Stage of Development and Million Dollar per Year Earning From Sales

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This article presents cases showing that people with higher stages in the Model of Hierarchical Complexity can handle more complicated job responsibilities. Account Executives and Consultants from a training company participated in the study. According to the Hierarchical Complexity Scoring System (HCSS; Commons, Miller, Goodheart, & Danaher-Gilpin, 2005) participants' person scores are based on the highest stage item the participant performed in the interview. Six of 9 Accountant Executives and 4 of 15 Consultants performed at the Metasystematic Stage 13. The study indicated that people who perform at the Metasystematic Stage 13 will have a better chance of achieving higher compensation than people performing at the Formal Stage 11 or Systematic Stage 12.

Keywords: companies, income, sales, stage, hierarchy

This article will present cases that show that to earn a higher income a person has to perform at a higher behavioral developmental stage. People who perform at the Metasystematic Stage 13 will have a better chance of receiving higher compensation than people performing at the Formal Stage 11 or Systematic Stage 12. Evidence indicates that people make more money as their stage of performance goes up. These stages will be defined later in the article.

Previous studies have shown that economic behaviors are related to age and developmental stages. Berti and Bombi (1981) showed that there is a developmental sequence for conceptions about the value and use of money in children. Those conceptions develop along the Piagetian cognitive developmental stages. This study examines whether the stage of development predicts the value an individual obtains in terms of their income.

Introduction to the Model of Hierarchical Complexity

The Model of Hierarchical Complexity (MHC; Bernholt, Parchmann, & Commons, 2009; Commons, Goodheart, Pekker, Dawson, Draney, & Adams, 2008; Commons, Miller, Goodheart, & Danaher-Gilpin, 2005; Dawson, 2002; Skoe, 2014) is a nonmentalistic, neo-Piagetian and quantitative behavioral development theory. It offers a standard method of examining the universal pattern of development. It presents a framework for scoring reasoning stages in any domain as well as in any cross cultural setting. Because of the nature of the model, the MHC can be used to analyze hierarchical complexity of tasks in various domains including mathematical, logical, scientific, moral, social, and interpersonal domains. The Hierarchical Complexity Scoring System (HCSS; Commons, Miller, et al., 2005) is based not on the content or the participant material, but instead on the mathematical complexity of hierarchical organization of information. In this

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article, the HCSS is used to score participants' behavior. The participant's performance on a task of a given complexity represents the Order of Hierarchical Complexity.

The Order of Hierarchical Complexity

In the MHC, the different layers in a hierarchical sequence of task complexity are referred to as "orders," and the successful completion of a task of a given order is referred to as "stage." Orders of Hierarchical Complexity (OHC) assess the predicted difficulty of behavior tasks; the higher the order of hierarchical complexity, the greater the difficulty of the task. The OHC is the analysis of one's performance of a specific task. It is different from IQ because it does not measure the inner ability or intelligence of individuals, nor is it static. In total, there are 17 orders of Hierarchical Complexity (see Table 1). In the OHC, the higher order is defined by three axioms: (1) Higher order actions are *defined* in terms of actions at the *next lower* order of hierarchical complexity; (2) O*rganize* and *transform* the lower-order actions; (3) Produce organizations of lower-order actions that are new and *not arbitrary,* and cannot be accomplished by those lower-order actions alone.

Scoring Tasks by Using Hierarchical Complexity Scoring System

HCSS (Commons, Miller, et al., 2005) was used to score interviews or assessments that have different levels of difficulty. In the scoring of interviews and narratives, the interviews and narratives describe task solutions, and the scorer attempts to interpret in the statements how the interviews and narratives reflect the stages in the MHC.

