

Everyday Problem Solving

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Abstract

Everyday problem solving is different in significant ways from the kinds of problem solving that take place in laboratory microworld settings. Attempts to simplify have excluded important factors that can help us understand aspects of the problem solving that are problems from the point of view of the laboratory. This paper describes several research projects that have examined problem solving in non-laboratory settings, and some of the implications of these studies for cognitive science. The current notions of distributed cognitive processing can be extended in a powerful way to the socially distributed problem solving characteristic of everyday settings. This notion of socially distributed problem solving can then reflect back on individual problem solving, which is acquired and often carried out in social settings.

Someone walks into your office and asks you to recommend a paper to read as an introduction to research on children's problem solving. You discuss with the person exactly what she wants to know, you walk over to your bookshelf to look for an appropriate book, you call a friend on the phone who might know. All very unexceptional, yet imagine that the person didn't allow you to discuss with her exactly what she wanted to know, to go to your bookshelf or call on the phone, but instead required you to answer her question without these external resources. In everyday circumstances you would throw her out of your office. Yet these are exactly the constraints of the laboratory microworlds within which problem solving is studied.

Recently a number of research groups have been studying problem solving in non-laboratory settings. This work has some important implications for cognitive science: it serves to reinforce the findings concerning the role of expertise in human problem solving and expert artificial intelligence systems, and this non-laboratory work extends beyond the current problem solving research, pointing to ways to enrich both models of human problem solving and expert inference systems.

Expertise.

Recent research on expert problem solving has highlighted the large amount of domain specific knowledge and cognitive processes that constitute expertise (Chase & Simon, 1973; Larkin, McDermott, Simon, & Simon, 1980). These studies of human problem solving have been paralleled by the development of artificial intelligence "expert" systems, which are also characterized by a focus on domain specific knowledge and inference processes.

This work contrasts with the early work on problem solving, both in psychology and in computer science, which postulated a few all powerful general problem solving processes, that would operate over a large passive data base. These "central processor" models have been displaced by various "distributed" data base and processor models, with multiple concurrent processes that interact to produce complex processing.

The domain specific focus of expert knowledge has been reinforced by studies of everyday problem solving. For example, a group of researchers at the University of California, Irvine have been examining the ways that ordinary adults use arithmetic knowledge while grocery shopping (Lave, 1980; De la Rocha, Murtaugh, & Lave, 1981). Schools spend many years teaching us general purpose algorithms that can be used during shopping to calculate comparative prices. Yet most of their observations show that people ordinarily use special purpose heuristics while shopping. Even in this mundane everyday setting, people have developed "expertise" to carry out this task, domain specific methods that bear little resemblance to the general purpose computational skills taught in school.

Similar research by Scribner and her associates (Scribner, 1981) reinforce this finding of special purpose expertise in everyday functioning. They studied the work in a dairy warehouse, examining the use of computation in filling orders and determining total prices. The experts in this domain had developed special purpose algorithms to allow them to function efficiently in this domain.

Problem Solving vs. Routine Functioning.

What is the relation between expertise and problem solving? Problem solving is not just accomplishing particular kinds of tasks labeled as "problems". The processes involved in solving most puzzles are different the second time you solve them (when you know the answer) than the first time. In fact, "expertise" can be defined as the knowledge and cognitive skills that allow a person to perform routinely what other people would have to do through problem solving. Central to the definition of problem solving is the notion of a "blocked condition" (Hutchins & Levin, 1981). Derived from the Gestalt studies of problem solving (Kohler, 1925), this occurs when a problem solver is unable to achieve some goal, after repeated attempts to do so. Problem solving is the cognitive processing that occurs when a problem solver is blocked. Routine functioning is the processing that occurs when unblocked.

Studies of everyday problem solving.

Several research groups have examined how people deal with these blocked conditions in non-laboratory settings. Suchman (1980) did an ethnographic study of problem solving in an office setting, setting down a detailed account of accounting practices, especially those involved in dealing with non-standard cases. Even in the mundane work-a-day office setting, the execution of explicit instructions remains "irremediably problematic", requiring interactive work on the part of the participants. Levin & Kareev (1980) examined the problem solving of children in computer clubs. In both these studies, a critical component of the problem solving, which is largely absent from laboratory studies, is the conceptual organization of the task, determining what the problem IS, what are the goals and constraints to be satisfied, what actions are available.

The second major difference between laboratory problem solving and everyday problem solving is the much more important role played by external resources, those outside the individual problem solver. The laboratory setting is relatively sterile of help and the experimenter works to keep it that way. A standard experiment would not be run in the middle of a busy room. Given a puzzle to solve, it is not considered proper for the subject to ask a friend what the answer is. However, when a person encounters a problem in everyday life, asking someone what to do is usually appropriate.

The use of social resources is probably the biggest single difference between standard laboratory settings and everyday settings. One of the common strategies used by adults when faced with an

arithmetic problem in an everyday setting is to ask someone what the answer is (Lave, 1980). In computer clubs, children help and ask for help effortlessly to get beyond minor blocks so that they can get on with their play (Levin & Kareev, 1980).

Division of labor. One of the most important ways that people use social resources for problem solving is by organizing a division of the work involved. When faced with a new computer game, children divide up the task so that no child is overwhelmed while the game gets played. One child will type in the required responses, another will take over the generation of guesses, others will evaluate and modify the guesses (Levin & Kareev, 1980). This process of organizing and executing a division of labor is so effortless and smooth that repeated viewing of video taped instances is required to see it at all.

Socially distributed problem solving.

An important contribution of cognitive science to the study of everyday problem solving are the frameworks for distributed processing. Using this new processing "language", researchers can now talk about the social distribution of problem solving in many situations, characterizing the nature of each processor and the kinds of interactions that occur (LCHC, 1981; Mehan, 1981). Issues of conflict resolution and information integration, central issues for distributed processing, are also critically important for models of socially distributed problem solving.

Yet this contribution is not a one-way street. The study of problem solving that is distributed over several people can suggest hypotheses about how the same process might be organized cognitively when performed by a single person. A major issue for any cognitive model is what is the structure of the knowledge and processes, what are the units and subunits. The division of a problem that can be solved distributed across several people provides an existence proof that the problem can successfully be organized that way. Researchers can then carry out empirical tests of whether an individual in fact does organize the task that way.

