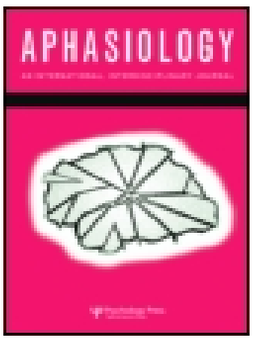

Aphasiology

ISSN: 0268-7038 (Print) 1464-5041 (Online) Journal homepage: https://www.tandfonline.com/loi/paph20

Development and reliability of a quantitative measure of adults' narratives

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To cite this article: Heather Harris Wright , Gilson Capilouto , Stacy Wagovich , Tamara Cranfill & Jill Davis (2005) Development and reliability of a quantitative measure of adults' narratives, Aphasiology, 19:3-5, 263-273, DOI: 10.1080/02687030444000732

To link to this article: https://doi.org/10.1080/02687030444000732

Published online: 18 Aug 2010.

APHASIOLOGY, 2005, 19 (3/4/5), 263–273

Psychology Press
Taylor & Francis Group

Development and reliability of a quantitative measure of adults' narratives

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Background: Assessing narrative discourse production in persons with aphasia has long challenged clinicians seeking to improve functional outcomes. Fortunately, the development of single picture or picture sequence stimuli has enabled clinicians to quantify aspects of elicited narrative discourse production in a clinical context. However, also needed for the analysis of the narrative discourse of individuals with aphasia are performance data for adults without brain damage. Such comparative data of both younger and older adults would considerably extend the clinical usefulness of discourse tasks that incorporate picture stimuli. However, elicited narrative discourse samples are only valuable as assessment tasks if the procedure yields samples of similar quality for an individual over time.
Aims: The main objectives of this investigation were (a) to characterise the quality of the discourse narratives of non-brain-damaged (NBD) adults, examining the effects of stimulus types on their performance; (b) to compare the proportion of main events conveyed by younger and older NBD adults on the elicited narrative task, and (c) to estimate the test–retest reliability of these tasks with each group of participants.
Methods & Procedures: A total of 40 neurologically intact adults were divided into younger (YG; $N = 21$) and older (OD; $N = 19$) groups. Participants attended two sessions, 10–20 days apart. Each time, participants viewed two pictures and two picture sequences (Nicholas & Brookshire, 1993) and told what was going on in the pictures. The language samples of each participant were then evaluated for the proportion of main events included, and test–retest reliability was assessed.
Outcomes & Results: The YG group conveyed a significantly larger proportion of main events than the OD group. The main effect for picture stimulus was also significant; participants told significantly more main events in response to sequential versus single picture stimuli, regardless of age. Test–retest results yielded strong, positive correlations between sessions for both groups.
Conclusions: Our findings suggest that age does influence performance in elicited narrative discourse. The YG group conveyed more causal links and relationships between the events depicted in the pictures than the OD group. Test–retest results indicate that the measure is stable over time for younger and older adults without brain damage.

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http://www.tandf.co.uk/journals/pp/02687038.html DOI:10.1080/02687030444000732

Face-to-face interaction is believed to be the most basic level of engagement (Sacks, 1972). Discourse, defined by Garvey (1977) as the means by which two people organise a verbal exchange, is one type of interaction. As such, the narrative discourse skills of individuals with aphasia are a critical and extremely functional aspect of the assessment process.

The clinical use of single pictures or picture sequences enables the production of elicited narratives that can be readily compared to those produced by non-brain-damaged adults. Indeed, picture stimuli have been used extensively in investigations of elicited narratives with adults with aphasia (e.g., Nicholas & Brookshire, 1993, 1995; Potechin, Nicholas, & Brookshire, 1987; Yorkston & Beukelman, 1980). Analyses of narratives generated from pictures include Yorkston and Beukelman's (1980) content unit analysis, Nicholas and Brookshire's (1993) correct information unit (CIU) analysis, and Nicholas and Brookshire's (1995) rule-based system for scoring main concepts in connected speech. A limitation of these measures is that they are not designed to detect a participant's knowledge of interrelationships (causal, temporal, etc.) between events and characters, nor do they assess whether the participant has expressed the most critical aspects depicted in picture stimuli.