Current Study

It will be shown that the higher the stage of performance, the higher the income. In the present case study, the people to be examined were Account Executives and Consultants from a "Company." Participants' stage of performance was assessed from interviews. Our prediction is that Account Executives would perform at a higher stage than the Consultants. They were higher up in the organization. Often, people who are higher up in organizations perform at a higher stage than the people below them. It is also predicted that only the Account Executives would earn more than $200,000 a year in 1996 dollars. In a study by Miller et al. (2015) on the relationship between stage of price goods and services and there income, there was only one

Table 1
The Order of Hierarchical Complexity

Stage no.	Stage name	Stage definition
0	Computational	Computes using Boolean logic, 0's and 1's
1	Automatic	Automatic responses to stimuli
2	Sensory or Motor	Reflexes and respondent conditioning
3	Circular Sensory & Motor	Operant conditioning
4	Sensory-Motor	Understands simple commands and simple concepts
5	Nominal	Words, Ejaculatives & Exclamations, Verbs, Nouns
6	Sentential	Sentences, Pronouns, ordered numbers & letters
7	Preoperational	Stories, counting material properly laid out
8	Primary	Stories coordinated carefully with reality
9	Concrete	Things, Incidents, Events, Actors, Actions, Places
10	Abstract	Variables, Quantification
11	Formal	Relations among Variables
12	Systematic	Systems of Relations
13	Metasystematic	Supersystems of systems
14	Paradigmatic	System of Metasystems making new paradigms
15	Cross-Paradigmatic	System of Paradigms
16	Meta-Crossparadigmatic	Reflections on the properties of Cross-paradigms

peddler who earned $200,000. The peddler who earned $200,000 performed at the Metasystematic Stage 13.

Method

Participants

Twenty-four participants were interviewed. All the participants worked in "a training Company" that trained corporate leaders to meet strategic business objectives. Almost all of the people selling training were interviewed as part of "the Company's" internal research. The company provided training services and advice meant to mobilize employees, accelerate business-initiative implementation, and improve agility. Nine participants worked as Accountant Executives (AE). Fifteen participants worked as Consultants (C) who also sell training but also deliver the training to corporate leaders.

Interviews

The purpose of the overall project was to determine the relationship between the stage of reasoning on typical problems encountered by participants in the performance of their jobs as Account Executives or Consultants and their actual performance on such tasks in real life. All the interview questions for both groups are shown in Tables 2 and 3. We have found that especially in interviews, it is often only after giving lower stage answers that a person pulls those answers together to give their highest stage answer. Therefore, using the HCSS (Commons, Miller, et al., 2005) participants' person scores are based on the highest stage item the participant performed in the interview.

For the AE interview questions the subsequent columns headings designate the different questions. For example, an Account Executive, in attempting to obtain a contract for "The Company" encountered resistance from CEOs. The CEO's resistance is an important component of the stimulus.

For the Consultant Instrument, the column headings are quite similar, but question D comes before question C. The last two items are different.

Analysis of Participant Responses

The analysis consisted of four parts. First, we conducted layers of contingency setting analysis. In such an analysis, we analyzed the response of a subject to a stimulus using HCSS and predicted the consequence of the response. If the response is adaptive the consequence should result in an increase in similarly adaptive behavior by both the respondent and those with whom the respondent interacts, both below and above in the contingency-setting hierarchy. For example, in the AE interviews, in attempting to obtain a contract for "the Company" the AE did encounter resistance from CEOs. The CEO's resistance is an important component of the stimulus. If account executive accurately discriminated their quandary and their responses addressed the CEO's problem, then the alliance

Table 2
Accountant Executive Interview Questions

Headings	Corresponding questions
A	What thoughts would be uppermost in your mind after receiving the call?
B	What would you be feeling after the call?
C	If you could ask the client five questions, what would they be and why?
D	Describe and justify your next steps after the initial call.
CEO	After two meetings with the training director, you are invited to meet the CEO. He is friendly toward you, and to your presentation of The Company's approach. Yet you have the distinct sense that the CEO is not fully committed to The Company being the Buyer's partner How would you proceed? Explain why.
Anger	You've earned the CEO's commitment. As a way of selling your proposal the CEO has asked you to participate in a planning meeting with a small group of managers who are the target for the intervention. As a discussion of the scope of the effort proceeds you observe that several members of the group are angry and clearly resistant to the effort.

