin to assist the client in deciding whether a "501(c)(3)" is what it collectively wants to be and then perhaps move on to the more amorphous problem of what it means for the client to be a collective.

This example suggests a likely beginning to a problem-solving heuristic for the unstructured problems that may confront community groups in community development. Its key elements are its deliberateness and transparency: the students must know at every point that what they are doing is implementing a model of problem solving, one that manages complexity by temporarily defining structured problem spaces through which the problem solver can assimilate and categorize enough information to enable her to construct less structured problem spaces.[99] The model resembles what a problem solver might use for any complex problem, but with a few differences: one should presume that, until investigation shows otherwise, the identity of the client cannot be taken as a given; and that, as I will discuss below, the role of the client and the definition of the problem not only cannot be taken as givens, but should be perceived as politically, and maybe even adversarially, constructed.

D. Sam's and Stella's Case: Combating the Well-Structured "Causal Story," and Holding Tight to a Piece of the "PIE"

Sam and Stella received an extremely narrow, task-oriented assignment: to incorporate and secure recognition of tax exempt status for their client group. Its variables were fixed, its outcomes were predictable. As noted above, over time they transformed the space for the problem into something considerably broader and messier. As we have just discussed, the threshold competency of challenging that original formulation is a cognitive competency; it is also a political one.

The first formulation of this problem arose from the application of a "causal story;"[100] here, a thesis about the origins of urban decay. A causal story is a script, based like any other script on a series of

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[99] Ann Shalleck recommends a similar process in a different context, that of supervising students in an individual client's case: that the teacher instruct students in the skill of coping with uncertainty by guiding them explicitly in the processes of planning and reflection that they need, not by supplying them with the discrete nibbles of factual information that they crave. Shalleck, *supra* note 73, at 159-163.

[100] Deborah A. Stone, *Causal Stories and the Formation of Policy Agendas*, 104 POL. SCI. QTRLY 281, 282 (1989).

schemata — a collection of mental models through which the problem solver sorts and interprets new data. In this instance, the causal story encompassed one political actor's pre-conception of a problem (the deficiencies in a targeted neighborhood,) of a solution (support of small businesses to supply the missing retail and other services,) and of a necessary adjunct to that solution (the creation of a neighborhood advisory group as a pre-condition to funding.)[101] The agency's "take" on the capacities of the neighborhood extended to its assessment of the capacities of its residents; hence, their circumscribed role, to be defined for convenience' sake within form documents and creation of a legal entity. This politically constructed limitation of vision made for a very straightforward, well-structured problem.

Another way to define a "causal story" in terms of problem-solving would be to see it as a political constriction of the "problem space." Sam and Stella had to contend not merely with the internal dynamic of their client, but with combating the "causal stories" that impute a kind of "diminished capacity" to their client group's members, and that imply a connection between that lesser capacity and the neighborhood conditions that — to some — necessitate urban renewal. To the agency that generated the grant proposal, the group's role was perfectly well defined, a "closed constraint." Under the grant and perhaps under the agency's expectations, the purpose of the group was to advise and consult, not to decide and implement. The ability to see this preconception of role as an "open constraint" was not easy to acquire, and depended partly on whether the group could break the mold into which the agency's pre-conceptions about the client had cast them. This is an endeavor which was partly organizational — the group had to constitute itself as an effective vehicle for projecting a collective point of view — and partly political — the group had to understand and challenge the "causal story" that predisposed the agency to dismiss it as a full partner.

Getting under the "causal stories" is not easy — it is difficult not to feel the power of them.[102] There is nothing new about imputing urban decline to poor people, and poverty to poor people's individual

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[101] For a generalized description of the processes of "problem-solving" and "problem-setting," abstracted from the construction of urban renewal as a social policy in the 1950's but resonant with the sequence of assumptions embedded in Sam's and Stella's client's case, see Donald A. Schon, *Generative Metaphor: A Perspective on Problem-Setting in Social Policy*, *in* METAPHOR AND THOUGHT 254, 260-63 (Andrew Ontony ed., 1979).