Acquisition of expertise. A second contribution of this approach to everyday problem solving is to deal at least partly with the issue of acquisition. Current research on the acquisition of problem solving skills and domain specific expertise has concentrated on independent invention (Langley, 1980; Lenat, 1977). Yet models that depend totally on independent invention of knowledge and processes never get very far. It remains a major puzzle how such systems could acquire the huge amounts of domain specific knowledge needed by experts. A way to overcome this block was pointed out by D'Andrade, in his invited address at the previous Cognitive Sciences Meeting (1980): people acquire knowledge and skills from other people. We are socialized within a rich culture, where the people and objects are at least partially organized specifically to help novices become experts in the domains important for functioning in the world. Children are taught the important facts of life; beginners are trained to become experts.

From this point of view, the acquisition of expertise can be characterized as the progressive internalization by the learner of socially distributed processing. A person generally becomes an expert in a setting where he/she can gradually take on more and more of the effort in handling tasks that experts in the domain handle. Children who are novices at a computer game initially divide the task over several children and adults. Gradually, each child takes over more and more functions, so that fewer children have to cooperate to accomplish the task. Finally a child can play the game alone. This progressive acquisition of a process initially distributed socially in fact can provide a rationale for the way that the cognitive processes are

distributed within an individual expert, a distribution that allows the expert to draw smoothly upon social resources whenever problems arise.

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Marriage is a Do-It-Yourself Project:
The Organization of Marital Goals

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In the story understanding literature, a class of stories which is on its way to becoming something of a famous example, has to do with getting married. One typical variant, used by Wilensky (1978: 67), goes like this:

John was tired of frequenting the local singles' bar. He decided to get married.

The point of this story is that to understand how getting married could possibly replace going to a singles' bar, the reader must know that a state such as marriage can subsume goals that arise repeatedly. In this case the goal is Satisfy-SEX. A series of variants of this story, however, demonstrate that marriage may in fact subsume a variety of such recurring goals:

John was feeling lonely every evening. He decided to get married (Wilensky *ibid.*: 72).

Mary was tired of working for a living. She decided to quit her job and get married (Wilensky *ibid.*: 77).

Schank and Abelson introduce two other variants (1977: 126) to illustrate a further characteristic of goal subsumption:

After his marriage with Mary broke up, John began frequenting the local singles' bars.

After his marriage with Mary broke up, John decided to join a chess club.

To understand these stories we need to realize, Schank and Abelson (*ibid.*) say, that "goals that arise via subsumption tend to subsume more than a single goal." "Being married," they note, "can subsume the sex urge goal, goals of social stimulation, the desire to have children, to have power over another person, or to be with a loved one." Wilensky (*ibid.*: 77) views this tendency to goal multiplicity as a distinctive property of social relationships:

Since there is typically more than one obligation imposed upon the member of a relationship, social relationships usually subsume more than one goal. For example, being married to someone usually subsumes a number of recurring goals in addition to those for which money is instrumental. Since being married obligates each partner to have sex with the other, and since having a willing partner is a precondition for having sex, then marriage subsumes the recurring Satisfy-sex goal. Also, since marriage requires the partners to live together, then it subsumes the recurring Enjoy-company goal to which being near a loved one is instrumental.

These examples promote a certain view of social relationships as bundles of discrete goals which happen, perhaps because of cultural convention, to be packaged together. As Schank and Abelson (*ibid.*: 127) summarize, "Each social relationship carries with it a packet of goals." This paper is offered as an alternative to that particular view of goals and social relationships. It argues that marital goals are not so much packaged together as highly organized, and that what organizes them is an underlying model of marriage which, far from being fixed and conventional, is constructed by the individual in the course of the relationship. Perhaps the best way to introduce this view of the

organization of goals is to quote some statements by Alex, an interviewee of mine, on the subject of his marriage. Talking about his preconceptions of marriage, he says,

6H-1: Well yeah I thought it was all going to be wonderful. You know it was--the problem of sex was going to be solved. You know I was an adolescent or barely out of adolescence, you know--this was a wonderful idea. And, I don't know...you know--the idea--and--you really--you're asking some good questions because there really are some things that I knew about and that I wanted. A companion and friend. Probably the most. You know, the things that I did want and I got out of the marriage. That seemed important then--to have someone there all the time that you could rely on. And talk to all the time about things. Somebody to help and somebody to help you, you know, that seemed like a real good idea. That seemed like something I really wanted. It seemed like something that we got out of the marriage. Somebody always there.

In a second interview, he goes back to this issue:

6H-2: I think, right from the very beginning, I believe I mentioned on the other tape that I felt the--talking about the--what was--did you expect getting married that I did feel a need for a companion and somebody to be with me and to fulfill something that was empty, I didn't know what it was. And I think that might have been the first step--the first stage of love. But now I'd say that love is, to me, is the desire to give more to the other person than you're giving to yourself, at times. You know it's the, not only willingness to accept the part of marriage where you have to change and adjust, but a strong desire to do so. Not only the willingness to accept that there are times when the other part--person or partner might need some help. But the desire to give help. To that person. The sort of love of the fulfilling the other person's needs.

Later in the same interview, talking about why some of the couples they had been thrown together with in the Navy had marital difficulties:

6H-2: There were certain things they married for. They'd gotten which it may have been their dinner on the table every night and, you know, a warm body next to you in bed. And it suddenly went beyond that. It suddenly got into conversation. And support, things of that sort. And that's--that caused some difficulties.

In a later interview, he describes giving advice to a Navy shipmate:

6H-4: And he said he was going to get married and I said, "Well," I said, "I hope you think about it real hard because I think you might find marriage to be a little bit surprising than what it is. Because it was for me. Shocking sometimes, you know, that it wasn't all love and sex and that's it. Yeah, that there was some work to be done."

The first thing to be said about the "goal subsumption" model of marriage, then, is that it is a folk model. The reason why we understand marriage as subsumption of a particular set of goals, is not because social relationships necessarily subsume multiple goals, but because the goal subsumption model of marriage is a very common preconception in our society. It is not,

however, the only myth about marriage; another, sub-cultural one, is expressed in the following segments from interviews with another husband,

2H-7: The marriage thing, I think basically, is just a mental thing where you know, you've heard so many things about marriage like it's-- marriage have become something like a negative thing. You know, a lot of people, you know, you know, it's just--you just hear so much, you've never been married so you don't know. You know you just hear so many things about when you're married, you know, things really change. Your wife don't let you go out or, you know, your husband don't let you go out and, you have to--you know, you never have any money, you can't spend money on what you want to. You know you hear so many things-- when you get married your wife don't want you sexually anymore or you don't want your wife and you have to be sneaking here and there trying to do things. You know, these are things that you hear and because of all this, you know, you know, it's like you have a-- it's just like you sort of take caution and say, "Well let's try it out first and then we'll"--you know--

You hear it all your life from a kid on up and from various people.

