Issues related to a national assessment of speaking and listening skills include the specification of the domain of communication competencies, the selection of measurement strategies, and the elimination of racial and ethnic bias. A project committee proposed that the domain of national assessment spans three dimensions: function (informing, controlling, sharing feelings, ritualizing, and imagining), perspective (speaking/expressing, listening/recognizing), and context (formal dyad, formal group, informal dyad, and informal group). The committee also developed strategies for the indirect measurement of speaking skills, the direct measurement of listening skills, and the direct measurement of speaking skills. A number of effective techniques for identifying items with minority bias were implemented, and more work in this area was recommended. (RL)
Issues Related to A National Assessment of Speaking and Listening Skills

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In June of 1976, the National Assessment of Educational Progress (NAEP) and the Speech Communication Association (SCA) jointly initiated a Feasibility Project for a National Assessment of Speaking and Listening Skills. The reason for identifying the project as a "feasibility" effort stems from the particular problems related to the "national" scope of the project and to its focus on "speaking and listening" skills. There are particular problems related to large-scale testing efforts which are different from smaller scale testing and there are specific issues related to the assessment of communication competencies which are different from an assessment of other educational areas. This paper specifically addresses issues related to a national assessment of speaking and listening skills. These issues are relevant, at a more general level, to measurement of communication competencies in a variety of settings, e.g., in classrooms, in social situations, in employment settings.

The purpose of the NAEP/SCA Feasibility Project was to develop strategies for assessing communication competencies of elementary and secondary school students. It was important that the assessment instruments be designed for possible use in the National Assessment of Educational Progress, a national survey which measures achievement of important educational objectives. Therefore, instrument development had to take into account the

specific characteristics of the National Assessment as well as general concerns of educational testing. These requirements translated into three specific issues related to a large-scale assessment of speaking and listening skills. The first problem area deals with the identification of the domain of communication competencies which would be assessed. The second involves the selection of measurement strategies which would be utilized. The third covers sources of test bias, specifically those related to cultural and situational differences.

**Domain Specification**

The first task of the NAEP/SCA project was to specify the domain of communication competencies which would be addressed by the assessment. The requirements of a national survey necessitated the inclusion of a broad range of speaking and listening skills rather than those of a specific communication curriculum. However, unlike some other educational areas, the domain of communication competencies is not well charted. One of the reasons for this situation is that speaking and listening skills are not covered in school programs in a consistent way. In some cases communication competencies are taught in speech courses, which are a part of the standard or the elective curriculum. In many schools aspects of speaking and listening are integrated into the required language arts program. There are some instances where there is no direct instruction provided in communication competencies. However, it would be difficult to find schools where these skills are not addressed somewhere in instructional activities, for example in group discussion, oral reports, and formal and informal listening situations.
Another reason for the lack of specification of the domain of communication competencies is its orientation on skills rather than knowledge. The domain does not include many facts about speaking and listening which one might expect students to know. Most of the domain focuses on skills. However, it is difficult to identify the skills which are widely accepted as central; Some communication educators emphasize rhetorical skills related to formal speaking situations. Others stress a range of informal communication abilities which are important to school, social and employment situations. The lack of consistent communication curricula and the emphasis on a variety of skills rather than specific facts made specifying the domain of communication competencies a difficult task.

Irrespective of the problems cited above, there are some precedents in the speech communication discipline for specifying the domain of communication competencies. Like other educational areas, communication education was influenced by the movement toward behavioral objectives and accountability. A concern with behavioral objectives first surfaced in the field of speech communication in the late sixties (Baker, 1967) and was promoted heavily in the early seventies, particularly by Kibler (Kibler, Barker and Miles, 1970; Kibler, Barker and Cegala, 1970a; Kibler, Barker and Cegala, 1970b; Cegala, Kibler, Barker and Miles, 1972). One of the results of this movement was the development of comprehensive descriptions of high school speech programs which included lists of behavioral objectives (Cortright, Niles and Welrich, 1968; Buys, Carlson, Compton and Frank, 1968; Clark and Nelson, 1969).