Recently, Coelho (2002) used Stein and Glenn's (1979) Story Grammar analysis to examine the number of episodes as well as episode length in narratives of adults with closed head injury. Although analyses of this type are appropriate for the examination of the quality of narrative samples they do not provide information about the extent to which individuals convey the critical events and relationships depicted in picture stimuli. That is, a participant could produce an excellent narrative, in terms of the number of complete episodes conveyed, but fail to express the key events in the picture stimuli and the relationships between them. An analysis that focuses on expression of these relationships, then, would augment those that focus on the quality of the narrative produced, by characterising the abilities of clinical populations to express key points and their interrelationships within a story.

Attempts to quantify narrative discourse performance of individuals with aphasia are not new. Nicholas and Brookshire (1993) made a significant contribution through the development of picture stimuli and the correct information unit (CIU) analysis. CIU analysis includes words per minute (WPM), correct information units per minute (CIUpm), and percentage of CIUs (%CIUs; total CIUs/total words $\times$ 100). The authors reported that CIUpm was the most sensitive measure for discriminating adults with and without aphasia, but that the three measures could be used collectively to provide information about the informativeness and efficiency of a person's discourse. Further, they described %CIUs as an indicator of the informativeness of elicited discourse. However, Nicholas and Brookshire conceded that CIU analysis is limited by its failure to consider the relative importance of individual CIUs to a story's meaning as a whole. This measure does account for the relative importance of events and relationships, but it does not identify the omission of critical ideas from participants' samples.

Consequently, in a subsequent study, Nicholas and Brookshire (1995) developed a rule-based system for scoring *main* concepts in elicited narratives. Stimuli included four single pictures and two picture sequences used during the development of the CIU analysis. The authors defined a *main* concept as the ''outline of the gist or essential information portrayed in the pictures'' (p. 148). Each main concept could contain only one main verb. Main concepts were scored as *accurate, complete* (AC); *accurate, incomplete* (AI); *inaccurate* (IN); or *absent* (AB). For a main concept to be scored as AC, all essential information for that main concept had to be provided. Main concepts that

were accurate but missing essential information were scored as AI, and a score of IN was used when portions of the essential information were inaccurate. A concept received a score of AB when none of the essential information was given. Comparing age-matched, non-brain-damaged (NBD) individuals to adults with aphasia, Nicholas and Brookshire found that the NBD participants produced language samples with significantly more AC concepts and significantly fewer AI, IN, and AB concepts than the participants with aphasia. Additionally, they found the main concepts scoring system to be a reliable measure of aphasic adults' connected speech.

Nicholas and Brookshire's (1995) main concept scoring system addresses the limitations of the CIU analysis by indicating whether or not participants provided ideas central to depicted activities. However, because the authors stipulated that a main concept must contain only a single main verb, the main concepts they identified generally did not convey relationships between characters and events. In short, by constraining events to a single main verb, participants could be given credit for many AC main concepts, without expressing the relationships between them.

The present investigation was undertaken as a preliminary evaluation of a method of elicited narrative discourse analysis that accounts for the interrelationships between discrete actions or ideas. This *main events* measure, developed for use with Nicholas and Brookshire's (1993) picture stimuli, allows for comparison of pre-identified main events from each picture story to the events offered by participants. If validated, an analysis of this type would seem to be a valuable supplement to the analyses described above. The primary purpose of this study, then, was to use this analysis to provide a first step towards characterising the quality of the narrative discourse of younger and older NBD adults, prior to using the analysis with the language of adults with aphasia.

A second purpose of the study was to determine whether younger and older adults differ in their ability to convey main events. Prior investigations have demonstrated that narrative discourse skill changes with age, and although the direction of findings has generally favoured younger adults (Benjamin, 1988; Kemper, 1987; Kemper, Kynette, Rash, O'Brien, & Sprott, 1989; Kynette & Kemper, 1986; North, Ulatowska, Macaluso-Haynes, & Bell, 1986; Ulatowska, Hayashi, Cannito, & Fleming, 1986), some studies report an advantage of advanced age (James, Burke, Austin, & Hulme, 1998; Kemper, Rash, Kynette, & Norman, 1990). Identifying effects of age on narrative discourse production serves a clinical purpose. Although stroke is more prevalent in older adults, young adults are also susceptible to brain damage. Consequently, normative performance data for younger adults are needed to reliably interpret clinical data of age-matched individuals with brain damage.

A final aim of the study was to evaluate the stability of the main events analysis by eliciting two sets of narrative discourse samples over time. A reliability check of this type is, of course, critical for a new language analysis, but it is not generally possible with clinical populations in which language change is expected as a function of treatment and/or spontaneous recovery. This makes it critical for the analyses used with this population to be demonstrably reliable with ''stable'' populations.