2H-7: Your wife won't let you out and--or you got to be doing something. You got to keep the baby, you're babysitting, you know. And they say things like, "You're babysitting while your wife is out in the streets, you know, playing around." Or you know, you know, they put a lot of, you know, it's a lot of fears being--it, you know, it be a lot of fears--a lot of things that people--you know, it's just constantly, you know.

2H-7: You know, so it's just something constantly you know, it's like something-- like it's the end of the road, you know, to get married. It's like you--you're just crazy. You're out of your mind, you know.

2H-7: Okay, I'm single, okay and I'm going out and maybe one of my--somebody I know a buddy or somebody that's married. Okay, you hear from women and men. Okay, and you're single and people tell you, "Oh, you're so lucky." You know, you know, "You're single and you can go out here and see all these women you want to see, you know, anywhere-- you know, you're just--you're living the life, you know, and they're making you feel like, "God," you know, "Marriage is like the end of everything," you know.

Marriage, in this view of Jimmy's does not so much solve the problem of sex as create it:

2H-7: Marriage or whatever it is--it's a sex thing, you know. You got to--your sex got to be cooking all the time, you know, or else, you know, you ain't *doing* nothing, you know. And you're wife may essential--or whoever may just leave you because, you know--or you may have to leave, you know, your wife or your woman because--or go for somebody that's, you know, that things are rolling, you know. This is what society has put into you.

Because of this very strong stereotype he has been taught, Jimmy decided he is never going to get married,

2H-2: I wouldn't want anything like a marriage to interfere with my normal way of living. I wouldn't want to interrupt my life to be--you know, maybe because I feel like I would probably be unhappy because no woman would really give me, maybe, the freedom that I need.

Jimmy's model might be dubbed the "goal-frustration" model of marriage. Our cultural knowledge of this model should assist us in understanding stories such as,

Jimmy wanted his freedom. He decided not to get married.

or

Jimmy did not want to feel like he had to keep sex cooking all the time. He determined never to get married.

The real-life excerpts above are taken from interviews with two husbands in a larger study, during which each spouse in eleven marriages has been interviewed for an average of 15-16 hours apiece. Interviewees describe their preconceptions of marriage, and make clear in the course of these extended interviews what they think their marriages turned out to be. To illustrate how goals are organized by these understandings of marriage which emerge in the course of it, I would like to provide a somewhat extended analysis of Alex's conceptualization of his marriage, which I will then compare with a somewhat briefer look at another marriage.

First of all, Alex sees his marriage as a joining together of two people, expressed more specifically in two metaphors he uses again and again: MARRIAGE IS BEING A COUPLE and MARRIAGE IS A PERSON. The first of these metaphors is characteristic of his descriptions of the early period of his thirteen-year marriage, for example in this remembrance of the decision to have a child while he was in the Navy:

6H-1: After I got the first promotion with the idea that the second one might be coming. I think that's how it was and that was quite successful because Shirley got pregnant right away. And she, you know, when I got back from Guantanamo she told me and we told the news to everybody and it was a really big deal. And I think that the apartment and the baby and all of that stuff really began to come down on us, you know, and we started believing that we were truly a couple. And we were truly a family and really married.

Here the equation between being married and being a couple is explicit; and being a couple is also equated with being a family. All three continue to be used interchangeably throughout Alex's interviews. The first identity is explored in the following remarks about a couple they knew in the Navy:

6H-2: You know it's funny there's even a couple that we got to know in Iceland that were just dating there, they just met there. One of the teachers and a fellow that was up there who didn't get married for years, but did later. I mean they went off on their own--he went further--he went out to the West Coast and got a ship. She went to Okinawa to teach. And they eventually got married. And we knew them very well, and were close to them and they were just dating then. And they ended up getting married and having a very solid marriage, now with a child. And we see them, they lived in Okinawa for a while and then they went to Germany. And that's another-- it's amazing how that happened.

I: Why?

6H-2: Well that--I still feel like--I still-- I knew them as a couple, even then. You know I always saw them as a couple, even though they really--they weren't in the same relationship as the other couples that we knew, but they ended up that way. What's amazing is how that couple formed the same sort of marriage that the other married couples that we knew already had.

Alex is amazed that his perception of them as a married couple turned out to be accurate. The second equation, between being a couple and being a family is elaborated further in this segment:

6H-1: That, you know, we were now a family. Just the two of us, we were a family, and that--and the commitment was to make that family move. You know, that it was going to be a solid thing--you know it was going to be a--you know just like the parents' had been--they were--and all the people we knew, around us. Remember of course that this mass divorce thing which is going on now, hadn't--was not going on then. This was--we got married in '67, I guess it was. January '67.

A couple is a family. This excerpt also introduces a goal--to make that family move. The juxtaposition of this observation with the comments about contrasting marriages back then with the mass divorce of the present time makes clear that what Alex means by a family that moves is a marriage which does not end in divorce. Thus one goal of BEING A COUPLE (and hence a family) is permanence. This excerpt also hints at how that permanence is to be attained--an issue which will be taken up below.

The COUPLE metaphor is associated not only with the goal of permanence, but also with the further goals (Preservation Goals, in Schank and Abelson's *ibid.*: 115-116) of exclusivity, proximity, and shared experience. The first of these goals emerges in Alex's descriptions of several incidents early in the marriage, revolving around his wife's flirtatiousness and untoward interest in men. Alex has this to say:

6H-1: I think I decided it was time for Shirley to stop fooling around with any other guys. And that [GETTING MARRIED] was the one way I thought I could convince her to do that. Other than that she was going to party for the rest of her life.

from which it is clear that being married implies exclusivity. The relationship between BEING A COUPLE and exclusivity is still clearer in another striking passage about his response to her emotional tie to her parents:

6H-1: I think it was significant because you know I made a very strong decision then and, you know, we--Shirley went along and I think that was one of the first times that I had said, "I'm going to separate you from your parents." In a very decisive manner and "This is what we're going to do." And you know, "You're going to follow me here, you're going to go with me here as your husband." Maybe it was, you know--looking back on that I--maybe that seems--sounds a little chauvinistic but I think it was a declaration that we have a marriage and it's just two of us in this marriage not four.