The promotion of behavioral objectives in communication education soon expanded to general support for the accountability movement. Many speech
educators called for evaluating the quality of speech programs in terms of student outcomes (Young, 1971; Findley, 1972; Ratliffe, 1973). The thrust for behavioral objectives and accountability was countered by some speech communication scholars who argued that the complexity and the human elements of the communication process were difficult to describe in specific behavioral terms (Tucker, 1973; Aronoff, 1974; Streff, 1976; Civikly, 1976). Nevertheless, the results of the movement toward behavioral objectives and accountability provided a number of approaches for defining communication ability in terms of specific competencies, the latest example being the list of objectives developed by the National Competencies Project from a questionnaire study of speech communication educators and theorists (Cegala and Bassett, 1976).

Although the NAEP/SCA project considered a number of existing and novel systems for specifying speaking and listening skills, it settled on the categories of functional communication competencies proposed by the National Competencies Project (Allen and Brown, 1976) as the basis for the domain description. These broad categories included informing, controlling (persuading), sharing feelings, imagining and ritualizing. Although not entirely mutually exclusive, the categories represented a comprehensive system for describing communication competencies which are important in a wide variety of formal and informal settings.

The domain description was further defined by dividing each communication function into speaking and listening perspectives. Although the primary emphasis of the description was on verbal communication competencies, the framework also provided for nonverbal abilities as well.
The third component of the domain description identified communication contexts. These were categorized by formal and informal situations and by dyadic and group situations. The rules for appropriate communication are fairly stable in formal communication situations. However, they vary greatly in informal situations, depending upon the norms of the cultural group. Similarly, the rules for appropriate communication are different depending upon the number of persons involved in the situation. The component of context was added to accommodate these cultural and situational aspects of communication.

In addition to the functional categories, an area was specified which encompassed communication attitudes. This component of the domain identified the predispositions toward communication behavior which underlie the functions, perspectives and contexts.

The resulting Assessment Matrix (shown in Figure 1) included three dimensions: function (informing, controlling, sharing feelings, ritualizing and imagining), perspective (speaking/expressing, listening/recognizing) and context (formal dyad, formal group, informal dyad, informal group). Attitudes were included as a separate component.

Based on the Assessment Matrix, the project further defined communication competencies in terms of specific objectives. At this point it was necessary to make some compromises. Instead of attempting to chart the entire domain of speaking and listening skills, the project attempted to list some priority objectives which would be considered representative but not exhaustive of the entire area. One additional compromise was made. The project decided to exclude from the objectives and item development the area of imagining. This decision was based upon two reasons. First,
Figure 1

Assessment Matrix

Knowledge and Skills

Controlling

Ritualizing

Imagining

Perspective

Informal Group

Informal Dyad

Formal Group

Formal Dyad

Speaking/Expressing

Listening/Recognizing

Attitudes
the imagining area, which focused on the use of communication for creative purposes, considered to be substantively different from the other categories, which focused on the use of communication for a number of functional purposes. It was felt that the imagining category would require unique measurement strategies and would detract from the majority of the development effort. Secondly, the creative use of communication was covered to some extent in existing National Assessment efforts. For example, aspects of language appreciation and oral reading abilities are assessed in the literature and reading surveys. The List of Assessment Objectives is provided in Figure 2. Also, due to the limited level of effort of the NAEP/SCA project, it was decided to focus on development of assessment strategies for 17-year-olds. It was felt that an assessment of 17-year-olds (one of four target groups of the NAEP) best represented the culmination of the elementary and secondary education process.

Measurement Strategies

A second problem for the NAEP/SCA project was the selection of measurement strategies. The major issue related to this task revolved around the feasibility of direct versus indirect measurement. Direct measurement of speaking typically requires collecting samples of speech performance and scoring the samples according to some sort of pre-determined criteria. Direct measurement of listening typically involves providing various spoken stimuli and asking multiple-choice questions which assess recall, interpretation and evaluation of the material. Indirect measurement of speaking and listening typically consists of multiple-choice questions which assess knowledge of appropriate communication behaviors in particular
**Informing/Listening**

1. Be able to listen actively to and analyze an informative speech.
2. Be able to listen actively to an everyday informative message.

**Controlling/Listening**

7. Be able to listen actively to and analyze a persuasive speech.
8. Be able to listen actively to an everyday persuasive message.

**Sharing Feelings/Recognizing**

3. Be able to recognize nonverbal expression of typical feelings.
4. Be able to recognize incongruence between verbal and nonverbal expressions of typical feelings.