Table 3
Consultant Interview Questions

Headings	Corresponding questions
A	What thoughts would be uppermost in your mind after receiving the call?
B	What would you be feeling after the call?
D	Describe and justify your next steps after the initial call.
C	If you could ask the client five questions, what would they be and why?
Piggy-back	The senior management team has expressed their commitment to the effort. As a demonstration of their commitment they agreed to meet as a group with you for a half day to review their leadership practices. The meeting, however, was rescheduled twice. To make it easier to pull everyone together you have been asked to piggy-back this meeting on an already scheduled staff meeting, confining yourself to 90 minutes. How would you proceed and why?
Response to meeting	The meeting received high marks and attending officers expressed enthusiasm for next steps. However, several key managers failed to appear. In addition, at the close of the meeting it was not clear who would take responsibility for what. Nevertheless, the officers stated that they were fully prepared to empower the corporate development department staff to move this initiative forward. They also agreed to commit their own time in helping to kick-off the effort by communicating when necessary to the organization. What will you do next to bolster the intervention and why?

that the Account Executives forge with the CEO and the other players within the client company will be strengthened. The CEO will in turn respond with additional alliance-strengthening behavior and the Account Executives will have a greater chance of selling the company a plan that successfully addresses its needs.

If, on the other hand, the Account Executives do not discriminate the quandary their responses may fail to integrate the information provided by the CEOs and others. Consequently, their plans may not be well received. When this occurs, and the Account Executives continue to undervalue the perspective of the CEOs and others, they are likely to respond defensively or coercively, triggering further resistance from within the client company. A similar analysis can be made of the behavior of Consultants, each alliance between "the Company" and its client is likely to require continuous maintenance throughout the intervention.

In the second part of the analysis, we scored the participant's individual statements for stage of performance of alliance formation. It was hypothesized that the participants would respond at the highest two stages that are usually seen in the Model of Hierarchical Complexity (Systematic Stage 12 or Metasystematic Stage 13). This hypothesis is based on the assessment of the moral atmosphere of a Learning and Developing Company (Morris, 1993) such as "The Company."

In the third part of the analysis, both the difficulty of the task demands (i.e., item difficulty) and the overall performance of the participant in responding to them were assessed. Here, item difficulty is the Order of Hierarchical Complexity of the task.

In the fourth part of the analysis, the research hypothesis was tested, namely that overall performance on the instrument predicted actual work performance. It is expected that the study to show that successful performance is more frequently found with those functioning at the Metasystematic Stage 13. People preforming at higher stages would earn more money than those preforming at lower stages. Previous research has shown that people in transition to the Metasystematic Stage 13 are more likely to benefit from training programs than people beginning at the Systematic Stage 12 (Broderick, 1996).

Procedure

Participants were interviewed in person.

Results

The results show that Accountant Executives earn more money than Consultants. This is attributable in part to the fact that Accountant Executives perform at Metasystematic Stage 13, which is more hierarchically complex than Consultants' performance at mostly the Systematic Stage 12. Note that these conclusions are based on a very small number of people, a property of case studies. This is a summary of cases does

not have nearly enough people to perform a statistical analysis.

Item scorings for Accountant Executives and Consultant interview questions are summarized in Tables 4 and 5. Tables 4 and 5 show the results of all the participants performing from Formal Stage 11 to Metasystematic stage 13.

Accountant Executives and Consultants' person scorings are shown in Tables 6 and 7. According to the HCSS, participants' person scores are the highest item scores the participant performed in the interview. Six of the nine Accountant Executives performed at Metasystematic Stage 13 (66.7%), whereas only four of the 15 Consultants performed at Metasystematic Stage 13 (26.7%).

For AE people, there were five of nine (56%) people who earned more than $200,000. They all performed at the Metasystematic Stage 13. Note that five of six (83%) performed at the Metasystematic Stage 13. For C people, there were 0 of 15 even though four of 15 (27%) performed at the Metasystematic Stage 13. Note that no Accountant Executives or Consultants performed lower than the Systematic Stage 12.

In the Appendix, there is a series of tables illustrating the transition steps of Account Executives. This is included so that the readers have extensive examples of actual answers to the questions and so the reader understands the reasoning and the sees the transitions into the Metasystematic stage. The Appendix starts out with discussion of transition, definitions, and table of transition steps.