This segment offers an unusually clear glimpse into the internal logic by which a goal follows from a metaphor--probably because Alex is here recapping the very argument which he used to persuade his wife. Thus "we have a marriage" sets out the initial assumption; "it's just the two of us in this marriage" establishes the identity of a "marriage" with a "couple"; "not four" is a logical inference following from "just the two of us," and in turn supplies a reason for the goal of exclusivity, here to be realized by separating her from her parents. Such a chain of reasoning is not often made explicit in these descriptions of marriages; rather, the link between a given marital metaphor and a given marital goal must often be inferred from their juxtaposition, from more scattered pieces of logic which can be pieced together to relate them, and from their recurrence and emphasis as common themes in a given individual's interviews. Thus, it does not surprise us to learn that Alex repeatedly stresses the further goal of proximity. Talking about their decision whether or not to accept a post in Iceland, a station which provided housing for families, he says:

6H-2: I think if you're separated by necessity, if there is no choice about it, that's one thing. Then you become--you know, you're tied together by your letters and you're both fighting it. And that's a different thing.

But to be given a chance--to be told that you may stay together that everything had been cleared, that we had a place, it had all been settled, and then to say, "I'm not going to go." That would have been a breach of the faith of the marriage. It would have been hard to overcome.

Choosing to stay together at every opportunity is a consequence of the proximity goal; and maintaining ties during forced separations is an attempt to overcome the circumstances which prevent proximity. Letter-writing was a major shipboard activity during his overseas trips in the Navy; and nowadays, on business trips, he makes long daily phone calls home. While separations can be "fought" in these ways, a marriage may not be able to sustain extremely lengthy ones:

6H-2: But I thought that would be two years like that [APART] would have done severe damage to our marriage. I think it would, you know, it would have done severe damage and if we weren't the same people that we are right now that might have happened. And that there is one of the weakening things of a trip overseas like that.

It can be inferred that separation causes damage by blocking the proximity goal, just as Shirley's flirtations blocked the exclusivity goal. Elsewhere he describes her flirtatiousness as "jeopardizing our relationship" before they were married.

Another consequence of the proximity goal is that partings are difficult; a number of incidents have to do with sorrowful departures:

6H-6: I think the thing that bothers me the most and sometimes it bothers me when I leave in the morning is if something happens to either one of us and we'll don't see each other again. And that makes me--I--every once in a while that thought strikes me--maybe it doesn't other people who are married--and it makes me very sad. And I just want to go back and say some more--and sometimes we're--it's very hard for us, you know, we'll be very slow

at parting and Shirley will some mornings, you know, just going to work Shirley'll be at the door waving to me and stuff. That's important I think to both of us that we do care enough that--and even little departures are important.

Talking about his out-of-town business trips, which he does not enjoy, Alex dwells on another goal--that of sharing experience. This can be seen as a logical consequence of the proximity goal. Shared experience both requires proximity, and affirms it.

6H-6: Now I would not choose to take a vacation alone. That would be terrible to me. I would prefer to have Shirley with me. On any sort of vacation or pleasant business at all. Any sort of real pleasant time I prefer to have her with me because if--I really would prefer to share those experiences with her. In fact, one of the things that I don't like about the trips is--those trips which are clearly just for me. When I do go to someplace very good to eat or I get to go to a show, I really feel badly about her not being there because we don't have that as a shared experience anymore. And those shows and good meals and things like that that we've done as a shared thing are really important to us and have been--are good moments for us in our marriage.

So much so that,

6H-6: I'd probably feel more guilty about going to a show than almost anything else we'd do because the two of us love to go to a show. And I would probably--I'm going to be in New York for about a week--or in Stamford for about a week in January. And I'm going to be in--about 8 days I'm going to be away in January including 4 or 5 in Stamford. And when we're in Stamford we often get tickets to New York shows--take a train in. And I'm sure we'll go see some shows. I'm going to try my best to go--to talk people into shows that Shirley would not want to go to, but I would.

And as the following excerpt shows, this goal of sharing experiences has a not inconsequential influence on the couple's economic decisions:

6H-6: But I also think that it's excellent when I--you know, when I can have the chance to have J. along. Not to show her that I'm working hard because I wouldn't take her on a trip when there's no choice but to work 12 hours a day. Like the trip to the Caribbean would have been ridiculous for her to go on because it was--there were--days began at 7 in the morning and ending at 7:30 in the evening of work. And nothing pleasant at all happening. But if it's going to be for a meeting situation where the amount--actual work is marginal and there are spouse affairs going along with it and there are maybe even some social affairs with it a dance or dinners or things of that sort. And it's apparent that a wife would be--or a spouse would be very much welcome and comfortable there then yes, you know, by all means we've gone into debt over those. I mean we really have. We've spent more than we should have often on those, without a hesitant mind, and I still don't look back on them and think that that was money wasted. By no means was that money wasted.

They have "made a lot of wonderful trips" which have "been one of the highlights of our marriage." She in turn, jumps at the chance to go on a trip with him, and insists that they find a recreational activity to do together--the one they have settled on is ice skating

6H-2: Because at the time we were sort of looking for something to do together and Shirley--the options she had brought up were unacceptable to me, particularly the one to go square dancing. That was one that I had just--we tried some sports, we did volleyball for a while but then I just hurt my shoulder. And I couldn't play volleyball anymore. But we--Shirley said, I remember her saying, "We don't do anything together," or something, you know, she had one of these--and I was, I said, "That's crazy." You know, "We live together we have all sorts of things we do together all the time," but she wanted something specific she could put her finger on that we did together.

Just as forced separations are met by attempts to remain tied together at a distance, unavoidable occasions when pleasurable experiences cannot be shared are countered with efforts to share these experiences vicariously:

6H-6: If I go to a show I--once I've gone, you know, once it's too late, you know, not to go. I try to tell her as much as I can to share with her. She spends a lot of time looking real sad when I'm telling her about it. To make sure that I know that she would prefer to have been there but I do tell her. In--and neat restaurants that I've been to or something like that. Places that I would like to, in the future--us, you know, have us go to together.

Just as he filled his overseas letters with details of his life in the Navy, he shares with her all the details of his business trips--"And the trip is something to be discussed with her as far as I'm concerned"--as well as the ins and outs of office politics. A media specialist for a large company, he brings all of the films he has a hand in producing home for her to view. She always presses him for more details of his solitary trips:

6H-6: My memory is not as good as hers for details. And she always wants more details and usually what happens to me is I don't remember. As soon as I get back I have trouble with some details but over the next week or two weeks or maybe a period--a long period of time as I remember more details I tell her. But I tell her about things like the politics and the meeting itself and what happened and she's really my sounding board on a lot of that stuff. When they've been difficult meetings she really is a sounding board. I've always shared my work with Shirley.