**Informing/Speaking**

1. Be able to choose an appropriate topic for an informative talk.
2. Be able to introduce a topic in an informative talk.
3. Be able to conclude effectively an informative talk.
4. Be able to organize an informative talk.
5. Be able to elaborate a point.
6. Be able to ask questions.
7. Be able to give directions.
8. Be able to describe objects, people, places and activities.

**Controlling/Speaking**

1. Be able to use persuasive arguments.
2. Be able to support a position with appropriate arguments.
3. Be able to support arguments with appropriate evidence.
4. Be able to analyze an audience.
5. Be able to distinguish facts from opinions.
6. Be able to identify logical arguments from illogical arguments.

**Sharing Feelings/Expressing**

1. Be able to recognize if the situation is appropriate for sharing feelings.
2. Be able to assert feelings in difficult communication situations.

**Ritualizing**

1. Be able to lead a group discussion.
2. Be able to identify ritual communications from other types of communication.
3. Be able to perform typical communication rituals.

**Communicating Attitudes**

1. Be willing to communicate with others.
2. Have a positive concept of self as a communicator.
3. Be willing to share feelings.
4. Be comfortable communicating in difficult communication situations (in front of large audiences, in groups, with authority figures or strangers).
5. Be comfortable when involved in persuasive communication.
6. Be comfortable when involved in communication rituals.
7. Be tolerant of different dialects and ways of communicating.
situations. Listening is usually not measured using indirect strategies.

The precedents for assessing functional communication have been reported by Larson, Backlund, Redmond and Barbour (in press). They reviewed ninety instruments which represented both direct and indirect measures of productive and receptive abilities for all age groups. The tests were divided into seven categories: 1) Developmental: Language and Communication Skills, 2) Communication Competence and Appropriateness, 3) Receiving: Listening, 4) Receiving: Nonverbal Sensitivity/Empathic Skills, 5) Apprehension/Anxiety, 6) Interaction Descriptions, 7) Correlates: Disclosure/Accessibility, Style and Preference, Attitudinal Correlates. This collection focused on broad measures of the dimensions of communication competence. It excluded more specific tests of communication skills, such as public speaking.

Tests of specific speaking and listening skills have been reported in communication textbooks and curricula (e.g., Allen, Anderson and Hough, 1968; Brooks and Friedrich, 1973; Jeffrey and Peterson, 1975; Heun and Heun, 1975). However, these tests rarely have established norms, reliability or validity. Thus, there were only a few precedents for measuring specific functional communication competencies to guide the decisions of direct versus indirect measurement strategies.

The scope of the National Assessment of Educational Progress, which surveys groups of 2,500 of students from all parts of the country, favored indirect measurement strategies. It is much easier to assess large numbers of students using multiple-choice type questions than using performance tests. However, the nature of the domain, which focuses more on skills than specific facts, argued for the necessity of direct measurement...
strategies. In order to measure skills, it is more appropriate to give students actual tasks to perform rather than to give them multiple-choice questions. Without the guidance of prior instrument-development, it seemed necessary that the NAEP/SCA project explore, at least on a feasibility basis, the full range of possible measurement strategies. Therefore, the project initiated development of indirect measures of speaking skills, direct measures of listening skills, and laid plans for direct measures of speaking skills. The following summarizes the problems faced by each of these development efforts and the results of initial project activities.

**Indirect Measures of Speaking Skills**

There are two major problems for the development of indirect measures of speaking ability. The first is the creation of realistic items which were relevant to students from all over the country. The second is the identification of clearly correct and incorrect answers. It was essential that indirect measures of speaking skills be appropriate for all the students in the national sample and that they clearly represent competent and incompetent communication behaviors.

The first issue related to indirect measures of speaking skills is the generality of the items. This is a problem for any large-scale assessment instrument. It is necessary that students are tested on the intended knowledge and skills and not on their familiarity with the testing situation. For example, items which test speaking skills in the context of subways, shopping centers or harvesters are not universally familiar. Furthermore, the domain of communication competencies introduces the confounding element
of cultural and socio-economic diversity. Appropriate communication varies from group to group. For example, ways of sharing feelings differ depending upon the customs of a particular group. The problems of geography, culture and socio-economic diversity made the development of indirect measures of speaking skills problematic.