[102] Gary Blasi has described the force in Western cultures of the "Fundamental Attribution Error," or "FAE," of assigning the cause of social problems such as homelessness to the personal characteristics of homeless individuals. *See* Gary Blasi, *Advocacy and Attribution: Shaping and Responding to Perceptions of the Causes of Homelessness*, 19 ST. LOUIS U. PUB. L. REV. 207, 212 (2000).

characteristics.[103] Most recently, during the 1990's respected journalists and researchers dismissed the capabilities of the inner cities and explicitly of those who live within them to generate healthy environments for growth;[104] opposing voices urged investment in cities as much for the potential of their markets as of their residents.[105] As Jane Aiken has noted, one can assume the pervasiveness of oppression in law as it operates among our client communities, and thus understand the enormity of making the operation of that oppressiveness visible.[106] The pervasiveness of assumptions about the incapacity of poor people helps make legal oppression possible; and at first glance, just as difficult to detect.

A lawyer and any client, whether an individual or a group, may view that client's case politically or apolitically and choose to expand or narrow the strategies to accomplish that client's goals accordingly. What is critical is that that expansion or narrowing result from conscious choice. The de-politicization of the community client's agenda is a constant threat to the client's autonomy and to its ability to act in stewardship for its community's interests.[107] Just as lawyers need to pay attention to the construction of a community group client in a way they might not worry about construction of an individual client, for the group client they also must heed what may never arise for an indi-

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[103] The literature documenting the attribution of poverty to personal characteristics of poor people is enormous, particularly in the context of demonstrating how such personalization has driven welfare policy. One which I always cite, as it is among the most powerful, is Lucy A. Williams, *Race, Rat Bites, and Unfit Mothers: How Media Discourse Informs Welfare Legislation Debate*, 22 FORDHAM URB.L.J. 1159 (1995); *see also* JOEL F. HANDLER & YEHESKEL HASFENFELD, THE MORAL CONSTRUCTION OF POVERTY: WELFARE REFORM IN AMERICA (1991). For a historiography of social science theory and research on causes of poverty, from the Progressive Era to the present, see Alice O'Connor, POVERTY KNOWLEDGE: SOCIAL SCIENCE, SOCIAL POLICY, AND THE POOR IN TWENTIETH CENTURY U.S. HISTORY (2001).

[104] For enunciation of the classic disclaimer on the validity of community development as a strategy for urban renewal, see Nicholas Lemann, *The Myth of Community Development*, N.Y.TIMES MAGAZINE, Jan. 9, 1994, at 27 (stating in subtitle: "Politicians like it. Foundations like it. It sounds good to conservatives and liberals alike. But history shows that of all possible solutions to the crisis in the ghettos, it's the one most likely to fail."); WILLIAM J. WILSON, WHEN WORK DISAPPEARS 51-52 (1996) (suggesting that, in losing their connection to the world of conventional paid work, residents of inner cities adopt and transmit to their children by example behaviors maladaptive to working anywhere else).

[105] *See* Michael E. Porter, *Forum: New Strategies for Inner-City Economic Development*, 11 ECON. DEV. Q. 11, 14, 16-17 (1997) (noting that urban centers offer "a large local market with substantial purchasing power," but also commenting that while employers dwell on the unreliability of inner-city employees, their complaints are over-blown, and that a productive workforce and a base of entrepreneurs are both present in inner-city neighborhoods).

[106] *See* Jane H. Aiken, *Provocateurs for Justice*, 7 CLINICAL L.REV. 287, 297 (2001).

[107] Ascanio Piomelli, *Appreciating Collaborative Lawyering*, 6 CLINICAL L. REV. 427, 487 (2000) (singling out attention to the risks of de-politicization of disputes as one feature of "responsible lawyering.")

vidual client: the political question of stewardship for a community's vision of economic justice. Not all community groups may come to their work with the explicit mission of social change. But for the community organization set on accomplishing neighborhood development, politicization of goals is more likely than not why that organization has chosen development work in the first place. Founders and staff of many community development organizations see themselves as developers of last resort, in neighborhoods long ignored by commercial development; they see their mission as one of creating and maintaining wealth in these abandoned communities.[108] Students who choose to represent clients in a community development clinic (at least, in our community development clinic) may do so in the hope of gaining transactional skills that will serve them in commercial practice. But they also enter a practice in which many of their clients will aspire to right imbalances of economic power. Introducing students to community development representation through this lens necessitates neither forced "buy-in" (by them) nor imposed "cram -down" (by us) of a particular set of political values — with these clients, they will see very quickly that it is intrinsic to the work.[109]

Meeting the clients is often a powerful antidote to assumptions about the intrinsic helplessness of poor people in poor communities. Lawyers and law school clinic supervisors in community development practice have noted in their clients a high degree of motivation and sophistication about the community's dynamic and needs.[110] This is

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[108] *See* Herbert J. Rubin, RENEWING HOPE WITHIN NEIGHBORHOODS OF DESPAIR: THE COMMUNITY-BASED DEVELOPMENT MODEL 135-37 (2000) (citing the views of staff of a number of community development corporations).