A potential of being joined to another person is that that union can become even closer over time, and Alex characterizes his marriage in this way. He talks of how they are "much more tied to each other now than we were then. We were still two independent people," implying that now they are not. He feels "more in love"; romantic love has "deepened and grown stronger." They like to be with each other more, and also to do things for each other more than before. To separate himself from his wife and children becomes more and more difficult:

6H-4: I just don't think marriage is about me. I think it's about us and each time you add another person in there that person becomes very deeply involved.

Adding children. It's hard for me to see how you can separate yourself from all of these other individuals that you've become so tied to. Other marriages may not be like mine and Shirley's where I feel, you know, that we are this close.

At some point, and increasingly as his story moves toward the present, he begins to talk about the marriage itself as no longer "two independent people" coupled together, but as a person in its own right:

6H-1: When Shirley came back we shortly after that got an apartment and I think that was the beginning of some good things. We were really more upset about the ship's leaving than we had been about anything else and I think that was a sign that we were beginning to really feel for our marriage.

In a series of similarly striking metaphors, he speaks of the marriage growing and maturing,

6H-6: Our marriage and our love has grown a great deal over the years and only in the last maybe eight, nine, ten years do I feel that it's really matured.

and as something he has a confidence in:

6H-2: I think we pass the crisis then and I had a confidence in our marriage then which I think I was lacking right at the point when we were--you know, well like I said we--I don't think we got to know each other in that very intimate way until we got overseas.

Elsewhere he speaks of some things as being "a breach of the faith of the marriage," more or less "good for a marriage," "helpful to a marriage situation," "hard for the marriage," and "challenging to marriages,"

6H-4: There is certain kinds of analysis, encounter groups and all sorts of things are done now that do focus on the individual. Yes, and I think that is challenging to marriages. What it really comes down to, the big question is, should the couples that break up, as a result of having these things, should they have been married at all? Maybe those marriages weren't any good anyway. But you then begin to wonder--take this a step further--you wonder if any marriage would make it given the--given egotism. If you put the self ahead of the marriage, if any marriages would last. What I'm saying is that I myself don't know whether analysis destroys that type of relationship, or whether it just points out the problems with that type of relationship.

Here the goal of marital permanence is recast in terms of human survival--Alex wonders "if any marriage would make it." And another goal is introduced, that of unselfishness toward one's spouse. This is expressed elsewhere as "the desire to give more to the other person than you're giving to yourself, at times" and "the need to give in the marriage." Egotism, by contrast, is "putting the self ahead of the marriage." The exact logic of unselfishness as a goal of marriage as a PERSON is spelled out in the following statement concerning the effects of his wife's analysis; this statement makes use of the PERSON metaphor once again:

6H-4: I certainly believe that Shirley as an individual should have her rights and privileges as I think I should. But I also believe very strongly in Shirley and Alex as the married couple or the D. family as it exists here as the family that in itself has rights and privileges that must be seen to.

Individual needs may interfere with the needs of the marriage. And analysis, Alex believes, will create this interference because it promotes individual needs:

6H-4: Our marriage is a very good thing for both of us. Has been a good thing for both of us. And is the--to me is the best thing in the world for both of us. And in analysis you have to deal with 100% of yourself, me. You know, the "me" generation is often brought up. And one of the things that's brought up is the--a lot of analysis. A lot of these, "the importance of looking out for Number One" type concepts. Well that's what analysis is to a great degree. You're really going after yourself and your analyst is always saying, "You have a right to this, you have a right to that, you have a right to--" You know, "Other people have no right." Well that really works very well when you're in analysis. It doesn't work very well when you're in the middle of a marriage. Because a marriage is not that. A marriage is something else. It's something where you have to be--have to give away part of this right to always react, certainly.

Therefore Alex is afraid of analysis; for analysis threatens marriage by blocking the marital unselfishness goal in the same way as his wife's flirtatiousness threatened the marriage by blocking the goal of exclusivity, and extended separation threatened the marriage by blocking the proximity goal:

6H-4: When Shirley was in analysis for a short period of time. When that happened that was very hard on me and, you know, we had a very good marriage. And I think analysis--I was afraid analysis was going to ruin it. And I suspect that Shirley is too. Because she said to me, "I dread the day you ever go into analysis because I don't know if you'll--you know, I don't know what's going to happen to you." You know--and--as if something might happen to our marriage.

At the same time Alex agrees that individuals have the right to find out who they are and what they want out of life, and he wonders whether there isn't some alternative way "to analyze people in a marriage as opposed to analyzing people who are not in a marriage situation." Because, as he says about individual analysis, in one final metaphor,

6H-4: If you start to take one part--it's something like trying to analyze only one side of my brain. To take one part of the family and deal that way.

I am arguing that metaphors engender goals. MARRIAGE IS BEING A COUPLE engenders the marital goals of permanence, exclusivity, proximity and shared experience, because these are properties of BEING A COUPLE which realize the chosen metaphor. This metaphor engenders the further goals of connectedness during separation and vicarious sharing of separate experiences because these are alternative ways of realizing the goals of proximity and shared experience, respectively. In the same way, MARRIAGE IS A PERSON entails the goal of marital unselfishness. But marital metaphors, themselves, are organized by underlying conceptualizations. The logic which links these two metaphors seems to be a processual one--that of two independent people coupled together and merging into a single person.

A further set of metaphors ubiquitous in Alex's thinking, marriage as some kind of MANUFACTURED PRODUCT, is linked to the metaphor, MARRIAGE IS BEING A COUPLE. This is done by equating one particular property of BEING A COUPLE--permanence--with a property taken by MANUFACTURED PRODUCTS--durability. The reasoning is revealed in one of the interview segments above:

6H-1: That, you know, we were now a family. Just the two of us, we were a family, and that--and the commitment was to make that family move. You know, that it was going to be a solid thing

"just like the parents' had been," with an ensuing discussion of marriage in the '60's contrasted with the mass divorce of today. Another passage which makes explicit the relationship between product manufacture and permanency is

6H-1: When we got the apartment in Virginia Beach in Norfolk it was really nice. And it was--I have very fond memories of that place and our marriage at that place. I think we began to really form a marriage there. The fact that Shirley got pregnant also indicates we were getting into something more permanent.