Discussion

To sell effectively to CEOs and presidents of the company, this study shows that sales per-

Table 5
Consultants Interview Question Answers

ID	A	B	D	C	Piggy-back	Response to meeting
26	12	12	12	12	12	12
28	12	12	12	12	12	12
30	12	12	12	12	12	12
33	12	12	12	12	12	12
34	12	12	12	12	12	12
36	12	12/13	12/13	12	12	12/13
37	12	12	12	12	12	12
40	12	12	12	12	12	12
42	13	13	13	12	13	13
45	13	13	13	12	13	13
46	12	12	12	12	12	12
50	12	12	12	12	12/13	12/13
51	12	12	12	12	12	12
52	12	12	12	12	12	12
54	12	12	12	12	12	12

sons have to be performing at the Metasystematic Stage 13. This is supported by the finding that five of six (83%) Account Executives performed at the Metasystematic Stage 13 and five of nine (56%) of those earned more than $200,000. No Consultants earned this much. Because being and performing at the Metasystematic Stage 13 was not perfectly predictive, there have to be other variables predicting success at sales. A larger study would allow for more variables to be measured.

To form an effective alliance between the company being sold to and the company provided the training, the Account Executives had to take the perspective of both companies and integrate them. At the Systematic Stage 12, one would take the perspective of either "the Company" being sold to or "the Company" who provide training services

Table 4
Accountant Executives Interview Question Answers

ID	A	B	C	D	CEO	Anger
5	12	12	12	12	12	12/13
7	12	12	12	12	12	13
8	12	13	13	13	13	13
9	12	12	12	12	12	12
10	12	12	12	12	12	12
11	11	11	12	12	12	12/13
12	12	12	12	12	13	13
14	12	12	12	12	12	13
15	12	12	12	12	12	12

Table 6
Person Scores for Accountant Executives

ID	Person's stage for accountant executives
5	13
7	13
8	13
9	12
10	12
11	13
12	13
14	13
15	12

Table 7
Person Scores for Consultants

ID	Person's stage for consultants
26	12
28	12
30	12
33	12
34	12
36	13
37	12
40	12
42	13
45	13
46	12
50	13
51	12
52	12
54	12

but not both. Companies can be perceived and understood as complex systems. Even moderately large companies may be more clearly understood as metasystems, with groups as holarchies or circles that are nested in each other, or just as abstract entities. But companies in general and in themselves cannot be scored or be said to be at a certain stage or order. This is because the tasks differ in order of hierarchical complexity starting at Concrete Stage 9 and going up to at least Metasystematic Stage 13 for the top leaders.

Therefore, the Account Executives have to show an appreciation of what "the Company" wants and what problems it faces. What a company wants consists of many things that may be organized into a system. For a simplistic example, it would be to increase market share and at the same time, improve margins. It also may face a multitude of problems that inhibit it from satisfying those wants. They might include (a) not enough money spent on research and development to grow market share with new products, or (b) the marketing people not targeting early adopters and forward looking customers in the market research. Together they form another system. The account executive might need to sell training the integrates those two systems into a metasystem. They might have to understand the culture of the company to which they are trying to sell to and how that may match the systems of training their own company may provide, another metasystem. The person selling has to work closely with the CEO or presidents to show that they understand the company as well as wants and problems. They have to show how the training company might successfully address those identified problems. Also they have to show that the Accountant Executives were there for "the Company" being sold to. They would be responsive in a dynamic way to what training consultants do and in what problems they faced. They also will monitor the effectiveness of the training from "the Company's" perspective.

In the United States, most sales people make most of their money on commission, not base salary. For account executives, to reach $200,000, they would be selling about 1 million in training. It is also the case that people are promoted to become account executives because of their past history of high sales.

Because the number of people performing at the Metasystematic Stage 13 is only 1.7% (Commons, Li, et al., 2014), it is very hard to find people who perform at the stage. One may screen prospective employees for positions using stage assessments as well as interest assessments. One set of instruments used is "the Laundry problem" (Commons, Li, et al., 2014), and another is a version of "the Doctor Patient problem" (Commons, Goodheart, Rodriguez, & Gutheil, 2006). The question remains about whether one can train people to move up in stage.