METHOD

Participants

A total of 40 adults with no known neurological impairments participated, 21 younger (YG) and 19 older (OD) adults. The YG group consisted of 11 females and 10 males, and the OD group consisted of 11 females and 8 males. The mean ages for the groups were

23.9 years (*SD* = 2.3; range = 21–28) and 67.6 years (*SD* = 7.0; range = 57–83), respectively. Mean years of education for the YG and OD groups were 15.0 (*SD* = 1.7; range = 13–18) and 14.7 (*SD* = 3.4; range = 12–20), respectively. Groups differed significantly for age, $t(18) = 25.19$, $p < .0001$, but not years of education, $t(18) = .30$, $p = .77$. All participants completed the *Mini-Mental Status Examination* (MMSE; Folstein, Folstein, & McHugh, 1975), a cognitive screening measure, and received scores of 26 or higher (YG: *M* = 29.5, *SD* = .6, range = 28–30; OD: *M* = 29.1, *SD* = 1.6, range = 26–30). Additionally, all participants passed a hearing screening.

Language analysis

Participants' samples were evaluated for the proportion of main events included, as well as the relationships among them. Each of the investigators compiled a list of the main events for each of the stimuli. Lists were then compared, and a final list of main events for each picture set was developed. An event was included in the final list if it was identified by two of the three investigators. A *main event* was operationally defined as one that was important to the description as a whole and was independent from the other events. If wording differed slightly across investigators, but the content remained the same, then all wording options were included in the final list. The purpose of this procedure was twofold: (a) to retain only the *main* events of each picture and eliminate those that were less central, and (b) to allow for subtle variations in interpretation of the wording of an aspect of an event. Although the procedure of comparing participants' narratives to a predetermined list of events is similar to the one employed by Nicholas and Brookshire (1995), the focus of the present procedure was to capture the extent to which participants understood and expressed *relationships* between ideas. The list of main events for the stimuli is presented in the Appendix.

Point-to-point intra-rater and inter-rater agreement were tabulated for the coding of main events. One investigator completed the main event analysis on all samples, and then rescored 10% of them to determine intra-rater agreement (total agreements / [total agreements + total disagreements] * 100). Intra-rater agreement for number of main events told was 95.1%. In addition, a graduate student assistant rescored 10% of the participants' samples and obtained inter-rater agreement of 80.7%. Although lower than expected, our inter-rater agreement score is comparable to Nicholas and Brookshire's (1995) inter-rater agreements of 94%, 86%, and 74% with their rule-based system for scoring main concepts. Disagreements between raters were resolved through consensus.

Experimental procedures

Participants attended two sessions, each lasting approximately 20 minutes. During the first session, participants provided their demographic and medical history information, and completed the MMSE. The first set of elicited narratives was also collected. The second session occurred 10–20 days afterwards ($X = 14.0$; $SD = 6.1$). During this session, participants completed the narrative tasks a second time. The order of presentation of the picture stimuli was randomised for each session.

Language samples consisted of participants' responses to the two single pictures and two picture sequences from Nicholas and Brookshire (1993). The single pictures each depict multiple events that can be developed, with some degree of inference, into a narrative. The picture sequences each consist of six frames depicting a related sequence of activities. For the purposes of this report, the pictures will be referred to as: Birthday

Cake (single picture), Cat in the Tree (single picture), Fight (picture sequence), and Directions (picture sequence).

Prior to administration of the picture stimuli in the first session, participants were instructed on how to perform the task and practised by telling what was occurring in the Cookie Theft picture (Goodglass & Kaplan, 1983). Following the practice item, the experimental stimuli were shown to each participant. Each single picture or picture sequence was placed on the table in front of the participant. Examiners followed Nicholas and Brookshire's (1993) instructions. For all stimuli, participants were asked to talk about what was going on in the picture(s). If a participant stopped after 15 seconds or less, he or she was prompted with ''Can you tell me more?''. No other instructions were given. These procedures were repeated for each picture or picture sequence in both sessions. The samples were audio recorded then orthographically transcribed.

RESULTS

Preliminary data analysis

To ensure that results were not influenced by gender, we compared male and female participants' performance on proportion of main events told. A mixed ANOVA of gender (male, female) by picture type was performed. Results indicated no significant difference in the proportion of main events told by males and females, $F(1, 38) = 0.26$, $p = .62$, a significant main effect for picture type, $F(3, 114) = 33.17$, $p < .001$, and a nonsignificant interaction.