[109] For some thinking about how, or whether, to ingratiate law school clinic students with the idea that their client representation might be part of, and that they gain strategic insights from, a broader social justice mission, *see* Fran Quigley, *Seizing the Disorienting Moment: Adult Learning Theory and the Teaching of Social Justice in Law School Clinics*, 2 CLINICAL L. REV. 37, 62-67 (1995) (describing how a clinic supervisor might "invite" a student surprised at the client's insistence to fight eviction from a sub-standard apartment to read a study on the scarcity of decent affordable housing); Barbara L. Bezdek, *Legal Theory and Practice Development at the University of Maryland: One Teacher's Experience in Programmatic Context*, 42 J. URB. & CONTEMP. L. 127, 131 (1992) (explaining the importance of locating the Legal Theory and Practice program in the first year of law school, when students will be most receptive to the view that representation of poor people is an essential part of the legal culture).

[110] *See* William C. Kennedy, Gary F. Smith & R. Mona Tawatao, *Cultural Changes and Community Economic Development Initiatives in Legal Services: What Happened in Two Programs*, CLEARINGHOUSE REV./J. POVERTY L.& POLICY 441, 446 (Nov.-Dec. 1999) (observing that legal services attorneys switching over to a community development practice were struck by the impression that they were dealing for the first time with "a powerful and occasionally demanding organizational client," often with its own proactive agenda and swiftly changing and constant demands); Susan R. Jones, *Small Business and Community Economic Development: Transactional Lawyering for Social Change and Economic Justice*, 4 CLINICAL L. REV. 195, 207, 219 (1997) (noting that community development law-

not to say that Sam's and Stella's initial encounters with the disorganization of their pre-composed client "group" were not objectively frustrating. It does clients, students and lawyers no good to romanticize clients in community development. Community clients can add to the usual behaviors that lawyers find irritating in any individual or group client (missing appointments, signing papers before the lawyer gets a look at them) a whole host of new possibilities based on the complications of acting as a collectivity or entity (failing to give their members notice of the annual meeting — or, indeed of any meetings; missing the deadline for filing the annual or biennial corporate registration fee). But there is something undeniably compelling about seeing firsthand the evidence that gives the lie to the causal story that inner city poverty arises from a complete absence of human capital.

For students and their community clients to wrest control of the problem space from causal stories, in every arena where the causal story predominates — in negotiations with public agencies and private developers, in the media, in all the levels of legislative advocacy — will demand every bit as much tenacity as asserting control of a courtroom, and probably for much longer. But the energy surge that accompanies the introductory meeting with a community, or any, client, can abate with the first sparsely attended community forum. What tools can we give students to keep them alert to how, and when, and by whom, the problem space for community development is being constructed?

We return to Reeves's heuristic for complex problem solving, with its recommendation that early stages in problem-finding focus on developing awareness of the history of the problem. Again, directed reading can help the students frame the political as well as relational contexts of their client's role, as that role defines their client's perspective and the perspectives of third parties. The influential BUILDING COMMUNITIES FROM THE INSIDE OUT,[111] a development manual that questions the top-down, "deficiency-oriented" model of problem-solving for urban communities, gives concrete examples of mapping community assets such as churches and civic associations that students may not have realized were strengths.[112] Another tool is orientation. We struggle with how much to "feed" our students, how much to leave them to discover independently. What seems most valuable is an ini-

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yering exposes students to poor people as influential actors in their communities).

[111] JOHN P. KRETZMANN & JOHN L. MCKNIGHT, BUILDING COMMUNITIES FROM THE INSIDE OUT: A PATH TOWARD FINDING AND MOBILIZING A COMMUNITY'S ASSETS (1993).