The second issue in developing indirect measures of speaking skills revolves around response alternatives. It is difficult to write multiple-choice questions with clearly correct and incorrect answers. Again, part of this problem stems from the cultural and social nature of communication skills. Communication behavior which is appropriate for one group is not necessarily appropriate for another group. This problem is accentuated when communication moves from formal to informal situations and from task related to personal purposes. It is possible to develop questions with clearly correct and incorrect answers about formal communication situations such as a job interview and for specific communication purposes such as giving directions. However, it become much more difficult to develop items about informal communication situations such as conversations with peers and for personal communication purposes such as rituals and expressing feelings.

The NAEP/SCA project developed a variety of strategies for dealing with the issues of indirect measurement of speaking skills. Figures 3, 4 and 5 provide examples of some of the different formats used to assess various functions of communications within various contexts. Figure 3 is an example of a controlling (or persuading) task in two different types of informal situations. Figure 4 is an example of two informing tasks in
Figure 3

Individual Items

1. A man wants to persuade his colleagues to reconsider their support of Allen Barber. Which of the following statements is the most logical argument he could use?

- "So Allen Barber is for freedom of expression. I suppose he thinks that there's nothing wrong in calling someone anything you want to, or advocating the overthrow of the government or yelling 'Fire!' in a crowded building."

- "So Allen Barber is for freedom of expression. What does he mean by that? There are times and places where freedom of expression may be inappropriate. I think we ought to know specifically what he thinks before we decide to support him."

- I don't know.

2. An advertising agency is trying to come up with a way to sell more beer. Which one of the following slogans would be the most logical argument they could use?

- "Swing, American style. Drink Blue Bonnet Beer."

- "For a full, rich taste, Drink Blue Bonnet Beer."

- I don't know.
1. You have been selected to host the awards ceremony for the Glendale Junior Service Club. Which would be the best way to introduce the winner of the Outstanding Volunteer award?

- "We all know Nancy. She's been a member of the club for three years now. She's a great kid. Nancy, come up and get the Outstanding Volunteer award."
- "The Outstanding Volunteer award is given each year to the club member who demonstrates exceptional service and enthusiasm in club activities. This year's award goes to Nancy Joyce for her excellent job organizing this year's newspaper drive. Congratulations Nancy."
- "This evening we wish to recognize Miss Nancy Joyce for her noteworthy service in the Glendale Junior Service Club. She was responsible for directing this year's successful newspaper drive. For this we present her with the Outstanding Volunteer award."
- I don't know.

2. At the end of the awards ceremony, which of the following statements would be the best way for you to conclude the presentation?

- "This concludes the Ninth Annual Glendale Junior Service Club Awards Ceremony. It has been a great honor for me to be a part of this important occasion."
- "That's it. We have had a super year. I hope the next will be just as great."
- "This marks the end of another year for the Glendale Junior Service Club. We can look back at our accomplishments with pride and look forward to another productive and fun-filled year."
- I don't know.
Multi-Part Items

1. Don let his friend Jack use his 10-speed bicycle. While Jack was stopping by a store, it was stolen. Jack tells Don about the situation between classes and says he is really sorry it happened. But Don is still angry. Would each of the following approaches be a good way for Don to handle the situation?

A. Don decides never to speak to Jack again, and holds his feelings inside.  
   Yes  No  I don't know.

B. Don arranges to meet Jack during lunch so that he can tell Jack how he feels about the whole thing.  
   Yes  No  I don't know.

C. Don hassles Jack during the next break and doesn't give him a chance to respond.  
   Yes  No  I don't know.

D. Don decided to call Jack that night to discuss the whole situation when they both have plenty of time to talk.  
   Yes  No  I don't know.
a formal situation. Figure 5 is an example of a sharing feelings task in an informal situation.

The results of the initial project efforts indicated that it was partially successful in dealing with the issues of developing indirect measures of speaking skills. The field test data suggested that the project was more successful dealing with the task-oriented communication functions of informing and controlling than with the personal functions of ritualizing and sharing feelings. Furthermore, items dealing with formal communication contexts were more adequate than items dealing with informal contexts. The need for an assessment which was appropriated to a diverse student population led to the creation of some items which were mundane or irrelevant to students. The need for clearly correct and incorrect answers led to the development of some items which were too simple or obvious. Figure 5 provides an example of this type of problem.