Main event analysis

A mixed analysis of variance (ANOVA) of group (YG, OD) by picture stimulus (Birthday Cake, Cat in the Tree, Fight, Directions) was performed. Results indicated significant main effects for group, $F(1, 39) = 8.79$, $p < .01$, and picture type, $F(3, 39) = 35.10$, $p < .0001$; the interaction was not significant. The YG group relayed a significantly higher proportion of main events compared to the OD group. Planned comparisons for the picture type main effect were performed and revealed that participants told significantly more of the pre-identified main events in response to the sequential pictures (Fight, Directions), compared to the single pictures (Birthday Cake, Cat in the Tree). In addition, among the single-picture stimuli, they reported significantly more main events in response to the Birthday Cake picture than for the Cat in the Tree picture. Participants did not differ significantly in the proportion of main events told between the two picture sequences. See Table 1 for group means and standard deviations for the proportion of main events told.

Test–retest reliability

Test–retest reliability of the main events measure was estimated in two ways: (a) the absolute value of the change in performance from Session 1 to Session 2, and (b) Pearson correlations between Session 1 and Session 2. Similar to Nicholas and Brookshire (1993, 1995), we report absolute value of change between sessions for two reasons: (a) the negative differences would cancel out positive differences, and (b) the amount of change, rather than the direction, was important for determining stability of the measure. The absolute value of change was 11% ($SD = 10\%$) for the OD group and 9% ($SD = 6\%$) for the YG group. Across the four sets of picture stimuli, there were a total of 24 main events and a change of 9–11% from session to session represents an approximate difference of

TABLE 1
Mean (SD) for proportion of main events told by the groups for each picture stimulus

	Younger Group		*Older Group*	
Stimulus	*Session 1*	*Session 2*	*Session 1*	*Session 2*
Birthday Cake: Mean (SD)	.46 (.24)	.40 (.22)	.32 (.20)	.37 (.25)
Cat in the Tree: Mean (SD)	.26 (.24)	.25 (.21)	.20 (.24)	.24 (.26)
Fight: Mean (SD)	.64 (.21)	.73 (.19)	.43 (.22)	.49 (.22)
Directions: Mean (SD)	.70 (.18)	.71 (.14)	.52 (.25)	.61 (.26)
Total: Mean (SD)	.56 (.15)	.57 (.09)	.40 (.17)	.46 (.18)

2.16–2.64 main events. Moreover, Pearson Product coefficients revealed significant correlations for the OD group, $r = .76$, $p < .0001$, and the YG group, $r = .70$, $p < .001$, indicating that the measure is relatively stable for both groups over time.

DISCUSSION

The goals of this investigation were (a) to provide some preliminary comparative data on the performance of NBD adults; (b) to compare the proportion of main events conveyed by younger and older NBD adults; and (c) to evaluate the stability of the main events analysis over time. The results of the study provide descriptive information about the performance of adults with normal language using an analysis of this kind. In particular, these adults tended to report a higher proportion of main events when describing picture sequences, as opposed to single-picture stimuli. Moreover, the results suggest that age influences performance on narrative discourse tasks of the type used here. The YG group related a significantly higher proportion of main events compared to the OD group. Finally, test–retest results indicated that the measure is sufficiently stable across time among NBD participants.

Description of main events performance data

Although neither group performed at or near ceiling level, across participants they consistently told the same main events for each of the picture stimuli. One might argue that using a binary scoring system limited our measurement sensitivity. An alternative would have been a method similar to Nicholas and Brookshire's (1995) multidimensional scoring system, adapted for the detection of main events. In the present study, however, we used an ''all or nothing'' system; responses were scored as either correct, indicating that all the necessary information about the relationship between people and events was provided, or incorrect. For example, with the Cat in the Tree picture, if the participant said *the cat was up the tree* but did not mention *why*, then that main event was scored as incorrect. Consequently, we used a more stringent scoring system than Nicholas and Brookshire.

Each scoring system has strengths and weaknesses. A multidimensional system is useful for highlighting incremental improvement in response to treatment; however, Nicholas and Brookshire (1995) identified one of the weaknesses of multidimensional scoring as resulting in low inter-rater agreement, thus limiting clinical applicability. More importantly, because our focus was on relationships between characters and events, we

were interested in characterising a more sophisticated type of narrative structure. Our approach was motivated by the idea that a true narrative structure, as defined by Wallach and Miller (1988), would be a more valid predictor of success in conversational interaction. Consequently, categorising main events as ''accurate but incomplete'' would potentially mask the behaviour under scrutiny. That is, if a participant provided a series of incomplete events with no relationships between events expressed, to give partial credit to each of these instances would mask the fact that the participant was unable to express relationships *at all*.