[112] *See id.* For a recent overview, textbook style, of themes in community development, see also GARY PAUL GREEN & ANNA HAINES, ASSET BUILDING AND COMMUNITY DEVELOPMENT (2001).

tial grounding not so much in substantive housing or consumer protection law but in the over-arching structures, who controls them, and the history of how they got that way. A student can, and maybe even will, look up the federal statute and regulations that dictate how public housing authorities set rent levels for their tenants (someone may have to tell her that the first line of inquiry is federal;) but she has no reason, unless past experience in cooperative federalism has supplied it, to know to look to parallel local authority; and even less reason to understand that the tenants who pay what looks like the same percentage of their income for rent in another building may be doing so under the auspices of a different agency, and subject to different rules. An introduction to the structures and the players gives students some grounding that they can build on.[113]

More subtly, we can all benefit from insights from other disciplines, planning in particular, to learn how to detect not so much when as a result of a causal story our community client is being excluded from the action, but (much more likely) how we can tell when our client is being "played." Over thirty years ago, Frances Fox Piven commented that federal and local development programs were beginning to incorporate opportunities for citizen participation: not in order to share control, but as a means of forestalling a repeat of the disruptive demonstrations that had erupted in many cities in protest of the violent dislocations inflicted by urban renewal.[114] A contemporary observer described eight "rungs" on a "ladder of citizen participation" in the War on Poverty's community action agencies, with the lowest rung being the prevalent mode of sham participation, and the highest being true managerial control by neighborhood residents over decision-making.[115] More recently, other planners have voiced concerns that apparent opportunities for citizen involvement in public planning processes can be manipulated easily into token displays.[116]

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[113] We find that one of the quickest ways to give students this exposure, in a way that they seem to retain it, is through requiring attendance at different kinds of community meetings: in the District of Columbia, of the local bodies known as advisory neighborhood commissions; of the local agencies mandated to hold public hearings on their development plans; and of a consortium of nonprofit housing developers and community economic development corporations.

[114] Frances F. Piven, *Participation of Residents in Neighborhood Community Action Programs*, 11 SOCIAL WORK 73, 74 (1966).

[115] Sherry R. Arnstein, *A Ladder of Citizen Participation*, 8 J. AMER. INST. OF PLANNERS 216, 216-17 (1969) (describing the "empty ritual of participation" implemented through the community action programs of the 1960s, and enumerating the eight "rungs" as "nonparticipation," the stages of "manipulation and therapy;" as "tokenism," "informing, consultation, and placation;" and as "degrees of citizen power," "partnership, delegated power and citizen control").

[116] Kem Lowry, Peter Adler & Neal Milner, *Participating the Public: Group Process, Politics, and Planning*, 16 J. PLANNING EDUC. & RESEARCH 177, 178 (1997) (expressing

The trick is to notice when this is happening. Dana Kaminstein conducted a study of public meetings called by the Environmental Protection Agency in Pitman, New Jersey, in 1986, to review plans for cleaning up a toxic waste dump. While one purpose of the meetings was ostensibly to meet citizens' concerns, the author soon discovered that through the hierarchical organization of the meeting room, the framing of possible solutions, the limitation of items on the agenda, and the use of condescending tone, the convenors suppressed any possibility of true interchange.[117] Xavier de Souza Briggs has brought his experience as a participant in community planning meetings to his critique of how planners inadvertently can abet the appearance, and undercut the reality, of open democratic process. Noting that contemporary planning theory and programs call for the involvement of residents in the design of projects, he comments that planning practitioners are poorly trained for how actually to conduct the meetings which purportedly elicit the residents' input. They tend to miss all the cues of language and personal dynamic that indicate when entrenched interests dominate the agenda, as happened in the example from Pitman, New Jersey, and that rob the meeting of its inclusiveness. Briggs emphasizes that it is desirable for a planner who wants her designs to project the broadest range of community input — the most democratically achieved solution — to avoid identification with any one point of view. Briggs has several suggestions for how to achieve this. One method involves practice in the skill of "community entree," a borrowing from ethnographic method. The "skill" consists of acquiring contacts with a number of actors and agendas in the community, as a safeguard against uninformed acceptance of one view as predominant.[118]

In the context of disputes resolved through litigation, the recognition that treatment previously endured as unexceptionable is in fact intolerable has been referred to as a "perceived injurious experience" or "PIE."[119] Here, the "PIE" may be the tokenism of a client's pres-

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concern about the susceptibility of "consultative processes" to manipulation).

117 Dana S. Kaminstein, *Persuasion in a Toxic Community: Rhetorical Aspects of Public Meetings*, 55 HUMAN ORG. 458, 461-62 (1996); *see also* Caroline S. Tauxe, *Marginalizing Public Participation in Local Planning: An Ethnographic Account*, 61 J. AM. PLANNING ASS'N 471, 474-76 (1995) (describing how fast-track, "participatory," but highly controlled procedures by which the state of North Dakota awarded permits to corporations to build coal gasification and other plants in rural areas in fact used sophisticated rhetorical patterns to override older local customs of case-by-case land use determinations).