Maybe it would be possible to generalize causal relationship between hierarchically complex reasoning and its consequences in terms of business development. Commons' (2014) stages of investing shows much greater economic success in investing. Jaques (1994) has shown that successful organizational leadership is well described by their stratum, which is partially about stages of development. Some ongoing studies of leadership of companies show the top leader in successfully growing companies perform at the Metasystematic Stage 13.

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Appendix

Substeps Between Stages

In between the two stage of hierarchical complexity, Commons (2014) believes that the rate of reinforcement may cause small perturbations in behaviors. Once perturbed, switching to a new behavior may increases the rate further if it is further along in transition. But, switching is not deterministic, it is probabilistic. By increasing the probability of transition, one will eventually move up to the higher stage of development from the lower stage of development.

Transition steps are somewhat different from transition subtask actions and especially subsubtask actions. For a review of the history, see Commons and Richards (2002) and Ross (2008). For a comparison please see Commons (2014).

Table A1 shows the steps of transition via substages. A represents a stimulus in one behavior of a specific domain, B represent another stimulus in the same behavior as in stimulus A.

Expanded Substeps for Model of Hierarchical Complexity

Tables A2, A3, and A4 explain transitions between two stages in detail.

Tables A5, A6, and A7 shows the scoring detail of some Accountant Executives to show the applications of the transition model to transitions between various stages.

Table A1
Combining Kuhn Phases of Transition With Piaget's Dialectical Steps

Step	Substep	Relation	Dialectical form
0		A = A' with B'	Extinction Process
1		A fails	Negation or Complementation, Inversion or alternate thesis
2		B (or not A)	Alternation of thesis and antithesis depending on non-relevant context
3		A or B	Random hits, false alarms and misses, correct rejections (Smash1)
4		A & B	Components from A and B are included in a nonsystematic, non-coordinated manner
	1		Incorporates various subsets of all the possible components
5	2		Incorporates subsets producing hits at stage n. Basis for exclusion not sharp (Overgeneralization)
6	3		Incorporates subjects that produce correct rejections at stage n but excess misses. Basis for inclusion not sharp (Undergeneralization)
7		A with B	New temporary equilibrium

Table A2
Steps for Transition From Abstract Stage 10 to Formal Stage 11

Steps	Order	Action
Step 0	11.0	Recognize the failure of a stage 10 group norms or stereotype.
Step 1	11.1	Turn against the norm and negate the norm (find the complement to the norm).
Step 2	11.2	Alternate between one norm and another norm. Sometimes you are supposed to be like your parents, but sometimes you have to be cool and fit into the group.
Step 3	11.3.0	They use false logic to relate norms and outcomes.
	11.3.1	Look at a situation. If I apply this norm, does it always work? Making hits, but not enough. They note that sometimes the norms work. They use the wrong rule, but the rule is almost right. If and only if instead of Overgeneralizing.
	11.3.2	They begin to know when they work and when they do not. They systematically check to see whether norms work or not. They avoid false alarms, but often at the cost of losing hits Undergeneralizing.
Step 4	11.4	Acquire the 10 rule (integration).

(*Appendices continue*)

Table A3
Steps for Transition From Formal Stage 11 to Systematic Stage 12

Steps	Order	Action
Step 0	12.0	Recognizing the failure of a stage 12 strategy. Subjects learn that linear logic with one causal variable fails.
Step 1	12.1	They turn against system and switch to the self.
Step 2	12.2	Alternative between using one variable in one situation and another variable in another.
Step 3	12.3.0	You put two or more variables together and try to relate them to an outcome. The combination of variables is "willy-nilly" (i.e., arbitrary). Relations are not ordered.
	12.3.1	They start to get hits and think everything fits together. Abbreviated table: Transition to Stage 13 (Transition from Systematic to Metasystematic).
Step 4	12.4	Organization of formal-stage rules into system A, multivariate causality.