A critical part of characterising NBD participants' performance on the main events task was to determine whether the type of picture stimuli (single picture vs sequential pictures) influenced the proportion of main events expressed. Indeed, regardless of age, picture type influenced participants' performance on the proportion of main events related. More main events were reported for the picture sequence stimuli than for the single-picture stimuli. In fact, the single pictures tended to result in a narrative structure termed by Wallach and Miller (1988) as ''heaps''; a collection of ideas that are unrelated. In contrast, sequential pictures resulted in more ''true narratives'', including a plot, introduction of characters and settings, sequenced events, and a problem resolved at the end (Stein & Glenn, 1979).

These findings are not surprising as it is well known that the stimuli used to elicit language can impact performance (e.g., Coelho, 2002; Cooper, 1990; Liles, Coelho, Duffy, & Zalagens, 1989). One possible explanation of the results could be that single-picture stories require a greater degree of inference, because the individual must infer the sequence of events. In other words, the sequential pictures may have acted as a scaffold for participants, with the order of the pictures providing temporal cues not present in the single-picture stimuli. These findings support previous investigations comparing performance across different discourse elicitation tasks (e.g., Coelho, 2002; Stout, Yorkston, & Pimentel, 2000). For example, Coelho (2002) found that individuals with and without closed head injury (CHI) produced fewer episodes during a story generation task (single picture stimulus) compared to a story retelling task (sequential pictures stimulus), and concluded that the story generation task was more challenging and difficult for participants.

The difference observed between the two single-picture stimuli is not as easily explained. It is possible that this difference is due to the increased complexity of agents and actions within the Cat in the Tree picture, compared to the Birthday Cake picture. The former contained more ''agents'' performing actions than the latter. Moreover, the Cat in the Tree picture was more visually complex. For example, review of participants' samples indicated that the ladder on the ground, the dog at the foot of the tree, and the tricycle next to the tree were often omitted as part of the narrative. The influence of visual complexity of picture stimuli warrants further research and analysis.

These findings of differences across types of picture stimuli are interesting in light of the work of Potechin and colleagues (1987), who compared story productions of a single picture (Cookie Theft) and a picture sequence (wordless book) produced by individuals with aphasia. The authors found no difference in efficiency and informativeness of productions across stimulus types. However, they did find that participants produced significantly longer language samples for the picture sequence. Initially, these results appear to conflict with our findings with NBD participants. However, the measures used by Potechin et al. were similar to the CIU analysis (Nicholas & Brookshire, 1993); they included efficiency in producing accurate information and amount of enumeration, but they did not measure the individual's ability to accurately tell the relationships occurring

between the characters and events within the pictures. The participants with aphasia were similar across stimulus type in their accuracy in identifying the characters and actions in the pictures; however, it is unknown whether these individuals were able to identify the *relationships* depicted within the picture stimuli.

Capilouto, Wright, and Cranfill (2003) investigated the relationship between CIU scores (CIUpm, words per minute, %CIU) and proportion of main events for story tellings by adults without brain damage and found that the measures did not correlate. These findings were interpreted as evidence that the two types of analyses measure different aspects of discourse. Collectively, then, these results suggest that assessment of elicited narrative discourse in adults with and without aphasia should go beyond measuring informativeness and efficiency, and include a measure of the individual's ability to describe events and relationships among pictured elements.

Comparison of older and younger adults

The results of the study emphasise the need for including age-matched individuals when investigating effects of brain damage on discourse-production abilities. Our finding that the YG group produced a significantly higher proportion of main events suggested that they were better able to convey the relationships between characters and events in the pictures than were the OD group. These results are in agreement of other findings that suggest a decline in discourse skills with increased age (Benjamin, 1988; Kemper, 1987; Kemper et al., 1989; Kynette & Kemper, 1986; North et al., 1986; Ulatowska et al., 1986). However, some investigations of discourse have revealed a different pattern (cf., James et al., 1998; Kemper et al. 1990). Variations in the type of narrative task used across these studies may account for some portion of this discrepancy. This study focused on a particular form of narrative discourse: eventcasts (Heath, 1986). Eventcasts are defined as narratives that explain a scene of activities. They are differentiated from recounts (i.e., verbal reiterations of an event), accounts (i.e., spontaneous sharing of experiences), and stories (i.e., fictionalised, highly structured forms). Our findings reveal an age advantage for younger participants with respect to eventcasts. The eventcast task selected for the study added an additional degree of complexity relative to recount narrative tasks, because it required the participant to perceive and infer the key aspects of the stimulus and then convey that information. A task of this type presents a greater challenge than a task that simply requires the participant to retell an event of his or her choosing. A more complex, more structured narrative task was desirable in this case; tasks on which participants cannot easily default to compensatory strategies (i.e., a strategy such as retelling an event that is well rehearsed) provide a more sensitive indicator of language competence.