Thus strong or solid or good marriages, or what Alex elsewhere calls successful marriages, like his own, are those which are permanent. His comparisons with other couples inevitably employ the DURABLE PRODUCT metaphor to distinguish between these marriages and others which are "weak," or "broken":

6H-2: And we were relying on the kind of looking at each other and saying, "Well," you know, "Who are you?" Now people were doing that up there, married couples were doing that quite often and it resulted quite often in broken marriages. There was a lot of trouble with that. A lot of couples who came up there [TO ICELAND] had problems. And some other couples that came up there seemed to be very strong in their marriages, when they left there, as I think we were. And we remained good friends, although long-distance friends, with some of these couples. That we knew up there who were our age, who had good strong marriages, and whose marriages were obviously strengthened by the stay there. Or at least not weakened by it. I think our marriage was strengthened there. I think we did--we were forced to look at each other very closely.

Strong marriages are less likely to break than weak ones. But the introduction of the DURABLE PRODUCT metaphor seems to permit a proliferation of metaphors expanding this notion of marriage as some kind of MANUFACTURED PRODUCT. A common one Alex uses is a metaphor of marriage as a production or project, the effort at making the marriage, an effort which in his words either "works" or doesn't work, and which you have to "work at" and "work out." In one version, the result is a decidedly home-made product:

6H-4: Maybe this is just for us. Maybe this has nothing to do with anybody else. But it could be that--our situation when we got married was such that we had lots of room to adjust. Because we didn't have any idea what we were getting into. That gave us a lot of room to adjust. And by the time we had been through the first year we realized, you know, there would have to be adjustments made. And a few years afterwards when things really got serious we were--you know, when the marriage was strong, it was very strong because it was made as we went along--it was sort of a do-it-yourself project.

While Alex is "not exactly sure why one marriage works and another doesn't," he does have ideas about what has made his own marriage, and other strong marriages he has known, work:

6H-2: Well I'd say there's something about those people that we knew, they had a basic solid foundation in their marriages that could be shaped into something good.

Here the product is an edifice of some sort, to allow the notion that what is critical is a solid foundation. The foundation, he believes, is "commitment":

6H-2: The couples that we knew that it was working, I don't think there was any question in their minds about getting married. All of them were pretty sure that they wanted to get married. And they were pretty sure they knew what to do with marriage. And this was true about us too, even though, I've said over and over again, you know, how much we've changed and how much our relationship has matured.

(Here he refers to the MARRIAGE IS A PERSON metaphor, which is not applicable in this context),

I still, at the very beginning, I said, you know, right away we knew there was a commitment. And this was the same thing that was basically true about all these couples. I think they all got married thinking that this was "the thing." The right thing to do and it made sense to them.

In his own case the commitment to marriage is attributable to background, and it becomes clear that the commitment itself is about not giving up the marriage; now, perhaps, permanence is equated with the tenacity of the effort rather than the durability of the product:

6H-1: I think we're just lucky as hell, that we have a good marriage. And I think it's not just due to luck but also the fact that both of us are--have deep commitments to the concept of marriage based on our backgrounds and upbringing. We couldn't have given this up once we made the commitment to it, without tremendous trauma.

He attributes this attitude to the common cultural heritage he shares with his wife, because "Jewish families are strong and such" and "the cultural heritage gets carried on." Even though his parents' marriage, unlike his own, is far from ideal,

6H-7: I think they believe in home and family too and perhaps I've gotten this strong feeling about home and family from the fact that they're together despite all this bickering and arguing, you know, they would never think of divorcing, I don't believe. I don't think it ever crossed their minds.

But there are other factors which worked for he and his wife:

6H-2: I will only say this, what worked for us is, we have a common cultural background. We have the Jewish heritage which is very strong--that heritage is very strong and has made a difference for us. We are supportive of each other and we are *very, very* complimentary to each other.

He elaborates on this latter "asset":

6H-4: I think that we were so different and we had such complimentary differences that our weaknesses--that both of our weaknesses were such that the other person could fill in. And that quickly became apparent to us that if we wanted to not deride the other person for their weaknesses we would instead get their strengths in return. And that's what I think has been the asset--these are the assets that have been very good for us. And I suppose what that means is that we have both looked into the other person and found their best parts and used those parts to make the relationship gel. And make the relationship complete.

Here he moves to another PRODUCT metaphor which suggests cannibalizing parts from two broken-down automobiles to build a working one. Elsewhere, the PRODUCT idea allows still another metaphor:

6H-4: I'd certainly hate to see people--everybody in the world jumping into marriage immature. But maybe there's really something to the idea that it is not so much how you feel--exactly how you feel before you get into a marriage but what you can make of life, you know, in the marriage that really counts. Having thought it out--in other words, having thought it out beforehand and coming to the conclusion that you really are in love. Might not be as good for a marriage as having gotten married, looked into what was worthy of being in love about, found it, identified it after awhile, because it does--it takes a while, and then made that the cornerstone.

And finally, another element in their situation which, coupled with commitment, made for a permanent marriage was the very lack of any idea, at the outset, what marriage was about; this understanding permits him still another DURABLE PRODUCT metaphor:

6H-4: But I think that my commitment to the marriage was just so strong and I--as I said before I think this had a lot to do with heritage and background and what we knew had to be done. My commitment to the marriage was so strong that even though, or maybe--I don't know, maybe because I hadn't thought about this, because I had to make it a struggle, or because it was a struggle for us that we forged a lifetime proposition. And maybe it was because things were wrong at first, and we were screwed up and we didn't know what we were doing. Maybe that had something to do with what was good about it. The fact that we really had to work at it.

So that all these different metaphors--of carrying out a project, shaping a product, putting it together from different parts, building an edifice with a solid foundation and a cornerstone, forging something that will last a lifetime, something strong and unbreakable--are permitted by the underlying, and more general, understanding that MARRIAGE IS A MANUFACTURED PRODUCT. And each of these metaphors introduces its own marital goals: you have to start out with the intent not to give up (the foundation); you have to be willing to work and struggle to produce it (the effort); you have to find something worth being in love about (the cornerstone); you have to identify each others' strengths and overlook each others' weaknesses (the parts), and so on. In Schank and Abelson's (ibid.: 116-117) terms, these would seem to be Instrumental Goals--they are all in the service of constructing a durable product. In turn, the conceptualization of marriage as a PRODUCT is linked to a prior understanding of marriage as BEING A COUPLE, via the association

between product durability and marital permanence. Unlike other goals of BEING A COUPLE, such as proximity and shared experience, permanence is an Achievement Goal. And it is difficult to achieve, something that must be worked at, a feature which lends itself to characterization in terms of production. Thus, one model, of what marriage should be like, leads to another model or theory, about how it can be implemented. Each suggests apposite metaphors, and each new metaphor is capable of introducing new marital goals.