Table A4
Steps for Transition From Systematic Stage 12 to Metasystematic Stage 13

Steps	Order	Action
Step 0	13.0	First step of Transition to Metasystematic: Rejection of Systematic Strategy
Step 1	13.1	Second step of Transition to Metasystematic: Alternative to systematic strategy proposed
Step 2	13.2	Third step of Transition to Metasystematic: A | B (Switching back and forth between system of "the Company" and system of Customer, relativistic)
Step 3	13.3.0	First step of smash, A & B not ordered
	13.3.1	Second step of smash, A & B with hits and false alarms
	13.3.2	Third step of smash, A & B avoidance of false alarms
	13.3.4	Integration of Metasystematic, Construction of supersystem from A &B (integration of "the Company" and Customer perspective)

(*Appendices continue*)

Table A5
Accountant Executive Participant 7

Question	Perceived stimulus	Response stage	Response	Reported consequence
A	The subject perceives that she is being asked to say what he would do if he received this call.	Stage 12.3.23/4: If they do something differently, they will be successful. (What should they do?) 4: Solutions that worked with similar audiences might work here. Coordination of two variables, not two systems.	Responds by stating questions elicited by call.	Review of information shows competence but does not address perspective of person with whom he is trying to form alliance. The alliance could be in jeopardy.
B	The subject perceives that she is being asked what feelings she would have in this situation	Stage 12.3.1 Coordination between success of project and growth of organization.	Responds by saying she is "energized". Such an emotion is associated with success.	Consultant will work hard, which is good for project. Will not necessarily think more about perspective of client, which could jeopardize alliance.
C	The subject perceives that she is now expected to come up with a set of questions for client and to justify them.	Stage 12.2 AE looks of measurable results and identifies areas where change must occur to transform organizational order. Client's perspective does not have much value here.	Questions ask client to define problem, scope of effort to overcome problem and means of knowing whether that goal is achieved. Questions solicit information but also act on client to influence client's behavior in a certain way (heightening commitment)	Information-obtaining and client-influencing behaviors are reinforced.
D	The subject perceives that more steps are called for and that they must be justified.	Solidly Stage 12.0 Solicits other viewpoints and produces proposal with options.	The subject describes further efforts to obtain information and to draft proposal with options	This is the beginning of informed consent at the systematic stage. This is the behavior that is reinforced.

(*Appendices continue*)

Table A5 (*continued*)

Question	Perceived stimulus	Response stage	Response	Reported consequence
CEO	The subject perceives that the lack of commitment of the CEO is now the issue.	Stage 12.3.1 Strategic behavior at systematic stage: AE is interested in studying perspective of CEO and comparison between CEO's perspective on "the Company" VS. CEO's Perspective on competing organizations (i.e., other consultants). However, AE's thoroughness in trying to understand CEO's perspective could actually push the process to the next stage	The subject describes strategies for analyzing the CEO's behavior and influencing him.	The perception that the CEO is the obstacle to the plan's success has been reinforced. Failure to merge CEO's perspective with "the Company" perspective could put alliance in more jeopardy.
Anger	The subject perceives that there are now other obstacles to moving forward (resistance of other members of small group).	Stage 13.0 AE tries to establish buy-in around the objection/obstacles. Suddenly, those objections and obstacles have value in the decision-making process.	The subject stops "moving forward". The subject takes the perspectives of the different individuals and attempts to link objectives of plan to individual objectives.	High-stage social perspective-taking behavior is reinforced. "Moving forward" too quickly has been punished. However, objections to going forward have now been taken into account and made central to new proposal. Alliance can now be strengthened.