Direct Measures of Listening Skills

The measurement of listening skills appears on the surface to be less problematic than the measurement of speaking skills. There are precedents for testing in this area. There are no problems in administering direct measures of listening on a large scale. However, there too are several assessment issues. Probably the most critical problem is to separate an assessment of listening ability from an assessment of general verbal ability, since the research seems to indicate that these abilities are correlated (Barker, 1971). There are several standardized tests of listening skills (Brown and Carlsen, 1955; Educational Testing Services, 1957). These tests typically
assess several levels of listening skills, i.e., direct recall, interpretation, and evaluation. In addition to these general approaches to assessing listening skills, speech communication educators and others have developed tests of specific analytical skills which are applicable in formal listening situations. These include such competencies as listening to a speech for organization, use of expository devices, use of evidence, fact-inference distinctions and logical fallacies.

The NAEP/SCA project considered both general and specific listening skills in its direct measures of listening. It included listening comprehension tasks and speech analysis tasks. Furthermore, it sampled both formal and informal listening situations. For example, the stimuli included informative and persuasive speeches, a newscast and a commercial.

The results of the initial development activities surfaced an unexpected problem in the direct assessment of listening skills. The listening items, more than any other group of items, elicited significantly different responses from minority-and nonminority students. Numerous explanations of this result were proposed: the level of vocabulary in the stimuli, the length of the stimuli, the rate and accent of the speakers on the stimulus tapes, and distractions in the testing situation. Probably the most plausible explanation is that the materials were tied to general ability and the field testing did not control for these differences. Currently, efforts are underway to reduce bias in these items by simplifying vocabulary (and thereby reducing some of the overlap between listening ability and general verbal ability), shortening the stimuli and using interesting material.

It is essential that future field testing in some way control for differences in general verbal ability among the students.
Direct Measures of Speaking Skills

The most critical issues for a large-scale assessment of speaking and listening skills revolve around the development of measures of speaking performance. A true measure of the domain of communication competencies, which focuses primarily on skills rather than knowledge, must include some direct assessment of speaking skills. And yet the national nature of the pilot project made this task particularly problematic. It is difficult to devise methods for a large-scale testing effort which will be feasible and also objective.

Due to the limited level of effort of the NAEP/SCA project, the issues related to the direct measures of speaking skills were only addressed in a preliminary way. The problems were identified, preliminary strategies were proposed, but the full-scale development and field testing have not been conducted. These are the next critical steps for the Speaking and Listening Assessment Project. The preliminary plans for direct assessment of speaking skills are provided as an indication of future activity.

The assessment issues related to the direct assessment of speaking performance are essentially the same as the issues related to the indirect assessment of speaking skills. However, they require even more attention. These problems include the development of communication tasks which are realistic and relevant to students from all geographical, cultural and socio-economic groups and the establishment of objective criteria for differentiating between competent and incompetent communication responses.

Two approaches were identified for dealing with the problems of measuring speaking performance. The first is based on assumptions about the relationship between communication competence and an individual's
repertoire of specific communication skills. In its most natural form, communication competence can be defined as saying the right thing at the right time (or sometimes keeping quiet). The judgment of appropriateness of the specific communication behavior is based on the particular social rules which are operating in the situation. However, one can make the assumption that an individual is more likely to act competently more often if he or she has a wide repertoire of communication skills (Wood, 1977a, 1977b).

The above argument has led the project to propose measuring communication performance in terms of the number and diversity of speech strategies used by a student in a specific situation. Students would be asked to role play relevant communication tasks such as a job interview. The speech samples would be analyzed in terms of the number and category of speech strategies utilized. The categories would generally follow the functional category system devised by Wells (1973). This assessment approach would provide a relative measure of competence. Students who used more strategies in more categories would be described as more competent.

A second way of measuring speaking performance is based on the ability of the communicator to achieve his or her communication goals. For example, if the purpose of a speaker is to give directions to the nearest drugstore, the measure of success would be the ability of the listener to find the drugstore.

Based on the above line of reasoning, the project proposes to set up specific communication tasks for students which can be judged in terms of actual accomplishments. Using an established research technique (Brilhart, 1965) one student would be asked to describe a set of geometric
figures to another student who would be asked to draw the figure. Success would be measured by the accuracy of the figures drawn by the second student.