This highly individualized and relatively complex model of marriage contrasts with the cultural stereotype with which Alex entered marriage--the goal subsumption model which cast marriage as a RESOURCE and asked what he "got out of it." In general the preconceived ideas with which husbands and wives enter marriage, by comparison with the understandings which they ultimately construct through the process of encounter and assimilation and realization, are very sketchy, static, culturally standardized and readily dispelled. These more complex understandings supply any number of simple stories for a story understanding task, such as

Alex decided it was time for Shirley to stop fooling around with any other guys. He got married to her.

or

Alex thought that two years apart would do severe damage to his marriage. He decided to take the post which provided housing for families.

or

Alex feels that analysis focusses on the individual. He was afraid that his wife's analysis would ruin his marriage.

and so on.

The degree to which marital goals are tied to the metaphors which engender them is more obvious by comparison with a different set of metaphors. For this purpose the views of another husband will be somewhat more briefly summarized and interpreted. This husband, Bob, began marriage with a version of the LIVE HAPPILY EVER AFTER myth of American marriage,

5H-2: I don't think many issues did come up. I think that I was a very adept liver in the sense of I did my thing rather well. I was much into being, I think--playing a great deal on the surface of life and living. I think that, it seemed to me that people got married and lived together in a certain amount of harmony, ergo, we will marry and live together in a certain amount of harmony. We didn't pursue in any depth any issue that I recall. That if, I don't know, me walking in with my feet sloppy ticked off Eileen then that was a reason why I didn't walk in with my feet sloppy.

This model was to be jeopardized, first, by their friendship with another couple who were continually questioning their own relationship:

5H-2: I think that we saw at that juncture, probably not even consciously, the potential for a different kind of marriage--a different sort of motif. And I think we were both impressed, awed with it and frightened of it. We didn't want to leap in into an inquiry method of marriage at the point--I don't think either of us felt an impetus to do it, in a sense that it seemed to be the way to a good marriage.

Ultimately, however, a series of extramarital sexual relationships with other people led them to adopt the inquiry method. These relationships called into question, for each spouse at different junctures, the status of their relationship with each other. When Bob reacted to his wife's affair by declaring his own intent to figure out "where he is" on his own,

5H-4: She then became very concerned about, "My God. All this means all this. You know what I really care about is my relationship with Bob and I don't want it to go to hell." And I think that was a very important thing to hear for me. And I think from then on, we talked a great deal more about our--where are we, and not where are you but--or where am I vis-a-vis life and love and the pursuit of happiness, but where are you and I?

When he gets involved in an unexpectedly intense love affair, he and Eileen go to the mountains to work through the questions,

5H-5: "Where was I? What did it mean?" "What did it mean to the two of us?" Eileen basically supportive and in favor of it but also scared to death and not knowing and I guess in a sense, at least what I--was conveyed to me was, "I kind of--I thought another relationship would be nice and I'm glad that you're having it. But my God I didn't think it would be quite this intense," and all of that sort of thing. The--I think she was not overly threatened by my sexual involvement with Martha but that was a weighty dimension. The--I think she was more concerned about the depth of our love and the basicness of my love at that point. Which again, excluded Eileen but--certainly had an intensity that was different from my love for Eileen at that time.

It is not only Eileen who is scared by the depth of Bob's involvement with Martha:

5H-6: I think the risk is basically that the situation of the relationship with Eileen and I would get out of hand, such that I couldn't insure that it would continue no matter what I did. And so I would be in a position of losing someone that I thought so much of and I could do little about it. And so if I played it safe, if I played it tentatively, I had a certain control in it, in the sense that Eileen could be running around and making a risk of herself in a sense, but if I didn't I could always hold it together and keep it going and all that. Which I might think retrospectively is not probably right either but that was my perception. So I think really what was at stake was the--was ending--losing the relationship.

Bob and Eileen meet each one of these marital crises by talking:

5H-4: I think it worked out that Eileen and I both perceived that we had little idea of, in fact, what our commitments to one another involved. That we did not in many ways know ourselves particularly well, relative to relationships, relative to life and living and that sort of thing. I think it worked out that through miles of talking, with one another, on a lot of this, that it at least made sense to us and felt important to us to continue our commitment and our living together with one another.

And on another occasion,

5H-5: So we went back to the mountains and I think it was a time of a lot of walks. It was a time of a lot of searching. A time when we gave each other some space to kind of work out where each of us were....I think at the end of that time together, we both were--it was pretty clear to both of us that our love was a very strong and deep one.... And in that it was a biggie, that we really had to keep in contact about it, we really had had to talk about it.

The conclusion which emerges "through miles of talking" is that the relationship with each other is a basic or PRIMARY RELATIONSHIP, a "biggie," and this understanding makes sense of their relationships with other lovers:

5H-5: There was a primary commitment to me and the relationship with Dave was ancillary, may deal on areas that I didn't. But was largely additive and so that made it good and okay and reasonable and all that. That's kind of a rule or an understanding in much of that that made sense.

5H-9: And so there's been a very strong draw. I think that as we were slugging through some of the more rational issues or those that we could get into some sort of rational component, what really prompted us to do that work and what really made it important that we come to some clarity is the strength of the emotional sort of thing. Which again I think we both recognized and then just a--I don't think we glorified it as much as acknowledged that it was there. That is to say my hurt hurt Eileen, her hurt hurt me and I can be hurt by lots of other people's hurt but I think not to a depth that that seemed to consistently have, and then with her as well. There--maybe it's the combination that there is a--there's an intellectual stimulation with one another, there's an emotional stimulation with one another, there's a sexual stimulation with one another, there's a childbearing stimulation with one another, or wrestling with great issues of the world, and so I think Eileen encapsulates for me an ongoing growth potential for me and all that gambit and vice versa, I believe. So--and I think we have found parts of that in many other people many times, but no one who we felt could replace in that sense.

MARRIAGE IS A PRIMARY RELATIONSHIP, comparable to other relationships, but more basic, important, emotionally deep, and irreplaceable. Unlike Alex's model of marriage, it does not entail exclusivity. Consistent with this view of marriage, Bob reports that he has trouble with the term 'marriage' itself, and he is far more inclined to speak of their 'relationship.' He comments that

5H-8: I think that we looked at our relationship very often in contexts of other relationships. We have been as a couple at times very involved with other friends and what they were doing or not doing. And they have seemed very comfortable sharing with us where they are and where they aren't and I think we have provided for them sometimes new vocabulary and vice versa. I think Eileen has been more open about where she is with her friends than I have. Getting out types of new vocabulary or why don't you look at it this way. Or getting support for areas that she was in some sense holding out or trying to say to me, "No, it needs to go another way." That sort of thing. So I think other people provided us both through their direct request for *our* counsel and help and all and the times in us utilizing their marriages as kind of case studies for where we are in all this.