(*Appendices continue*)

Table A6
Accountant Executive Subject 8

Question	Perceived stimulus	Response stage	Response	Reported consequence
A	Perceived lack of information about executives, division managers and customer base. Information about the training director in the story that raises subject's concern	Stage 12.3.1 AE is clearly concerned about getting the perspectives of the different players in organization but for an entirely strategic reasons.	Asks question about executives, division manager, and customer base. Questions are aimed at getting perspectives of different people concerned in project. Expresses concern about why training director embraced Influence solely on word of colleague and need to determine whether training directory is a "tactical, transaction oriented buyer." If so, other line people in organization must be contacted.	Inquisitiveness is reinforced. Perception that training director is a problem is reinforced. Because AE is thorough about getting the perspectives of the different players, alliance could be reinforced.
B	Subject perceives demand to define emotions elicited by call	Stage 13.1 Reflects on a property of a particular instance of the director's reasoning (failure to take into account input of design on particular needs). Particular needs could refer to the perspectives of other individuals or aspects of system.	Claims to be "intrigued" by impression of "The Company" on training director and "concerned" that director has solution in mind without having understanding "input of design on particular needs"	Misgivings about director are reinforced.
C	Subject perceives demand to ask questions and to justify questions	Stage 13.3.1 Looks at demands of market on different parts of organization. Asks about criteria for deciding who to work with. Implicit is the fact that there are various possible interventions, each with different properties.	Subject asks questions aimed at qualifying situation and gaining adequate understanding for proceeding further.	Information-getting behavior is reinforced. Behavior tending toward forming a plan and taking immediate action is not reinforced.
D	Subject perceives that more discussion is needed.	Stage 13.3.2	Subject proposes further discussion and anticipates that "the Company's" experience may provide options and carry the investigation even further (if situation calls for it).	Cautious, investigative behavior is reinforced. Taking immediate action does not occur and is not reinforced.
CEO	Subject perceives CEO's distrust of "The Company"	Stage 13.2 Explores feelings of CEO and acknowledges them, giving them value in decision-making process. True informed-consent.	Subject explores CEO's feelings and tries to validate them.	High-stage social perspective-taking behavior is reinforced. Alliance should be strengthened.
Anger	Subject perceives anger of managers	Solid Stage 13.0 Not only works to understand the anger of the different players and its meaning in the initiative but also works to enlist help of senior manager in working through concerns of other managers as part of ongoing process.	Subject explores their feelings and concern directly with managers but also with CEO and training director.	High-stage social perspective-taking behavior is reinforced. Taking immediate action (forming a plan, assigning tasks, delivering on objectives) is not reinforced. Alliance should be strengthened.

(Appendices continue)

Table A7
Accountant Executive Participant 9

Question	Perceived stimulus	Response stage	Response	Reported consequence
A	Story identifies different players (including colleagues who recommended "The Company") and problems	Stage 12.2 Reflects on different perspectives of players in system, economic and strategic impact, etc. But it is not clear how those perspectives are given value in the intervention.	Subject asks questions	Inquisitiveness if reinforced
B	Subject perceives demand to express feelings	Stage 12.3.0 Excited about learning more about Bryer. States the multiple variables that cause "The Company" to be in good position.	Expresses "excitement," "confidence," and "anxiousness" to "learn more."	Consultant will learn a lot about Bryer, which could be of value to intervention. Is more focused on position of "The Company" than on needs of client, which could weaken alliance.
C	Subject perceives demand to produce questions	Repeats A 12.2	Repeats response from item A.	Behavior aimed at completing form with least amount of work is reinforced.
D	Subject perceives demand to list steps, perceives need for more information	Stage 12.0 Refers to "the Company's" history dealing with such clients. Is not thinking particularly about the client.	Subject lists steps aimed at getting more information, both from client and from "The Company"	Information-gathering behavior is reinforced.
CEO	Subject perceives barriers to CEO's buying into plan	Stage 12.3.1: Looks like a downward assimilation of Stage 12. Alliance-gaining behavior (managing their feelings, using people as sources of information and recommendations) without very much reflection. This needs to be diagrammed.	Subject takes perspective of CEO and training director and suggests that CEO profit from experience of other CEOs in similar situation.	Formal social-perspective taking behavior is reinforced. Behavior aimed at taking concrete action, defining course, producing results, is not reinforced.
Anger	Subject perceives resistance of managers	Stage 12.3.1: same as for CEO.	Subject tries two different approaches: addressing issue head on and exploring concern in 1-on-1 interviews.	Flexibility is reinforced.