Validity and reliability

Clearly, for a particular language analysis to be appropriate for clinical use, it has to be demonstrably valid and reliable. We have argued for the *content* validity of this analysis through our earlier assertion that the ability to produce oral narratives is an important communication skill. Demonstrating *concurrent* validity is beyond the scope of this investigation but would require that this analysis be compared to similar, previously validated measures of narrative performance.

As indicated, demonstrations of the stability or reliability of a procedure over time require participants whose language skills are relatively stable and not likely to change due to language improvement or decline. Our decision to examine the narrative discourse

performance of NBD adults, therefore, enabled estimation of the stability of the language sample task employed. The results of two measures of test–retest reliability suggest that the measure is stable over time.

Conclusions and clinical implications

The results of the study have direct clinical implications. First, we observed that older and younger adults demonstrate different patterns of performance when administered a set of stimuli in common use for the elicitation of language samples from adults (Nicholas & Brookshire, 1993), emphasising the need to consider age when comparing performance of individuals with brain damage to those without brain damage. Moreover, our results highlight the need for clinicians to consider the cognitive and linguistic demands of various language elicitation procedures. Our findings support the notion that the nature of the stimuli used to elicit language can affect language performance. The impact of different forms of stimuli on the production of narratives by individuals with and without aphasia should be the subject of future investigations. The essence of relating narratives from pictured events seems to capture critical elements and their relationship to each other, and then convey these interrelationships in a format that others can understand. Narrative discourse is a complex skill, and one or two analyses are not sufficient to fully characterise it. Through this study, and with the use of Nicholas and Brookshire's (1993) narrative stimuli, we have attempted one step forward in this endeavour by developing an analysis that focuses on relationships between event elements. This focus expands on previous work; it is only through the interlocking of characters, actions, and events that otherwise ordinary descriptions become unified into narrative.

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APPENDIX

Main events for the picture stimuli

Cat in the Tree

1. *The dog chased the cat up the tree*/cat ran up tree to get away from the dog.
2. *The girl is trying to coax the cat into jumping from the tree*/into getting down from the tree.
3. *The man* (father) *tried to get* (rescue) *the cat, but his ladder fell, and now he's stuck* (too).
4. *The firemen* (firefighters) *arrive to rescue the man and the cat.*

The Birthday Cake

1. *It is the boy's birthday* (birthday party).
2. *The boy is crying because the dog ate* (some of) *his cake*.
3. *The dog is hiding under the sofa*/couch.
4. *The mother is mad at the dog*/is scolding the dog (with a broom).
5. *The guests are arriving*.

The Fight

1. *The husband* (man) *and wife* (woman) *are yelling at each other*/get into a huge fight.
2. *She packs a bag* (suitcase) *and leaves the husband*/heads for the door.
3. *The husband* (man) *is sad*/upset/distraught.
4. *The wife* (woman) *comes back in the house*/opens the front door/peeks in the door.
5. *She* (wife/woman) *is crying*.
6. *The husband* (man) *hugs his wife* (woman).
7. *She explains that*/He looks out the door and sees that/She is crying because *she drove the car into a tree*/ wrecked the car.

The Farmer and His Directions

1. *A man and a woman are driving*/traveling *and see*/greet/say hello to *a farmer on the side of the road*.
2. *The farmer is planting a tree*.
3. *The couple*/the man *ask(s) for directions*.
4. *The farmer directs them*/gives them directions/tells them which way to go.
5. (The farmer watches as . . .) *the man and woman take off*/they continue on their way.
6. *The farmer goes back to work digging the hole*/planting the tree.
7. *A little while* (a few minutes) *later, the couple sees the farmer* (stops in front of the farmer) *on the side of the road again*.
8. *They are angry with the farmer because he misdirected them*/gave them bad directions/did not give them good directions.

Note: The numbered statements are the main events. The essential information for each main event is in italics. Information in parentheses represents alternative ways a component of the main event could be stated. [/] represents alternative information that could have been stated to complete the main event.