

SCORING FOR CONCEPTUAL/INTEGRATIVE COMPLEXITY

Learning how to score involves three steps: mastering the scoring manual, coding practice stories, and comparing one's coding with that of the "expert scorer." Begin by reading the two chapters (27 and 28) that deal with the conceptual/integrative complexity scoring system. Study the scoring manual carefully. It is a waste of time to begin scoring before you have a thorough grasp of the scoring categories and the illustrative examples.

Next, read the introduction to appendix I for a description of the practice stories and how they were obtained. Make a scoring sheet on which you can record your coding decisions for each story. Score all of the stories for each picture before going on to the next picture. Score the stories for 10 subjects and then compare your scoring with that of the expert. Then repeat the procedure for the next 10 stories, and so on.

The expert scoring is presented on the following pages. For each picture written explanations of the expert scoring are provided for the first 10 stories. Following the written explanations is a table that gives scores for all subjects for all stories. Keep track of your errors, and review them before going on to a new picture. As you score, consult the manual as frequently as necessary.

The pictures used to obtain the practice stories were chosen to elicit imagery for several different variables, so the stories vary from one picture to another in the kinds of imagery they contain. To obtain additional practice stories, consult appendix III.

EXPERT SCORING FOR CONCEPTUAL/INTEGRATIVE
COMPLEXITY*

Picture 1

- 1-1. The author clearly delineates multiple dimensions (3, in this case) of what the Captain needs in order to provide better services (i.e., more competent help, better quality of food, better support).
- 2-1. The author presents ideas in a plain manner; no attempt is made to qualify or expand the perspectives of the characters or the dimensions of their actions.
- 3-1. The author's statement that George will wait for his luggage (as suggested by the Captain) is qualified by the frustration George feels.
- 4-1. The author discusses all of the activities/actions of the participants within a single dimension. Although the paragraph is not rigid (i.e., the use of "probably"), there is no attempt at differentiation.
- 5-1. More than one sentence is required for scoring as the minimum scoring unit for complexity. This is also a description without any personal judgment or evaluation.
- 6-1. This paragraph is largely descriptive (i.e., minimal evaluation). Although the content flag for a score of 2 is used (i.e., "but"), it does not represent the qualification of an absolute rule in this case and therefore does not merit the higher score.
- 7-1. The author clearly provides the perspectives of both the Captain and the passenger with the former focusing on information about the ship itself and the latter focusing on the qualities/capabilities of the ship.
- 8-1. A single sentence is insufficient for the scoring of integrative complexity.
- 9-1. This paragraph is largely descriptive with minimal evaluation (i.e., "pleased to find"). Different perspectives are not provided for the two characters nor are different dimensions about the "problem" given.
- 10-1. The author provides the two perspectives of the Captain and the private detective. The private detective fears that an illegal passenger is on board and wants the ship detained. The Captain is skeptical and believes that the private detective's proof is insufficient to warrant upsetting his passengers.

* Expert scoring by Gloria Baker-Brown, Elizabeth J. Ballard, Susan Bluck, Brian de Vries, Peter Suedfeld, and Philip E. Tetlock.

Picture 2

1-2. The author recognizes the existence of multiple alternatives (multiple priorities: work and family) and some tension is expressed between these (i.e., "he would like to change that") and a superordinate statement is provided (i.e., "He resolves to reassess his priorities").

2-2. The author recognizes that there are at least two ways of achieving the goal of creating "Stepford Wives": producing an entire nuclear family or one unit at a time.

3-2. The author presents two alternatives in his life: work (evaluated in terms of diligence and quality) and family (evaluated in terms of time and thought). These alternatives are in conflict with each other thereby leading to the assigned score.

4-2. The author differentiates between what the character is doing and what the character may be thinking. Actions concerning work and thoughts about family are kept parallel.

5-2. The author recognizes that the father/husband is dissatisfied with his profession (work dimension) but recognizes his responsibilities to his family (family dimension). There is no tension between these alternatives as seen in the final sentence.

6-2. The author presents and discusses the various levels of thought associated with opening "his own architectural firm" (i.e., financial and personal security, as well as personal and professional contentment). The author also presents a course of action, again in multiple steps, originating in telling his wife, taking an extra job, then leaving his present company for his own independent firm under the condition of strong business. The specifics of a system of thought are presented as a plan for safely developing a new business.

7-2. The author evaluates both family and work according to a single dimension of like/love. Everything (i.e., both home and work life) is positively valued.

8-2. This paragraph is largely descriptive with minimal evaluation (i.e., "motivated by his work," "appears to have"). The dimensions of work and family are not elaborated and, in fact, are collapsed into a single dimension (i.e., "work-home life").

9-2. The excitement expressed by the architect's wife is qualified by her anxiety. Qualification is the hallmark of a score of 2.

10-2. The author explicitly presents the conflicts between the alternatives that are being considered (i.e., the unreliability and dangerousness of the plant/company, and the needs of the townsfolk including his family).