This use of other marriages as "case studies" providing new vocabulary and new perspectives helpful in the task of understanding their own relationship, contrasts with the way Alex uses other couples' marriages. For Alex, other marriages are either like or unlike his own in terms of durability, and their comparison provides him with some understanding of what that difference is.

If MARRIAGE IS A PRIMARY RELATIONSHIP, the Preservation Goal is to keep this relationship together in the course of other, less important ones. But a RELATIONSHIP does not link two people together physically, as does BEING A COUPLE; rather, it positions them vis-a-vis one another. Thus the problem of implementing this goal is not one of constructing a more durable product; it is one of "keeping in contact," a major Instrumental Goal of this marriage. This involves the "inquiry method" of marriage. Marriage as INQUIRY lends itself to the further metaphor of mutual self-examination, and hence marriage, as a SPATIAL RELATIONSHIP.

5H-7: I don't know I think that if she were to change dramatically or I were that that may not be so. Perhaps part of our commitment to continually evaluate where we are in some sort of awareness of that phenomenon. That the greatest liability to our relationship is to not work on trying to get a good sense of where we are. If I let her alone and don't try and she lets me alone we might satellite far enough away so we're not sure what's in between us.

This last is a kind of "Lost in Space" metaphor which nicely captures the sense that there are no reference points except each other. In this spatial metaphor, "keeping in contact about it" means "talking about it." Talk, which initially served to establish the primacy of their relationship to each other, now serves to keep each spouse apprised of where the other is so that they can, presumably, do whatever necessary to "hold together" their relationship.

5H-5: So I think that the relationship with Martha probably set a lot of ground rules for how we're going to communicate through other relationships, at other times. I guess it also very deeply confirmed that we can deal with and process in the throes of living relatively effectively, a lot of stuff. And that if we don't, if we try to pack it off somewhere, very quickly there's a very perceptiv--perceivable sterility, by each of us, at where our relationship is.

Again, the role of communication in this marriage contrasts sharply with the use of talk by Alex and Shirley to convert unshared into vicariously shared experience by telling all the remembered details of their times apart.

Alex feels his marriage threatened when certain conditions--his wife's flirtations, her analysis, their lengthy separation--arise to block critical marital goals. He generally responds to such situations by doing his best to eliminate the threatening condition. What threatens Bob's marriage is a much more gradual process of change in one or the other spouse, which can be brought about by new relationships or new experiences of any kind, and which is so nearly imperceptible that it requires continual monitoring:

5H-7: I guess what I'm saying is I don't know how big a change that I thought there might have been but I think that there is always a thought when Eileen goes into a different sort of experience and--or I do, of the other partner saying, "How much will this change them?" Indeed, Eileen's going to her job in Greensboro. There was a part of me that

monitored very carefully how she was changing in the aspect of, "Is this still the person who I want to interrelate with? Can I deal with this change? Does it seem reasonable to me? What do I have to gain or lose from it?" That whole bit.

Such separate experiences cannot be dealt with, simply, by sharing them vicariously, for they alter the individual in ways that may simply move him or her too far away, so that the relationship can no longer be held together. Efforts to keep in contact may not be enough, either. Changes in the other person may be so great as to call into question whether this is "still the person who I want to interrelate with"--whether this should continue to be the PRIMARY RELATIONSHIP. For unlike Alex's version of a marriage as some kind of physical coupling, a PRIMARY RELATIONSHIP cannot necessarily be expected to be permanent.

5H-7: I think that what our relationship is, is important because we're two other people that *do* live together, we *have* lived together, Eileen and--the information and the knowledge and the respect and love for me that she has is enormous and vice versa. And I think that now it's much more a commitment to making certain that we're pretty clear where each of us are in our growth, in our lives, in our living. Not, I guess--what I don't feel in what you asked is, not to keep the relationship together but because we have a relationship. I *truly* could conceive of us in our evolution of things feeling that an ongoing relationship, living together, does not make sense. When we're at a point in growth and who we are or because of another person or another opportunity that seems to be there that says, "Okay we need not and we probably should not perpetuate this." I guess here again I feel very simple-minded about the whole thing in that that we live together we need to clarify these things there's a compelling interest to do so. I feel pretty much the same with most everyone as a matter of fact, but not to the depth of commitment to doing it. I mean it's very important to me that Eileen and I are pretty clear where each of us are.

So that the final Instrumental Goal of marital self-examination is to assess when it is time to discontinue the relationship, either because the two spouses have moved too far apart, or alternatively, because another relationship has taken primacy. Such assessment, these passages hint, is understood within yet another metaphor, of gain, loss and substitutability--A RELATIONSHIP IS AN ECONOMIC EXCHANGE.

Elsewhere (Quinn n.d.) I have described the role of the word 'commitment' in framing marital goals. In one of its senses, marital commitment is to those goals which are effortful and ongoing enough to require substantial dedication to them. It is not surprising, then, to hear Alex say, "...the commitment was to make that family move. You know, that it was going to be a solid thing." while Bob speaks of "our commitment to continually evaluate where we are," "a commitment to making certain that we're pretty clear where each of us are in our growth, in our lives, in our living." The word 'commitment' is used to mark those marital goals which are instrumental to the implementation of a given model of marriage.

I hope to have hinted that two-liners from story-understanding tasks are poor sources of inspiration for a theory of goal organization. All of us can interpret any one of the Alex stories I invented above, and probably for the most part interpret it correctly. This is because we have a great deal of knowledge about the possible links between particular goals and

particular actions, including both knowledge of human nature and of American culture. This knowledge helps us understand what Alex might be up to in the particular instance; it does not tell us much more, because to do such spot interpretation of someone else's behavior we do not ordinarily need to know his philosophy of marriage. We do, indeed, have some folklore about the way in which marriages may organize goals. This folklore again, is a misleading source of information about the way goals are actually organized in ongoing marriages. It may tell us a lot more about why John decided to get married than about why John decided to get divorced. The organization of marital goals and the goals of other interpersonal relationships is better understood in the richer context of extended discourse about the discourser's own relationship--that is, from the inside. While such discourse is not perfectly transparent by any means, it does suggest a view of goals as organized by metaphors which are themselves organized around underlying theories of what a relationship should be and how such a relationship can be implemented.

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