118 Xavier de Souza Briggs, *Doing Democracy Up-Close: Culture, Power, and Communication in Community Building*, 18 J. PLANNING EDUC. & RESEARCH 1, 10 (1998).

119 *See* William L.F.Felstiner, Richard L.Abel & Austin Sarat, *The Emergence and Transformation of Disputes: Naming, Blaming, Claiming. . .*, 15 L.& SOC'Y. REV. 631, 633 (1980-81).

ence on a task force, or the imposition of someone else's "schema" constructed from past experience and causal stories about the proper role for grassroots involvement in community planning. Lawyers, and law students, are not ethnographers. But acquisition of the skill of "community entree" can assist them in distinguishing between mockeries of community participation that only drain energy and waste time, and processes that genuinely elicit the clients' real collaboration — in short, in alerting their clients to the possibility that the very narrowness of the problem space in which they are encompassed is a "PIE."

A cautionary note is necessary here. Just as earlier I alluded to — and dismissed — the possibilities of "cram-down" in alerting students to political and structural aspects of the problem space, one must at least acknowledge that one's own "schemata" can suggest harm to clients and students injuries where none exists. An experienced community development lawyer is just as susceptible to seeing a "PIE" lurking (a strange image to be sure)[120] behind every overture to collaborate in a community-wide project, as an experienced tenants' lawyer can see in every action for eviction an affirmative defense for conditions. This is in fact where the senior lawyer's, or clinical supervisor's, own skill at "morphing" comes in, at least the part of that skill that allows for judgment to dictate when to apply and when to refrain from reaching for the schemata that alert her to harmful possibilities: in Sam's and Stella's case, when someone else's framing of a problem may be detrimental to a client's interests. A supervisor can provide immeasurably constructive support to her students, without divesting them of the degree of autonomy necessary to their learning, by suggesting this framing;[121] but also by discussing with her students how her own experiences have led her to it, and how sophisticated problem-solving demands dissection of what evoked the particular schema, and of whether this situation calls for its application.

CONCLUSION: TOWARDS A MODEL FOR COMMUNITY PROBLEM SOLVING

As we have seen, proponents of heuristics in problem solving seem to concur that the ultimate value of any heuristic lies in its user's

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120 The acronym creates an unfortunate mixed metaphor, for which I apologize.

121 Jane Aiken has described the kind of careful questioning that can elicit realization from a student of how she has inadvertently constructed and worked from a "causal assumption" about her client and thus about her client's problem. This is a process that can assist a student in reflecting upon her decision-making, without taking her decision-making away from her. Aiken, *supra* note 106, at 301-02.

ability to reflect upon it, to rise above the process and understand how these steps have contributed to her development of a strategy for learning. That prescription calls for the talents of a supervisor who can practice a judicious combination of the "directive" and the "reflective." "Directiveness," if defined as intervention to assist in supplying a problem solving model and in defining a trajectory of linked problem spaces, has its place in clinics that deal repeatedly with ill-structured or unstructured problems. Clinical supervisors in clinics that focus on litigation can be "non-directive" in part because the presence of a tribunal, with its timetables and rules, provides closed constraints that allow treatment of even extremely complex situations as sequenced well-structured problems. That grounding in one well-structured problem space allows students the freedom to develop less structured, more flexible spaces in other fora. Focusing on an individual client, with a definable locus of information and — presumably — a finite universe of problems, also limits the number of variables and enables students to keep their problem spaces manageable.[122]

The "directiveness" of many supervisors in community development clinics consists of supplying the frames that in other clinics come ready-made with the tribunal. When supervising attorneys offer their clinic students suggestions for gaining context — readings, interviews, field trips — they are revealing meta-frames of history, networks, and hierarchies that little else can provide. These are steps towards framing that the students might (and sometimes do) discover on their own. But that discovery might take months, and represents only the minutest initial step towards defining the problem space. It takes almost nothing away from the students for the supervisor to extend her expertise to give that much background, and thus to allow the students to infer dimensions of a possible problem space or spaces. When supervising attorneys suggest to their students that they should pause before they act on their first impulse to frame a formless problem, or even before they follow what seems to be a proven path to resolution of a more structured one, *then* they are extending something truly valuable: not just their schemata about the politics of affordable housing or the history of redlining, but their own "schema knowledge," their sense of how to approach the ill-structured problem.

That's what the fly does when she comes down off the wall — and not just from May to December.

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[122] *See* Kruse, *supra* note 59, at 424-429 (describing how the stages in a four- step problem-solving heuristic work in the context of addressing the problems of individual clients).