Picture 3

1-3. The author does not recognize that the two characters may have different perspectives. Most of the paragraph considers "them" as a single unit.

2-3. The male con artist believes he is conning an innocent student but the student's perspective is quite different. She realizes she is being conned and, in fact, is conning him (possibly transmitting a fatal disease).

3-3. Stephen and Sarah continue to love each other while at the same time recognizing that they will never see each other again. Their feelings and thoughts, although incongruous, are held simultaneously.

4-3. The "out of doors" and the "scenery" are too similar to be considered as even emergent dimensions. The author's "rule" is that talking together lets them know more about each other's feelings. Although this "rule" could easily be elaborated to examine each character's perspective on the other (which may not differ), this is not done.

- 5-3. The underlying theme of the paragraph is relaxation and enjoyment (both of which are evaluatively positive) and no exception to this theme is introduced.
- 6-3. In this paragraph there are two sets of two perspectives. The "nerd's" office mates all get along with him and at the same time see him as bothersome and feel sorry for him. Later in the paragraph, the woman is thinking about changing her job while he talks about his future.
- 7-3. There is evidence of emergent perspectives and dimensions in this completion. "Each wants to know the plans and dreams of the other," each wants to see the other's perspective. Their relationship is seen as having three potential dimensions although these are somewhat similar and are unelaborated, that is "they enjoy being together, discussing things they have in common and their goals in life."
- 8-3. If not rated as unscorable (because it is a single sentence), the completion would be given a score of 1 as it states the male's perspective straightforwardly and does not mention the female's view.
- 9-3. Both characters are seen as "in love" and happy to have conceived a child. Their emotions are not seen as multidimensional or different from one another.
- 10-3. The author has a unidimensional interpretation of the characters and events in the story.

Picture 4

- 1-4. There is no recognition by the author that the two employees may have different thoughts or feelings about the situation. The information given is not qualified or expressed conditionally.
- 2-4. Although the author is not extremely rigid or evaluative in interpreting events, no differentiation is evidenced.
- 3-4. The author sees one fundamental dimension to the story – that Gwen has been, is, and will continue trying to find a cure for the disease.
- 4-4. The author lists a straightforward sequence of events.
- 5-4. The author does not differentiate between the two research scientist's feelings but the feelings which are attributed to both of them show recognition of emergent dimensions. The women are seen as intense and serious about their careers as well as self-fulfilled and accomplished.
- 6-4. The author delineates the two scientists' perspectives both in terms of responsibilities and status at work, and feelings toward asking for/granting a raise.
- 7-4. The author recognizes two dimensions of the researchers' goals: for the research to "go well and be productive" as well as to "make a contribution to science." These are two different levels of research, as evidenced in the last paragraph in which the author separates the solution of this specific problem from the larger goal – the search for truth.
- 8-4. This is unscorable as it is only one sentence and is also a description showing no evaluation.
- 9-4. This paragraph is scored for emergent recognition of two dimensions. The researcher's eyes were filled with tears and excitement.
- 10-4. The author shows several instances of minor differentiation but does not actually specify two alternatives (perspectives or dimensions). Emergent recognition is evidenced in the unelaborated view of the women as having both knowledge and authority, and the view of the student as a mother/wife/potential doctor, and the professor's empathy for the student.

Picture 5

- 1-5. Differentiation takes the form of a qualification. "He wants to forget about the incident, but can't."
- 2-5. The author outlines a series of events that are linked together into a story but shows no exploration of the character's thoughts or feelings, or alternative ways to interpret events.
- 3-5. The author recognizes dimensions of the acrobat's job limitations (they are unskilled for other work and have increasing physical demands put on them) and emergent dimensions of the job's benefits (the excitement of show business and the traveling).
- 4-5. The paragraph begins as a straight description. When some interpretation is given it is reported as a factual account. The author seems to be seeking closure.
- 5-5. The two characters in the story are not considered as having different perspectives, nor are their backgrounds or futures seen as multidimensional. This lack of response differentiation is evidence of a simple structure.
- 6-5. The two characters are seen as having distinct, parallel perspectives on their work as entertainers. The work itself is also seen as multidimensional; it is both a dirty, boring job and one that requires great skill and coordination.
- 7-5. The paragraph consists of a series of events that are basically unrelated. When evaluation occurs, it is unidimensional. "They want to do a good job and put on a good show."
- 8-5. This completion is unscorable as only one line of text was produced.
- 9-5. Although Faye makes a decision to stay in the circus the decision is qualified by her having "almost relented."
- 10-5. The fact that the young trapeze artist proves to be a star is qualified by her initial unsureness.