**Minority Test Bias**

The third assessment issue is so pervasive that it permeates the other two. This concern relates to minority test bias. It is essential that the assessment items measure actual communication competencies and not extraneous factors, especially those which tap racial or ethnic difference. This is a particularly acute problem in an assessment of speaking and listening skills, because these competencies are closely tied to cultural and situational norms. In the present project it was probably impossible to eliminate all bias from an assessment. However, it was essential to recognize the bias and to clearly indicate its possible impacts.

Several techniques were used by the NAEP/SCA project to deal with the issues of minority test bias. One major strategy was to establish a special Minority Review Panel. This group was asked to critique the assessment items in terms of their relevance to various groups of minority students and make suggestions for improvement. The panel rewrote items to suggest contents or situations which would be relevant to minority students and also identified some items which could not be used across cultural groups. For example, an outlining item was rewritten using the dining hours and types of food in Mexico as the situation. Also, a number of items describing communication in dating situations were identified as problematic because these behaviors varied greatly across different cultural groups. It was felt that it was impossible to remove all bias within individual
items, but that it was possible to reflect cultural diversity among the
text items, thereby not providing one group with clear advantages. These assump-
tions were checked out during the field testing phase of the project.

The field testing of items was also directed toward detecting minority
test bias. The field test sites were selected to include sizable popula-
tions of Black and Hispanic students. The analysis of the field test data
was designed to include correlations between the responses for each re-

text choice or foil and the classification of students as either minority
or nonminority. Past experience in national assessments indicated that one
might expect overall differences in the performance of minority and non-
minority students in a wide range of content areas (Johnson, 1975). Thus,
one might also expect the same in functional communication competencies as
well. However, it was important to eliminate factors which tended to dis-

criminate between minority and nonminority students but which were unre-
related to an assessment of functional communication competencies. The addi-
tion of the correlational data provided a tool for identifying problem
areas.

The results indicated that in many cases the statistics were useful
in identifying bias. Reviewers were able to examine the questions and find
extraneous factors influencing the responses, such as speech styles, values,
and background experience. For example, one item which measured fact-

opinion distinctions, requested students to identify from a number of
statements the one that was a fact. In field testing, minority students
tended to pick the response: "In order to get a decent job you have to
finish school." Although this statement was written as an opinion, it may
have tapped an important value of minority students. It appeared that the
value laden quality of the statement may have confounded the assessment of the intended competence.

In some cases, the minority/nonminority distinctions were misleading. It appeared that the racial/ethnic factor was confounded by the level of formal speech training. One might expect that students who had taken speech courses might perform better on some of the formal speech tasks, such as preparing an outline for a speech. By chance the field test sites included one all white school which had a required speech course at the tenth grade level and one all minority school which offered no specific training in speech. This might explain why the results of the outlining question discriminated between minority and nonminority students. However, this problem may extend beyond the sample of sites. Speech courses are usually a part of the elective curriculum and are oriented toward college bound students. These factors suggest that more white students than minority students may be exposed to formal speech training.

The results of the initial project activities indicated that some of the items selected still differentiated between minorities and nonminorities. However, the review process eliminated a good deal of the test bias due to extraneous factors. As indicated earlier, the problems with the questions in the listening categories need investigating.

**Summary**

The Feasibility Project for a National Assessment of Speaking and Listening Skills, jointly initiated by the National Assessment of Educational Progress and the Speech Communication Association, represents the first major effort in developing assessment instrument for functional communication competencies. The project had to address several difficult
methodological issues which are peculiar to the large-scale scope of the assessment and its focus on communication competencies, including 1) specifying the domain of communication competencies, 2) selecting measurement strategies, and 3) eliminating racial and ethnic bias.

As might be expected in a feasibility effort, the NAEP/SCA project was partially successful in dealing with various methodological issues. The project developed adequate indirect measures of speaking skills and direct measures of listening skills, and proposed two approaches for direct measures of speaking performance. The project was more successful in developing items for assessing functional communication categories of informing and controlling (persuading) than for the categories of ritualizing and sharing feelings. The project implemented a number of effective techniques for identifying minority bias in items. Further work is necessary for the listening items with respect to minority bias. Next steps include the refinement of current assessment strategies and the full scale development and field testing of strategies for assessing speaking performance.
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