Picture 6

- 1-6. The author clearly presents the differing perspectives of the characters in the story: the princess who hopes to convince Mickey to relocate to manage a stable and Mickey who hopes to convince the princess to bring the horses to the USA.
- 2-6. Although various characters are mentioned, they are not provided with different perspectives on a single event. The story comprises a set of otherwise disconnected statements.
- 3-6. The youth (and implied inability) of Mrs. Rancraft is qualified by her apparent knowledge and experience. "Owner" and "boss" also imply different dimensions along which Mrs. Rancraft may be evaluated, although they are insufficiently elaborated and therefore a score of 2 is assigned.
- 4-6. The author presents a story in a series of otherwise disconnected statements. There is no evidence of differentiation.
- 5-6. Differentiation is provided in the statement about the future of farming and the efficacy of staying in the business (economic considerations) and passing on the tradition to the next generation (personal concern).
- 6-6. Differentiation is evident in the simultaneous acceptance of the "English ways of life and dress" while "still taking pride in her Indian customs and background." The sentence immediately preceding the last is an example of a qualification (score of 2); however, paragraphs are always awarded the score reflecting the highest level of integrative complexity evident.
- 7-6. The author provides a qualification of the woman's fondness of horses and

riding by the restriction that she "has to live in the city." Implicit differentiation is also provided in her desire to know more about horses in general.
 8-6. Although there is evidence of some flexibility (i.e., "possibly," "perhaps"), the author shows no signs of differentiation.
 9-6. The final sentence has evidence of implicit differentiation ("a little freer" and "more hopeful") and thus a score of 2 is assigned.
 10-6. This paragraph has no evidence of differentiation; neither character has a unique perspective on the situation and moreover, everyone, including the animals, needs a break.

Table I.1. *Conceptual/integrative complexity scores by subject and stimulus*

Subject	Stimulus					
	1	2	3	4	5	6
1	3	4	1	1	2	3
2	1	3	3	1	1	1
3	2	4	3	1	3	2
4	1	3	1	1	1	1
5	×	3	1	2	1	3
6	1	6	3	3	3	3
7	3	1	2	3	1	2
8	×	1	1	×	×	1
9	1	2	1	2	2	2
10	3	4	1	2	2	1
11	3	2	4	3	1	3
12	2	2	2	1	1	3
13	3	1	2	4	1	2
14	1	3	1	3	2	2
15	1	2	2	1	2	3
16	2	3	4	4	4	3
17	1	1	2	2	3	2
18	1	1	1	1	1	1
19	1	1	1	1	1	1
20	1	3	4	3	3	3
21	1	4	3	3	3	1
22	2	3	2	3	3	1
23	1	1	2	2	1	3
24	3	4	3	1	3	2
25	3	1	2	3	1	1
26	2	1	4	4	4	4
27	1	1	2	2	1	1
28	2	1	1	1	2	1
29	1	1	3	1	1	1
30	1	2	4	1	2	1

Note: × = unscorable

SCORING FOR NEED FOR UNCERTAINTY

Learning how to score involves three steps: mastering the scoring manual, coding practice stories, and comparing one's coding with that of the "expert scorer." First, read the two chapters (29 and 30) that deal with uncertainty orientation. Next, read the introduction to appendix I for a description of the practice stories and how they were obtained. Make a scoring sheet on which you can record the coding categories for each story. Chapter 37 explains how to make a scoring sheet and gives a number of suggestions regarding how to learn a content analysis system and how to measure intercoder agreement.

Score all of the stories for each picture before going on to the next picture. Score the stories for 10 subjects and then compare your scoring with that of the expert. Then repeat the procedure for the next 10 stories, and so on. The expert scoring gives the categories scored for each story for all pictures. This information is followed by a section on Annotated Scoring of Selected Practice Stories. Therefore, after you check the categories scored for a story, look to see if there are additional comments on that story. *Keep track of your errors, and review them before going on to a new picture.* As you score, consult the manual as frequently as necessary. Compute the degree of interscorer agreement you attain (see chapter 37) picture by picture and/or using a total score for each subject based on all six pictures.

The pictures used for the practice stories included here were cued for several different motives, so the stories vary greatly from one picture to another in the amount of uncertainty imagery they contain. To obtain additional practice stories, consult appendix III.

EXPERT SCORING FOR NEED FOR UNCERTAINTY*

Picture 1

1-1. UI = -1	14-1. UI = -1
2-1. UI = -1	15-1. UI = -1
3-1. UI = -1	16-1. UI = -1
4-1. UI = -1	17-1. UI = -1
5-1. UI = -1	18-1. UI = -1
6-1. UI = -1	19-1. UI = -1
7-1. DI = 0	20-1. UI = -1
8-1. UI = -1	21-1. UI = -1
9-1. UI = -1	22-1. UI = -1
10-1. UI = -1	23-1. UI = -1
11-1. UI = -1	24-1. DI = 0
12-1. UI = -1	25-1. UI = -1
13-1. UI = -1	26-1. UI = -1

*Expert scoring by Steven E. Hanna, Christopher J. R. Roney, and Richard M. Sorrentino.